

The Board Book

NATIONAL TROPICAL BOTANICAL GARDEN

Board of Trustees & Fellows Meetings
April 27, 28 & 29, 2021
Virtual Meetings





NATIONAL TROPICAL BOTANICAL GARDEN
BOARD OF TRUSTEES AND FELLOWS MEETINGS
April 27, 28 & 29, 2021
Virtual Meetings

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Section A

Meeting Information



NATIONAL TROPICAL BOTANICAL GARDEN

SAVING PLANTS • SAVING PEOPLE

National Headquarters 3530 Papalina Road, Kalāheo, Hawai‘i 96741 USA

Phone (808) 332-7324 **Fax** (808) 332-9765 **Web** www.ntbg.org

March 8, 2021

Dear Trustees, Trustees Emeriti, Fellows, and Supporters,

I look forward to welcoming you online to National Tropical Botanical Garden’s Virtual Spring 2021 Board of Trustees and Fellows Meetings. Although we would prefer to be greeting you in person, we think you will find the meetings fun, informative, and inspirational. We are incredibly grateful for your help in navigating the challenges of 2020 and we feel incredibly optimistic about what we will accomplish in 2021. I am excited to share our progress with you!

The materials in this book are presented for your review prior to the commencement of the meetings. I encourage you to read the reports, which demonstrate the ongoing critical work happening within the NTBG organization. Our garden and program presentations will focus on sustainability, adaptability, and resilience as they relate to all aspects of our mission. We will be sharing our strategies for accomplishing our current priorities and future goals.

Committee Meetings for the Breadfruit Institute, Education, Living Collections and Horticulture, and Science and Conservation will be held prior to the Spring 2021 Board Meeting to allow ample time for committee business. The committee meetings are open to everyone and are included in your board meeting registration fee. Dates and times will be forthcoming. We will be showcasing the gardens and committee presentations during the board meeting. You won’t want to miss them!

The Board Meeting will be held via Zoom on Tuesday, April 27, Wednesday, April 28, and Thursday, April 29. An optional “social get-together” will follow the end of the Meeting of the Board of Trustees and Fellows on April 29.

If you have questions prior to the Board Meeting, please contact Meeting Planner Sandra Tedder at (808) 346-8656 or via email at stedder@ntbg.org.

Included in this Board Book are the NTBG Board Policies. It has been our practice since 2015 that Trustees review our policies at the Spring Board of Trustees Meeting in every odd-numbered year. Trustees should be prepared to discuss any comments during the Executive Session.

With warm aloha,

Janet Mayfield
CEO and Director

Schedule of Pre-Meeting Program Committee Meetings

SPRING 2021 VIRTUAL BOARD OF TRUSTEES AND FELLOWS MEETINGS

- All attendees are welcome to attend all meetings.
- Please sign on 5-10 minutes prior to meeting start times for each meeting you are attending.
- Zoom links and phone numbers to join meetings will be provided to you in advance of the meetings.
- Times noted may change slightly before the final schedule is published.

Times listed on schedule below are HST / Daylight Savings

HST	Per schedule	8:00 am
PDT	+3	11:00 am
MST (Arizona)	+3	11:00 am
MDT	+4	12:00 pm
CDT	+5	1:00 pm
EDT	+6	2:00 pm
UK	+11	7:00 pm

Wednesday, April 14

8:00 a.m. - 9:00 a.m. (HST) **Education Committee meeting**

Thursday, April 15

8:00 a.m. - 9:00 a.m. (HST) **Living Collections and Horticulture Committee meeting**

Wednesday, April 21

8:00 a.m. - 9:00 a.m. (HST) **Breadfruit Institute Committee meeting**

Thursday, April 22

8:00 a.m. - 9:00 a.m. (HST) **Science and Conservation Committee meeting**

– March 19, 2021

Schedule of Meetings and Activities

SPRING 2021 VIRTUAL BOARD OF TRUSTEES AND FELLOWS MEETINGS

- By registering, you are automatically signed up for all meetings below and the social activity on April 29 (except Executive Session unless you are a Trustee or Trustee Emeritus).
- You can attend all meetings or choose to attend specific meetings each day.
- Please sign on 5-10 minutes prior to meeting start times for each meeting if you are not attending all meetings each day.
- Zoom links and phone numbers to join meetings will be provided to you in advance of the meetings.
- Times noted may change slightly before the final schedule is published.

Times listed on schedule below are HST / Daylight Savings

HST	Per schedule	8:00 am
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MST (Arizona)	+3	11:00 am
MDT	+4	12:00 pm
CDT	+5	1:00 pm
EDT	+6	2:00 pm
UK	+11	7:00 pm

Tuesday, April 27

**Attendees are requested to connect to the meeting at 7:50 a.m.*

8:00 a.m. - 8:25 a.m.	Welcome by Chair of the Board of Trustees and NTBG CEO and Director
8:25 a.m. - 9:25 a.m.	Audit, Investments, Finance Committees meetings
9:25 a.m. - 9:45 a.m.	Break <i>With optional presentation by NTBG staff during the break</i>
9:45 a.m. - 9:50 a.m.	Welcome Back
9:50 a.m. - 10:08 a.m.	Education Presentation
10:10 a.m. - 10:28 a.m.	Breadfruit Institute Presentation
10:30 a.m. - 10:40 a.m.	NTBG Garden Presentation - <i>Kahanu Garden and Preserve</i>
10:40 a.m. - 10:45 a.m.	Day 1 Meeting Wrap-Up
10:55 a.m. - 11:15 a.m.	Optional Q&A with presenters: Diane Ragone (Director of the Breadfruit Institute), Mike Opgenorth (Director of Kahanu Garden and Preserve), Janet Mayfield (CEO and Director)

Wednesday, April 28

**Attendees are requested to connect to the meeting at 7:50 a.m.*

8:00 a.m. - 8:10 a.m.	Welcome by NTBG CEO and Director
8:10 a.m. - 8:28 a.m.	Living Collections and Horticulture Presentation
8:30 a.m. - 8:50 a.m.	NTBG Garden Presentations – <i>Allerton Garden, McBryde Garden</i>
8:50 a.m. - 9:10 a.m.	Break <i>With optional presentation by NTBG staff during the break</i>
9:10 a.m. - 9:15 a.m.	Welcome Back
9:15 a.m. - 10:15 a.m.	Development Committee meeting
10:16 a.m. - 10:18 a.m.	Day 2 Comments
10:20 a.m. - 10:50 a.m.	Meeting of the Council of Fellows
10:50 a.m. - 10:55 a.m.	Day 2 Meeting Wrap-Up
10:55 a.m. - 11:15 a.m.	Optional Q&A with presenters: Mike DeMotta (Curator of Living Collections), Tobias Koehler (Director of South Shore Gardens)

Thursday, April 29

**Attendees are requested to connect to the meeting at 7:50 a.m.*

8:00 a.m. - 8:10 a.m.	Welcome by NTBG CEO and Director
8:10 a.m. - 8:35 a.m.	Science & Conservation Presentations; Update on the International Center for Tropical Botany
8:37 a.m. - 8:58 a.m.	NTBG Garden Presentations – <i>The Kampong, Limahuli Garden and Preserve</i>
9:00 a.m. - 9:10 a.m.	Optional Q&A with presenters for Trustees, Trustees Emeriti, Fellows, supporters, staff: Nina Rønsted (Director of Science and Conservation), Chris Baraloto (International Center for Tropical Botany Director), Craig Morell (Director of The Kampong), Lei Wann (Director of Limahuli Garden and Preserve)
9:10 a.m. - 9:25 a.m.	CEO and Director presentation
9:25 a.m. - 9:40 a.m.	Optional Q&A with presenters for Fellows, supporters, staff continues while Trustees and Trustees Emeriti are in Executive Session
9:40 a.m. - 11:00 a.m.	Break <i>With optional presentation by NTBG staff during the break</i>

**Fellows, supporters and staff: Break from 9:40-11:00 a.m. (or possibly later depending on actual end time for Executive Session; stand by in Waiting Room online at 10:50 a.m. to be admitted to the Meeting of the Board of Trustees and Fellows.)*

9:35 a.m. - *10:50 a.m.	Executive Session meeting (For all Trustees and Trustees Emeriti only)
*11:00 a.m.	Welcome Back
*11:00 a.m. - 12:00 p.m.	Meeting of the Board of Trustees and Fellows (All attendees are welcome)
*12:00 p.m. - 12:10 p.m.	Break - Join us at 12:10 p.m. with your beverage of choice!
*12:10 p.m. - 12:55 p.m.	Optional “Social Get-Together” for attendees and staff

– March 10, 2021



Section B

Board Service, Committees, Agendas, and Minutes



Mission of National Tropical Botanical Garden

The mission of the National Tropical Botanical Garden is to enrich life through discovery, scientific research, conservation, and education by perpetuating the survival of plants, ecosystems, and cultural knowledge of tropical regions.

OUR MISSION IS ACHIEVED THROUGH:

- A network of diverse gardens and preserves in Hawai'i and Florida, each with significant biological, cultural, and historical resources.
- Conservation, research, and reference collections (living, library, and herbarium) assembled through discovery and collaboration.
- Research in botany, ethnobotany, horticulture, conservation biology, and restoration ecology through programs and institutes.
- Educational courses, publications, lectures, and visitor programs.
- Facilities and infrastructure necessary to conduct this work.

— Adopted by the Board of Trustees October 25, 2005 National Tropical Botanical Garden

Board of Trustees of the National Tropical Botanical Garden

CHAIR

MR. GORDON L. DEANE
Cohasset, Massachusetts

SENIOR VICE CHAIR

MRS. WAYNE RICHARDSON, III
Lihū'e, Hawai'i

VICE CHAIR

MS. ANNE G. EARHART
Corona del Mar, California

SECRETARY

MR. DAVID W. PRATT
Lihū'e, Hawai'i

SENIOR PRIOR CHAIR

MR. THOMAS D. HEWITT
Calgary, Alberta, Canada

PRIOR CHAIR

MR. MERRILL L. MAGOWAN
Hillsborough, California

MRS. DEVON ANGELINI
Boston, Massachusetts

MRS. MARY M. CUDAHY
Tiburon, California

MRS. MARTIN DICKINSON
San Diego, California

MS. JAN D. ELLIOTT
Hāna, Hawai'i

MRS. ERIC P. FRAUNFELTER
Bethesda, Maryland

MS. ADALINE H. FRELINGHUYSEN
New York, New York

MR. PETER C. GARDNER
Margate, Florida

MRS. ROGER P. HANAHAN
Charleston, South Carolina

MR. EMERSON T. KNOWLES
Tucson, Arizona

DR. LINFORD L. LOUGHEED
Miami Beach, Florida

MS. ELIZABETH E. MATTHEWS
West Palm Beach, Florida

DR. DAVID RAE, PHD, OBE
Edinburgh, United Kingdom

PROF. JOHN H. RASHFORD, PHD
Johns Island, South Carolina

MR. THOMAS L. REVELEY
Bainbridge Island, Washington

DR. MICHAEL N. ROSENBERG
Miami, Florida

MRS. RAYMOND L. SALLEY
Hōnaunau, Hawai'i

MS. ANITA SEIPP
Atherton, California

MS. PATRICIA W. SHEEHAN
Hanalei, Hawai'i

MRS. PHYLLIS EVANS SWINDELLS
Bend, Oregon

MRS. CATHERINE TOPHAM
San Francisco, California

MRS. JUDY C. WEBB
Larkspur, California

MR. ROBERT D. WEIST
Glenn, Michigan

MRS. REED C. WILSON
Portland, Oregon

Trustee Emeritus

CHAIR EMERITUS

MR. DOUGLAS MCBRYDE KINNEY
Lake Forest, Illinois

HARLAN C. AMSTUTZ, MD
Los Angeles, California

MRS. MARTHA W. COX
Hobe Sound, Florida

MR. GLENN A. GOLDSMITH
Lāwā'i, Hawai'i

MR. DONALD W.Y. GOO, FAIA
Honolulu, Hawai'i

MR. PATRICK HENRY
Palm Beach, Florida

MRS. SALLY O. HEWITT
Calgary, Alberta, Canada

MR. THOMAS S. KENAN, III
Chapel Hill, North Carolina

MRS. BETSY K. MATTHEWS
Palm Beach, Florida

MR. DAVID G. MEISSNER
Milwaukee, Wisconsin

PROF. SIR GHILLEAN PRANCE, FRS
Lyme Regis, Dorset, United Kingdom

MR. CHARLES R. WICHMAN
Honolulu, Hawai'i

– March 3, 2021

Board Service

AS OF MARCH 3, 2021

Trustee	Start Date	Term Expires	
Devon Angelini	11/05/2017	Fall	2023
Mary M. Cudahy	6/13/2016	Spring	2022
Gordon L. Deane	3/04/2004	Spring	2022
Carol Y. Dickinson	8/28/2016	Spring	2022
Anne G. Earhart	10/18/2013	Fall	2022
Jan D. Elliott	10/20/1999	Fall	2023
Harriet S. Fraunfelter	9/25/1989	Spring	2022
Adaline H. Frelinghuysen	4/12/2000	Spring	2021
Peter C. Gardner	4/01/1998	Spring	2022
Mary E.S. Hanahan	9/17/2004	Fall	2022
Thomas D. Hewitt	4/06/2011	Spring	2023
Emerson T. Knowles	10/8/19	Fall	2022
Linford L. Loughheed	4/01/2019	Spring	2022
Merrill L. Magowan	10/12/2001	Spring	2023
Elizabeth E. Matthews	11/29/2016	Fall	2022
David W. Pratt	3/04/2004	Spring	2022
David Rae	10/09/2007	Fall	2022
John H. Rashford	10/09/2007	Fall	2022
Thomas L. Reveley	4/4/2017	Spring	2023
Katherine G. Richardson	10/31/1996	Spring	2021
Michael N. Rosenberg	3/14/2016	Spring	2022
Cynthia Salley	4/14/1999	Spring	2023
Anita Seipp	4/1/2019	Spring	2022
Patricia W. Sheehan	9/21/2010	Spring	2022
Phyllis Evans Swindells	2/11/21	Fall	2023
Catherine Topham	10/08/2019	Fall	2022
Judy C. Webb	3/20/2001	Fall	2022
Robert D. Weist	4/1/2019	Spring	2022
Christina B. Wilson	5/03/2006 ¹	Spring	2021

¹After interruption of earlier service.

Standing Committees of the Board of Trustees

BY COMMITTEE - AS OF MARCH 11, 2021

Executive Committee

Gordon L. Deane, CHAIR OF THE BOARD OF TRUSTEES
Katherine G. Richardson, SENIOR VICE CHAIR OF THE
BOARD OF TRUSTEES
Anne G. Earhart, VICE CHAIR OF THE BOARD OF TRUSTEES
David W. Pratt, SECRETARY OF THE BOARD OF TRUSTEES
Thomas D. Hewitt, SENIOR PRIOR CHAIR OF THE
BOARD OF TRUSTEES
Merrill L. Magowan, PRIOR CHAIR OF THE BOARD OF TRUSTEES
Jan D. Elliott
Peter C. Gardner
Michael N. Rosenberg

Governance Committee

Merrill L. Magowan, CHAIR
Gordon L. Deane
Anne G. Earhart
Harriet S. Fraunfelter
Adaline H. Frelinghuysen
Peter C. Gardner
Thomas D. Hewitt
Emerson T. Knowles
Katherine G. Richardson

Compensation Committee

Gordon L. Deane, CHAIR
Katherine G. Richardson, VICE CHAIR
Anne G. Earhart
Thomas D. Hewitt
Merrill L. Magowan

Audit Committee

Thomas D. Hewitt, CHAIR
Peter C. Gardner
Merrill L. Magowan
David G. Meissner, TRUSTEE EMERITUS (NON-VOTING)
David W. Pratt

Breadfruit Institute Committee

John H. Rashford, CHAIR
Devon Angelini
Gordon L. Deane
Donald W.Y. Goo, TRUSTEE EMERITUS (NON-VOTING)
James Guerber, FELLOW, NON-VOTING
Mary E.S. Hanahan
Douglas McBryde Kinney, CHAIR EMERITUS (NON-VOTING)
Suzanne D. Kuser, FELLOW (NON-VOTING)
Elizabeth E. Matthews
David G. Meissner, TRUSTEE EMERITUS (NON-VOTING)
Suzy C. Orb, FELLOW (NON-VOTING)
David W. Pratt
Thomas L. Reveley
Katherine G. Richardson
Kenneth Schwartz, FELLOW (NON-VOTING)
Patricia W. Sheehan
Barbra K. Sweet, FELLOW (NON-VOTING)
Catherine Topham
Judy C. Webb
Christina B. Wilson

Development Committee

Emerson T. Knowles, CHAIR
Thomas L. Reveley, VICE CHAIR
Devon Angelini
Gordon L. Deane
Carol Y. Dickinson
Harriet S. Fraunfelter
Peter C. Gardner
Mary E.S. Hanahan
Thomas D. Hewitt
Thomas S. Kenan, III, TRUSTEE EMERITUS (NON-VOTING)
Suzanne D. Kuser, FELLOW (NON-VOTING)
David G. Meissner, TRUSTEE EMERITUS (NON-VOTING)
David W. Pratt
Katherine G. Richardson
Michael N. Rosenberg
Cynthia Salley
Anita Seipp
Judy C. Webb

Education Committee

Katherine G. Richardson, CHAIR
Peter C. Gardner, VICE CHAIR
Devon Angelini
Mary M. Cudahy
Harriet S. Fraunfelter
Donald W.Y. Goo, TRUSTEE EMERITUS (NON-VOTING)
Thomas D. Hewitt
John H. Rashford
Michael N. Rosenberg
Cynthia Salley
Judy C. Webb
Christina B. Wilson

Finance Committee

Thomas D. Hewitt, CHAIR
Jan D. Elliott
Harriet S. Fraunfelter
Patrick Henry, TRUSTEE EMERITUS (NON-VOTING)
Merrill L. Magowan
Anita Seipp

Investments Committee

Merrill L. Magowan, CHAIR
Gordon L. Deane
Anne G. Earhart
Jan D. Elliott
Peter C. Gardner
Patrick Henry, TRUSTEE EMERITUS (NON-VOTING)
Thomas D. Hewitt
Emerson T. Knowles

Living Collections and Horticulture Committee

David Rae, CHAIR
Glenn A. Goldsmith, VICE CHAIR, TRUSTEE EMERITUS (NON-VOTING)
Jan D. Elliott
Harriet S. Fraunfelter
Adaline H. Frelinghuysen
Laura R. Goo, FELLOW (NON-VOTING)
Elizabeth E. Matthews
Ghilleen Prance, TRUSTEE EMERITUS (NON-VOTING)
Katherine G. Richardson
Michael N. Rosenberg
Barbra K. Sweet, FELLOW (NON-VOTING)
Catherine Topham
Hau'oli Wichman, FELLOW (NON-VOTING)
Christina B. Wilson

McBryde Garden Planning Committee

Jan D. Elliott, Co-Chair
Barbra K. Sweet, Co-Chair, FELLOW (NON-VOTING)
Patricia P. Amstutz, FELLOW (NON-VOTING)
Carol Y. Dickinson
Adaline H. Frelinghuysen
Donald W.Y. Goo, TRUSTEE EMERITUS (NON-VOTING)
Mary F. Griffith, FELLOW (NON-VOTING)
Thomas D. Hewitt
Elizabeth H. Kinney, LIFETIME MEMBER (NON-VOTING)
Suzy C. Orb, FELLOW (NON-VOTING)
Ghilleen Prance, TRUSTEE EMERITUS (NON-VOTING)
David W. Pratt
David Rae
John H. Rashford
Katherine G. Richardson
Cynthia Salley
Patricia W. Sheehan
Christina B. Wilson

Science and Conservation Committee

Anne G. Earhart, CHAIR
Harlan C. Amstutz, TRUSTEE EMERITUS (NON-VOTING)
Patricia P. Amstutz, FELLOW (NON-VOTING)
Gordon L. Deane
Jan D. Elliott
Adaline H. Frelinghuysen
Mary E.S. Hanahan
Ghilleen Prance, TRUSTEE EMERITUS (NON-VOTING)
David Rae
John H. Rashford

Committee Members By Name

AS OF MARCH 11, 2021

Harlan C. Amstutz	Trustee Emeritus (non-voting). Science and Conservation
Patricia P. Amstutz	Fellow (non-voting). Science and Conservation, McBryde Garden Planning
Devon Angelini	Education, Breadfruit, Development
Mary M. Cudahy	Education
Gordon L. Deane	Executive Committee (Chair), Governance, Compensation (Chair), Investments, Development, Science and Conservation, Breadfruit
Carol Y. Dickinson	Development, McBryde Garden Planning
Anne G. Earhart	Executive Committee (Vice Chair), Governance, Investments, Science and Conservation (Chair), Compensation
Jan D. Elliott	Executive Committee, Finance, Investments, Science and Conservation, Living Collections and Horticulture, McBryde Garden Planning (Co-Chair)
Harriet S. Fraunfelter	Finance, Development, Governance, Living Collections and Horticulture, Education
Adaline H. Frelinghuysen	Governance, Science and Conservation, Living Collections and Horticulture, McBryde Garden Planning
Peter C. Gardner	Executive Committee, Governance, Audit, Investments, Development, Education (Vice Chair)
Glenn A. Goldsmith	Trustee Emeritus (non-voting). Living Collections and Horticulture (Vice Chair)
Donald W.Y. Goo	Trustee Emeritus (non-voting). Breadfruit Institute, Education, McBryde Garden Planning
Laura R. Goo	Fellow (non-voting). Living Collections and Horticulture
Mary F. Griffith	Fellow (non-voting). McBryde Garden Planning
James Guerber	Fellow (non-voting). Breadfruit
Mary E.S. Hanahan	Development, Science and Conservation, Breadfruit Institute
Patrick Henry	Trustee Emeritus (non-voting). Investments, Finance
Thomas D. Hewitt	Executive Committee (Senior Prior Chair), Governance, Compensation, Development, Audit (Chair), Investments, Education, Finance (Chair), McBryde Garden Planning
Thomas S. Kenan, III	Trustee Emeritus (non-voting). Development
Douglas McBryde Kinney	Chair Emeritus (non-voting). Breadfruit Institute
Elizabeth H. Kinney	Lifetime Member (non-voting). McBryde Garden Planning
Emerson T. Knowles	Development (Chair), Investments, Governance
Suzanne D. Kuser	Fellow (non-voting). Development, Breadfruit Institute
Merrill L. Magowan	Executive Committee (Prior Chair), Governance (Chair), Compensation, Audit, Investments (Chair), Finance
Elizabeth E. Matthews	Breadfruit Institute, Living Collections and Horticulture
David G. Meissner	Trustee Emeritus (non-voting). Audit, Development, Breadfruit Institute
Suzy C. Orb	Fellow (non-voting). Breadfruit Institute, McBryde Garden Planning

Ghilleen Prance	Trustee Emeritus (non-voting). Science and Conservation, Living Collections and Horticulture, McBryde Garden Planning
David W. Pratt	Executive Committee (Secretary), Audit, Development, Breadfruit Institute, McBryde Garden Planning
David Rae	Science and Conservation, Living Collections and Horticulture (Chair), McBryde Garden Planning
John H. Rashford	Science and Conservation, Education, McBryde Garden Planning, Breadfruit (Chair)
Thomas L. Reveley	Breadfruit Institute, Development (Vice Chair)
Katherine G. Richardson	Executive Committee (Senior Vice Chair), Development, Living Collections and Horticulture, Breadfruit Institute, Education (Chair), McBryde Garden Planning, Governance, Compensation (Vice Chair)
Michael N. Rosenberg	Executive Committee, Development, Living Collections and Horticulture, Education
Cynthia Salley	Development, Education, McBryde Garden Planning
Kenneth Schwartz	Fellow (non-voting). Breadfruit
Anita Seipp	Development, Finance
Patricia W. Sheehan	Breadfruit Institute, McBryde Garden Planning
Barbra K. Sweet	Fellow (non-voting). Living Collections and Horticulture, Breadfruit Institute, McBryde Garden Planning (Co-Chair)
Catherine Topham	Breadfruit Institute, Living Collections and Horticulture
Judy C. Webb	Development, Breadfruit Institute, Education
Hau'oli Wichman	Fellow (non-voting). Living Collections and Horticulture
Christina B. Wilson	Living Collections and Horticulture, Breadfruit Institute, Education, McBryde Garden Planning

Program Committee Information/Minutes

Living Collections and Horticulture, Breadfruit Institute, Education, Science and Conservation

These particular Program Committees will hold their meetings prior to the full Board Meeting.

Agendas for Program Committee meetings will be sent directly to Committee Members and will not be published in this Board Book.

Minutes for Program Committees will be published in the Board Book and will be approved during their respective meetings.

McBryde Garden Planning Committee

The McBryde Garden Planning Committee met during the Fall 2020 Board Meeting and approved a motion to put a hold on the Committee until such time as travel to McBryde Garden is possible so that the committee may tour the garden and convene on site. *Therefore, the MGPC will not be meeting during the Spring 2021 Board of Trustees Meeting.*

Minutes - Program Committees

The following pages contain minutes from meetings held during the Fall 2020 Board Meeting for the following Program Committees:

- Living Collections and Horticulture Committee
- Breadfruit Institute Committee
- Education Committee
- Science and Conservation Committee
- McBryde Garden Planning Committee – (Approved Minutes)

Minutes: Living Collections and Horticulture Committee

NOVEMBER 12, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Gordon L. Deane, Anne G. Earhart, Jan D. Elliott, Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Linford L. Loughheed, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae (Chair), John H. Rashford, Katherine G. Richardson, Michael N. Rosenberg, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Kristen Campbell, Motoko Deane, John Game, Chip James, Susan Lynch, Suzy Carter Orb, Anne Prance, Scott Robinson, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Liam Simmons, Sara Sullins, Barbra K. Sweet, Michaline Todd, Matthew Todd, Christen Turner, Christopher Turner

Others present: Christopher Baraloto, Elizabeth Kinney

Staff present: Chelsey Aki, Amanda Beisch, Vera Benedek, Rhian Campbell, Michael DeMotta, Noel Dickinson, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Kevin Houck, Momi Kelekoma, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Harumi Noon, Ben Nyberg, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Warren Wagner, Seana Walsh, Lei Wann, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Dr. Rae called the meeting to order at 8:09 AM (HST). **Dr. Rae called for a motion to approve the minutes of the March 29, 2019 meeting. Motion was made by Ms. Elliott; motion was seconded. All approved, none opposed, the motion was carried.**

Dr. Rae referred to the conservation dashboard noted in the last paragraph of the minutes and asked Mr. DeMotta for an update on the dashboard. Mr. DeMotta reminded the committee that the topic came up during his presentation at that meeting and it was suggested that since the living collections are very valuable as gene banks, the committee thought it would be a good idea to create dashboards for all of the Threatened and Endangered (T&E) species and that it could include non-Hawaiian IUCN Red-Listed species, as well. Mr. DeMotta stated that NTBG Plant Manager Kevin Houck could create the dashboard to actively track all the T&E species, in particular the native Hawaiian collections. Dr. Rae thanked Mr. DeMotta for the reminder and stated that is something they should pursue. Noting the time limit for today's meeting, Dr. Rae asked that he and Mr. DeMotta follow up on this discussion later.

LIVING COLLECTIONS AND HORTICULTURE (LCH) PRESENTATION

Mr. DeMotta introduced himself and provided a video presentation on the LCH program. The video presentation informed the audience that a strategic objective of LCH was to update the Living Collections Policy. This policy was first drafted in 2007 and reviewed and updated in 2012. He noted that the structure of Science and Conservation and LCH has changed such that a deeper edit is called for and is now underway.

STRATEGIC PLAN OBJECTIVES – FOCUS FOR 2021-2022

Mr. DeMotta referred to the Strategic Priorities list located on page C-5 of the Board Book. He then provided an overview of the following LCH Strategic Priorities:

-
- Become the leader in Hawai'i for the propagation and conservation of threatened and endangered native ferns
 - Increase the conservation of native Hawaiian plants through both ex situ collections and landscape scale restorations
 - Develop a plan for a research and conservation program supporting Limahuli Valley as a leading example of system-scale biocultural conservation in Hawai'i
 - Collect and curate extant cultivars of Hawaiian canoe plants for conservation and education within our Hawai'i Gardens

Dr. Rae asked Mr. DeMotta, in regards to the 1st, 3rd and 4th bullet points noted above, if he would be able to draw up a table to show these objectives and what needs to be done to tick them off the list. Mr. DeMotta replied he could probably already do that with the canoe plant cultivars based on the information that Mr. Houck has put together. He explained that the others are a little more complex, such as the landscape scale restoration, as the details are never ending and there are challenges such as the flood of 2018. The opportunity provided by the 2018 flood was that it wiped the slate clean by clearing some of the valleys and staff were able to go in and start planting, which they did feverishly by planting in some of the eroded areas. Mr. DeMotta added that he will report an update during the next committee meeting on as many as he can.

DISCUSS POSSIBLE HORTICULTURE REVIEWS

Dr. Rae referred to the Strategic Priorities list located on page C-5. He brought attention to the following points found under Garden & Horticulture Excellence which mentions two reviews as follows:

- Develop a multi-year Landscape Management Plan for all gardens
- Develop a Living Collections Planning Strategy across NTBG

Dr. Rae noted that sometimes reviews can be long, involved and very detailed or they can be short fixes. He asked Mr. DeMotta what he thinks is most appropriate. Mr. DeMotta shared that it is addressed in the Living Collections Policy but not to the extent that it should be. He noted that in the last NTBG Strategic Planning Session it was called out to get each garden to focus on their specific objectives, to identify in their gardens where collections are located, and have a maintenance plan for each section of each garden. It is incumbent upon each Garden Director and their staff to see how they can maintain their collections for both horticulture value and display value. Mr. DeMotta added that for several years we have talked about horticultural excellence and display value of our living collections. The other part of that is the outside review that would involve Dr. Rae's participation. It has been discussed that it would be very valuable to NTBG for Dr. Rae, given his background, to visit all the Hawai'i gardens and The Kampong to view with a critical eye and provide recommendations on the horticulture of each of the gardens.

Dr. Rae noted that having reviews every five years or so are very helpful. Mrs. Sweet added that having a 5-year review will definitely turn up some forgotten places and move us along. Dr. Rae suggested that management think about how deep they want the review to be and if such review could be done over his next visit to Hawai'i. Ms. Mayfield added that it is always good to have an outside eye come in and take a look at everything. She added that the landscape plans tie everything together with education and living collections but it is very important to have a beautifully landscaped garden as that is what draws people in to look at the plants. Ms. Mayfield noted that we have many native plants that can be described, interpreted, planted and displayed in a beautiful way. Dr. Rae asked that Ms. Mayfield and Mr. DeMotta contact him to discuss how they would like to get started on this over the next year or so.

There being no further business the meeting adjourned at 8:41 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Minutes: Breadfruit Institute Committee

NOVEMBER 11, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Mary M. Cudahy, Gordon L. Deane, Carol Y. Dickinson, Anne G. Earhart, Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Mary E.S. Hanahan, Patrick Henry (Emeritus), Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford (Chair), Thomas L. Reveley, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Georgette Ballance, Kristen Campbell, Motoko Deane, Rob Evans, John Game, Chip James, Susan Lynch, Suzy Carter Orb, Deborah Pate, Scott Robinson, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Barbra K. Sweet, Michaline Todd, Matthew Todd

Others present: Christopher Baraloto, Michael Besancon, Birgit Cameron, Elizabeth Kinney

Staff present: Amanda Beisch, Vera Benedek, Michael DeMotta, Noel Dickinson, Heather George, Matt Goodale, Tobias Koehler, Janet Mayfield, Harumi Noon, Michael Opgenorth, Diane Ragone, Tami Rollins, Nina Rønsted, Sandra Tedder, Lei Wann, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Dr. Rashford called the meeting to order at 10:15 AM (HST). **Dr. Rashford called for a motion to approve the minutes of the March 30, 2019 meeting. Motion was made by Ms. Sheehan; motion was seconded. All approved, none opposed, the motion was carried.**

Dr. Rashford acknowledged his appreciation of former Committee Chair, Mr. Reveley, and thanked him for his contributions in making the Breadfruit Institute a success.

BREADFRUIT INSTITUTE (BFI) PRESENTATION

Dr. Ragone introduced herself and provided a video presentation on the BFI program. The video presentation included a virtual walk-through of the Regenerative Organic Breadfruit Agroforestry (ROBA) demonstration.

STRATEGIC PLAN OBJECTIVES – FOCUS FOR 2021-2022

Dr. Ragone referred to the Strategic Priorities list located on page C-5 and the BFI report on page C-19 of the Board Book. She shared that one of the priorities of the BFI is to develop a searchable Breadfruit Variety Database and make it available on the NTBG website. The previous version was not included in the revamp of the NTBG website a few years ago and needs to be updated. This will be a major project that will incorporate photos and research data that has been gathered over the years into a database tool that will be available for researchers and conservationists around the world. The other component of this is to strategically increase core capacity of the BFI with the addition of a PhD Senior Scientist and a Collections Manager. Recruitment and virtual interviews have been conducted for the PhD position. The next step is to have the top candidate be able to visit Kaua'i, see the gardens, and meet staff in person. Currently the recruitment process is at a standstill until such time that it is safe to travel. Dr. Ragone added that some of the things that have been on hold such as research conservation outreach and the global hunger initiative will revitalize once the critical PhD position is onboard. Another Strategic Priority is to ensure the resilience of the breadfruit collection and develop a plan to replicate key cultivars. Dr. Ragone shared that she and Ms. Mayfield are currently renegotiating and entering into new agreements with a tissue culture facility to revitalize that distribution project and to get more varieties into tissue culture.

PATAGONIA PROVISIONS UPDATE/PRODUCT LAUNCH

Dr. Ragone introduced and welcomed Birgit Cameron, Managing Director of Patagonia Provisions, and Michael Besancon, Consultant. Ms. Cameron expressed her excitement and appreciation of her experience of working with Dr. Ragone and the NTBG staff.

Mr. Besancon discussed the challenges in developing a product with a completely new supply chain which was filled with hurdles for production. He took the audience through a timeline which started in 2014. Mr. Besancon shared that what moved and inspired him was the concept of food security, climate change, economic stimulation, and agroforestry. He shared the BFI of the NTBG was instrumental in creating the first example of a ROBA, which in his perspective is how we are going to feed the planet in the future.

Ms. Cameron shared that it has been quite a long journey in finding the farmers, the breadfruit trees, and the production companies that could clean, dry and stabilize the breadfruit, as well as finding the millers who could mill breadfruit. She noted that it was way more complicated than you would think and it took a lot of perseverance but it has been accomplished.

The very first product is ready to go out with a soft launch on November 20, 2020 and a hard launch at the end of November 2020. They decided to come out with a cracker to first showcase what breadfruit is all about. The cracker is a honey sesame flavor and in January 2021 they will be adding two additional flavors. Plans are in place for other iterations of products with breadfruit flour as the base.

She shared that the packaging for the crackers is full of information about breadfruit. The NTBG URL is displayed on the package in the hopes of driving audiences to the NTBG website. They will also be talking a lot about BFI and NTBG on their website. The source pages link to many different aspects of the breadfruit story such as the history, nutrition, agroforestry, the Polynesian perspective, and Jungle Foods (their partner in producing this product). The messaging around the BFI will be that not many foods deserve their own institute but breadfruit does; the world's leading resource for this incredible food is based in Hawai'i; and that the BFI researches, preserves, and propagates breadfruit to be used for food and reforestation in tropical countries around the world. Ms. Cameron noted that the pages on their website go deep into the story of breadfruit to honor all the work that has gone into this and includes pages on the BFI, NTBG, and the agroforestry demonstration area.

A social media campaign will be launched to show what breadfruit is and what it looks like to make a connection with the actual fruit and the product that it could become. The crackers are available for sale on the Patagonia Provisions website and will also be sold in grocery stores.

Ms. Cameron shared a Patagonia Provisions video presentation and a Q&A session followed.

There being no further business the meeting adjourned at 11:05 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Minutes: Education Committee

NOVEMBER 12, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Carol Y. Dickinson, Anne G. Earhart, Jan D. Elliott, Harriet S. Fraunfelter, Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Linford L. Lougheed, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford, Katherine G. Richardson (Chair), Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Kristen Campbell, Motoko Deane, Rob Evans, John Game, Chip James, Susan Lynch, Suzy Carter Orb, Deborah Pate, Scott Robinson, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Barbra K. Sweet, Michaline Todd, Matthew Todd, Christen Turner, Christopher Turner

Others present: Christopher Baraloto

Staff present: Chelsey Aki, Amanda Beisch, Vera Benedek, Rhian Campbell, Michael DeMotta, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Kevin Houck, Momi Kelekoma, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Harumi Noon, Ben Nyberg, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Sandra Tedder, Lei Wann, Seana Walsh, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Mrs. Richardson called the meeting to order at 8:51 AM (HST). Mrs. Richardson called for a motion to approve the minutes of the March 30, 2019 meeting. **Motion was made by Mrs. Fraunfelter; motion was seconded. All approved, none opposed, the motion was carried.**

PRESENTATION

Ms. Mayfield reminded the Committee that NTBG does not have an Education Director, therefore she fills that role for the garden. During the pandemic NTBG has had to pare down the Education Program and has had to discern what and how programming could continue. She added that the video is just a sampling of some of the education programming at NTBG. She then presented the video presentation for Education.

STRATEGIC PLAN OBJECTIVES – FOCUS FOR 2021-2022

Ms. Mayfield called upon the following staff to talk about their Strategic Plan Objectives for education for 2021-2022:

KAHANU GARDEN AND PRESERVE

Mr. Opgenorth reported that with the challenges of this year, one of the positive notes has been that it allowed his staff to take a step back and think about things that we have wanted to do for a long time. The main focus was to create programs that integrate culture and science and benefit those students and Kahanu Garden. Some of the things planned for 2021 are as follows:

- A new program called 'ulu i ka 'ohā which literally means “the growth of the young sprouts.” This will be a week long program that would tentatively take place next summer that integrates place, plants, culture and stewardship, as all of these things are interconnected. This program will be based on a previous program we did in collaboration with Kamehameha Schools. There are a lot of wonderful themes that we will replicate for this program that would be targeted for Hāna High School students.

- A new program for our local Hāna community will be Maui Hikina ‘Ōpio Stewardship Development Project, a cultural youth stewardship program. This will be a semester-long, collaborative education program that takes place with Hāna High and Hāna Elementary Schools. Biology class students will visit different sites which do stewardship work within the community. Each site is going to have a focus of a traditional area of the Hawaiian ahupua‘a (the watershed and land section divisions that were in Hawaiian management and still are today). Kahanu Garden will participate specifically in the agricultural realm of indigenous crops and plants. This program is planned to take place in April **2021**¹.
- Continuation of the KUPU Internship Program. This is a youth development program which NTBG incorporates into many of our gardens. The program has been beneficial for really targeted development of conservation skills for the youth and a great benefit for our gardens, as the interns are at an age where they can really give back and do meaningful work. Kupu Interns help us move the needle on projects and makes for a truly reciprocal education program.
- Less formal programs that we do year-round such as our plant sales that allow us to do outreach to share about the plants that we conserve.

LIMAHULI GARDEN AND PRESERVE

Mrs. Wann reported that they found creative ways to still continue to provide education programs to the local community as follows:

- Hosted small home-school groups in the garden.
- Monthly online classes for students on Kaua‘i that teach about plants and culture, and horticulture techniques.
- Ōhi‘a Love Fest – a virtual online festival; Ms. Lei will be teaching a class on growing lei plants, how to make leis, and how to have the cultural practices instilled in lei making.

THE KAMPONG

Mr. Morell reported The Kampong had been shut down for a large degree during the pandemic. Some of their long-standing programs such as the Barnyard Afterschool Program have experienced issues in trying to get students into the garden. He hopes to be able to resume this program in spring 2021. Some programs that are planned for 2021 are as follows:

- Botanical Illustration online course which will be conducted virtually from The Kampong.
- Everglades Orchids Conservation Plan for Homeowners, a program that has been accepted by the University of Miami (UM) as a course for spring 2021. The intent of the course is to connect and provide outreach to the homeowner with conservation methods that folks could do at home. The course will focus on seven of the most charismatic Everglades orchids. Mr. Morell has a good source of seedlings from the Naples Botanical Garden. With help from the UM students, Mr. Morell is looking forward to starting techniques of displaying those orchids at The Kampong and focusing some attention to the interpretation of them. The end result of the course will be to produce an e-book for homeowners that guide them with a list of plants and where they would best thrive. The UM was also offered a masters level communication student for a semester to promote the course worldwide. The program starts in December 2020.

SOUTH SHORE GARDENS

Ms. Mayfield reported that our Education Department is still working with Brian Yamamoto of Kaua‘i Community College to do a two-day Science Teachers Workshop during the winter break. There are already 8 local teachers signed up for the workshop. She is excited that local teachers are finding it advantageous to come out to the garden. Due to

¹Due to COVID-19 restrictions this program will still take place, but will be moved back until at least summer 2021.

the pandemic, the Environmental Journalists program was put on hold. NTBG looks forward to resuming this program as soon as it is safely possible. The International Center for Tropical Botany (ICTB) is one of our premiere education programming pieces and will be talked about in depth during the Science and Conservation program presentation.

Mrs. Richardson shared that this pandemic has brought forth the need to conduct classes virtually and she is happy to hear that NTBG is meeting that need. She is also excited to hear that so many local teachers are taking advantage of our programming. As local teachers teach their classes virtually, they are looking for curriculum and NTBG can bring the gardens into their classroom. She added that we will have to shift how we think about doing our programs but it is possible. She looks forward to hearing feedback from the teachers who take the workshop.

Ms. Mayfield shared that staff have been participating in creating videos and we are organizing them and will place links to those videos on our website. She admitted it is a major pivot in the way we think about creating programming. Mrs. Richardson added that it would be great to post more content on our website, as there are some people who are not into social media such as Facebook and Instagram, but they will go to a website for information.

DISCUSSION ON NEW CHAIR

Mrs. Richardson shared that as she steps into the role of Senior Vice Chair of the Board and has been the Chair of Education Committee for many years, she feels it is time that the committee has a new Chair. She invited committee members to think about taking on this role of Chair.

There being no further business the meeting adjourned at 9:20 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Minutes: Science and Conservation Committee

NOVEMBER 13, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Mary M. Cudahy, Gordon L. Deane, Carol Y. Dickinson, Anne G. Earhart (Chair), Jan D. Elliott, Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Mary E.S. Hanahan, Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Linford L. Loughheed, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford, Thomas L. Reveley, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Georgette Ballance, Kristen Campbell, Motoko Deane, Lindsay Deane-Meyer, Zach Deane-Meyer, Rob Evans, John Game, Emily Gresham, David Hodge, Julie Hodge, Susan Lynch, Marion S. Meissner, Suzy Carter Orb, Anne Prance, Scott Robinson, Bobbi Rosenberger, Roger Rosenberger, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Barbra K. Sweet, Christen Turner, Christopher Turner

Others present: Christopher Baraloto, Elliot Gardner, Warren Wagner

Staff present: Chelsey Aki, Vera Benedek, Rhian Campbell, Michael DeMotta, Noel Dickinson, Francine Dizol, Diane Flores, Tim Flynn, Heather George, Matt Goodale, Kevin Houck, Kelli Jones, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Harumi Noon, Ben Nyberg, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Seana Walsh, Lei Wann, Chipper Wichman, Hau'oli Wichman, Dustin Wolkis, Ken Wood

CALL TO ORDER; APPROVAL OF MINUTES

Ms. Earhart called the meeting to order at 8:10 AM (HST). Ms. Earhart called for a motion to approve the minutes of the March 30, 2019 meeting. **Motion was made by Mr. Deane; motion was seconded. All approved, none opposed, the motion was carried.**

ACKNOWLEDGMENTS

Ms. Earhart acknowledged and expressed her gratitude for Dr. Amstutz's service as Chair of the Science and Conservation Committee from July 2004 to October 2019. She looks forward to his continued participation as a member of the committee.

Ms. Earhart also acknowledged and thanked Sir Iain Prance for serving on the committee since the spring of 2006 and congratulated him on his new status of Trustee Emeritus.

In addition, Ms. Earhart acknowledged that for a small organization, NTBG has a wealth of resources such as living collections, restoration, science and conservation, library, herbarium, and seed bank, as well as amazing scientists and conservation staff. She noted that good coordination both internally and externally will be needed as we move forward in the collaboration between the International Center for Tropical Botany (ICTB) and NTBG.

SCIENCE AND CONSERVATION PRESENTATION

A pre-recorded presentation was narrated by Dr. Rønsted covering the work undertaken by the Science and Conservation team. The presentation featured recent work on the conservation challenges of Pacific Island flora. During the pandemic shut-down, staff worked on updating the IUCN Red List which is used to guide research, inform policy and conventions, influence resource allocation, improve decision making, and raise awareness. The presentation also shared information on the challenges to the flora and ecosystems of Hawai'i which include climate changes, destruction of

habitats, loss of specialized pollinators, invasive weeds, and introduced animals and pathogens.

The presentation also shared information on the NTBG-ICTB three-day workshop held at The Kampong in February of 2020. NTBG-ICTB research agenda includes rare plant conservation, coastal forests, and diverse food security. Also included, was an introduction of Dr. Elliot Gardner, an ICTB-NTBG shared multi-year Postdoctoral Researcher in tropical plant biology who was recently hired by FIU and is based at the ICTB under supervision by Dr. Baraloto and Dr. Rønsted.

STRATEGIC PLAN OBJECTIVES – FOCUS FOR 2021-2022

Dr. Rønsted referred to the Strategic Priorities list located on page C-5 of the Board Book. She then provided an overview of the following Science and Conservation Strategic Priorities:

- The top priority continues to be conservation of native Hawaiian plants through both ex situ collections and landscape scale restorations. This work is increasingly combined with and supported by scientific studies as well as several ongoing and externally funded grants.
- Another priority is the continued work on major regional floristic projects. Work has commenced on the Flora of Samoa and once that is completed, work will continue on the Flora of Micronesia. Dr. Rønsted added that Dr. Lorence was awarded a National Geographic Society grant for a 6-weeks long field work campaign in Micronesia that will involve several staff members in the fall of 2021.
- Thirdly, a new strategic priority that was not highlighted in the original strategic plan, is the NTBG herbarium, which with its nearly 90,000 collections from the last 50 years, is an invaluable research resource. A first dedicated strategy for the herbarium has been developed focusing on increased use and visibility, and a professional collections preservation assessment funded by the Foundation for Advancement in Conservation will be conducted in 2021 to ensure the long-term preservation of the collections.
- Finally, the increasing collaboration with Dr. Baraloto and the ICTB is a high priority.

Committee members Sir Iain Prance and Professor Rashford both commended Dr. Rønsted and her staff on a job well done.

DISCUSSION ON NEW CHAIR

Ms. Earhart announced that she has volunteered to continue on as Chair of the committee but she would be more than happy to stand down if someone else would like to take this on. Sir Iain shared that he believes Ms. Earhart is a great Chair and he requested that she continue to chair the committee.

There being no further business the meeting adjourned at 8:51 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Minutes: McBryde Garden Planning Committee

NOVEMBER 12, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Gordon L. Deane, Carol Y. Dickinson, Anne G. Earhart, Jan D. Elliott (Co-Chair), Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Kristen Campbell, Motoko Deane, Rob Evans, John Game, Chip James, Susan Lynch, Marion S. Meissner, Suzy Carter Orb, Deborah Pate, Scott Robinson, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Barbra K. Sweet (Co-Chair), Michaline Todd, Matthew Todd, Christen Turner, Christopher Turner

Others present: Elizabeth Kinney

Staff present: Amanda Beisch, Rhian Campbell, Michael DeMotta, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Kevin Houck, Momi Kelekoma, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Jackie Nielsen, Harumi Noon, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Seana Walsh, Lei Wann, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Ms. Elliott called the meeting to order at 9:26 AM (HST). Ms. Elliott called for a motion to approve the minutes of the March 29, 2019 meeting. **Motion was made by Mrs. Richardson; motion was seconded. All approved, none opposed, the motion was carried.**

UPDATE OF PROJECT STATUS

Mr. Koehler gave an update on the following projects that are still in progress and/or winding down:

- **Water Security:** This was a long-term water infrastructure project to ensure a means to connect to a reliable water supply. Repairs were made to the reservoir; and a new intake was inserted. A new line and filter station that supplies upper parts of the McBryde Garden was installed. In addition, the intake was connected to the existing line that supplies lower elevation portions of McBryde Garden and continues all the way down to Allerton Garden. Mr. Koehler reported that the system is working fantastically!
- **Interpretive Plan:** The McBryde Garden Interpretive Plan is an overall document developed with input from the committee and is broken down into several phases of implementation. The intention and goal of the plan is to improve the quality of the visitor experience and the delivery of our mission and message to our guests. Over the past year, another set of signs were placed in the core areas accessible to visitors as part of that interpretive plan. There are a few adjustments needed but essentially our first phase of the plan is complete. This first phase included improvements in garden areas, handouts, materials and training invested into our visitor program staff and managers in order to certify our staff as interpretive guides. We look forward to opportunities in the future to implement other phases of that plan.

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- **Fuel Storage:** Access to fuel on the property is a basic but very important need as it saves a lot of time instead of having to drive into town for fuel for garden vehicles. A few finishing touches are needed which include scheduling a fire inspection.
 - **Other Capital Improvements:** The committee has been privy to a list of dreams and plans for infrastructure projects across the gardens. We have reached a pause on these future projects, such as a gardeners' facility, that are on paper but none are in full design or ready to go.

FINANCIAL REPORT

Ms. Mayfield reviewed the following documents which were provided to committee members prior to the meeting.

- **McBryde Renewal Project (MRP) Cost Summary:** The summary is comprised of three sections: Work in Progress; Completed Projects; and Future Projects. The MRP has been in progress since December 1, 2010 and, over the period of 10 years, 15 projects have been completed. Now that some of those projects have been around for a while, they are requiring some maintenance. There are seven projects under the category "Work in Progress" and six projects in "Future Projects."
- **Project Summary and Cash Flow:** Ms. Mayfield reviewed the various lines items which result in remaining revenue of \$181,204. This amount includes grants and pledges still to be received in 2021. The projects to be completed in 2021 are the Interpretive Plan, Fuel Storage System, and Carpentry Shop. The estimated cost to complete these three projects in 2021 is \$180,000.

FUTURE PROJECTS – PRIORITIES AND FUNDRAISING

Ms. Elliott thanked Ms. Mayfield for the 10-year perspective on the McBryde Renewal Project. She congratulated the committee and staff on the tremendous accomplishments made. In addition, Ms. Elliott acknowledged and thanked some of the generous donors, Mrs. Sweet (Co-Chair) and her late husband Cy Sweet, and Mr. Kinney and others who allowed us to transform this garden into what it is today.

Dr. Wichman shared that aside from the list of Future Projects, the highest strategic priority is to make the NTBG headquarters a net zero energy project. As an environmental organization it is an important statement to the world to be able to say that our NTBG Headquarters Campus does not consume a single drop of fossil fuel to generate our electricity. In addition, a net zero project would save NTBG \$130K to \$150K per year.

A discussion ensued about past steps taken in which NTBG invested in Double Green, LLC and placed PV panels on the roof of the Botanical Research Center (BRC). At that time, this was cutting edge technology but unfortunately, the technology did not withstand the test of time. In fact, the panels are non-functional after just 12 years of being installed in 2008. Dr. Wichman added as this project is developed, it is critical that we choose a technology that is going to be reliable and work with a company that stands behind its product and does not go insolvent. He asked for the committee's blessing to endorse this as their highest priority project. Dr. Wichman explained the first step would be gaining the committee's endorsement, the second step would be to discern what the best process and product is, and then figure out how we will finance it once we know what the project looks like.

The committee agreed that taking the NTBG headquarters campus to net zero energy use is a strategic high priority.

A motion was called recommending that the Board hold a conversation to discuss a Net Zero project at NTBG Headquarters and to discuss a Sustainability Strategy. Motion to approve was made by Mrs. Wilson, motion was seconded. All approved, none opposed, the motion was carried.

FUTURE OF THE COMMITTEE

Ms. Elliott discussed placing the committee on pause until a time that it is safe to travel and we can gather together and visit the gardens in person. Committee Members agreed to take such pause.

A motion was called to put a hold on the committee until such time as travel to McBryde Garden is possible so the committee may tour the garden and convene on site. Motion to approve was made by Ms. Elliott, motion was seconded. All approved, none opposed, the motion was carried.

There being no further business the meeting adjourned at 10:08 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Agenda: Audit Committee

APRIL 27, 2021 – 8:25 A.M. – 8:35A.M. (HST)

Virtual Meeting via Zoom

Thomas D. Hewitt, Chair

Merrill L. Magowan, Chair – Task Force on Risk Management

1. Call to Order Mr. Hewitt
2. The minutes from September 23, 2020 meeting were previously approved by the Committee and were included in the Fall 2020 Board Book.
3. Audit Schedule Mrs. Rollins
4. Risk Management Update Mrs. Rollins/Ms. Mayfield
5. Other Business Mr. Hewitt

AUDIT COMMITTEE RESPONSIBILITIES

The Audit Committee's role is to ensure the financial integrity of the National Tropical Botanical Garden by:

- Recommending to the Board the selection of the audit firm.
- Monitoring the progress and results of the annual financial audit.
- Reviewing the draft audited financial statements with the auditors and ensuring that the audit revisions and/or recommendations are implemented.
- Overseeing the organization's internal controls and risk-management procedures.
- Instituting special investigations if and when necessary.

– Approved April 8, 2018

Agenda: Investments Committee

APRIL 27, 2021 – 8:35 A.M. – 8:55 A.M. (HST)

Virtual Meeting via Zoom

Merrill L. Magowan, Chair

- | | |
|---|-------------|
| 1. Call to Order | Mr. Magowan |
| 2. Approval of the Minutes of the November 11, 2020 meeting | |
| 3. Update on Investment Performance and Market | Mr. Magowan |
| 4. Environmental, Social & Governance (ESG Investing) | Mr. Magowan |
| 5. Update on J.P. Morgan (Allerton Trust Investments) | Mr. Sanders |
| 6. Update on Waterhouse Trust | Ms. Elliott |
| 7. Other Business | |

INVESTMENTS COMMITTEE RESPONSIBILITIES

The Investments Committee, acting on behalf of the Board, shoulders governance responsibility for investments by:

- Developing a sound investment policy and ensuring that it is implemented efficiently and effectively in order to grow the investments of the organization.
- Selecting investment managers to achieve broad diversification in equities and fixed income.
- Reviewing risk and performance related to the investments.

– *Approved April 4, 2017*

Minutes: Investment Committee

NOVEMBER 11, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Gordon L. Deane, Carol Y. Dickinson, Anne G. Earhart, Jan D. Elliott, Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Mary E.S. Hanahan, Patrick Henry (Emeritus), Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Linford L. Loughheed, Merrill L. Magowan (Chair), Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford, Thomas L. Reveley, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Georgette Ballance, Kristen Campbell, Lucille Cuervorst, Motoko Deane, Lindsay Deane-Meyer, Zach Dean-Meyer, Rob Evans, John Game, Susan Lynch, Marion S. Meissner, Scott Robinson, Bobbi Rosenberger, Roger Rosenberger, Colleen Schokman, Ken Schwartz, Sara Sullins, Michaline Todd, Matthew Todd, Christen Turner, Christopher Turner

Others present: Hanna Badertscher, John Kane, Elizabeth Kinney, Adam Sanders, Warren Wagner

Staff present: Amanda Beisch, Vera Benedek, Michael DeMotta, Noel Dickinson, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Momi Kelekoma, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Harumi Noon, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Mary Thompson, Lei Wann, Seana Walsh, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Mr. Magowan called the meeting to order at 8:24 AM (HST). Mr. Magowan called for a motion to approve the minutes of the May 7, 2020 meeting. **Motion was made by Mr. Deane; motion was seconded. All approved, none opposed, the motion was carried.**

REVISED INVESTMENT POLICY

Mr. Magowan announced that for reasons beyond his control the committee will not be able to review the policy at this time. He noted that the existing policy was adopted and approved on February 9, 2015 and reviewed by the Board on April 1, 2019.

UPDATE ON J.P. MORGAN (ALLERTON TRUST INVESTMENTS)

Mr. Sanders reported the following:

- J.P. Morgan portfolio as of the end of September 2020 was up YTD 0.7% overall.
- The equity allocation was up 1.4%, relative to a MSCI World index of 1.7%. This fell slightly under performance due to a historical slight value tilt in the equity allocation, as we had a manager who has outperformed her benchmark but it's a value manager equity income sleeve within the equity allocation of the portfolio.
- The fixed income portion of the portfolio did very well. J.P. Morgan added to high yield at the end of March 2020 when spreads widened and that helped the fixed income portion of the portfolio to be up 7.9% YTD through the end of September 2020.
- The long term performance is strong with a one-year number of 6.7%; a three-year number of 5.1%; and a since inception annualized number of 8.5%.

-
- J.P. Morgan has been managing the portfolio for 27 years and even through difficult years it has been able to preserve capital.
 - As of today, the portfolio is up significantly more because of the strong start in the market for November 2020.

UPDATE ON WATERHOUSE TRUST

Ms. Elliott was not able to obtain a report from the bank. Therefore, she was unable to provide an update.

UPDATE ON INVESTMENT PERFORMANCE AND MARKET

Mr. Magowan reported that he has shared a lot of literature with the Investment Committee on how we are doing year-to-date. He wanted to also provide clarification on the kinds of managers we have in Chilton Trust, Everett Harris, and Hamlin Capital **Management**¹.

Mr. Magowan shared that he is quite familiar with most of Chilton's portfolio. However, upon visiting their website he noticed there is no mention of either growth or value. Mr. Magowan stated that both Chilton and Everett are stock pickers. They are not pigeon holed into one of the categories represented in the Wall Street Journal and other publications. As an example, Chilton's top 10 holdings include Sherwin Williams (which as a paint business cannot be a growth stock), Microsoft, Home Depot, Costco, Union Pacific and CSX which are railroads, so they have a little bit of everything.

For Everett, their largest holding is Apple, followed by Berkshire Hathaway (which is hardly a growth stock), Microsoft, Costco, Google, and they have been buying Nike recently. Therefore, Mr. Magowan stated, we do not necessarily have a growth manager per se.

Hamlin has most definitely pigeon holed themselves into value where they buy stocks that have a 2.5% value yield or more and the entire portfolio yields 4.3%. Their portfolio trades at 15.2% times the consensus next 12 months of earnings, as opposed to 21.6% for the S&P. The overall portfolio yields 4.3%.

In regards to performance, the first two managers, especially Chilton, have been very good. The performance of Hamlin has been awful. In the past three to four years they have underperformed by a wide disparity (as much as 1,500 basis points this year and 1,000 basis points last year). Mr. Magowan invited the committee to discuss what they think it should be doing, if anything at all.

Mr. Knowles agreed that Hamlin has painted themselves into a corner as they have yield stocks and they go for low priced earnings ratios, which have been very much out of favor for the last two or three years. He stated they probably looked this way in 1998 and 1999 at that time because the S&P is dominated by Microsoft, Apple, Google, Netflix, and so on.

Mr. Knowles shared that what he has seen in this rotation is that growth is great and value is not; then value is great and growth is not. It is his belief that to abandon a sector after it has underperformed now, to the same extent that it did in 1999, would be ill advised. The reason being is that in the hot growth area NASDAQ lost 66% in the three years after the year 2000 even though it was viewed as the absolute place to be in 1999. Mr. Knowles thinks we should keep Hamlin and added that he takes responsibility for not having a proper written policy statement, as we would feel compelled to balance them and not drop them, because these things do recycle and part of our fiduciary responsibility is to be balanced and not perfect.

Mr. Henry noted that in Mr. Magowan's memo to the committee, it mentioned Environmental, Social, Governance (ESG) investing with RBC Wealth Management. He asked if that was something we should consider in lieu of Hamlin Capital Management. Mr. Magowan shared that he is involved with ESG investing through another endowment and it is a growing area with new funds being established using ESG frameworks. He added that assets under management in ESG funds have tripled in the last 5 years to over \$130B today. It is thought that ESG funds could see trillions of dollars

¹For brevity, these managers will be further referred to in these minutes as: Chilton, Everett, and Hamlin.

in asset influx over the next few decades based on demographics and wealth creation trends. Mr. Magowan replied that although in his memo he mentioned RBC Wealth Management, he has contacted Chilton and will be meeting with them at the end of the month in Palm Beach, FL. He added that Chilton also has an ESG presence, and if the Committee wanted to allocate some money to ESG funds through them, it may be a lot easier to do rather than hiring a new manager. Mr. Magowan suggested we continue to do business with a manager we already have and peel off a little of the money they are managing for us and put it into their ESG funds.

Ms. Elliott stated she believes as an environmental organization, we should seriously think about ESG investing and she would be in favor of Mr. Magowan's suggestion. Mr. Deane added that he echoes what Ms. Elliott said, that as an environmental organization that cares about its people, its governance and sustainability, we should seriously consider not just one of our managers but talking to all our managers about ESG investing.

Mr. Magowan shared that in light of what Mr. Knowles said, he agrees that the tide might have turned towards a tilt toward value or at least Hamlin's kind of investing, and with a portfolio yield of 4.3% we are not going to get hurt. He added that if we ever get into any kind of a bear market Hamlin will outshine the other two managers based on what he sees in their portfolio. He shared that Hamlin owns Proctor and Gamble, Home Depot, Target, Johnson & Johnson, Roche, Verizon, Dow Chemical, 3M, which are pretty good companies and it might be time for them to shine. He suggested (but not in the form of a motion), that Hamlin be allowed to continue to manage, and he will tell them that we hope they will catch up with the S&P, and that they are in a form of probation. In addition, Mr. Magowan will explore ESG investing with Chilton Trust and come back to the Committee with a recommendation.

Mr. Henry stated he would like to see what Chilton's performance has been in the ESG area compared to their overall performance in the equity area. Mr. Magowan invited Mr. Henry to join him when he meets with Chilton on November 30, 2020. Mr. Henry agreed to the meeting.

There being no further business the meeting adjourned at 8:37 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Agenda: Finance Committee

APRIL 27, 2021 – 8:50 A.M. –9:25 A.M. (HST)

Virtual Meeting via Zoom

Thomas D. Hewitt, Chair

1. Call to Order Mr. Hewitt
2. The Minutes of the November 11, 2020 Finance Committee and the February 17, 2021 Joint Finance and Executive Committee meetings were previously approved by the Committees
3. 2020 Year-end Results Mrs. Rollins
4. Recap of 2021 Revised Budget Mrs. Rollins
 - *Approved February 17, 2021 in a Joint Finance/Executive Committee Meeting*
5. Current Financial Update for the First Quarter 2021 Mrs. Rollins
6. Outlook for Remainder of 2021 Ms. Mayfield
7. Other Business Mr. Hewitt

FINANCE COMMITTEE RESPONSIBILITIES

The Finance Committee's role is to oversee the fiscal affairs of the National Tropical Botanical Garden by ensuring the proper systems, procedures and controls are in place. Its tasks are:

- Reviewing the annual budget and recommending it to the full Board for approval; including reviewing the procedures for budget preparations (such as meaningful involvement by program directors), and commenting on consistency between the budget and the organization's plans.
- Monitoring the creation of accurate, complete, timely, and meaningful financial statements to be presented to the Board.
- Monitoring budget implementation and financial procedures, and anticipating financial problems, concerns, and opportunities.
- Recommending financial guidelines to the board such as establishment of a reserve fund.
- Ensuring the safeguarding of assets; monitoring compliance with federal, state, and other financial reporting requirements.
- Helping the Board understand the Organization's finances.

- Approved February 24, 2017

Minutes: Finance Committee

NOVEMBER 11, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Gordon L. Deane, Carol Y. Dickinson, Jan D. Elliott, Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Mary E. S. Hanahan, Patrick Henry (Emeritus), Sally O. Hewitt (Emeritus), Thomas D. Hewitt (Chair), Thomas S. Kenan, III (Emeritus), Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Linford L. Loughheed, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford, Thomas L. Reveley, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Georgette Ballance, Kristen Campbell, Lucille Cuervorst, Motoko Deane, Lindsay Deane-Meyer, Zach Deane-Meyer, Rob Evans, John Game, Susan Lynch, Marion S. Meissner, Deborah Pate, Scott Robinson, Bobbi Rosenberger, Roger Rosenberger, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Michaline Todd, Matthew Todd, Christen Turner, Christopher Turner

Others present: Hanna Badertscher, John Kane, Elizabeth Kinney, Adam Sanders, Warren Wagner

Staff present: Amanda Beisch, Vera Benedek, Michael DeMotta, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Momi Kelekoma, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Harumi Noon, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Mary Thompson, Lei Wann, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Mr. Hewitt called the meeting to order at 8:40 AM (HST). Mr. Hewitt called for a motion to approve the minutes of the July 29, 2020 meeting. **Motion was made by Mr. Magowan; motion was seconded. All approved, none opposed, the motion was carried.**

2020 YTD RESULTS WITH REVISED BUDGET / 2021 PRELIMINARY BUDGET

Ms. Mayfield displayed the documents that were provided to the committee prior to the meeting (2021 Preliminary Budget, 2021 Proposed Budget Narrative, and 2021 Budget – Best, Likely, Worst Case Scenarios). She asked that the committee keep in mind during this budget overview that her job and that of Mrs. Rollins in putting together the 2021 Preliminary Budget is to be conservative and to make sure that the organization is financially sound going forward.

Mrs. Rollins provided a review of the projections noted in the column titled 2020 Projected through December (on the 2021 Preliminary Budget document):

- The projections are a best guess as to how we will end the year. She reminded everyone that NTBG receives about 50% of annual contributions in December.
- Currently we are projecting to receive about 40% of what we projected or about \$677K in November/December.
- The 2020 Revised COVID Budget shows \$2.041M for contributed revenue. This amount is based on our original 2020 contribution budget, however, the \$1.638M noted in the 2020 Projected through December column may be more realistic.
- Earned revenue is projected to come in slightly higher than budgeted. This is because we were able to have a few

events in the beginning of 2020 at McBryde Garden and The Kampong. The majority of the earned revenue was earned at the beginning of the year and very little has come in since we reopened during the summer.

- Expenditures are projected to come in a little under budget mainly due to some additional payroll cost savings related to:
 - Having to implement some additional visitor program staff furloughs
 - In November and December, Department Heads are taking a payroll cut of 15% and the CEO is taking a 20% cut.
 - We will not be funding our end-of-year discretionary retirement account contribution; we had originally budget 2% and have been consistent with that over the last few years, but at this time we do not expect to be able to do this in 2020.

The cost savings of \$149K is shown under the Adjustments heading at the bottom of the statement.

- While pay cuts do help the projected bottom line for the budget, the main reason for needing to do this is to preserve cash. We have seen a drain on our bank account of about \$300K per month since July 2020. We think that it will hold steady in the 4th quarter or maybe build up slightly due to the influx of the December contributions, endowment distributions, and grants that come in at the end of the year.
- Our cash needs to sustain us through many more months of greatly reduced revenue. As a reminder, much of our cash is restricted for specific projects and it is not all for general operations.
- The Operating Surplus (Deficit) Before Adjustments reflects a negative amount of \$1.449M. That is what the deficit would have been this year had we not received the PPP loan in the amount of **\$1.263M**¹. That additional cash enabled us to weather the storm of 2020.
- At this time, we do not know what will be available to us in 2021 in terms of another PPP loan. It is speculated that the next round will have a more targeted criterion. We will have to wait and see what we qualify for.
- It looks like the 2020 PPP loan will be 100% forgiven based on a safe-harbor rule that requires us to show that we were not able to return to normal operations due to government mandated COVID safety restrictions.

Mr. Deane shared that the original Revised 2020 Budget (approved at the Fall 2019) meeting was based on revenue and expenditures of around \$9.9M. We are now talking about \$6.9M which basically cuts out 30% of our expected revenues and almost as much in expenses. He thought it was important to note this to make the point that this has been a real struggle.

Ms. Rollins agreed it has been a tremendous struggle to put together both the Revised 2020 COVID Budget and the 2021 Preliminary Budget, as there are still so many unknowns going into next year. She added that we prepared three budget scenarios for 2021 that were reviewed with the committee, but that our situation will be greatly impacted by the availability and effectiveness of a vaccine and how long it takes to achieve worldwide distribution.

Ms. Mayfield added that the 2021 Preliminary Budget is based on the “Likely” scenario and the full board has been provided this information as well.

Mrs. Rollins continued her review and provided the following highlights:

- The 2021 Preliminary Budget as presented here is the “Likely” scenario and is based on a vaccine becoming widely distributed by the end of the summer 2021. Based on this, we project revenue to start picking up once school is out for the summer and slowly climb to roughly 50% of normal for the remainder of the year.

¹This sentence amended to reflect the amount of funds received from the PPP loan (\$1.263M).

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- The 2021 Preliminary Budget shows contributed revenue of \$1.745M. This was based on an average of what was received in 2019 and what was originally budgeted for 2020.
 - Earned revenue (which is tours, gift shop, café, site fees) was based on discussions with all the Garden Directors as to what percentage of normal visitor numbers we expect to achieve each month.
 - The 2021 Preliminary Budget includes roughly 20% of the normal visitor counts through the first quarter, gradually climbing in the second quarter; then picking up to about 40% to 50% of normal visitor counts in the fourth quarter. All the Garden Directors were conservative in their estimates due to concerns of more COVID related closures.
 - Also taken into consideration, were predictions from the Hawai'i Tourism Association, as well as the University of Hawai'i on what Hawai'i's tourism will look like over the next several years. Most predict that a return to normal will not occur until 2025.
 - Site fees for weddings and events revenues are significant at both The Kampong and the South Shore Gardens. These will be impacted by government mandated social distancing requirements.
 - Normally we would be budgeting about \$3.5M in our earned revenue but this budget reflects \$1.326M or a 62% decrease.
 - As we expect to have only limited staffing in the visitor programs, we plan to use volunteers to guide tours at the South Shore Gardens and minimize visitor program payroll costs in order to provide as much savings as possible.
 - Most expenses will be kept at the 2020 limited spending levels as we strive again to conserve cash.
 - This budget is very lean and does not allow for any capital improvements, deferred maintenance, or equipment purchases, other than some budgeted repairs to the Allerton buildings that were approved by the Allerton Garden Trust. It does include a normal budget for repairs and maintenance.
 - Even with this lean budget, we still have an Operating Surplus (Deficit) Before Adjustments of (\$813K.) To mitigate this, we have budgeted for a 20%, all-staff furlough from January through March 2021. In addition, we are not budgeting a discretionary retirement contribution for 2021. We will also delay filling some open positions and will not be giving a cost of living salary increase. The total savings for these payroll adjustments is at the bottom of the statement under the Adjustments heading.
 - The total savings that the staff will have to bear for this is \$464K. This leaves us with a deficit of \$349K.
 - We predict that our cash flow could be tight depending upon the amount of contributed revenue that comes in through the end of 2020.
 - We hope to bring in more cash by applying for another round of PPP loans, if we qualify.
 - We are looking into selling the Theobald property and would like to get that on the market as soon as possible.
 - We are also looking at other possible earned revenue streams and aggressively pursuing more grant opportunities.
 - We know that this budget will need to be revised in January or February 2021 when we will have more accurate information about how we end 2020 and the outlook for 2021.

Mr. Hewitt commends Mrs. Rollins for having done a phenomenal job working on the budget. He added that these are times we have never faced in the past and it's a credit to Mrs. Rollins and Ms. Mayfield, everyone in the Finance Department, and all the staff for coming together to try and prepare something that is even manageable. Mr. Hewitt invited Committee Members to join in the "Chairman's Challenge" that was sent out several weeks ago. He appreciates those who have already responded to the challenge and implores anyone who has the capability to do so, to please

contribute to the challenge as it would help us in a great way.

Mr. Hewitt called for a motion to recommend to the board to accept the Preliminary 2021 Budget as presented, subject to revisions to follow in January or February 2021, and to include an employer matching contribution of 2% for eligible employee retirement accounts for the calendar year 2021. Motion to approve was made by Mrs. Fraunfelder; motion was seconded. All approved, none opposed, the motion was carried.

STRATEGIC PLAN OBJECTIVES – FOCUS FOR 2021-2022

Ms. Mayfield encouraged Committee Members to review the one-page condensed summary of the Strategic Priorities located on page C-5 of the Board Book. This summary is broken into categories and right at the top are financial stability and human resources. Some of the financial stability strategic objectives fall within the development scope and she noted that we are all fundraisers at NTBG. Ms. Mayfield informed the committee that we are promoting a culture of philanthropy in every aspect of our staffing and it is working. We want to develop renewable energy assets and one of the projects that Dr. Wichman has been tasked with is to find funding to create solar for the NTBG Headquarters to make the campus a net zero project. She added that achieving this goal will result in a huge cost savings of about \$150K a year in electricity bills. Regarding the human resources category, she feels we need to be as aggressive as possible in taking care of our staff. That also means that we want to give them opportunities for career advancement. We are pleased to have been able to raise the minimum, entry-level hourly rate for staff. We are still working on a comprehensive onboarding process which enables new staff to gain an understanding of the entire NTBG as they join the organization.

Mrs. Rollins added that something we continue to build on is our safety program. We have made some great strides as risk mitigation is going to be even more important as insurance markets get tighter. She added that climate change issues will have a big impact on insurance companies which will result in premiums going up and making it harder to find insurance.

OTHER BUSINESS

Ms. Mayfield gave an update of the 2020 contributions goal and noted that the closer we get to meeting our goals for contributed revenue, the easier it's going to be as we move into 2021. She reported that as of November 3, 2020 we had received \$977,965 from Trustees and Trustees Emeriti, and \$574,983 from other donors. (Major Donors, unrestricted donations, Fellows dues, memberships). Ms. Mayfield added that we are very fortunate to have many great supporters of our mission.

Mr. Hewitt shared that several weeks ago he sent out a Chairman's Challenge asking Trustees and Trustees Emeriti to meet his challenge of contributing an extra \$20,000 for general operations which would greatly help NTBG at this time.

There being no further business the meeting adjourned at 9:17 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Minutes: Joint Meeting - Finance Committee and Executive Committee

FEBRUARY 17, 2021

Virtual Meeting via Zoom

Special Joint Meeting of the Finance Committee and Executive Committee of the Board of Trustees and Fellows, National Tropical Botanical Garden

Finance Committee Members present: Jan D. Elliott, Harriet S. Fraunfelder, Patrick Henry (Emeritus), Merrill L. Magowan, Anita Seipp

Thomas D. Hewitt, Chair of Finance Committee, was unable to attend due to extreme weather conditions resulting in loss of power/internet. Gordon L. Deane presided as Finance Chair in Mr. Hewitt's absence.

Executive Committee Members present: Gordon L. Deane (Chair), Anne G. Earhart (Vice Chair), Jan D. Elliott, Peter C. Gardner, David W. Pratt (Secretary), Merrill L. Magowan, Michael N. Rosenberg

Staff present: Janet Mayfield, Harumi Noon, Tami Rollins

CALL TO ORDER; APPROVAL OF MINUTES

Mr. Deane called the meeting to order at 9:02 AM (HST). **Mr. Deane, presiding on behalf of Mr. Hewitt, called for a motion to approve the minutes of the November 11, 2020 Finance Committee Meeting, as amended to reflect the amount of funds received from the PPP. Motion was made by Ms. Elliott, motion was seconded. All approved, none opposed, the motion was carried.**

REVIEW AND PRESENTATION OF THE REVISED 2021 BUDGET

Ms. Mayfield noted that prior to this meeting the Committees were provided a four-page document that included a 2021 Budget Revision Narrative, 2021 Revised Budget, NTBG Breakdown of Charitable Giving Budget, and Comparison of 2021 Revised Budget to 2020 Actuals.

Ms. Mayfield shared that NTBG was approved for a second Paycheck Protection Program (PPP) loan on February 13, 2021 and the money should be in our account by February 23, 2021. The second loan amount is \$1.257M (just slightly less than the first PPP loan of \$1.263M). She also added that the first PPP loan has been 100% forgiven.

Ms. Mayfield added that if President Biden comes out with a new stimulus package it could potentially provide money for the State of Hawaii which NTBG could then apply for. She reminded the Committees that last year NTBG was able to take advantage of the state CARES Act money which allowed for the hiring of temporary workers. This funding helped the gardens to catch up on work in the gardens that had been deferred due to a shortage of staff. Ms. Mayfield gave her assurance that NTBG will continue to remain alert to any forthcoming stimulus package.

Mrs. Rollins provided a detailed review of the 2021 Revised Budget. The following are some of the highlights:

REVENUE

- **Contributed Revenue:** The 2021 Revised Budget reflects a slight increase from the 2021 Preliminary Budget. It was noted that the 2021 revised amount is less than what actually came in for 2020 (\$2.322M) but it is a realistic amount. 2021 Revised \$1.905M / 2021 Preliminary \$1.856M
- **Visitor Program:** The 2021 Revised Budget reflects a decrease from what was predicted back in Fall/2020 for the 2021 Preliminary Budget. This decrease was made due to the lack of visitors traveling to Kaua'i. The South Shore Garden Visitor Program takes a significant amount of staff to run. Due to the lack of visitors, staff layoffs had to be

made, along with a reduction in the number of days that the program was open. NTBG is taking a conservative and prudent approach as we do not predict seeing much increase in visitor traffic until the late fall. It is hoped that once distribution of the vaccine has increased that more visitors will resume travel to Kaua'i. The South Shore Garden is taking a big hit and is not predicted to make any net revenue this year. Although the other gardens are not seeing visitor revenue at 2019 levels, it is looking better than anticipated. 2021 Revised \$552K / 2021 Preliminary \$1.104M

- **Trusts, Endowments and Allerton:** The 2021 Revised Budget was increased a bit to reflect market values on investments ending on a high note for 2020. Our distributions are based 4.5% of a three-year average and due to the fact that 2018 was not a great year, that is impacting distribution levels. 2021 Revised \$2.163M / 2021 Preliminary \$1.927M
- **Site Fees & Rents:** The 2021 Revised Budget was adjusted down as weddings are being pushed back further. Weddings that were originally rescheduled for 2021 are now getting pushed even further. The Kampong has been busy with a few events such as photo shoots and a Telemundo film shoot that were fairly lucrative and low impact. 2021 Revised \$172K / 2021 Preliminary \$221K
- **Net Assets Released from Restriction:** The 2021 Revised Budget reflects an amount based on actual grants and the budget relief expected from them for 2021. We have a number of grants where the time lines got pushed out as staff was unable to travel and work was hindered due to COVID. 2021 Revised \$1.576M / 2021 Preliminary \$1.669M
- **Other Revenue:** This amount is comprised from several sources such as plant sales. Kahanu Garden is selling plants regularly at their visitor center and other gardens are planning for plant sales this year. With our new partner in California who is handling the distribution of breadfruit trees now, we will be able to easily get trees to sell, which make a good profit. NTBG will not be doing the Bali Hai or Moonlight and Music in-person events this year. It is hoped that in 2022 these major fundraising events will be back in action. NTBG is working on creating an alternate virtual event for 2021. 2021 Revised \$41K / 2021 Preliminary \$31K

EXPENSES

- **Personnel Costs:** The 2021 Revised Budget was bumped up a bit as the 20% all-staff furloughs that were budgeted in the 2021 Preliminary Budget did not have to take place. That amount made up about \$200K. NTBG is being strategic in filling open positions. Currently there is a horticulture manager position for the South Shore Gardens that needs to be filled right away. Other open positions are scheduled to be filled by July. The PhD position for BFI is on the books this year and we hope to have that position start in June/July. Funding has been secured for the PhD for at least a couple of years. 2021 Revised \$5.880M / 2021 Preliminary \$5.472M
- **Operating Expenses:** The 2021 Revised Budget was increased slightly. The amount is larger than what we actually spent in 2020. This was mainly due to deferring expenditures where possible in order to conserve cash. There is some arborist work that desperately needs to be done in 2021. Staff is still under orders to keep spending reigned in for 2021. 2021 Revised \$1.685M / 2021 Preliminary \$1.671M
- **Capital Expenses:** The 2021 Revised Budget reflects safety improvements that can no longer be put off. This includes equipment that needs replacing. NTBG is looking at possibly taking out a loan to buy a truck for Kahanu Garden and possibly leasing a mower for the South Shore Garden. Capital expenses also include Allerton building repairs. The payments for those items are budgeted under Capital Expenses. Once management decides, we will come to the Committees to obtain authorization prior to taking out a loan. 2021 Revised \$168K / 2021 Preliminary \$15K

Mrs. Rollins noted that the bottom line is that we have a loss of \$1.3M. However, the second PPP loan will cover most of that amount. There still remains a deficit forecast of \$63K. She mentioned that Mr. Hewitt thought it was good to show that deficit in the budget instead of moving it up to contribution revenue to balance the budget, as it shows the impact that the pandemic is having to our bottom line.

DISCUSSION/QUESTIONS FROM BOTH FINANCE AND EXECUTIVE COMMITTEES

- Theobald Property Sale Update: Ms. Mayfield shared that there has been a delay in listing the property for sale. She explained there are two parts to this property. One is called The Old Jam Factory, which is a kuleana holding, and that piece is still in the name of Pacific Tropical Botanical Garden. The title on that piece needs to get switched over to NTBG. Although it is a clerical issue, it is taking some time to process and we cannot list the property until the matter is cleared. Ms. Mayfield added that since NTBG is no longer feeling stressed to sell the property, it can be held longer to obtain the very best price possible. NTBG is looking at possibly putting the proceeds into a temporarily restricted account if it is not needed for general operations. The money can then be used to fund deferred maintenance and equipment.
- Historically, cruise ship revenues make up about 30% of the South Shore Visitor Program Revenue. Mrs. Rollins shared that she has seen an agreement come through that has NTBG online to provide tour options for several cruise lines starting November 1, 2021.
- Non-cash contribution line item (\$940K) indicated in the 2020 Actuals column reflects a piece of land near Limahuli Garden that was donated in order to be preserved in conjunction with Limahuli Garden. The amount shown is the market value.
- Mr. Rosenberg suggested we present a balanced budget and not show a \$63K deficit. Ms. Mayfield responded that she could in very good conscience say that we will get more in grants and could probably realize the \$63K in net assets released from restrictions. She explained that Mr. Hewitt wanted the deficit to be shown to this group but we could amend the budget and adjust the \$63K to show a balanced budget. Mrs. Rollins agreed the \$63K could be split up into different revenues knowing we are confident of some grants coming through.
- Mr. Deane reflected on reading about all of the issues NTBG was dealing with as reflected in the Finance Committee Minutes of November 11, 2020 and, while there are still many unknowns going forward, the 2021 Revised Budget is quite impressive. He congratulated Ms. Mayfield and Mrs. Rollins for a job well done. Mrs. Mayfield thanked Mr. Deane and credited this group and their fellow Trustees who really came through to support NTBG. She added that we still need the support of our Trustees this year as there remains so much uncertainty in the economy.

FINANCE COMMITTEE MOTION

Mr. Deane, presiding on behalf of Mr. Hewitt, called for a motion to recommend to the Executive Committee acting on behalf of the Board of Trustees to approve the Revised 2021 Budget, as amended to show a break even budget, which Budget includes an employer matching contribution of 2% for eligible employee retirement accounts for the calendar year 2021 and a 2% discretionary contribution for all eligible employees. Motion was made by Mr. Rosenberg, motion was seconded. All approved, none opposed, the motion was carried.

EXECUTIVE COMMITTEE MOTION

Mr. Deane called for a motion for the Executive Committee, acting on behalf of the Board of Trustees, to approve the Revised 2021 Budget as recommended by the Finance Committee, which Budget includes an employer matching contribution of 2% for eligible employee retirement accounts for the calendar year 2021 and a 2% discretionary contribution for all eligible employees. Motion was made by Mr. Gardner, motion was seconded. All approved, none opposed, the motion was carried.

OTHER BUSINESS

Spring 2021 Board Meeting: Ms. Mayfield shared that some changes are being made that came out of the comments and critiques received after the virtual Fall 2020 Board Meeting. The following are some of those changes:

- The dates for the virtual Spring 2021 Board Meeting are: April 27, 28 and 29, 2021.

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- The duration of each day during the Board Meeting dates will be similar to the amount of time as the Fall 2020 Board Meeting, but will have longer breaks.
 - Program Committee Meetings will be held two weeks prior to the Board Meeting. The duration will be one hour for each meeting. Presentations will not be included during these meetings which will allow for more time to address committee business. *Program Committees include: Breadfruit Institute, Living Collections and Horticulture, Science and Conservation and Education.*
 - Program Committee Chairs for the BFI, LCH, Sci-Con, and Education Committees will be contacted in the near future to discuss a date for their meeting.
 - Program Committee Chairs will meet with designated NTBG staff leads to talk about their meeting agenda.
 - All meetings will be held again in webinar feature. This will allow for anyone to attend but only the Committee Members will be “pinned” to participate in the meeting. Others will be part of the audience and will observe the meeting. Questions from the audience will be addressed via the chat feature.
 - Presentations will be conducted during the full Board Meeting dates (April 27, 28 and 29, 2021).

Grant update: Ms. Mayfield shared that NTBG is working on a grant that would help us produce more webinars and videos. The grant would pay for a professional videographer to work with several staff members who have been doing videos. The grant will also assist in making our education website more user friendly and create a library of videos that can be used by teachers and students.

Strategic Plan: NTBG is excitedly moving forward on SMART goals to accomplish some of the remaining 2021/2022 Strategic Plan Priorities.

There being no further business the meeting adjourned at 10:06 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Agenda: Development Committee

APRIL 28, 2021 – 9:15 A.M. – 10:15 A.M. (HST)

Virtual Meeting via Zoom

Emerson T. Knowles, Chair
Thomas L. Reveley, Vice Chair

1. Call to Order Mr. Knowles
2. Approval of the minutes from the November 11, 2020 meeting
3. Introduction of new Vice Chair
4. 2020 Year-End Results Ms. George
5. Discuss revision to Gift Acceptance Policy Ms. George/Mr. Knowles
Excerpt page 1, IB

*While gifts of cash or marketable securities are the forms of donor commitment that will have the greatest impact on NTBG and its plans for the immediate future, all gift and pledge commitments, regardless of size, designation or gift type, will be respectfully considered, gratefully accepted and acknowledged except in the very rare instance where a gift may be contrary to NTBG's best interests. Notwithstanding the foregoing, NTBG reserves the right to accept (or, in cases where absolutely necessary, to decline) any commitment that is offered to it. **SUGGESTED ADDITION HERE: For all gifts of \$50,000 and above from any new donor (effective April 1, 2021) a donor research profile will be conducted by Development Department staff.***
6. Discuss draft policy for Fundraising Ethics and Donor Confidentiality Statement Ms. George/Ms. Mayfield
for Board of Trustees and Trustees Emeriti
7. Activity Ms. George
8. Other Business Mr. Knowles

DEVELOPMENT COMMITTEE RESPONSIBILITIES

The Development Committee leads the Board's participation in fundraising. The committee is the Board's central source of information about the fundraising climate in general, and about the status of the organization's fundraising activities in particular.

- Work with the staff to develop the organization's fundraising plan, establish the charitable contributions goals for the annual budget; and recommend minimum guidelines for Trustee contributions and then solicit those contributions.
- Play a strong role in identifying, cultivating, and approaching major donors.
- Devise and recommend philanthropy and fund development policies and recommend to the Board for action.
- Help nurture a culture of philanthropy throughout the organization, and assure that all donors of time and money are respected and honored.
- Assure that the Board and individual Board members are adequately educated about the basic principles and best practices in fund development, including the design of a donor-centered organization.
- Help the Board articulate the case for philanthropic support directed at specific audiences.
- Examine the progress and results of the organization's fundraising plans and performance; advance fundraising efforts to ensure sufficient resources for the organization.

- Approved October 5, 2017

Minutes: Development Committee

NOVEMBER 11, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Gordon L. Deane (Chair), Carol Y. Dickinson, Anne G. Earhart, Jan D. Elliott, Harriet S. Fraunfelder, Adaline H. Frelinghuysen, Mary E.S. Hanahan, Thomas D. Hewitt (Vice Chair), Thomas S. Kenan, III (Emeritus), Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt, David Rae, John H. Rashford, Thomas L. Reveley, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Georgette Ballance, Kristen Campbell, Motoko Deane, Lindsay Deane-Meyer, Zach Deane-Meyer, Rob Evans, John Game, Susan Lynch, Marion S. Meissner, Suzy Carter Orb, Deborah Pate, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Barbra K. Sweet

Others present: Christopher Baraloto, Elizabeth Kinney, Warren Wagner

Staff present: Chelsey Aki, Amanda Beisch, Vera Benedek, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Momi Kelekoma, Tobias Koehler, Janet Mayfield, Craig Morell, Harumi Noon, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Lei Wann, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Mr. Deane called the meeting to order at 9:24 AM (HST) and reported the minutes from the October 8, 2019 and May 27, 2020 meetings were previously approved.

2020 FUNDRAISING UPDATE

Ms. George provided an update and shared the following highlights:

- Offered discounted membership special in June and July, 2020 for Hawai'i or Florida residents (discounts were applicable for gifted memberships to residents of Hawai'i or Florida). This effort was very successful and generated 325 new Members (260 of those were here in Kaua'i and over 50 in Florida).
- Seeds of Hope campaign raised over \$65,000 (which included Trustee matching contributions). This effort cultivated over 30 new donors to NTBG who gave over \$6,000 of the total amount raised.
- First ever full online auction which included items generously donated by our Trustees. This effort generated over \$25,000.
- *The Bulletin* magazine, which is published three times a year, is circulated to 3,000 Members and donors. Each issue contains so many amazing stories and our Editor Jon Letman does a great job.
- Content from *The Bulletin* is not being shared on our social media platforms. Now more than ever, it is important to provide a robust online experience for our supporters, and by the same vehicle, connect with potential new supporters.
- We have seen an 8% growth in our followers on Facebook, 14% growth on Twitter, and 24% growth on Instagram. Those are good numbers and it is by great teamwork that we are able to put out so much content to our social media platforms.

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- *Monthly Communique* goes out to our NTBG insiders (Trustees, Fellows, Major Donors and Staff). This communique includes great stories and robust information about our science and conservation work and how the gardens are doing during these times.
 - Each garden has its own Instagram page and the gardens are adding new content regularly.
 - We promote our partners in our Instagram stories such as Kōloa Rum who started making hand sanitizer early on in the onset of the pandemic.
 - We use Instagram to promote our partnerships with the local community, such as our donating of over 6,000 lbs. of breadfruit.
 - Over \$14,000 raised on the Giving Tuesday Now campaign on May 5th as we promoted our conservation stories and amplified what NTBG does.
 - Donor Stewardship via “Note-vember” where Board Members helped to thank some of the Seeds Of Hope donors (\$250+) by sending handwritten note cards extending our appreciation for them.
 - Working on growing our Planned Giving Program to make it more accessible by simplifying the planned giving section of the NTBG website.

Dr. Wichman shared that he is really excited to hear about all the new ways NTBG is utilizing social media. He added that the pandemic has forced us to creatively find new ways to be more effective in how we communicate with our supporters and each other. Dr. Wichman highlighted the following:

- Mrs. Angelini supported us in holding our first virtual cocktail party which was a great success and that event led us to holding virtual, regional Fellows and Friends events.
- Mr. Knowles supported us by providing Kaua‘i dessert kits that were sent to participants for the virtual events. Mr. Knowles is commended for initiating the opening of the virtual events to more than Fellows and inviting other Members and Major Donors.
- The virtual events have been a big learning curve. Moving away from using Google Meets to using Zoom allowed the events to be more effective.
- A virtual Members Mixer was held a couple of weeks ago and was led by Mr. DeMotta discussing Native Hawaiian plant care. This event had 15 guests with lots of interaction and questions.
- In 2018 we experienced an incredible event that we called a “rain bomb” where 50 inches of rain fell within 16 hours. NTBG received \$500K of Act 12 state funds which helped Limahuli Garden tremendously in the recovery from damage created by the rain bomb.
- In 2020 there was several million dollars left in Act 12 funding. NTBG worked very closely with Representative Nadine Nakamura to begin a process to try and get more of that money. However, COVID hit and everyone assumed the state legislature was going to take that leftover ACT 12 money and use it to plug the \$3B hole in our state budget. Thanks to Representative Nadine Nakamura and Senator Ron Kouchi, the Act 12 money was preserved and NTBG has been certified to receive another \$500K. Of that amount, \$100K will be used to continue to fund the paving of the road within Limahuli, and \$400K will be used to work on removing stream debris in the valley. This is a win-win for NTBG because this is \$500K more of cash sitting in our restricted accounts. We anticipate the debris removal will be a multi-year project.

STRATEGIC PLAN OBJECTIVES – FOCUS FOR 2021-2022

Ms. George reported on the following strategic plan objectives:

FINANCIAL STABILITY

- Increase the number of donors. Firstly, we need to retain the donors we already have. We gained 325 new Members through the 50% discounted membership special. We need to give them value so they are motivated to invest in us next year when the membership renewal rate is not discounted. To do this we need to communicate well, show them what we are doing and why it's important for them to continue supporting NTBG.
- The end of year campaign will be promoted on our social media posts. We will also be investing a bit of money in our social media platforms to do targeted outreach to conservation-minded audiences to reach people who may not be aware of NTBG.
- Spread the culture of philanthropy across the organization: This has become part of the NTBG lexicon and some examples of that are:
 - Staff pitched in with the online auction by offering tours, conservation hikes, etc. that folks could bid on.
 - A new staff member brought to us a local business that took a tour with Tobias and decided to become a new corporate partner with a three-year agreement.
- Focus on Fellows and Major Donors: More virtual events are planned for 2021 as well as developing different programming for events, as we have very specific and interesting stories to tell.
- Working with the marketing/events manager for Kukui'ula to figure out ways to do outreach events to gain supporters from that community.

COMMUNICATION – THE FUTURE OF FUNDRAISING

- Build capacity within the Communications Department. We were challenged by the pandemic to increase and improve our communications. To meet the challenge NTBG put together a cross-departmental team to better share the great work that NTBG does.
- The Communications Director position is on hold but will be a priority once we get through budget constraints brought on by the pandemic. The Director will focus on developing a strategy based on the four stages of audience engagement which are awareness, involvement, investment and advocacy.
- Optimize the use of technology to reduce duplication and connect constituency records across all databases. NTBG uses several different databases that assist us in connecting with donors, implement our communications, and tracking our visitors. We want to make sure the information we are collecting is being used effectively to optimize how we communicate with folks, understand where they are in the audience journey, and to find out how we can best serve the people that we are reaching.

APPOINTMENT AND WELCOME OF NEW COMMITTEE CHAIR

Mr. Hewitt gave his official appointment of Mr. Knowles as the Chair of the Development Committee and Mr. Deane introduced Mr. Knowles and welcomed him as the new Chair of Development.

Mr. Knowles shared some of his thoughts and goals moving forward as Chair of Development:

- Continue to working closely with Ms. George on the communication initiatives she discussed.

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- Fundraising is not an art but it is a discipline. Mr. Knowles will continue to work closely with Ms. George to systematically develop the methodologies to maintain first class, top drawer relationships with our Major Donors who have kept NTBG alive over decades.
 - One lesson learned through the pandemic is that when you have single sourcing or very few sources for your outcome you get very dependent. A broader base is needed.
 - Part of the initiative that was developed for the virtual Fellows events was to keep the next generation of NTBG supporters engaged.
 - Develop existing donors and cultivate the next generation by working with garden visitors to upstream them to membership, then upstream to fellowship, upstream to Major Donor, upstream to the Board. In this way we will grow robust, long term supporters. This process is a discipline and a numbers game that needs to be systematic.
 - Communications and getting NTBG's message out is critical. However, we are currently in survival mode and need to focus on getting through the pandemic intact. The focus on hiring a Communications Director will resume once we get to the other side.
 - The virtual Fellows events have been a learning curve but we are going to develop the methodology to keep people nurtured, engaged and moving forward even when they are not at the gardens on Kaua'i, Maui, or in Florida.

Mr. Knowles closed by saying he is excited to work with everybody and looks forward to their continued support.

There being no further business the meeting adjourned at 10:10 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Minutes: Governance Committee

NOVEMBER 11, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Gordon L. Deane (Chair-Elect), Anne G. Earhart (Vice Chair), Adaline H. Frelinghuysen, Peter C. Gardner, Thomas D. Hewitt (Chair), Merrill L. Magowan (Senior Vice Chair), Katherine G. Richardson (Vice Chair)

Staff present: Heather George, Janet Mayfield, Harumi Noon, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Mr. Magowan called the meeting to order at 11:33 AM (HST). Mr. Magowan called for a motion to approve the minutes of the October 9, 2019 meeting. **Motion was made by Mr. Deane; motion was seconded. All approved, none opposed, the motion was carried.**

TRUSTEES CONSIDERED FOR RE-ELECTION

The Committee reviewed a list of those Trustees whose terms expire at the end of the Fall 2020 Board meeting. **Mr. Magowan called for a motion to recommend to the Board to re-elect for another three-year term the following Trustees: Devon Angelini and Jan D. Elliott. Motion was made by Mr. Deane, motion was seconded. All approved, none opposed, the motion was carried.**

The Committee reviewed a list of those Trustees whose three-year terms were to expire at the end of the Spring 2020 Board Meeting and whose terms were extended to the Fall 2020 Board Meeting by approval of the Executive Committee. **Mr. Magowan called for a motion to recommend to the Board to re-elect for another three-year term (retroactive to Spring 2020) the following Trustees: Thomas D. Hewitt, Merrill L. Magowan, Thomas L. Reveley, and Cynthia Salley. Motion was made by Mrs. Richardson, motion was seconded. All approved, none opposed, the motion was carried.**

TRUSTEES CONSIDERED FOR TRUSTEE EMERITUS

The Committee discussed and considered the election of Trustees David G. Meissner and Ghilleen Prance to the status of Trustee Emeritus. **Mr. Magowan called for a motion to recommend that the Board elect David G. Meissner and Ghilleen Prance as Trustee Emeritus. Motion was made by Mrs. Richardson, motion was seconded. All approved, none opposed, the motion was carried.**

A discussion ensued regarding the need for a policy which outlines the criteria for the status of Trustee Emeritus. **A motion was called for the Committee in conjunction with NTBG Administration to formulate a policy for the criteria for Trustee Emeritus status. Motion was made by Mrs. Richardson, motion was seconded. All approved, none opposed, the motion was carried.**

ELECTION OF SENIOR VICE CHAIR OF THE BOARD

The Committee considered the election of Katherine G. Richardson as the new Senior Vice Chair of the Board of Trustees. **A motion was called to recommend that the Board elect Katherine G. Richardson as Senior Vice Chair of the Board. Motion was made by Mr. Magowan, motion was seconded. All approved, none opposed, the motion was carried.**

SENIOR PRIOR CHAIR AND PRIOR CHAIR

Mr. Deane opened a discussion regarding awarding the titles of Prior Chair to Merrill L. Magowan and Senior Prior

Chair to Thomas D. Hewitt. **A motion was made to recommend to the Board that the titles of Prior Chair and Senior Prior Chair be given to the following individuals: Merrill L. Magowan, Prior Chair and Thomas D. Hewitt, Senior Prior Chair. Motion was made by Mr. Deane, motion was seconded. All approved, none opposed, the motion was carried.**

CEO SUCCESSION PLAN

Mr. Magowan opened a discussion on the draft CEO Succession Plan. Mr. Magowan called for a motion to recommend to the Board the adoption of the Succession Plan for Chief Executive Officer at NTBG. **Motion was made by Ms. Earhart, motion was seconded. All approved, none opposed, the motion was carried.**

DISCUSS NEED FOR NEW COMMITTEE CHAIRS

Ms. Mayfield shared that NTBG does not have a policy that defines a process to assign a new committee Chair in the case when a Chair wishes to step down from that position. Instead, when the need arises, we have asked for a willing and able volunteer to step up as Chair. Ms. Mayfield gave the example of Dr. Amstutz stepping down as Chair of the Science and Conservation Committee. She believes that Ms. Earhart, as Vice Chair, may be willing to step into the Chair position. Dr. Wichman brought up that having both a Chair and Co-chair (or Vice Chair) enables the second in command to step up, if the Chair is unable to continue being Chair. Dr. Wichman suggested we strive to have in place a Chair and Co-Chair for each committee. Ms. Mayfield invited Mr. Gardener, as Vice Chair of Education, to step into the Chair position. Mr. Gardner stated he would consider stepping up from Vice Chair to Chair of the Education Committee.

BUILDING DIVERSITY - BOARD OF TRUSTEES

Dr. Wichman opened a discussion on building ethnic diversity on the Board. He stated that diversification is important and as an organization we can look at our staff and know that we are committed to diversification. However, in looking at the Board, we do not have much diversification. Dr. Wichman stated there needs to be a focused approach to building more diversity on the Board. He added that this topic has been discussed in the past but we need to start taking it more seriously and really strive in the next year or two to bring in new Board members who may bring new skills and perspectives into the organization. He shared that it would be good to have a native Hawaiian on the Board to bring a perspective on the importance of cultural values. It was also shared that we need more science trustees and it would be a good idea to reach out to our current and past science trustees for suggestions.

The Committee agreed that it is very important that NTBG works towards cultivating a more diverse Board. Dr. Wichman and management will work on obtaining some recommendations for the Committee to review.

REVIEW OF TRUSTEE PROSPECT LIST

The Committee reviewed the prospect list. No invitations were extended at this time. Dr. Wichman requested that it be stressed to Trustees that they are our most important link to bringing in new Board members.

OTHER BUSINESS

Mr. Deane opened a discussion on inviting an **individual**¹ to become a member of the Governance Committee. The Committee agreed that Mr. Deane would speak to the individual and upon acceptance, Mr. Deane as Chair of the Board, would make the official appointment.

There being no further business the meeting adjourned at 12:34 PM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

¹Mr. Emerson Knowles subsequently accepted.

Agenda: Council of Fellows

APRIL 28, 2021 - 10:20 A.M. – 10:50 A.M. (HST)

Virtual Meeting via Zoom

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|---|-----------------------------|
| 1. Call to Order | Dr. Wichman |
| 2. Approval of the Minutes of the November 12, 2020 meeting | |
| 3. Introduction of New Fellows | Ms. George |
| 4. Fellows Project 2021 | Ms. George/Garden Directors |
| 5. Update on Fellows and Friends Virtual Events | Ms. George |
| 6. Travel Program | Dr. Wichman |
| 7. Other Business | Dr. Wichman |

Minutes: Council of Fellows

NOVEMBER 12, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees and Fellows, National Tropical Botanical Garden

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Gordon L. Deane, Anne G. Earhart,

Jan D. Elliott, Harriet S. Fraunfelter, Adaline H. Frelinghuysen, Thomas D. Hewitt, Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Linford L. Loughheed, Merrill L. Magowan, Elizabeth E. Matthews, David G. Meissner, David W. Pratt, John H. Rashford, Katherine G. Richardson, Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist

Fellows present: Patricia P. Amstutz, Kristen Campbell, Motoko Deane, John Game, Chip James, Suzy Carter Orb, Carol Pratt, Scott Robinson, Colleen Schokman, Ken Schwartz, Stephanie Schwartz, Sara Sullins, Barbra K. Sweet, Michaline Todd, Matthew Todd, Christen Turner, Christopher Turner

Others present: Elizabeth Kinney, Warren Wagner

Staff present: Chelsey Aki, Amanda Beisch, Vera Benedek, Rhian Campbell, Michael DeMotta, Francine Dizol, Heather George, Matt Goodale, Kevin Houck, Momi Kelekoma, Tobias Koehler, Janet Mayfield, Craig Morell, Harumi Noon, Michael Opgenorth, Diane Ragone, Judy Roberts, Tami Rollins, Nina Rønsted, Sandra Tedder, Lei Wann, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER; APPROVAL OF MINUTES

Dr. Wichman called the meeting to order at 10:44 AM (HST). Dr. Wichman called for a motion to approve the minutes of the October 8, 2019 meeting. **Motion was made by Dr. Rosenberg; motion was seconded. All approved, none opposed, the motion was carried.**

GREETING TO NEW FELLOWS

Dr. Wichman gave a warm welcome to all Fellows and shared that since the last meeting 19 new Fellows have joined!

WHAT IT MEANS TO BE A FELLOW

Ms. George shared that the Fellows Program has had a strong history since its beginning in 1985 and offers an opportunity to become more involved and have a bigger impact on the organization. In addition to attending board meetings and serving on committees, Fellows are able to travel the world together.

Dr. Wichman invited Fellows to share their thoughts and experiences on what it means to be a Fellow. The following are some of the comments that were offered:

- Being a Fellow allows someone to not only enjoy the Fellows Travel Program and other benefits but it is a way to become more engaged and involved with the organization without the responsibility and commitment needed to become a Trustee.
- Taking trips and traveling with the Fellows groups allows more time to get to know others and form rich and lasting relationships with other like-minded people.
- *Saving Plants, Saving People* is the overarching feeling of what is being shared in presentations throughout this board meeting. This says a lot about NTBG. Aside from the beautiful gardens, it brings a great urgency to our cause and all the needs of the world right now; it sends a message about who we can be as an organization and as a global community. It would be good to focus on amplifying this great statement, *Saving Plants, Saving People*, as much as possible to reach the interests of global science, food security, and saving plants.

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- Everything we do touches humanity and the *Saving Plants, Saving People* tagline makes it ultimately clear that everything we do is about making our communities and environments around us healthier.
 - A recent new Fellow shared he was a supporter for many years and is happy to up the ante and would like to participate a little more in IT discussions that may elevate the organization's web presence.
 - We would all benefit from having more discussions about what Fellows need to become engaged or continue being engaged. Asking the question "what keeps you engaged" is a great way to find out what folks are passionate about and then to find meaningful ways to engage and connect on those levels. Some of the things learned in the presentations such as sustainability and food security are topics of great interest and can serve to draw people in during the time they are not able to visit the gardens.

THEME FOR END-OF-YEAR APPEAL

Ms. George shared we do not have a Fellows Project this year but instead we are unifying our end-of-year appeal around issues of food security. Our first email went out and it shared stories on how NTBG is playing a very important role in addressing food security. Social media platforms will also share in the theme of food security.

TRAVEL PROGRAM

Dr. Wichman shared that the highlight of the Fellows Program is the travel program which has been put on hold due to the pandemic and travel restrictions. The 2020 trips, Scotland in June and Cuba in November, have both been rescheduled for the exact same dates in 2021. Plans for a trip to Morocco have been put on hold but will be revisited once things get back to normal. He invited anyone interested in future trips or serving on the Fellows Trip Planning Committee to contact him.

OTHER BUSINESS

Mr. Deane asked for a status on the Fellows Project for 2020. Ms. George announced that there is not a specific Fellows project this year but helping NTBG survive through COVID is the project. Ms. Mayfield seconded that and added that the Fellows Project is taking care of the people who take care of the plants. She added that it is very important that we take care of the staff we have so they can continue to take care of our collections and continue our programs. Help us survive 2020 and thrive in 2021!

Dr. Wichman shared that Chair Tom Hewitt provided a Chairman's Challenge and if any of the Fellows would like to participate in that challenge they are encouraged to do so. Mr. Hewitt expressed that the concept of the Chairman's Challenge is to protect our wonderful staff. He added we need to realize that NTBG is more than our living collections – it is people; it is our staff who has been so loyal to us in so many different crises and this is our way of turning around and showing that we support them not just in words, but we support them financially. Mr. Hewitt asked that everyone find extra dollars and contribute to NTBG as the crisis is now and we need the support now. Dr. Wichman expressed appreciation for the emotional plea from our Chair. He added that these meetings are so energizing for our staff to see our supporters and he thanked everyone for taking the time to participate in these virtual board meetings.

Mrs. Amstutz shared that she and Dr. Amstutz have been involved with NTBG for over 40 years and they are constantly amazed at the quality of the staff. Not only the individual knowledge they have but their dedication and enthusiasm. She added that for such a small group of people she has never seen such camaraderie and enthusiasm year in and year out through all ups and downs. The staff really does deserve our support.

There being no further business the meeting adjourned at 11:20 AM (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

Agenda: Meeting of the Board of Trustees (Meeting No. 119)

APRIL 29, 2021 – 11:00 A.M. – 12:00 P.M. (HST)

Virtual Meeting via Zoom

Gordon L. Deane, Chair of the Board of Trustees

Katherine G. Richardson, Senior Vice Chair of the Board of Trustees

Anne G. Earhart, Vice Chair of the Board of Trustees

David W. Pratt, Secretary

Thomas D. Hewitt, Senior Prior Chair

Merrill L. Magowan, Prior Chair

(All committee reports to include any motions passed or requests for Board Approval)

1. Call to Order Mr. Deane
2. Approval of the Minutes of the November 13, 2020 meeting
3. Actions Taken by Executive Committee between meetings
4. Actions Taken in Executive Session
5. Governance Committee Report Mr. Magowan
6. Audit Committee Report Mr. Hewitt
7. Investments Committee Report Mr. Magowan
8. Finance Committee Report Mr. Hewitt
9. Development Committee Report Mr. Knowles
10. Science and Conservation Committee Report Ms. Earhart
11. Living Collections and Horticulture Committee Report Dr. Rae
12. Breadfruit Institute Committee Report Dr. Rashford
13. Education Committee Report Mrs. Richardson
14. Council of Fellows Report Dr. Wichman
15. Future Meetings Mr. Deane/Ms. Mayfield
 - a. Fall 2021
 - b. Spring 2022
16. Director's Remarks Ms. Mayfield
17. Chair's Remarks Mr. Deane
18. Other Business

Minutes: Meeting of the Board of Trustees (No. 118)

NOVEMBER 13, 2020

Virtual Meeting via Zoom

Regular meeting of the Board of Trustees, National Tropical Botanical Garden

The 118th meeting of the Board of Trustees of the National Tropical Botanical Garden was held virtually via Zoom on November 13, 2020 at 10:25 am (HST). Mr. Thomas D. Hewitt, Chair of the Board of Trustees, presided. David W. Pratt, Secretary of the Board of Trustees, was present.

Trustees present: Harlan C. Amstutz (Emeritus), Devon Angelini, Mary M. Cudahy, Gordon L. Deane (Chair-Elect), Carol Y. Dickinson, Anne G. Earhart (Vice Chair), Harriet S. Fraunfelter, Adaline H. Frelinghuysen, Mary E.S. Hanahan, Patrick Henry (Emeritus), Sally O. Hewitt (Emeritus), Thomas D. Hewitt (Chair), Thomas S. Kenan, III (Emeritus), Douglas M. Kinney (Chair Emeritus), Emerson T. Knowles, Merrill L. Magowan (Senior Vice Chair), Elizabeth E. Matthews, David G. Meissner, Ghilleen Prance, David W. Pratt (Secretary), David Rae, John H. Rashford, Thomas L. Reveley, Katherine G. Richardson (Vice Chair), Michael N. Rosenberg, Cynthia Salley, Anita Seipp, Patricia W. Sheehan, Catherine Topham, Robert D. Weist, Christina B. Wilson

Fellows present: Patricia P. Amstutz, Georgette Ballance, Kristen Campbell, Motoko Deane, Lindsay Deane-Mayer, Zachary Deane-Mayer, Martin Dickinson, John Game, Emily Gresham, Julie Hodge, David Hodge, Charles James, Susan Lynch, Suzy Carter Orb, Deborah Pate, Anne Prance, Scott Robinson, Sara Sullins, Barbra K. Sweet

Others present: Elizabeth Kinney, Warren Wagner

Staff present: Chelsey Aki, Vera Benedek, Rhian Campbell, Michael DeMotta, Noel Dickinson, Francine Dizol, Diane Flores, Heather George, Matt Goodale, Kevin Houck, Tobias Koehler, David Lorence, Janet Mayfield, Craig Morell, Harumi Noon, Michael Opgenorth, Diane Ragone, Tami Rollins, Nina Rønsted, Scott Sloan, Sandra Tedder, Mary Thompson, Lei Wann, Seana Walsh, Chipper Wichman, Hau'oli Wichman

CALL TO ORDER: APPROVAL OF MINUTES

Mr. Hewitt, acknowledged the late start of the meeting and called the meeting to order at 10:54 am (HST). He called for a motion to approve the minutes of the August 4, 2020 meeting. **Motion was made by Mr. Deane, motion was seconded. All approved, none opposed, the motion was carried.**

ACTIONS TAKEN IN EXECUTIVE SESSION

Mr. Hewitt reported on the actions taken by the Executive Committee on behalf of the Board of Trustees during the period since the August 4, 2020 virtual Board of Trustees meeting, those actions being shown at the end of these minutes¹.

Mr. Hewitt also reported on the following action taken by the Board of Trustees during the Executive Session held earlier this morning.

1. **A motion was approved to accept the Preliminary 2021 Budget as presented, subject to revisions to follow in January or February 2021, and to include an employer matching contribution of 2% for eligible employee retirement accounts for the calendar year 2021. Motion to approve was made by Mr. Deane; motion was seconded. All approved, none opposed, the motion was carried.**

GOVERNANCE COMMITTEE REPORT

Mr. Magowan reported the minutes of the October 9, 2019 meeting were approved. The following motions were recommended by the Governance Committee and were approved by the Board of Trustees during Executive Session as follows.

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1. A motion was approved to re-elect the following Trustees, whose three-year terms as Board Members expire at the end of the Fall 2020 Board meeting, for another three-year term; those Trustees being Devon Angelini and Jan D. Elliott. Motion to approve was made by Mr. Hewitt, motion was seconded. All approved, none opposed, the motion was carried.
 2. A motion was approved for the “retroactive” re-election of the following Trustees, whose three-year terms as Board Members were to expire at the end of the Spring 2020 Board Meeting, for another three-year term retroactive as of Spring 2020; those Trustees being Thomas D. Hewitt, Merrill L. Magowan, Thomas L. Reveley, and Cynthia Salley. Motion to approve was made by Mr. Hewitt, motion was seconded. All approved, none opposed, the motion was carried.
 3. A motion was approved for the election of the following Trustees to be given the status of Trustee Emeritus: David G. Meissner and Ghilleen Prance. Motion to approve was made by Mrs. Wilson, motion was seconded. All approved, none opposed, the motion was carried.
 4. A motion was approved to elect Katherine G. Richardson as Senior Vice Chair of the Board. Motion to approve was made by Mr. Deane, motion was seconded. All approved, none opposed, the motion was carried.
 5. A motion was approved to adopt the Succession Plan for Chief Executive Officer at NTBG. Motion to approve was made by Mr. Hewitt, motion was seconded. All approved, none opposed, the motion was carried.
 6. A motion was approved that titles of Prior Chair and Senior Prior Chair be given to the following individuals: Merrill L. Magowan, Prior Chair, and Thomas D. Hewitt, Senior Prior Chair. Motion to approve was made by Mr. Deane, motion was seconded. All approved, none opposed, the motion was carried.

INVESTMENT COMMITTEE REPORT

Mr. Magowan provided the following report:

- Committee approved the minutes of the May 7, 2020 meeting.
- The Investment Committee met on November 11, 2020 and made a thorough review of NTBG’s investment portfolios run by three different advisors. Chilton Trust is performing very well, Everett Harris is slightly better than average, Hamlin Capital Management is doing quite poorly.
- A discussion ensued as to whether we should consider termination of Hamlin Capital Management, as 2020 marks the fourth consecutive year of poor performance. It was decided to leave things unchanged in the hope that value stocks will finally narrow the gap with growth stocks. The committee also explored making initial investments in Environmental, Social and Governance stocks (also known as ESG stocks); the committee hopes to decide on that fairly soon.
- Investment results were also received from J.P. Morgan.
- The committee declined to present a revised Investment Policy at this time but will probably do so at the next committee meeting.

AUDIT COMMITTEE REPORT

Mr. Hewitt provided the following report:

- Committee previously approved the minutes of the September 23, 2020 meeting.

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- During the September 23, 2020 meeting, the Committee made two recommendations which were approved by the Executive Committee. (The approved recommendations can be found at the end of these minutes under Executive Committee Actions.)

FINANCE COMMITTEE REPORT

Mr. Hewitt provided the following report:

- Committee approved the minutes of the July 29, 2020 meeting.
- Committee approved a motion to recommend to the board to accept the Preliminary 2021 Budget as presented, subject to revisions to follow in January or February 2021, and to include an employer matching contribution of 2% for eligible employee retirement accounts for the calendar year 2021. *The recommendation was approved by the Board of Trustees as indicated earlier in these minutes under Mr. Hewitt's report of Actions Taken during the Executive Session.*

DEVELOPMENT COMMITTEE REPORT

Mr. Deane provided the following reported:

- Committee met on November 11, 2020 (minutes of the October 8, 2019 and May 27, 2020 meetings were previously approved).
- Ms. George and Dr. Wichman gave an update on the 2020 fundraising.
- NTBG social media presence is improving with our Instagram account up by 24%.
- Virtual Fellows events are being conducted via Zoom with support from Kōloa Rum and Mr. Knowles.
- Dr. Wichman discussed efforts to secure another \$500,000 for the Limahuli flood restoration project, as well as funding from other organizations.
- Ms. George discussed efforts focused on reaching more Fellows, major donors and members, as well as continuing to instill a culture of philanthropy throughout the organization.
- Committee agreed that communication is the key especially in fundraising which allows us to reach new audiences.
- Mr. Knowles has been appointed as the new Chair of the Development Committee.
- Meeting adjourned at 10:10 AM (HST).

SCIENCE AND CONSERVATION REPORT

Ms. Earhart provided the following report:

- Committee met early today and approved the minutes of the March 30, 2019 meeting.
- An update was given by Dr. Rønsted and Dr. Baraloto.
- An update on the building of the ICTB was given by Ms. Mayfield.
- Committee discussed discovering new species and rediscovering other species.
- Dr. Lorence has received a grant from National Geographic for the Flora of Micronesia study. She added this is very exciting as these floras are a strategic priority and very important as we consolidate our leadership in the South Pacific botanical world.

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- Dr. Rønsted has been busy completing the red listing for Hawai‘i.
 - An update was provided on the seed bank collection for the Ōhi‘a and on the Rapid Ōhi‘a Death.
 - We have received a National Science Foundation grant.
 - Three of our staff members, Seana Walsh, Dustin Wolkis, and Mike Opgenorth, are working on their doctorates and we congratulate them on all their hard work.

LIVING COLLECTIONS AND HORTICULTURE COMMITTEE REPORT

Dr. Rae provided the following report:

- Committee met on November 12, 2020 and approved the minutes of the March 29, 2019 meeting.
- An excellent presentation was given by Mr. DeMotta.
- Committee reviewed Strategic Plan objectives for 2021-2022 and agreed the priorities were the right focus.
- Committee discussed possibly conducting two reviews: One of landscape and maintenance of each garden, and a living collections strategy. It was concluded that NTBG management needs to discuss what is most appropriate for them and then come back to the committee for further discussions on this matter.

BREADFRUIT INSTITUTE COMMITTEE REPORT

Dr. Rashford provided the following report:

- Committee met on November 11, 2020 and had a wonderful meeting celebrating the success of the Breadfruit Institute (BFI).
- Committee approved the minutes of the March 30, 2019 meeting.
- Dr. Rashford congratulated Dr. Ragone and everyone who has been involved. He acknowledged the steadfast support of Mr. Kinney who has been supporting the BFI from the very beginning. Patagonia gave a presentation on their upcoming breadfruit products, which Dr. Rashford believes will bring enormous attention to the garden, as Patagonia’s website and packaging will display information on NTBG. Patagonia has provided a \$75,000 grant to support ongoing activities with the Regenerative Organic Breadfruit Agroforestry (ROBA) project.

EDUCATION COMMITTEE REPORT

Mrs. Richardson provided the following report:

- Committee met on November 12, 2020 and approved the minutes of the March 30, 2019 meeting.
- Ms. Mayfield provided a presentation bringing the committee up to date with all that has happened since the last meeting.
- Strategic Plan Objectives were discussed.
- Committee discussed the need to do more virtual classes. This effort will be ongoing and developing as we move forward.
- During the winter holiday the Science Teachers Program will be ongoing with a maximum of 8 participants.
- There was a short discussion on the need for a new Education Committee Chair (as Mrs. Richardson is stepping into her role as Senior Vice Chair of the Board).

MCBRYDE GARDEN PLANNING COMMITTEE REPORT

Mrs. Sweet provided the following report:

- Committee met on November 12, 2020 and approved the minutes of the March 29, 2019 meeting.
- Visitor counts were doing well until the COVID-19 pandemic which caused shutdowns.
- \$5.2M worth of projects were completed.
- Three projects are left to be completed in 2021 (which the committee still has funding for): more work on the interpretive signage; completing the fuel storage system; and work on the carpenters shop.
- Prior to adjourning the meeting, the committee discussed and approved the following two motions:
 1. **The committee approved a motion to put a hold on the MGPC until such time as travel to McBryde Garden is possible so the committee may tour the garden and convene on site. Motion to approve was made by Ms. Elliott, motion was seconded. All approved, none opposed, the motion was carried.**
 2. **The Committee approved a motion recommending that the board hold a conversation to discuss a net zero project at NTBG Headquarters and to discuss a Sustainability Strategy. Motion to approve was made by Mrs. Wilson, motion was seconded. All approved, none opposed, the motion was carried.**

COUNCIL OF FELLOWS REPORT

Dr. Wichman provided the following report:

- Committee met on November 12, 2020 and approved the minutes of the October 8, 2019 meeting.
- 19 new Fellows have joined since the last meeting.
- A discussion ensued regarding building our Fellows Program, the future of our organization, as Fellows not only provide wonderful camaraderie and financial support, but it is where we pull many of our future Trustees from. Dr. Wichman encouraged everyone to continue cultivating new Fellows.
- Virtual events allowed many Fellows who may not normally have been able to participate in events to do so and it really energized the events.
- Ms. George led a discussion on what it means to be a Fellow. The program today is much more inclusive as in previous years one would have to be invited.
- The theme for our appeal this year is healthy plants, healthy planet – which focuses on food security.
- Committee discussed the travel program, which has been put on hold due to the pandemic and travel restrictions.
- The 2020 Fellows Trips, Scotland in June and Cuba in November, have both been rescheduled for the exact same dates in 2021. Both trips are fully subscribed with a couple of openings on each of them. Anyone interested may contact Dr. Wichman.
- Plans for a trip to Morocco for 2021 have been put on hold but will be revisited once things get back to normal.

FUTURE MEETINGS

Ms. Mayfield reported that although dates have been set for the 2021 Board Meetings, we most likely will not be able to have an in-person meeting in the spring. If we do meet virtually in the spring, hopefully we will be able to meet in person in the fall. That fall meeting would then be held in person on Kaua'i with a post-meeting trip to Kahanu Garden on Maui. She added that the 2021 meeting dates are posted in the Board Book. In 2022, we will be going to The Kampong but at this time we do not know if that will be in the spring or the fall.

DIRECTOR'S REMARKS

Ms. Mayfield thanked all the staff who made this virtual meeting possible and who do the work every day in between Board Meetings. She shared that she is always in awe of what the staff is able to get accomplished and she truly enjoys working with each staff member. Ms. Mayfield expressed her gratitude to Mr. Hewitt for being a great mentor, Board Chair, great listener, friend and a gentleman. She shared that Mr. Hewitt has done an amazing job as Board Chair and she has enjoyed working closely with him these past two years during her tenure as CEO/Director. Ms. Mayfield shared that she is looking forward to working with Mr. Deane and developing the same relationship with him as well.

SENIOR VICE CHAIR REMARKS

Mr. Magowan shared that 6 years ago when he said good-bye to being Chairman he looked forward to continuing his relationship with NTBG as a normal Trustee with no responsibilities. However, Chairman Hewitt had other ideas and appointed Mr. Magowan as Vice Chair and one year later invented the Governance Committee and appointed him to run that new committee. Mr. Magowan stated that little did he know that those two actions would consume precious amounts of time in his retired state. What it did accomplish was to allow Mr. Magowan to witness one of the greatest performances by a Chair, Tom Hewitt, which he has ever seen. Mr. Magowan shared that it has been a pleasure to work intimately with Tom. In addition, Mr. Magowan shared that he also had the great pleasure of working with Dr. Wichman and Ms. Mayfield, whose professionalism made his job as an officer much easier than it might have been. He stated he has enjoyed the support of the Trustees and NTBG management and he hopes the same support is given to Mr. Deane.

CHAIR'S REMARKS

Mr. Hewitt thanked Mr. Magowan for his kind remarks. He addressed the Trustees, Trustees Emeriti, Fellows, staff and Members and stated he owes great thanks to all.

Mr. Hewitt shared that we have taken this journey together and it has been his privilege and honor. He asked that we use this time to celebrate the last six years together by looking at what we have accomplished, achieved and how we have evolved.

- We are an organization that is helping to end hunger, achieve food security, and improve nutrition.
- We promote sustainable agriculture through agroforestry; we educate people as to the importance and necessity of plants in our lives and our mantra is Saving Plants, Saving People.
- We protect endangered tropical plants through discovery, research and conservation. This could very well result in the discovery of the next miracle drug that helps to make cancer as threatening as the common cold or potentially is a cure for the next pandemic.
- Established a partnership with Florida International University (FIU) which has allowed for the creation of the International Center for Tropical Botany (ICTB). We marked December 2019 by a groundbreaking which will result in the building of a world-class botanical facility. Because of this partnership, friendships became available. I want to thank Ken Furton, Mike Heithaus, Chris Baraloto and Emily Gresham for their support and friendship.
- In September 2016 through the incredible efforts of Dr. Wichman and staff, NTBG became engaged with the world through the World Conservation Congress (WCC).

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- We balanced the budget in 2017 through and until the 2020 pandemic changed ours and the world's order.
 - We created a Governance Committee chaired by Mr. Magowan. Our newly-minted Governance Committee began the search for a new Chief Executive Officer and Director. I could not be happier with this proceeding.
 - Mr. Hewitt provided a summary of organizational and staff position highlights during his tenure as Chair and he thanked each of the following for their service:

Ms. Anne Earhart and Mrs. Kathy Richardson - Vice Chairs
Ms. Janet Mayfield - Director and CEO
Dr. Chipper Wichman - President
Mrs. Hau'oli Wichman - Assistant to the President
Mrs. Tami Rollins - Chief Financial Officer
Ms. Heather George - Director of Philanthropy
Dr. Nina Rønsted - Director of Science and Conservation
Dr. Diane Ragone - Director of the Breadfruit Institute
Mr. Tobias Koehler - South Shore Gardens Director
Mr. Mike Opgenorth - Kahanu Garden and Preserve Director
Mr. Craig Morell - Director of The Kampong
Mrs. Lei Wann - Limahuli Garden and Preserve Director
Ms. Harumi Noon – Executive Assistant to the Director and CEO
Ms. Sandra Tedder - Meeting Planner

Mr. Hewitt stated that NTBG has always maintained that the board has had the experience, diligence and leadership of two Chairs; Mr. Magowan, his dear friend and Senior Vice Chair. He shared that they began this journey together six years ago when the board took a chance on a relief pitcher in the bull pen. Mr. Hewitt added that posterity will tell if he was equal to the task and it is only fitting that they now step down together. He looks forward to the continuation of their voyage as they chart for new horizons.

Mr. Hewitt thanked and recognized Chair Emeritus, Douglas McBryde Kinney, who has provided great leadership, dedication, and contribution to the NTBG. He added that Mr. Kinney also functions as our guardian angel. In particular, his partnership with Dr. Ragone is the reason the BFI is in a class all by itself. Mr. Hewitt thanked Mr. Kinney for everything that he does for the organization.

Mr. Hewitt shared that NTBG has been through one direct hurricane hit (FL in 2017) and one “dry” unnamed hurricane hit (Limahuli in 2019), six near misses in Hawai‘i, of which almost all caused major flooding but no wind damage. In 2015 three active hurricanes were recorded at the same time in the Central Pacific which remains a record! All three narrowly missed making landfall by any of our gardens.

Mr. Hewitt shared that NTBG has had over 19 major flood events (mostly at Limahuli and Kahanu) including the record year of 2018 which included three epic rain events: the April “rain bomb” (50 inches), in August Hurricane Lane near miss (35 inches of rain), and the Dec 29 low pressure storm (25 inches of rain).

Mr. Hewitt stated that throughout these trials and tribulations there has been one constant element that could never be undervalued or replaced – the resiliency, capability and quiet determination of our world-class staff to weather whatever crisis is unfolding.

Mr. Hewitt wrapped up his speech by acknowledging the person of the hour and Chair-elect, Gordon Deane. He shared that Mr. Deane has been a Trustee for 16 years, the recent past Chair of the Development Committee, and has been his good friend, confidante and advisor for many years. Mr. Hewitt added that Mr. Deane would be the Chair-elect for one more minute and relieves Mr. Hewitt as the Chair of the gardens. Mr. Hewitt shared that he is so relieved that it is Mr. Deane who will relieve him and that our beloved gardens will be in great hands; our future is assured. Mr. Hewitt ended his speech with a thank you to his dear friends for their kindness, patience and support and he added that “we did this together.”

PRESENTING OF GIFT TO CHAIR

Ms. Mayfield presented Mr. Hewitt with a Koa paddle with the following inscription:

I ulu no ka lāla i ke kumu - "The branches grow because of the trunk"
(without our Board the Garden would not flourish)
Thomas Denison Hewitt, II
Chair of the Board of Trustees 2014 – 2020
National Tropical Botanical Garden
Mahalo nui loa for your leadership which has steered NTBG to new heights!

CHAIR-ELECT'S REMARKS

Mr. Deane first gave thanks to Ms. Mayfield, Dr. Wichman and staff. He thanked Mr. Magowan who has served ably as Chair of the Board and then as Senior Vice Chair and will remain on his cabinet with the title of Prior Chair. Mr. Deane thanked both Ms. Earhart and Mrs. Richardson for their willingness to serve with him for the coming years and particularly for Mrs. Richardson's willingness to take on the role as Senior Vice Chair. He shared that under our bylaws, Mrs. Richardson will step into his shoes when he cannot be present to chair a meeting. He added that as someone who is quickly approaching his 50th wedding anniversary, with two daughters, and two granddaughters, he knows the value that comes from listening to a woman's advice. Both Ms. Earhart and Mrs. Richardson have shown much wisdom in their roles as Trustees and he looks forward to their continuing input in the future.

Mr. Deane gave a big mahalo nui loa to Mr. Hewitt for his efforts not only in this meeting but for his overall service to NTBG in his tenure as Chair for the last six years. Years that included much disruption with an organizational shake up that was contentious to say the least. By all accounts to date, it's been beneficial to the organization. Mr. Hewitt generously agreed to extend his term until this past spring and then agreed to extend it again when the pandemic hit. Mr. Deane reminded Mr. Hewitt that the pandemic isn't over to which Mr. Hewitt replied that two extensions were enough. Mr. Hewitt has offered and Mr. Deane has gratefully accepted, to continue as an advisor to and to also serve in his cabinet going forward with the title of Senior Prior Chair. Mr. Deane noted that he was following Mr. Hewitt, much as his business partner, Douglas McBryde Kinney, had followed Mr. Hewitt's father into the role of Chair.

Mr. Deane gave a collective thank you to all of the board for their service and contributions to the garden and thanked the board for electing him as Chair and showing faith in his ability to help guide this wonderful institution. Mr. Deane made specific mention of the service of Mr. David Meissner and Sir Iain Prance who are stepping down as regular Trustees and are now Emeritus and stated that their continuing commitment to the Garden is strong.

Mr. Deane noted that although he starts his new role in the middle of the worst pandemic in 100 years, a global recession, and assuming this new role on Friday the 13th, he jokingly wonders what could possibly go wrong. He shared that he has both worry and hope. (Mr. Kinney reminded me yesterday that when he became Chair, Hawai'i was hit with Hurricane Iniki and The Kampong with Hurricane Andrew. Thanks, Doug!) Mr. Deane has hope as he sees the steady progress that NTBG has made in his 21 years as a member (16 ½ of which he has served on the board).

Mr. Deane expressed that most of all we have 'ohana (family) and this is truly an amazing board in that respect. Our semi-annual board gatherings with Fellows have always felt like a family get-together. More than just gathering for meetings, NTBG's Board and Fellows have traveled the world together.

Mr. Deane shared that Ms. Mayfield with the help of her senior staff have done a remarkable job and he knows that every time she has to make that difficult decision to let someone go that it hurts. It is like losing a family member. He went on to say that he has found that during difficult times is when family comes together.

Mr. Deane stated as he assumes the role of Chair, he asks the board for their continuing time and talent to support him, the executive team, and the garden management. He added as Chair and Past Chair of Development, he asks for the board's continuing and hopefully increased financial support for the garden. He shared that the board has heard the need in this meeting. He and Mrs. Deane have committed to dig much deeper this year and likely the next in doubling or more their contributions to the organizations that they care about and support. Mr. Deane stated it is a privilege that

they can do so but to him and Mrs. Deane, it's also their duty. Whether you want to quote the bible, Voltaire, John F. Kennedy or even Spiderman's Uncle Ben, "to whom much is given, much is expected."

Mr. Deane ended his remarks by saying *"I humbly ask that each of you consider what additional contributions you can make this year and next to keep all of our gardens in tip top shape and support the staff, so the garden can continue its mission to enrich life through discovery, scientific research, conservation and education by perpetuating the survival of plants, ecosystems and cultural knowledge of tropical regions. Thank you."*

There being no further business before the Board of Trustees the meeting adjourned at 11:53 am (HST).

Respectfully prepared,
Harumi Noon
Executive Assistant

1EXECUTIVE COMMITTEE ACTIONS:

Report of actions taken by the Executive Committee acting on behalf of the Board during the period since the August 4, 2020 virtual Board of Trustees meeting.

Minutes from the October 7, 2020 Executive Committee meeting were approved by the Executive Committee and shared by email to all Trustees and Trustees Emeriti.

1. **On October 7, 2020:** The Executive Committee approved a motion to change the signatories on the Bank of Hawai'i Limahuli Garden and Preserve checking account to (1) remove Charles R. Wichman, Jr., President and Johnalynn HK Wichman, Executive Assistant as signors; and (2) add Tamara Rollins, Chief Financial Officer, and Lindsay Wann, Director, Limahuli Garden and Preserve. All other signatories will remain the same, those being: Janet Mayfield, CEO/Director, Katherine Champlin, Assistant Director, Limahuli Garden and Preserve, and Rachel L. Correa, Visitor Program/Office Manager, Limahuli Garden and Preserve.
2. **On October 7, 2020:** The Executive Committee approved the recommendation made by the Audit Committee to accept the FY2019 Audited Financial Statements, to file with Congress, and to release to the Trustees.
3. **On October 7, 2020:** The Executive Committee approved the recommendation made by the Audit Committee to engage KKDLY, LLC to conduct the FY2020 audit.



Section C Reports

CEO/Director Message Spring 2021 BOT

Janet Mayfield, CEO and NTBG Director

I will begin this report with where I ended my report last fall. At that time, I said that I had every intention of ending the 2020 year with the same enthusiasm, confidence, and hope that I started with at the beginning of that year. I can honestly tell you that is exactly the way I felt and still feel going into 2021. The reason for that is twofold. First, is the unwavering generosity of our supporters. You heard the need and you responded, swiftly and consistently. You have our deepest appreciation. Secondly, is the perseverance and dedication of the NTBG staff. They remained diligent, flexible, and adaptive. They were willing to adjust to the changes and take advantage of opportunities that presented themselves. Their passion for the mission of NTBG is what makes doing my job possible. They have my deepest appreciation and I am certain they have yours as well.

GREAT OUTCOMES FOR 2020

As you read the program and garden reports in this board book, you will see how much we have been able to accomplish, despite the pandemic. I encourage you to read each one thoroughly. By doing so you will not only realize the volume of critical plant science and conservation work being done at NTBG, but you will also see the direct impact your contributions have had in achieving our mission.

We ended 2020 in a stable financial position with sufficient cash to get us through the first quarter of 2021. The Payroll Protection Program (PPP) loan of \$1.26M that was received in April 2020 was recently approved for 100% forgiveness by the Small Business Association (SBA). Great news for NTBG!

Under the careful eye of Mary Thompson, Human Resource Administrator, we have been consistently monitoring and changing our COVID-19 policy to keep up with CDC guidelines and state rules and regulations. It is a dynamic process that is still evolving, but I am pleased to say that no staff member or visitor has contracted the virus at NTBG! We had only one staff member that contracted the virus outside of work, but our operating procedures, as defined by our policy, were followed to the letter and there was no spread. On Kaua'i, our employees were able to fall under the essential agriculture worker designation, which allowed many of us to get vaccinated early.

GREAT OPTIMISM FOR 2021

I will reiterate that for NTBG to be resilient we must remain nimble so we can take advantage of opportunities and avoid potential pitfalls. As soon as the second round of PPP loans were announced in January 2021, Tami Rollins, Chief Financial Officer, immediately put in an application and began shepherding it through the process. On February 16, 2021 NTBG received \$1.25M in PPP funds. This was absolutely critical in order to avoid additional furloughs and maintain our current productivity. We are still exploring other potential sources of stimulus funding and we will be keeping abreast of the latest news on future monetary opportunities.

Although uncertainties still abound for 2021, we are all beginning to see some light at the end of the tunnel. As more vaccines are rolled out and the number of people vaccinated reaches a critical mass, we are likely to see more people willing to travel. The outlook for tourism in Hawai'i seems to change on a regular basis, but in a March 1, 2021 interview with Civil Beat, Carl Bonham, Executive Director of University of Hawai'i Economic Research Organization (UHERO), is painting a more promising picture.

Bonham predicts that pent-up demand for travel, widespread vaccination on the mainland, and a new influx of stimulus money may boost visitor recovery over the next six months. However, a new surge in COVID cases or unknown effects of the virus variants could impact the outlook. As of March 3, 2021, the state remains fragmented in how each of the islands handle quarantine restrictions. Kaua'i remains the most restrictive, with visitors needing to quarantine for 10 days or stay in a "resort bubble" for 3 days and then getting a negative COVID test. However, news just came out that Kaua'i will rejoin the state's safe travel program beginning April 5, 2021! This is very good news for NTBG, but it is likely to take awhile for our numbers to rebound as travelers begin to know that Kaua'i is open.

What this means for NTBG is that our largest earned revenue source, the South Shore Visitor Program, is still facing an indeterminate future this year. We are poised to ramp up tour offerings and staffing when we see indications of Kaua'i's visitor count increasing, but it is a strategic balancing act that Tobias Koehler, Director of the South Shore Gardens, and Jackie Nielsen, South Shore Visitor Program Manager, are monitoring closely. We have budgeted total NTBG visitor program revenue conservatively for 2021, but we are hopeful that we can surpass that number if tourism picks up.

COMMUNICATIONS

The strides NTBG has made in upping our communications efforts over the past year has been phenomenal! We are fortunate that Heather George, Director of Philanthropy, continues to very effectively guide our communication strategy and lead our cross-departmental communications team established last year. Digital communications will continue to play a vital role going forward. Amanda Beisch, Volunteer Coordinator, has been actively managing this and other aspects of our communications over the past year. In acknowledgement of the breadth of communications work that she has been doing on behalf of NTBG, and will continue to do for the foreseeable future, her job title was changed to Digital Communications and Volunteer Coordinator.

In order to better communicate with our staff, donors, educators, and our other diverse constituency we have are using video conferencing and webinars via Zoom. Although generally not as nice as in-person meetings, it has gone a long way to keeping the channels of communication open and developing relationships that would be very difficult over the phone.

Rest assured that the need for a Communications Director has not fallen off our radar. Building capacity within the communications department is an important strategic priority and we are hoping we can make significant progress toward accomplishing that goal before the end of 2022.

EDUCATION

It is clear that this method of virtual communication is here to stay and we are currently working to create content for educational and informative webinars and videos. We fully intend to resume our full scope of in-person educational programming as soon as possible. We anticipate combining the best of both digital and place-based experiences to create a full spectrum of access for students, teachers, journalists, scientists, botanical illustrators, cultural practitioners, and interns. The education program report is a compilation of activities from all gardens and programs describing their contributions to the educational component of our strategic priorities. We continue to rely on regional programming and look forward to being able to bring continuity across the organization when we are able to hire an Education Director, hopefully in 2023 or shortly thereafter.

OUR STRATEGIC PLAN IN 2021

Sustainability, diversity, and opportunities are words that you will hear as we describe moving forward with our Strategic Priorities (see page C-7 for a copy). As we draw nearer to the end of our 5-year Strategic Plan 2018 – 2022, our senior leadership is working with their staff to develop SMART goals that can be accomplished over this time period and determining the Strategic Priorities that will need to be continued into our next 5-year plan.

Sustainability is a concept that permeates all that we do at NTBG. In finances, sustainability means having the resources to enable us to withstand future uncertainties. Severe weather events have always threatened our gardens, with the possibility of hurricanes at all our locations. The past year has shown us that we need to be prepared for anything – even a pandemic. Creating a financial reserve, diversifying our revenue streams, and increasing our donor base are a few of the ways in which we plan to create a more sustainable NTBG.

Our scientific research and conservation priorities reflect the need for sustainability and diversity in their urgent quest to save endangered plants and ecosystems. Dr. Nina Rønsted, Director of Science and Conservation, and her team are consistently looking at ways to improve conservation and restoration success. Her report highlights their efforts to design effective conservation plans to conserve native Hawaiian plants through both ex situ collections and landscape scale restoration, a strategic priority that NTBG is uniquely positioned to accomplish. The report clearly depicts the multitude

of resources we bring to the table: an extensive herbarium, seed bank laboratory, staff expertise in researching regional floras, technical expertise in the area of drone usage to discover or rediscover plant populations in the wild, places in which biocultural conservation can be demonstrated, and a field staff that are dedicated to conserving biodiversity, thereby promoting the survival of threatened and endangered plants.

Of course, our nursery plays a vital role in supporting our conservation efforts by growing the native plants needed for our gardens and preserves, as well as other restoration projects. Our Curator of Living Collections, Mike DeMotta, continues leading our work on the propagation and conservation of threatened and endangered native ferns. We are fortunate to have an intern that is currently focused on helping to achieve this strategic priority and you will read in his report that the ferns are already playing a critical role in our restoration work at Limahuli Garden and Preserve.

Our collaboration with Florida International University in creating the International Center for Tropical Botany at The Kampong is coming to fruition. Dr. Christopher Baraloto and Dr. Nina Rønsted both highlight in their reports the progress being made, not the least of which is the start of construction on the new center located adjacent to The Kampong. The opportunities for joint research, education and communication surrounding the study of tropical botany are limitless and our team is already taking advantage of their shared expertise.

During the COVID pandemic, a bright light has been shown on the issue of food security and the role we can play in promoting sustainable practices. Lei Wann, Director of Limahuli Garden and Preserve, describes in her report the important role her team is playing with the delivery of Community Sustained Agriculture (CSA) bins to the community. The project helps support Limahuli staff and provides 750 to 2000 lbs. of fresh, locally grown produce to our community weekly.

Director of the Breadfruit Institute, Dr. Diane Ragone, explains the important role of the Regenerative Organic Breadfruit Agroforestry demonstration project located in the McBryde Garden. Not only has it generated over 12,000 lbs. of fresh produce for our community, but it is an example of a sustainable way to grow food and care for the soil. The principles of regenerative agriculture are focused around soil health, with each plant making its own distinct addition to the soil. *"The world cannot be fed unless the soil is fed"* is a quote that resonates with me as it describes very simply the need for agroforestry practices.

HUMAN RESOURCES

The people who work for NTBG bring dedication and passion to their work. Their talents are as diverse as they are. Each of them brings a different perspective to the table and all of them bring their heart. I support the idea of hiring talented people and then getting out of their way, which is easier said than done sometimes! My obligation as a leader is to help them reach their full potential. The onboarding process is central to providing a good first impression to a new employee and providing them with a complete overview of the organization, especially since our gardens and programs span different geographic locations.

We are working to provide opportunities for training and education, as well as career advancement and succession planning. Training opportunities vary from learning new skills like equipment operation or horticulture skills to technical training. A few of our staff have been able to take advantage of an opportunity to earn their PhD from the University of Copenhagen under the direction of Dr. Rønsted. *"Train people well enough so they can leave. Treat them well enough so they don't want to."* This is a quote from Sir Richard Branson, founder of the Virgin Group. This is the philosophy we will aspire to at NTBG and I believe we can be incredibly successful.

THINKING GLOBALLY

I am currently engrossed in a book that many of you may already be aware of, *DRAWDOWN, the Most Comprehensive Plan Ever Proposed to Reverse Global Warming*, edited by Paul Hawken. Drawdown, in atmospheric terms, is the point in time at which greenhouse gases peak and begin to decline on a year-to-year basis. I do not profess to understand all the factors that were considered in ranking the solutions in this book. However, when I think about the issues facing us over the next five years, sustainability and the climate crisis always creep to the top of my list and I wanted to see how NTBG priorities and activities intersect with some of the solutions.

In the Summary of Solutions by Overall Ranking on page 222 of the book, I was heartened to see that of the top 15 solutions, NTBG could be seen as participating in at least 5 of them:

Rank	Solution	Sector	NTBG
4	Plant-Rich Diet	Food	Perpetuating plant food sources like canoe plants and tropical fruits
5	Tropical Forests	Land Use	Documenting tropical floras and encouraging indigenous conservation
10	Rooftop Solar	Energy	Priority to create a net-zero Botanical Research Center and Headquarters buildings
11	Regenerative Agriculture	Food	Demonstration project for Breadfruit as an example of sustainable regenerative agroforestry
14	Tropical Staple Trees	Food	Demonstrating trees as sustainable food sources, like avocado, coconut, banana, mango, breadfruit as opposed to annual crops that must be replanted each year

My comments here are by no means a scientific or factual analysis, but rather a message of hope and a confirmation of activities already undertaken by NTBG that have the potential to be part of a much more global solution.

THE BEST IS YET TO COME

In closing, I want to reiterate my optimism going forward, knowing that we still have an uphill battle in our recovery. The impacts of the pandemic have forever changed us and we will be responding to the effects well into the future. However, we can think of it as a wake-up call. An opportunity to be better prepared and to expand the way we think about the future. An opportunity to embrace change and move forward with an open mind. I have no doubt that the best is yet to come!

Once again, thank you for your support and for allowing me to guide this organization and its staff that I love so much.

Janet Mayfield
CEO and Director

National Tropical Botanical Garden Strategic Priorities 2020 – 2022	
Financial Stability	<p>Create a financially stable NTBG that can withstand the uncertainties of the future.</p> <ul style="list-style-type: none"> • Increase the number of donors • Develop grant sources • Spread the culture of philanthropy across the organization • Generate a shared responsibility and enthusiasm for fundraising • Enhance donor-centric, mission critical communications • Focus on Fellows and Major Donors • Develop renewable energy assets
Human Resources	<p>Ensure that all staff, volunteers, and Trustees are highly qualified, proud to be part of NTBG, and strive for excellence every day.</p> <ul style="list-style-type: none"> • Provide staff with training and educational opportunities • Define career advancement opportunities for all staff • Development of a comprehensive, consistent onboarding process for new staff • Create a culture of safety and risk management that permeates all parts of the organization • Build and maintain focused, accountable and visionary Trustee leadership
Communication	<p>Provide consistent, high-quality, impactful communications about the breadth and depth of NTBG's work to our entire audience to keep them informed and engaged.</p> <ul style="list-style-type: none"> • Build capacity within the communications department • Develop a communications strategy based on the stages of audience engagement • Create a communication plan to guide and unify delivery of messages • Plan communications to take advantage of the unique attributes of each of our locations • Optimize the use of technology to reduce duplication and connect constituency records across all databases
Program Preeminence	<p>Build our science, conservation, and education programs in the areas of tropical plant diversity, rare plant conservation, biocultural conservation, ecological restoration, and breadfruit.</p> <ul style="list-style-type: none"> • Become the leader in Hawai'i for the propagation and conservation of threatened and endangered native ferns • Increase the conservation of native Hawaiian plants through both ex situ collections and landscape scale restorations • Develop a plan for a research and conservation program supporting Limahuli Valley as a leading example of system-scale biocultural conservation in Hawai'i • Strategically increase core capacity of the Breadfruit Institute with the addition of a PhD Senior Scientist and a Collections Manager • Conduct a Collections Assessment for Preservation (CAP) of the Botanical Research Center and develop a 3-year herbarium strategy • Support educators in our communities by delivering educational programming and community outreach • Complete publication of the Flora of Marquesas Islands and Samoa • Leverage collaboration with the ICTB and other partner institutions to support strategic programs within research, education and communication of tropical botany • Develop a searchable Breadfruit Variety Database available on the NTBG website
Garden & Horticulture Excellence	<p>Create a safe, pleasurable, and educational experience for all NTBG visitors, based on horticultural excellence and scientific collections.</p> <ul style="list-style-type: none"> • Develop a multi-year Landscape Management Plan for all gardens • Develop a Living Collections Planning Strategy across NTBG • Collect and curate extant cultivars of Hawaiian canoe plants for conservation and education within our Hawai'i Gardens • Ensure the resilience of the breadfruit collection and develop a plan to duplicate key cultivars

NTBG President Report Spring 2021

Chipper Wichman, President

Looking back on 2020 what comes to mind is “a year like no other.” The pandemic has changed the way we live and work and as we look to the future the jury is still out on what a “new normal” will look like when the world can finally put COVID-19 in the rear-view mirror. In almost every industry what often fuels rapid change is *disruption*. While COVID-19 has caused unimaginable financial, public health, and emotional harm globally, it is also stimulating rapid change and forcing both individuals and companies to adopt new practices and technology at a pace that is also unimaginable. Who would have thought just 12 months ago that Zoom would become a household word and even a new verb in the American lexicon, or that a state-of-the-art, first-of-its-kind, vaccine would be developed in a matter of months using molecular technology!

THE PIVOT INTO VIRTUAL COMMUNICATIONS

NTBG is no different. I am so proud of how we have responded and adapted to the extreme challenges that 2020 brought to our company and to the personal wellbeing of our employees. The fact that we only had one employee across the whole organization that tested positive for COVID-19 in 2020 is of itself an amazing accomplishment! This did not happen by accident, it was the result of competent leadership at every level of the organization and the thoughtful implementation of an effective plan – a plan that was living and evolving month after month as the world changed around us.

The effective planning and enhanced virtual communication that evolved at NTBG over the second half of 2020 allowed us to make considerable progress towards our most important institutional goals. Hau'oli and I are proud to be part of the awesome team that worked on donor outreach and delivered a year-end result that propelled NTBG into the black for the year. Being part of the virtual outreach events as well as the individual phone calls and Zoom meetings was truly inspiring as it gave us a chance to connect in a meaningful way with our supporters who again and again echoed their passion for the Garden and our mission-driven work.

Effective communication is key to winning the “hearts and minds” of individuals and while this can best be done in person, what we found out is that it can also be done using technology. Our Fall 2020 Board Meeting conducted via Zoom webinar was really a highlight for me. Watching the nearly perfect execution of three days of virtual meetings including the sharing of videos, live discussions and even a machete-wielding cake cutting ceremony, a face mask contest, and a slideshow celebrating the tenure of our then-Chair Tom Hewitt was an accomplishment – one that we should all be extremely proud of.

The fact that all of our Trustees and Trustees Emeriti were able to effectively learn Zoom and participate in the meetings is a testimony to the commitment of our board. It was very rewarding for me to help “coach” several of our Board Members on how to use Zoom and to see every one of them pull off their participation without a glitch!

DONATION OF LAND FROM THE FAYE FAMILY

This year before the pandemic changed the world, we were approached by members of the Faye family about their interest in donating a 1.25-acre property that had been in their family since the partition of the Hā'ena Hui lands in 1967. This lot is surrounded on three sides by a 1,000-acre lot owned by NTBG which comprises the majority of Limahuli Valley. The potential development of the Faye property was something that had worried me for a long time as it would have negatively impacted the spectacular views as you approach Limahuli Garden and it would have impacted an ancient spring known as Kawaialoha that has supplied water to families living in that area for centuries.

With this in mind, you can imagine how excited we were when Limahuli Director Lei Wann received a call from Elizabeth Faye and her mother Karen in early February to explore the idea of protecting their family's land as part of Limahuli Garden. Over the next nine months I helped educate them about what was involved in making a significant gift of land like this and sharing why Hau'oli and I had gifted the 1,000-acre parcel that surrounds them to the Garden in 1994. With the expert help of Elizabeth's brother Andrew who is an attorney, we crafted a “Gift Agreement” laying

out the conditions of the gift and the proposed timeline. Once that was in place everyone felt much clearer about how things would unfold and while COVID slowed it down by several months, on Friday, November 20th, we conducted a virtual signing ceremony via Zoom from Limahuli Garden. At the exact moment that Janet signed the deed a rainbow appeared over the entrance to Limahuli Garden touching one end down on the property that would now be part of Limahuli Garden and Preserve forever. What a fitting way to conclude a transformational gift from the Faye family to the NTBG. It is the spirit of generosity behind gifts like this that have created the amazing land-base of the Garden which today includes nearly 2,000 acres and five different tropical ecosystems. We all owe the Faye family a huge mahalo nui loa for trusting the Garden to be the steward of this special property.

IUCN WORLD CONSERVATION CONGRESS

The 2020 *International Union for Conservation of Nature* (IUCN) World Conservation Congress (WCC) was originally scheduled to be held in June in Marseille, France. NTBG was helping to lead a delegation of almost 90 conservationists and scientists from Hawai'i which included our Governor and 10 NTBG staff. In April, the IUCN announced that it would postpone the congress until January 2021, which all of us believed was unrealistic. Sure enough, on December 15, 2020, IUCN announced that it was pushing the WCC back to September 2021. This created a last-minute scramble for our delegation to rearrange their flights and accommodations so that they synced with the new dates of September 3-11, 2021. No one knows yet how safe it will be to participate in the WCC in September, but NTBG's staff are prepared and committed to sharing the excellent work that we do on the global stage should it be safe to do so.

NTBG FELLOWS TRAVEL PROGRAM FOR 2021

Both of our international trips in 2020 have been pushed back to 2021. At the time I am writing this, we are not 100% sure on either trip. Our first trip is scheduled from June 19-26 to Scotland which will be led by NTBG Trustee David Rae and myself. This trip will be extraordinary but we are not sure yet if we will be able to safely travel in June. The UK went into a second lock-down in January but has also been a leader in rolling out vaccines to the general public. It is too soon to tell what stage Scotland will be at in June and this trip may have to be pushed to 2022, unless things improve rapidly in the first few months of 2021.

Our second trip is scheduled from November 14-19 to Cuba. This trip has a much higher chance of proceeding as planned due to the fact it is later in the year and hopefully COVID-19 will be more under control by then. Cuba is just beginning to re-open to international travelers and is still closed to Americans. While the Cuban government plans to implement a phased plan to allow tourists back to the island, it is not yet known when Havana, Viñales, and other regions we were planning to visit on our trip will reopen for visitors from the US. We do anticipate this will all be resolved by the Spring 2021 Board Meeting.

Planning our Fellows Travel Program beyond 2021 has been put on hold for now until we determine if our two current trips need to be pushed back to 2022. Once we have clarity on our 2021 trips we will begin planning for future travel to some of the many amazing places in the world. Stay tuned as we will have important updates on our Fellows Travel Program at the Spring 2021 Board Meeting.

ELIGIBILITY FOR A STATE GRANT IN AID

Each year the Hawai'i State Legislature awards millions of dollars to non-profit organizations (NPO) across the State via a program called Grant in Aid (GIA). It is a very competitive process and in 2007 NTBG was successful in getting a \$200,000 GIA award thanks to the strong support of our Kaua'i delegation! However, in 2019, NTBG again sought to apply for a GIA and found that the Hawai'i Revised Statutes (HRS) had been changed and that only NPOs that were "chartered in Hawai'i" could qualify for a GIA. Since NTBG was chartered by the US Congress we were not eligible to apply.

To address this problem, over the past few months I have been working with our Kaua'i delegation to build their support for legislation that would amend HRS 42F-103 so that organizations like NTBG that spend 90% of their operating budget in Hawai'i can apply for a GIA. Getting a bill passed by the State Legislature is not easy and requires strong community support and testimony when the bill is heard by the various committees it passes through. It also requires

the support of key “power brokers” that often control if a bill is heard or if it dies in a committee by not being heard. I am excited to be leading this effort for NTBG when the legislature opens in January 2021. I look forward to giving an update on this process at the Spring 2021 Board Meeting.

LOOKING TO THE FUTURE

With the challenges of 2020 behind us, I am optimistic about what lies ahead and our fundraising goals going forward. This year we are excited to be focused on two very significant projects: 1) building more capacity in the Breadfruit Institute and 2) moving our national headquarters toward becoming a net-zero energy campus. Both of these are critical to our future and have risen to the top of the Garden’s strategic fundraising priorities.

Over the past 30 years, Dr. Diane Ragone has become the recognized global expert on breadfruit. What Diane has done is nothing short of remarkable, but for this work to continue we need to build more capacity within the Breadfruit Institute. We are excited to work with the development team in a mini campaign to secure the funding needed to hire a new PhD Science and Information Director position, and a Master’s level collection manager position. In spite of our initial success at the end of 2019, COVID required a pause in the campaign in 2020, but we are looking forward to firing this up again and finding the donors we need to secure the Breadfruit Institute’s future.

Equally exciting is the vision of making NTBG national headquarters an energy independent campus, which our CEO, Janet Mayfield has tasked me with taking the lead along with Tobias Koehler, Director of the South Shore Gardens. As a national and international leader in conservation, we should be demonstrating our commitment to the 2015 Paris Climate Accord, and mitigating the severity of the climate crisis that is now upon us. We will begin with the goal of making our Botanical Research Center (BRC) a “net-zero” facility. This will not only help demonstrate our commitment to protecting the environment, it will directly help finances by eliminating the electric bills for the BRC which currently cost NTBG up to \$150,000 per year. Because our goal is to eliminate these bills, we are not looking for a third party who will finance the project and then sell us power via a Power Purchase Agreement (PPA). Our vision is to own the infrastructure and operate the system ourselves. This will give NTBG the greatest return on investment. We plan to approach this project slowly and carefully and with the help of professional consultants who will help to ensure that we design and construct a system that will meet our current and future needs and make NTBG more resilient and sustainable in the 21st century.

Kahanu Garden and Preserve

Mike Opgenorth, Director of Kahanu Garden and Preserve

Located in a remote destination largely preserved through time, Kahanu Garden and Preserve offers visitors to Hāna the chance to connect with the cultural and botanical heritage of Polynesia. Not only a garden of plants, this botanical treasure is a *wahi pana* (a storied place), which also provides the opportunity to learn enchanting stories of old Hawai‘i. Guests are immersed in examples of the reciprocal relationship between the people of this place and their environment, and how just over two dozen carefully selected plant species and a handful of animals provided the means for such a civilization to thrive. This garden is not just about the plants, it is about the place, and the Hawaiian’s transcendent connection to the natural world.

INFRASTRUCTURE

- One of the most important capital improvement projects in the coming years will be to address the dilapidated Fisherman’s Cottage overlooking the ocean. While for many years we hoped to repair the existing structure, the scope now requires a rebuild within the existing footprint. This investment in the Kahanu Garden Visitor Program will focus on interpretation and honoring the post-western contact era in Honomā‘ele, where the garden is located. The project is now in the planning phase which is expected to run through 2021. Our goal is to complete this project in 2022.
- Kahanu Garden made monumental strides in 2020 to double the amount of water catchment storage capacity in the past year, with the focus now shifting to improve other utilities.
- Looking toward 2021, we will work with members of a Hāna broadband working group to navigate logistics with Hawaiian Telcom to provide new phoneline and fiberoptic broadband internet pathway to this remote area. When accomplished, this is intended to reduce the operational challenges that take place when the satellite internet and landline is not working appropriately.

CULTURAL LANDSCAPE

- After completing a comprehensive re-thatching of both traditional thatched hale (houses) at Kahanu Garden in 2018, the Mālama‘Āina (to take care of the land) staff at Kahanu Garden patched any compromised thatching and refinished the natural wood. This ensures our investment from 2018 is long lasting, and can facilitate future education opportunities and gatherings in the years to come.
- Over two hundred Tī (*Cordyline fruticosa*) plants bordering the base of Pi‘ilanihale Heiau have been cut to improve their resilience against high wind episodes and to increase the visibility of Pi‘ilanihale Heiau.

HORTICULTURE

- Staff reintroduced an extremely rare Hawaiian banana cultivar ‘Maoli ‘Eke ‘Ula’ to Kahanu Garden in December 2020. This Hawaiian banana is considered a rare hybrid between the pacific plantain types ‘Popoulu’ and ‘Maoli’ that are distributed across the Indo-Pacific region. A large storm eliminated the previous ‘Maoli ‘Eke ‘Ula plant in 2010 from Kahanu Garden, after which a small plantlet was discovered and carefully nurtured by Mahele Farm for years until it was healthy enough to reestablish at the garden. It is now planted in an area less vulnerable to large flooding events, and is showing vigorous growth at the time of this report.
- In the area surrounding the Visitor/Education Center, staff developed a new rock wall planter. Carefully designed to align with the tasteful rock walls in other areas of the garden, this planter was created to care for Critically Endangered ‘Alula (*Brighamia rockii*), as part of a National Geographic project led by NTBG to preserve this species. We are increasing ex-situ plantings that will provide additional cross-pollination opportunities in order to develop the next generation of healthy seed, since it is presumed the natural pollinator is no longer present in the wild. These ‘alula plants in Kahanu’s new planter are joined by a myriad of other rare East Maui plant taxa that will

provide a totally unique experience only found at this garden.

- Kahanu staff and independent contractor Dan Rudoy of Mahina Organics created two new companion plant “islands” in the Kahanu breadfruit collection. Aimed at creating a practical and ornamental approach to increasing health of the orchard while reducing intensive labor, these efforts continue to add resilience to the largest collection of named breadfruit cultivars in the world.
- NTBG Kahanu and Breadfruit Institute staff are initiating the process to begin duplicating and replanting certain varieties in the collection. This initiative begins utilizing air layer of #32 ‘Afara,’ which was subsequently planted in a new location. The source tree of this duplicate was the only remaining plant at NTBG from the original collection in the Society Islands. ‘Afara’ is considered a highly ornamental and delicious variety with reddish/brown fruits. In 2021 Kahanu Garden and the Breadfruit Institute will continue to develop key cultivars in line with the strategic plan.
- Ten large kukui (*Aleurites moluccanus*) trees on the edge of the main breadfruit collection have been removed due to their unproportional and dangerous growth that threatened existing breadfruit trees. As a result, this area of the breadfruit collection is experiencing increased canopy penetration of light to support healthy growth of trees and improved groundcover establishment, moving us toward the organization’s strategic priority of horticultural excellence.

KAHANU PRESERVE

- Removal of over 50 ironwood (*Casuarina equisetifolia*) trees on the fringe of the Kalāhū section of the Kahanu Preserve was conducted over two months in late 2020. Originally from Australia, this non-native tree has become naturalized in Hawai‘i and threatens the native coastal forest due to its fast growth rate, and allelopathic pine needles. This effort will continue in coming years to restore the viable habitat for Hala (*Pandanus tectorius*) and other native species within this storied coastal preserve.
- As part of a five-year contract with the Natural Resource Conservation Service’s Conservation Stewardship Program, garden staff eliminated 100% of all inkberry (*Ardesia elliptica*) in a 2-acre section of the ‘Akiala section of the Kahanu Preserve. The program results not only in reduction of invasive material in the coastal forest preserve, but a more open viewplane of Pi‘ilanihale Heiau. As part of the contract, garden staff will continue to do follow up treatments of any new inkberry plants and other invasive trees such as the African Tulip Tree (*Spathodea campanulata*).

VISITOR PROGRAM

- From March to July 2020 the historic Hāna Highway 360, which is the only road access to Kahanu Garden, was closed to all but local resident traffic due to COVID-19. The garden reopened to the larger community of Hawai‘i residents and visitors as it was deemed safe to do so by County and State officials. We strived to be cognizant of the sensitivity the Hāna community held toward welcoming back visitors too soon. In mid-July, Hāna Highway 360 reopened to the general public.
- Kahanu Garden’s visitor program was closed from March through May during the first wave of closures associated with COVID-19. Limited opening to Hāna residents began in June (82 visitors), which expanded to the rest of the Hawai‘i community and a limited number of visitors in July (75 visitors) and August (76 visitors). Garden visitors slowly increased once Hawai‘i’s pre-test program was initiated in October, peaking in December with 455 guests.
- A string of local plant sales maintained the garden’s relevance in the community during this challenging time, as many used their quarantine time to improve their home gardens. We also included plant sales into the category of items discounted to NTBG members which spurred an increase in local memberships as well.
- The garden’s growing Instagram and Facebook pages helped supporters interact with Kahanu Garden, in the absence of visiting in person. Led by Kahanu Garden’s Operations Manager, Hi‘ilani Aiona, the amount of Facebook follows

increased 16.6% year-over-year from December 2019 to December 2020. The Instagram page also saw healthy growth in 2020 from 2019 levels. We attribute this increase to more supporters spending time online due to the pandemic, an increase in content, and improved cross-promotion with the other NTBG social media platforms.

- Guided tours were discontinued from March 2020 and will not be available until further notice.

STAFF HIGHLIGHTS

- In October, the four staff that conducts a myriad of tasks related to horticulture, facility, and cultural site maintenance completed a reclassification of their positions with a change in title to NTBG “Mālama ‘Āina Technician.” Previously, these staff members were generalized into the “horticultural technician” position descriptions. This change allows position descriptions to more properly convey the wide breadth of work our employees do at Kahanu Garden. This collaborative effort with NTBG leadership better positions us to accurately convey job responsibilities in the appropriate title while simultaneously creating clear career advancement opportunities for staff, a strategic priority within the NTBG strategic plan.
- Roger “Kama” Helekahi completed his re-certification of Landscape Industry Certification Technician by the Landscape Industry Council of Hawai‘i.
- In September, Sage Hightower joined Kahanu Garden staff as the 2020-2021 Conservation Development Leadership Program (CDLP) Intern. Administered through KUPU, Sage joins a network of other interns across Hawai‘i, including other NTBG sites, as a quasi-member of the team. His work has focused largely on improving resilience of the garden’s renowned banana collection.
- In November 2020 Mike Opgenorth was accepted to a PhD program at the University of Denmark Copenhagen Museum of Natural History to study *Gardenia remyi*, particularly to focus on what effect arbuscular mycorrhizal fungi has on plant fitness. This taxon is Critically Endangered and native to the Hawaiian islands with fewer than 100 known plants remaining. He will be conducting this study over three years, primarily still based out of Kahanu Garden, while he continues in his current capacity at NTBG. Nina Rønsted, NTBG’s Director of Science and Conservation, will be his primary supervisor for this project.
- Our goal for 2021 will be to increase training opportunities, also a strategic priority. To do this, we hope to focus on training that will make staff more effective for their current roles, but also prepare them to be more competitive to reach future career aspirations.

Please refer to the Education Report on page C-39 to learn about the education being done by Kahanu Garden and Preserve.

The Kampong

Craig Morell, Director of The Kampong

LIVING COLLECTIONS AND HORTICULTURE

- The Kampong has benefited tremendously from the work of a small group of horticulture volunteers. They have diligently taken on the roles of maintaining and improving several sections of the garden. Numerous plants have been planted and cared for with volunteer help, acting as a force multiplier to our limited staff.
- Volunteers helped immeasurably with our recent and very successful plant sale; they propagated, labeled and actively helped sell plants, as well as provided real-world advice for the care of the plants sold. The 2020 sale netted \$2,200 which was 200% more than the sale in 2019. Our goal for the 2021 plant sale is to net \$3,500. More importantly, this gives us another opportunity to connect with our supporters in a meaningful way.
- **2021 Goal:** Strive for greater horticultural excellence by using a zone-by-zone repair and maintenance program within the confines of our 2021 budget. We are rethinking our repair programs, moving away from emergency-only or as-needed, to a more preventive model.

HUMAN RESOURCES

- Two temporary, full-time gardeners were hired with PPP loan funding March-May 2020. This resulted in major success in tackling backlogged grounds projects, and provided a great push forward with getting plants installed.
- **2021 Goals:** (1) Reinstate employment for our Guest Service and Volunteer Coordinator position to improve our volunteer coordination efforts by having greater engagement between coordinator and volunteers, and (2) establish a training/procedures manual for grounds staff.

VOLUNTEERS

- Twenty active volunteers provided guided tours, worked in the garden with the grounds staff, cleaned and monitored the condition of the books in the Sweeney Library, and assisted with special events. Volunteers contributed 1,039 hours of time. We acquired a new garden volunteer in June 2020, and she has been diligent and punctual in working on garden sections.
- **2021 Goal:** Recruit and train four new volunteers for garden maintenance.

THE KAMPONG EVENTS

- **JANUARY**
 - A 60-guest wedding was held, coordinated by sub-contractor caterer Lasso the Moon.
 - Mountain Film Festival held their annual 2-day event on January 10th and 11th.
 - The January 16th lecture series was held with 63 attendees.
 - Yoga was held on January 18 with 9 attendees.
 - The Botanical Illustration Course was conducted by instructors Eileen C. Sprague and Sarah Roche from January 20th – 24th.
 - Eight students from the Carrollton School of the Sacred Heart chose The Kampong for their service day, learning about the ecology of Mangroves.

- **FEBRUARY**

- The 22nd Annual David Fairchild Medal Award Ceremony was held on February 7th with 45 attendees. The award recipient also spoke at the February lecture series with 50 attendees.
- Long Point Realty held a board meeting and dinner at The Kampong on February 13th.
- Yoga was held on February 15th with 16 attendees.
- International Network for Sustainable Ecosystem Services of a Tropical Biodiversity Hotspot Under Global Change Workshop was held on February 17, 18th and 19th.
- A 103-guest wedding was held on February 22nd.
- The Kampong was the final stop for *The Secret Garden Tour of Coconut Grove* hosted by Plymouth Preschool. A 130-guest destination wedding was held on February 29th.

- **MARCH**

- Local enclave neighbors from Ye Little Wood held their annual meeting at The Kampong on March 4th.
- On March 6th, The Kampong received an award for philanthropy from Coconut Grove Cares/The Barnyard Afterschool Program.
- A 130-guest destination wedding was held on March 7th.
- On March 11th FIU Psychology Department held a workshop with 25 attendees.
- On March 13th, Pro One Productions had a photo shoot for the fashion brand Chico's.
- The Barnyard Afterschool Program held their annual fundraiser on March 13th.
- On March 14th, yoga was held with 20 attendees and an engagement photo shoot was held.

- **JUNE**

- The Kampong held a soft opening for visitors with Fellows, members, and local Coconut Grove community members.
- The annual butterfly count was conducted led by Lynda LaRocca.
- Christian Slater and his wife Brittany Lopez had a photo shoot for Esquire Magazine.
- Volunteers were invited back to The Kampong to assist with working, socially distanced, in the garden.

- **JULY**

- The Kampong officially reopened to the public with an increased price point of \$25 per guest.
- Director Craig Morell participated in the July 28th NTBG Zoom event: *Dessert with Fellows & Friends*, the first of four regional 2020 events designed to connect Fellows and Major Donors with NTBG staff and provide an update on the gardens virtually.
- Maria-Jose Starkey hosted an online Instagram Sound Bowl Meditation by The Fairchild Pool.
- Twenty-one memberships were sold and we booked one new wedding for 2021.

- **AUGUST**

- The Kampong began to see an increase in visitors after the soft reopening.
- We had a Sweet 16 photoshoot and sold five new memberships.

- **SEPTEMBER**

- The Kampong had a Sweet 16 photoshoot
- We sold one new membership and had two Fellows renewals.
- Maria-Jose Starkey had three livestream Sound Bowl Meditation

- **OCTOBER**

- YPO Americas Gateway held a 50-person cocktail party with our exclusive caterer Lasso the Moon.
- Kampong Yoga was held every Tuesday and Thursday with instructor Hindy Meredith, and had 26 attendees.
- Director Craig Morell was a moderator in a Botanic Network Talk & Conversation (*Disturbance, Climate Change and Resilience*). The network is comprised of Directors and Curators from several gardens in the area and is allied to the Robert Rauschenberg Foundation.
- Craig spoke at the University of Miami (UM) to senior students interested in being part of the Everglades Orchids Conservation Program at The Kampong in Spring 2021. Professor Terri Hood and UM Arboretum Director Dr. Mauro Galetti have committed to support the program with students and resources.
- Craig visited the Naples Botanical Garden to acquire the first round of native orchids for the above-mentioned program.

- **NOVEMBER**

- The Kampong held its 3rd annual plant sale. Non-members purchased tickets at a discounted rate of \$10 each. Members received complimentary admission and a 20% off discount. We had 39 attendees and 9 volunteers who put in a total of 37 hours during the sale.
- There were seven yoga sessions held with 12 attendees.
- Coconut Grove Garden Club met The Kampong Board of Governors President Dr. Rosenberg to plan the planting of trees for the Commodore Trail.
- There was a quinceañera photoshoot.
- FIU had a guided tour for their botany students.

- **DECEMBER**

- The Kampong hosted three photo shoots, one wedding and one corporate photo shoot.
- Director Craig Morell provided a VIP private tour for Pinecrest Gardens.
- Gentle Yoga and Meditation with Hindy Meredith was held six times and had 47 attendees.
- The Kampong held a holiday lunch for employees.
- On December 29th and December 30th, the self-guided tour sold out four out of the six time slots with 165 guests in total (84 guests on December 29th and 81 guests on December 30th.)

PROPERTY UPDATES

- Standby generator installation for cottage/library/laboratory is in progress, with an expected operational date of May 2021. We are currently in a queue for a new well driller to drill a shallow new well to find an alternate ground-water source for irrigation.

RENOVATIONS AND REPAIRS

- End-of-Year Updates: The ongoing whole-property examination of the municipal water system to evaluate where we incur major water expenses has resulted in irrigation and potable-water lines undergoing repair and segregation, and has proven to have been very successful. Our municipal water usage for both potable and irrigation usage has dropped dramatically. By way of systematic repairs of irrigation sections that have sustained major damage we have lowered our water bills significantly. While there are numerous leaks in the main Fairchild-Sweeney house, we have contained several of the leaking areas and have seen much reduced water bills. Fellows Project 2020 funding has assisted with underwriting costs of repairs.

Please refer to the Education Report on page C-39 to learn about the education being done by The Kampong.

Limahuli Garden and Preserve

Lei Wann, Director of Limahuli Garden and Preserve

Our conservation program here in Limahuli Garden and Preserve continues to be extremely unique and recognized both locally and globally as a leading example of biocultural conservation.

- Our Upper Limahuli Preserve crew continues to work on protecting and preserving native seabird populations in Upper Limahuli Preserve. This crew continues to work on the very remote and steep terrains of Upper Limahuli Valley. This dynamic crew is really what makes our work in Limahuli Upper Preserve possible. They scale cliffs and work in unfriendly terrains to protect our rare endemic species.
- Predator and weed control in both Upper and Lower Limahuli Preserve continue to be very important to promoting biodiversity, preserving a healthy ecosystem, and maintaining rare native species in Limahuli Valley. By the end of 2020, our conservation crews managed over 77.17 acres in weed control, mapped 21 (and 1 pending) new rare plant species in Limahuli, and outplanted 2960 plants in the field.
- The Upper Limahuli Preserve crew continues to monitor the recent and only outplantings of *Cyanea kuhihewa* in the Upper Limahuli Preserve. These plants were planted in early 2020.
- In September 2020, Limahuli Garden Director, Lei Wann, joined the Upper Limahuli crew for a week-long trip. On this same trip, staff of the Kaua'i Endangered Seabird Recovery Project (KESRP) also joined the Upper Limahuli Preserve crew for their last and final collection trip for 2020. On this trip 8 A'o or Newell Shearwaters were successfully relocated to Nihoku to be protected within an ungulate-proof fence.
- The Lower Preserve crew continues to work on invasive species removal. This team continues to maintain and expand restoration areas.
- Stream monitoring continues in all reaches of Limahuli Stream. In 2020, we recorded a number of new sightings of hihiwai (Hawai'i endemic freshwater snail) eggs in our stream, many of which are near plant restoration areas in Limahuli Stream.
- In September 2020, we welcomed Kassandra Jensen, a new KUPU intern to our Lower Limahuli Preserve crew. Kassandra comes to us with great enthusiasm and passion for conservation work. Kassandra has a strong interest in Bryophytes and will be working on creating a field guide on Bryophytes in Limahuli Garden and Preserve.
- Matt Kahokulooa, also a KUPU intern, joined NTBG in September 2020. He spent his first couple of months working with our South Shore team, and will start with Limahuli Garden in January 2021. We look forward to working with Matt.

MANAGEMENT AND STRUCTURAL CHANGE

In the fall of 2020, we were granted the CARES Grant through the County of Kaua'i. Through this grant we were able to hire four temporary employees. Harold Dumayas joined us under this funding as a Maintenance Technician. With Harold's expertise, we were able to paint and repair railings at our staff office building, repair facilities in all of our buildings, repair pot holes in concrete slabs throughout the garden, gravel a majority of the garden, repair irrigation filters, maintain swells and trenches, and maintain clean facilities in the face of COVID-19.

VISITOR PROGRAM

The remainder of 2020 would prove to be a challenging and an unpredictable year for our Visitor Program. The normal trends in our Visitor Program would be almost nonexistent. Our Visitor Program fluctuates with travel restrictions and with local COVID-19 mitigation measures. As a result, we continue to be positive, conservative, creative, and resilient through this difficult time. In early fall 2020, Kaua'i had a brief couple of weeks where we opened our doors to trans-

pacific travel. Limahuli Garden and Preserve quickly saw an increase in our Visitor Program numbers. We had days that reflected normal pre-COVID-19 numbers. During this time, our island had a dramatic increase in COVID-19 cases, and quickly implemented strict travel restrictions.

GARDEN AND COMMUNITY OUTREACH

- Through the beginning of September 2020, we continued to deliver CSA (Community Sustained Agriculture) bins to our community. Members of our staff would deliver 75 to 200 boxes a week. Each box contained 10 lbs. of produce grown by our local community. We look forward to continuing this service in 2021.
- At the end of November 2020, we welcomed our volunteers back to our garden. We continue to have very dedicated and caring volunteers in our garden. With our gardens being a little quieter, we have had the opportunity to really get to know them.

ADMINISTRATION

As we move into 2021, Limahuli Garden and Preserve will continue to persevere. Our team will continue to work towards making Limahuli Garden and Preserve a “leading example of system-scale biocultural conservation in Hawai‘i” as stated in our Strategic Plan. We intend to continue to expand and sustain our efforts in research and conservation in this coming year. We will start with projects like stream clearing and restoration through a new round of Act 12 funding from the County of Kaua‘i and landslide mitigation with the use of drones for seed dispersal, funded through the Conservation Innovation Grant.

In 2021, we will spend time on expanding and improving our Hawaiian Canoe Plant Collection. We will continue to “collect and curate extant cultivars of Hawaiian canoe plants for conservation and education within our Hawai‘i Gardens,” another Strategic Priority. We also intend to expand on these efforts during a global pandemic as a way to promote sustainable food/resource practices in our communities.

Lastly, in 2021 we intend to make improvements to our facilities and grounds here at Limahuli Garden and Preserve. We intend to move forward with the Multipurpose Building this year and will expand on garden road improvements with the County of Kaua‘i Act 12 funding.

Please refer to the Education Report on page C-39 to learn about the education being done by Limahuli Garden and Preserve.

McBryde Garden and Allerton Garden

Tobias Koehler, Director of South Shore Gardens

2020 proved to be transformative in ways one could never imagine. Because of the relatively low incidence of COVID-19 cases on Kaua'i, one of the brighter spots for the McBryde Garden and Allerton Garden is that we've been able to maintain our key living collections and facilities in relatively good order because of the dedication of staff and an outpouring of donor support. There was a moment at the beginning of the pandemic where even being able to report for work was in question.

Unsurprisingly, government travel restrictions since the outset of the pandemic in March, and virus surges in key gateway markets on the west coast, have resulted in a near-total collapse of tourism and the visitor program. Three "reopening" milestones came and went, with virus surges on the west coast this past fall and winter throwing cold water on what optimism remained for 2020. It became clearer that vaccine availability would be a key driver for restarting tourism. Even then, indications suggest economic recovery will take years.

The year became a year of resizing, adapting and accomplishing our mission in simpler and sometimes new and different ways, given day-to-day uncertainties. What follows are a number of highlights for 2020:

HORTICULTURE

- Rejuvenated the Visitor Center Garden Native Plant section to improve the interpretive experience in anticipation that transporting visitors into the valley by buses was not permitted.
- Repaired existing irrigation systems and timers across McBryde Garden and Allerton Garden to free up valuable staff time for other tasks.
- With the benefit of the CARES Act (Government relief funding), we were able to temporarily support five horticulturalists for nearly five months. Those individuals received valuable work experience and training, and the Garden was able to recover areas overrun by weedy grasses. The team ended up outplanting in excess of 1,000 native plants, primarily ground cover. They provided much needed relief by hand clearing weeds followed by mulching around hundreds of specimen trees in the native plant section.
- CARES Act funding helped offset over \$50,000 in arborist expenses we would normally have incurred, providing essential tree climbing work to ensure the safety of our staff and visitors.
- Froze vacant positions (two horticulturalists and horticulture manager) to effect cash savings.

FACILITIES

- Implemented an electronic maintenance request tracking and management system late in March. In 2020, 341 maintenance tickets were opened of which 149 (44%) were closed/completed. There are currently about 150 outstanding requests.
- Completed a full facilities inspection/walk-through for all structures, with the intention of performing inspections annually going forward to step up preventive maintenance programs and proactively address safety concerns.
- With the benefit of the CARES Act, we were able to temporarily support two facilities technicians for nearly five months. Those individuals received valuable work experience and training, and the Garden was able to repair roads, repair and rebuild several trails across all three gardens (Visitors Center Garden, Allerton Garden, McBryde Garden). The 20+ dump trucks of gravel would normally have been borne out of operating expenses, a huge relief.
- Non-essential capital projects, specifically two involving improving irrigation water resources and the carpentry shop were on hold to preserve NTBG's cash position. They will resume as financial resources allow.

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- Some maintenance projects are on hold for lack of ability to obtain training and/or certifications. Certain courses require in-person instruction and instructors are not available on-island.
 - Several vacant positions are frozen due to financial constraints.

VISITOR PROGRAM

- By the numbers: We generated just over \$750,000 in tour revenue and \$65,000 in gift shop sales on 15,000 visitors in 2020. This was down from an anticipated \$2.5M in revenue and 60,000 visitors. Over 90% of 2020 revenue was generated in the first 3 months.
- Sold 100+ memberships, and received over \$10,000 in donations.
- Downsized and restructured staff and operations to best match offerings with demand. Key to this is maintaining the flexibility to ramp up/down operations depending on frequently changing circumstances. There were nearly 25 staff in the visitor program and today there are two full-time and one active casual person.
- Launched a Virtual Reality app in partnership with Timelooper for NTBG's Kaua'i Gardens that is available in the Apple and Google app stores.
- Launched an online store for a selection of gift shop merchandise, which saw just over \$1,200 in sales.
- Moved all NTBG gardens to the same reservation system (FareHarbor) to capture efficiencies of having one program to learn and manage. This helps remove the burden of taking manual reservations.
- Allerton Garden Guided Tours are now volunteer docent led, where previously that role was a paid staff person. "Allerton Garden at Sunset" and the "Best of Both Worlds" (combination) tours are still guided by staff.
- We've seen an uptick in private and exclusive tours, partly due to COVID-19 safety concerns, and partly due to limited availability. When guests make an inquiry for a tour and/or time that isn't available, we inform them of the option for a private tour. Many realize the value and opportunity and decide to book a private tour.

WEDDINGS AND SPECIAL EVENTS

- Hosted 35 events in 2020 for a total of just over \$35,000 in revenue, down from in excess of \$100,000 in anticipated revenue.
- Limits on social and professional organized gatherings have resulted in two dozen postponements and cancellations. For the last quarter of 2020, professionally organized outdoor gatherings up to 50 persons were permitted, but travel restrictions cut off mainland clients from making plans.

As we move into 2021, we find ourselves in a delicate, but ready position to grow back into what ultimately will be the "new normal." In terms of predicting and planning for the future of visitor program revenue, all eyes are on the rate at which immunizations are being rolled out, with some uncertainty surrounding the potential for virus variants to cause setbacks. While we are hopeful that measurable revenue will begin to resume this summer, it is not until late 2021 that we predict foot traffic will move the operations into the black. In the meantime, garden directors including myself will be taking on expanded responsibilities showcasing our organization to our neighboring communities and seeking out prospective supporters. 2021 does not promise to be much different than 2020, except that this year we are hoping for an uptick at year end instead of the other way around in 2020.

Coupled with these efforts is effectively communicating with both our known and future customers. We will be moving the Visitor Center Gift Shop to the Square point of sale system, bringing us into alignment with the systems used by all the other gardens. From there we will begin connecting visitor program customer information to the Raisers Edge donor management system. This means, for example, that we can create a record of a member going on a tour, or making a purchase in the shop.

Operationally, next steps include filling positions in the facilities and horticulture departments that were put on hold due to financial constraints. We are simply unable to keep up our landscapes, collections and facilities at the present staffing level. Included in this effort is finding a replacement Horticulture Manager. This will also help create some bandwidth to start with drafting landscape management plans to help guide our planning for larger, capital improvement projects such as those put forth in the McBryde Garden Renewal Project: Palmetum Connector and Gardeners' Facility.

Living Collections and Horticulture

Michael J. DeMotta, Curator of Living Collections and Horticulture

The safety of our staff, interns and volunteers has always been a top priority and even more so during a pandemic. We have been able to move forward with all our priorities for rare and common plant conservation and propagation by being creative and careful in our daily work routines.

Our top strategic objectives have all been addressed throughout the past year despite the logistical challenges of travel and social distancing.

Collect and curate extant cultivars of Hawaiian canoe plants for conservation and education within our Hawai'i Gardens

- A thorough garden-wide inventory was done to assess our collections of Hawaiian Canoe Plants. Now we know what we have and can work towards acquiring cultivars that we don't have. We have actively collected Hawaiian sweet potato varieties from collaborating organizations to build our collection. NTBG's collections of Hawaiian taro, sugar cane and sweet potato cultivars are substantial and we will continue to add varieties as they become available. An important function of our living collections is to conserve these heirloom cultivars to preserve an important part of our culture and to provide future resilience in a world of climate change. Our ability to compile this information highlights the importance of accurate curation of all our collections. Plant Records Manager Kevin Houck works with all garden directors to continuously update inventory in each garden.

Become the leader in Hawai'i for the propagation and conservation of threatened and endangered native ferns

- Native fern propagation has been an ongoing project in living collections since 2007. Very few Hawaiian ferns were being grown at that time and they were all clones. Since then, we have successfully grown dozens of species from spore in our fern lab and the plants have been used in restoration work at Limahuli Garden and Preserve. We currently have 27 fern taxa in various stages of cultivation in the fern lab at the horticulture center. These successes can be attributed to our dedicated staff and our interns.

Increase the conservation of native Hawaiian plants through both ex situ collections and landscape scale restorations

- Living collections supports wide-ranging conservation efforts within NTBG by providing expertise in growing common and rare native Hawaiian plants in our nursery. We communicate with staff who oversees grants and contracts within the garden on a regular basis, updating plant lists and sending plants on a regular schedule to project sites that help restore native ecosystems.
- One of our great achievements in the past year involved collaboration with science and conservation, Limahuli Upper Preserve staff and an external partner, Lyon Arboretum Micropropagation Facility. Not seen in the wild for many years, NTBG field biologists discovered a new population of *Cyanea kuhihewa*, previously known from just one population in upper Limahuli Valley. Immature seeds were submitted to Lyon's micro-propagation lab, where they were grown and then cloned. These clonal seedlings were then sent to our nursery where they were acclimated to nursery conditions and eventually given to Limahuli Preserve staff who planted them back in their native range in the upper preserve. We will continue this process until a reproducing population is established in upper Limahuli Valley. There are many more similar success stories that we'd like to share at an in-person meeting in the future. You will find our annual nursery and living collections report on the following page.

National Tropical Botanical Garden 2018-2020 Living Collections Report as of December 31, 2020

Plant Outs	2018		2019		2020	
	T&E	Common	T&E	Common	T&E	Common
KAHANU	1	78	29	223	11	24
Kahanu	1	78	29	223	11	24
KAMPONG	---	283	---	80	0	102
Kampung	---	283	---	80	---	102
LIMAHULI	391	2,391	579	3,765	1,227	4,190
Garden	243	1,710	375	2,417	155	2,372
Preserves	148	681	204	1,348	1,072	1,818
SOUTHSHORE	75	4,938	320	2,647	33	3,204
McBryde	73	4,938	115	2,562	33	3,198
Allerton	2	---	205	85	---	6
Plant Outs Total	467	7,690	928	6,715	1,271	7,520
All Taxa	8,157		7,643		8,791	
Outreach	2018		2019		2020	
	T&E	Common	T&E	Common	T&E	Common
ARBOR DAY	61	174	88	176	56	194
Plant	61	174	88	176	56	194
OUTREACH	886	847	20	2,019	248	13,349
Plant	92	844	20	1,869	229	2,211
Seed / Cutting / Other	794	3	---	150	19	11,138
PEP	1,441	0	453	7	799	0
Plant	1,431	---	453	7	606	---
Seed / Cutting / Other	10	---	---	---	193	---
RESEARCH & EDUCATION	51	4,223	89	1,118,899	940	1,937
Plant	---	6	---	8	3	---
Seed / Cutting / Other	51	4,217	89	1,118,891	937	1,937
REFUGIA	---	273,767	---	984,061	200	400,968
Seed	---	273,767	---	984,061	200	400,968
RESTORATION	110	489	403	14,690	2,231	12,833
Plant	110	489	393	8,363	2,012	2,833
Seed / Cutting / Other	---	---	10	6,327	219	10,000
Outreach Plants Total	1,694	1,513	954	10,423	2,906	5,238
All Taxa	3,207		11,377		8,144	
Outreach Seeds / Other Total	855	277,987	99	2,109,429	1,568	424,043
All Taxa	278,086		2,109,528		425,611	
GRAND TOTAL All Plants	2,161	9,203	1,882	17,138	4,177	12,758
All taxa	11,364		19,020		16,935	
NURSERY INVENTORY *		235,609		384,584		545,178

* Approximate number of plants, propagules and started seeds as of December 31, 2020.

Please refer to the Education Report on page C-39 to learn about the education being done by Living Collections and Horticulture.

Breadfruit Institute

Diane Ragone, Director of the Breadfruit Institute

SUMMARY OF ACCOMPLISHMENTS

I am pleased to report that Breadfruit Institute staff myself, Noel Dickinson, Research Technician & Agroforestry Project Manager, and Graham Talaber, Agroforestry Technician, were able to make progress on various projects and goals for 2020, despite the challenges of the COVID-19 pandemic. We did so by being flexible, strategic, and realistic in our plan of action.

Management and care of NTBG's Breadfruit Conservation Collection at Kahanu Garden and the South Shore Gardens, the Regenerative Organic Breadfruit Agroforest (ROBA) (McBryde Garden), and associated research and conservation activities, were of utmost importance. Even though on-site educational programs ceased in March, we continued to be a resource for our local communities in tangible ways through activities directly aimed at helping mitigate food insecurity. We maintained an active presence on social media, providing information and resources to a wide global audience. Numerous organizations and individuals in Hawai'i and countries around the world reached out to the institute under the aegis of the Global Hunger Initiative. Interest in breadfruit tree planting projects for food security and product/economic development accelerated due to concerns about access to food and climate change impacts.

- The Global Hunger Initiative was launched in 2009 to respond to critical global food security issues by expanding plantings of good quality breadfruit varieties in tropical regions as a viable sustainable resource for agriculture, agroforestry, reforestation and economic development. A unique aspect of the initiative is entering into benefit-sharing arrangements with the countries of origin of varieties that are distributed to support conservation and capacity building in the Pacific, helping perpetuate traditional crop varieties and cultural knowledge. These landmark agreements underscore NTBG's commitment to the Convention on Biological Diversity and the Nagoya Protocol, and other international treaties related to plant genetic resources.
- During 2009-2017, more than 107,000 trees were distributed to 44 countries. This initiative was implemented in collaboration with Cultivaris NA (aka Global Breadfruit™) from 2009-2018 and Cultivaris GmbH (2019-2020) working with numerous in-country organizations and individuals. No trees were distributed by Cultivaris in 2020. We mutually agreed to terminate the agreement to propagate and distribute select varieties for tree planting projects. They intend to continue to propagate and sell Ma'afala as an ornamental houseplant in the European market.
- Concurrently, we began an association with Tissue Grown Corporation, a micropropagation facility in California, co-founded by Dr. Carolyn Sluis. Her company specializes in fruit and nut trees, including pistachio, walnut, almond, and cherries. Tissue Grown received plants from Cultivaris NA in 2018 and her team has successfully propagated and distributed Ma'afala plants to Hawai'i and the Caribbean. Arrangements were made to transfer all varieties (12) maintained as tissue cultures in Germany to Tissue Grown in early January 2021. They will be held as cultures for a two-year post-entry quarantine mandated by the U.S. Department of Agriculture for any *Artocarpus* species, including breadfruit, that enters the USA as live plant material.
- A formal agreement with Tissue Grown will be formalized in 2021, including a royalty payment of \$1.00 for every plant sold, 50% of which will be shared with the country of origin of a variety through benefit-sharing arrangements with Samoa and other countries.
- Patagonia Provisions launched a new Breadfruit Product (cracker) sourced from flour processed in Costa Rica—after five years of R&D—in late November. We salute Roger Still, former BFI Director of Global Initiatives, Michael Besancon, Food Industry Consultant, and Birgit Cameron, Managing Director of Provisions and her entire team for bringing this product to market. The Provision's website features extensive information about breadfruit and the Breadfruit Institute, including a video highlighting regenerative organic breadfruit agroforestry and Dr. Ragone and Ms. Dickinson. The cracker package includes the NTBG logo and information about breadfruit and the Breadfruit Institute.

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- Breadfruit flour from Costa Rica was produced from fruit harvested from trees donated through the Global Hunger Initiative to Paul Zink and his team at the Jungle Project, as well as established trees that might otherwise have been cut down. This project exemplifies the economic and food benefits of breadfruit tree planting projects. Local farmers are earning income and learning how to grow and use breadfruit and other plants in regenerative agroforestry systems.
 - Patagonia Provisions awarded a \$75,000 grant to support on-going activities in the ROBA, including salary and other operational support. Since 2016, Patagonia has provided \$310,000 for breadfruit agroforestry projects.
 - The ROBA celebrated its third anniversary in August. The Breadfruit Research Orchard of 23 accessioned breadfruit (12 varieties) and breadnut trees was transformed into a biodiverse, multi-layered, productive agroforest that changes over time and space. Nearly 150 species of short- and long-term crops and other plants are cultivated in this 2-acre demonstration. During 2020 plantings emphasized high-yielding species and biomass-rich species to enhance soil regeneration.
 - Monitoring and associated record keeping of crop production and yields were on-going and are required project deliverables. More than six tons of nutritious food crops, including 7,115 lbs. of breadfruit and 2,862 lbs. of 23 other crops, and 500 cut flowers were harvested. Ms. Dickinson and Mr. Talaber systematically monitored and harvested fruit from 14 additional accessioned breadfruit trees throughout the McBryde Garden and at the Southshore Visitor Center, harvesting nearly 3,100 lbs. from those trees.
 - COVID-19 economic impacts greatly increased the demand for food distributions from local food banks and other social service organizations. The institute has donated breadfruit for many years and helping our community during this unprecedented time of need was essential. Six-and-one-half tons of fresh produce were donated to NTBG staff, volunteers, and interns (4,388 lbs.) and 8,525 lbs. to the Kaua'i Independent Food Bank, Kaua'i Food Bank, Child & Family Services, Aloha Aina Poi Co., the Westside Christian Center, and the Marshallese Church of Waimea.
 - The Ceres Trust awarded a \$250,000 grant for operating support October 2020 - October 2021 to "Strengthen Conservation, Research, and Regenerative Breadfruit Agroforestry Capacities Related to NTBG's Breadfruit Institute." We are grateful for the Trust's extraordinary support—since 2013 it has provided more than \$1,600,000 in grants to support core institute operations and \$500,000 for tree planting initiatives. This year's grant supports activities related to care and management of nearly 300 breadfruit trees at Kahanu and McBryde Gardens, including salary support for Kahanu Garden and institute staff, contract arborists, Field Station and equipment repairs, soil diagnostic tests, and other essential supplies and tasks to maintain health and vigor of trees and associated grounds.
 - Holistic horticultural practices that comply with Organic Certification Standards were implemented with the assistance of Dan Rudoy, Mahina Organics, an expert in regenerative organic agriculture. He supplemented Kahanu Garden staff on a contract basis (January–August) by assessing tree and orchard health, applying biological sprays and mineral amendments, establishing and managing ground covers, and pruning trees. He worked closely with Kama Helekahi, Horticultural Technician, to install "agroforestry islands" around select breadfruit trees. Mr. Rudoy provided regular detailed reports with photographs, accomplishments, and recommendations, which are used to inform management practices.
 - At-risk breadfruit accessions have been identified and efforts are underway to replicate these using air layering methods. Two varieties have been successfully propagated at Kahanu Garden thus far and will be planted in 2021.
 - The December 2019 deadline for applying for the PhD Senior Scientist position was extended until February 29, 2020. The selection committee reviewed all applications and interviewed a short-list of potential candidates by video conferencing. We had to postpone bringing the top candidate to Hawai'i for in-person interviews until the 2nd quarter of 2021 with a deferred start date until 3rd quarter.
 - Staff vacancies: the Assistant to the Director of the Breadfruit Institute position has been vacant since mid-January 2020. This resulted in no new website content being created/posted in 2020 and lack of coordination/fulfillment of requests for information about breadfruit. Most significant is the inability to meaningfully engage with existing

collaborations and tree planting projects established since 2012, and assist with or help guide proposed tree planting projects in Hawai'i and elsewhere.

- Institute staff (Noel Dickinson & Graham Talaber) participated in the International Center for Tropical Botany Workshop (ND) at The Kampong, and 12 webinars including Agroforestry Design Workshop, Taro Growers Workshop, Benefits of Composting, Hawai'i Tropical Fruit Growers Conference, Soil Health & IPM, Invasive Pests, and Coffee Berry Borer.
- We increased our activity and reach on two social media platforms with more than 20,000 followers, a 35% increase since 2019. On Facebook, 251 posts reached 1,416,256 people around the world, and 151 Instagram posts reached 106,951 people.
- We are very grateful to all of the Trustees, Trustees Emeriti, Fellows, and individuals who generously supported the work of NTBG's Breadfruit Institute during the year with close to \$125,000 in unrestricted contributions.

GOALS FOR 2021

- Build Staff Capacity - Hire PhD Senior Scientist.
- Finalize agreement with Tissue Grown Corporation and send three - five new varieties to begin tissue culture process (takes up to two years for variety to be ready to distribute).
- Revitalize Global Hunger Initiative.
- Complete and submit two research papers to peer-reviewed journals: (1) breadfruit hybrid diversity and taxonomy; and (2) history of the NTBG Breadfruit Collection.
- Develop outline and structure for searchable on-line Breadfruit Variety Database.

Please refer to the Education Report on page C-39 to learn about the education being done by the Breadfruit Institute.

Science and Conservation

Prepared by Dr. Nina Rønsted, Director of Science and Conservation, on behalf of the Science and Conservation Department: Dr. David H. Lorence, Senior Research Botanist; Kenneth R. Wood, Research Biologist; Seana K. Walsh, Conservation Biologist; Dustin Wolkis, Seed Bank and Laboratory Manager; Timothy W. Flynn, Herbarium Curator; Ben Nyberg, GIS and Drone Program Coordinator.

The Science and Conservation Department (SCI-CON) is responsible for leading and conducting exploration, discovery, documentation, and scientific research, as the foundation for NTBG's work on conserving plants and biocultural knowledge of the tropics, with emphasis on the plants of Hawai'i and the Pacific. SCI-CON is responsible for NTBG's contribution to implementation of the Hawai'i Strategy for Plant Conservation. SCI-CON curates an official herbarium (PTBG, ca. 90,000 specimens), a botanical library (ca. 20,000 books and journals, 83 added in 2020), as well as a GIS and Imaging Laboratory and NTBG's Seed Bank and Laboratory.

The department consists of seven scientific staff members supported by interns, students and volunteers, all housed in the Juliet Rice Wichman Botanical Research Center (BRC) at Headquarters on Kaua'i. A joint multi-year postdoctoral researcher with the International Center for Tropical Botany at the Kampong, Dr. Elliot Gardner, started in October 2020 focusing on science support for tropical botany including phylogenetic and taxonomic studies. We are deeply grateful to our volunteers for their help, which is so essential to our departmental operations. Despite COVID-19 restrictions, our volunteers provided 662 hours of help in 2020.

Four NTBG staff members have started PhD studies in collaboration with the Natural History Museum of Denmark, University of Copenhagen in 2020 or are starting in 2021, strengthening the scientific capacity of the department and NTBG in the coming years.

- Dustin Wolkis, (PhD student enrolled April 2020). PhD thesis on changing the seed banking paradigm using Hawaiian lobeliads as a model system.
- Seana Walsh (enrolled in April 2020). PhD thesis on science-based conservation management of threatened Hawaiian plants.
- Ben Nyberg (under enrollment by April 2021). PhD thesis focusing on the development of drone programs for conservation research and support.
- Mike Opgenorth (Kahanu Garden and Preserve Director, enrolled November 2020). PhD thesis focused on the potential role of mycorrhizal fungi and other environmental parameters in the propagation and restoration success of *Gardenia remyi*.

SCIENTIFIC EXPEDITIONS

SCI-CON is committed to fieldwork as a means of exploring and monitoring the flora as well as acquiring new scientific data, which are essential for understanding the flora of the Pacific and for conservation planning. Our botanists routinely roam the mountains and valleys of Kaua'i as well as visiting other Hawaiian and Pacific islands or tropical regions, by foot, helicopter, rappelling and/or using drones, bringing back field observations and collections.

- Due to COVID-19, scientific expeditions in 2020 for any inter-island or international fieldwork plans have been postponed, whereas field work on Kaua'i has continued. In 2020, NTBG staff led by Ken Wood discovered, mapped and documented new locations and subpopulations of several rare and endangered Hawaiian plant species including *Flueggea neowawraea*, *Geniostoma lydgatei*, *Gouania meyenii*, *Hibiscadelphus distans*, *Isodendrion laurifolium*, *Lepidium orbiculare*, *Lysimachia scopulensis*, *Melicope stonei*, and *Schiedea viscosa*, which were all only known from less than 200 individuals in the wild providing new hope for ensuring the sustainable preservation of these species for the future. Many of these new subpopulations were discovered through NTBG's drone program led by Ben Nyberg. A press release was submitted by NTBG receiving multiple citations.

- NTBG has received a grant from National Geographic Society for a 6-week long fieldwork campaign in Micronesia led by Dr. Lorence, which we hope to conduct in fall 2021 or spring 2022. This is an important opportunity to study the lesser-known flora of some of the high islands as part of beginning the work on the written Flora of Micronesia in 2022.
- In 2021, NTBG plans to conduct an inventory of the Ka'upulehu Preserve on Hawai'i Island (6 acres) to assess the current conservation status and future management planning of the endangered flora in this preserve.

REGIONAL FLORAS

A Flora summarizes and describes the plants occurring in a particular region based on extensive floristic and systematic research. Floras are invaluable resources for both science and conservation planning. NTBG continues to lead several regional flora projects in the Pacific including the Floras of Marquesas Islands, Samoa, and Micronesia.

- In 2020, the second volume of the Flora of Marquesas Islands was published completing 20 years of research by Dr. David Lorence and McBryde Chair for Hawaiian Plant Studies, Dr. Warren Wagner adding 185 new species to the flora. More details are provided in the McBryde Chair report.
- In 2021, Dr. Lorence and Dr. Wagner will be updating and publishing the nearly completed manuscript for the Flora of Samoa drafted by Dr. Art Whistler, who sadly passed away as one of the first victims of COVID-19 in Hawai'i.
- In July 2021, NTBG will host a colloquium at the virtual American Botany Conference titled: "The Contribution of Regional Flora Projects to the Global Strategy for Plant Conservation."

IUCN RED LISTING OF THREATENED SPECIES

The IUCN Red List is a global resource classifying species' risk of extinction and is increasingly used for both conservation and funding priorities. NTBG is a member of the IUCN Species Survival Commission Hawaiian Plant Specialist Group responsible for the continuous assessment of Hawaiian plants. With botanical expertise, continuous surveying, high-quality records and collections, and a GIS lab to analyze distributions, SCI-CON is ideally placed and committed to provide assessments to the IUCN Red List, primarily for the flora of Kaua'i.

- In 2020, NTBG submitted 127 new assessments to the IUCN Red List, completing our goal of assessing all 255 vascular plants endemic to Kaua'i. While 5 percent of the assessed plants were already extinct and another 5 percent are possibly extinct or extinct in the wild, all of the remaining plants were classified as threatened according to internationally recognized IUCN Red List criteria. The majority of these were placed in the highest Critically Endangered (46 percent) or Endangered (41 percent) categories with only 3 percent assessed as Vulnerable. Only 45 percent of these taxa are officially listed as Threatened or Endangered under the U.S. Endangered Species Act showing that the conservation challenge of the flora of Hawai'i is under-estimated, urgent and of high conservation priority. A scientific publication summarizing the results is in preparation and the work has also been presented at the American Botany Conference and the Hawai'i Conservation Conference in 2020.
- In 2021, NTBG staff will continue with assessments of native plants found only on the two islands of Kaua'i and O'ahu, as well as threatened and endangered multi-island species, both in collaboration with assessors on O'ahu. NTBG also plans to conduct a first assessment exploring the IUCN Red List of Ecosystems.

AN ACTIVE HERBARIUM

Herbarium specimens are essential for documenting our conservation and research efforts. The specimens and their associated data are invaluable resources for research from taxonomy to societal challenges including conservation planning and assessments for the IUCN Red List as illustrated in other sections of this report. The Pacific Tropical Botanical Garden (PTBG) Herbarium is curated by Tim Flynn and is known for very high standards.

- In 2020 NTBG added 487 specimens collected by NTBG staff and 59 obtained as gifts. The herbarium now holds 89,565 specimens. Specimen exchange and loans have been very limited in 2020 due to COVID-19 closures of many institutions. Staff and volunteers mounted 1,072 specimens, entered data for 10,184, and digitized images of 4,460 specimens. 2,263 digital images were taken by staff of plants and habitats in Hawai‘i and uploaded to our digital image management system. 158 collections of leaf tissue in silica gel were added to our DNA repository.
- The herbarium received a grant (\$15,000) from the Collection Assessment Program (CAP) of the American Institute for Conservation and the Foundation for Advancement in Conservation to conduct a professional conservation preservation assessment of the BRC collections. We are currently gathering information for the assessors about the collections and the BRC building and climate conditions housing them, while we await the possibility of an in-person assessment visit in fall 2021.
- In 2020, curator Tim Flynn and Nina Rønsted led the development of a first strategy for the herbarium, which will also be part of the documentation for the CAP assessment.
- Together with colleagues from the Natural History Museums in London and Copenhagen and the Royal Botanic Gardens Kew, NTBG led the publication of a research topic in *Frontiers in Plant Science* highlighting the many uses of herbarium collections. (See publication list.)

SEED BANKING

Seed banking is an important ex situ conservation means for rare and threatened flora. The NTBG Seed Bank and Laboratory is managed and curated by Dustin Wolkis and currently includes over 16 million seeds representing 830 species, which are routinely checked for viability.

- With the help of our NTBG seed bank KUPU member and intern Kelli Jones, a complete inventory and reorganization was made in January 2020 for the first time in 30 years. The inventory resulted in the addition of 207 previously hidden accessions, a 12 percent increase in overall stored accessions.
- In 2020, a study led by Wolkis and Walsh was submitted to the journal *Biodiversity and Conservation* showing that repurposed seed bank data reveals variation in germination success between generalized provisional seed zones informing conservation planning for Hawai‘i’s foundational ‘ōhi‘a trees (*Metrosideros polymorpha* var. *glaberrima*).
- Another nearly completed study has explored the potential of seeds from herbarium collections as a last conservation resort for resurrecting extinct or critically endangered Kaua‘i plants, led by Jones, Wolkis and Rønsted. While excess seeds were available in the herbarium from 37 of 81 targeted nearly extinct taxa, none of them germinated, emphasizing the importance of continued conservation of rare and endangered plant taxa in living collections and seed banks with optimal storage conditions.

SCIENCE SUPPORT FOR CONSERVATION AND RESTORATION PLANNING

Many of our endangered species are so rare or occur in such remote locations that we know very little about their biology, or what defines their natural habitat range, which is significantly challenging our efforts to design effective conservation plans. NTBG is increasingly conducting strategic studies to improve conservation and restoration success, for example:

- A collaborative study funded by a University of Hawai‘i Sea Grant, and led by Walsh, Wolkis, research assistant Dr. Raffaella Abbriano, and Dr. Kasey Barton, University of Hawai‘i, is exploring salinity tolerance of plants from coastal ecosystems to predict climate change adaptation.
- A new NTBG-led study funded by a Fish and Wildlife Service Science Support grant with U.S. Geological Survey starting in 2021 will focus on the Critically Endangered *Pohyscias bisattenuata* to investigate correlation of outplanting success with origin of founder accessions and environmental characteristics across ten outplanting sites on Kaua‘i.

- Led by Dr. Uma Nagendra (Conservation Operations Manager and Ecologist, Limahuli Garden and Preserve) and Ben Nyberg, another new project funded by a USDA Conservation Innovation Grant will explore the potential for revegetating challenging critical areas using drone technology.
- Led by Mike Opgenorth (Kahanu Garden and Preserve Director) as the focus of his PhD thesis, studies of the potential role of mycorrhizal fungi in the propagation success of Critically Endangered *Gardenia remyi* will be starting in 2021. Nearly 70 herbarium collections from NTBG and the Bishop Museum are also being used to provide an understanding of the genetic diversity among extant and extinct subpopulations to provide a stronger basis for effective conservation planning for *Gardenia remyi*.

SCIENTIFIC PUBLICATIONS

In addition to publishing Volume 2 of the Flora of Marquesas, NTBG staff authored or co-authored 22 publications in peer-reviewed scientific journals in 2020, which are listed in a separate section of this report as well as continuously updated on the NTBG website: <https://ntbg.org/science-conservation/ntbg-staff-publications/>. Staff also regularly contributes scientific reports to authorities and collaborating organizations.

FUNDING

The work of the Science and Conservation Department is supported by a share of the core budget from NTBG's members and generous donors, which is fundamental for maintaining a continuously high level of activity including monitoring and conservation work for the hundreds of rare plants on Kaua'i. The department also continuously seeks competitive research and conservation grants from a diversity of foundations and government resources.

In 2020, NTBG's Science and Conservation Program received the following grants:

- National Geographic Early Career Grant. 'Establishing a breeding program for restoration of *Brighamia rockii*, a Critically Endangered Hawaiian lobeliad'. NTBG PI: Walsh. (\$8,028).
- Fish and Wildlife Service PIFWO FY2020 partner projects. 'Mt. Ha'upu Conservation Project'. Continuation of a current collaborative project initiated by NTBG's Living Collections and Horticulture Department. NTBG PI: Rønsted. (\$27,500).
- Mohamed bin Zayed Species Conservation Fund. 'Drone survey and inventory of the Critically Endangered Hawaiian cliff species *Lysimachia iniki* (Primulaceae)'. NTBG PI: Nyberg. (\$8,500).
- Mohamed bin Zayed Species Conservation Fund. 'Conservation of the Critically Endangered Kaua'i endemic plant species *Labordia helleri* (Loganiaceae)'. NTBG PI: Walsh. (\$10,000).
- Fish and Wildlife Service Science Support grant with U.S. Geological Survey. 'Correlation of outplanting success with origin of founder accessions and environmental characteristics for *Polyscias bisattenuata* on Kaua'i'. NTBG PI: Rønsted. (NTBG: \$56,167).
- USDA Conservation Innovation Grant. 'Revegetating challenging critical areas using drone technology'. NTBG PI: Nagendra, Limahuli Garden and Preserve, and co-PI Nyberg (\$89,000).
- National Science Foundation Collaborative Grant. 'Modeling the Paleobiogeographical Radiations of Hawaiian Flora'. With Dr. Michael Landis, Washington University in St. Louis and Felipe Zapata, University of California Los Angeles. NTBG PI: McBryde Chair Warren Wagner, co-PI: Rønsted. (NTBG \$200,603 including a 1-year postdoctoral researcher to be based at NTBG). See also the McBryde Chair report.
- National Geographic Society Biodiversity Exploration and Discovery grant. 'Towards completing a Flora of Micronesia: botanical inventory of Pohnpei and Palau, Caroline Islands'. NTBG PI: Lorence (\$49,583).

CONFERENCE PRESENTATIONS

In 2020, conferences were either postponed due to COVID-19 or held in virtual formats allowing NTBG staff to actively participate without any need for traveling.

- Seana Walsh presented NTBG's 'ōhi'a work and Dustin Wolkis presented on the value and pitfalls of using living collections in conservation research at the annual meeting of the American Public Gardens Association. Nina Rønsted presented NTBG's 'ōhi'a work at the annual meeting of the Center for Plant Conservation.
- NTBG hosted a colloquium titled: 'Extreme conservation measures for plants at the extremes in the Hawaiian archipelago model system' at the Botany Conference, the annual conference of the Botanical Society of America and collaborating organizations. The colloquium included 10 presentations covering conservation collaboration, biocultural conservation, landslide mitigation, drone discovery, IUCN Red Listing, plant pedigrees, pathogens and 'ōhi'a specific research. NTBG science staff Nagendra, Walsh, Wolkis, Nyberg and Rønsted presented along with associate researcher Dr. Kawika Winter, State Botanist Matthew Keir and researchers from the Universities of Hawai'i and Nevada.
- In July 2021, NTBG will host a colloquium at the American Botany Conference (virtual) titled: 'The Contribution of Regional Flora Projects to the Global Strategy for Plant Conservation'. NTBG staff will also present work at the Hawai'i Conservation Conference (virtual, July) and, if held, the IUCN World Conservation Conference (Marseille, September).

POPULAR SCIENCE COMMUNICATION

As part of NTBG's strategy to increase communication under the COVID-9 pandemic, the Science and Conservation Department has prioritized a large number of communication activities in 2020. Education activities are described in the dedicated education section of this report.

- SCI-CON staff provided six 30-minute presentations at the Ho'ike Circle program at the South Shore Visitor Center, several of which were streamed live for Allerton Garden Instagram.
- The collection pages on NTBG's homepage were redesigned and enriched with new content and a dedicated scientific publication page was added. Updating of the homepage will continue in 2021, adding more details about NTBG's Science and Conservation programs, ongoing projects, and collaboration with the International Center for Tropical Botany (ICTB).
- SCI-CON staff provided substantial content for NTBG's social media and newsletters and reported on NTBG's science and conservation work through dedicated Twitter accounts, primarily 260 tweets in 2020 from @NinaRonsted (more than 900 international followers and growing), as well by @BenBotanical and @WalshSeana.
- In 2020, Nyberg and Rønsted produced five 3-minute videos about climate change funded by a grant from the County of Kaua'i as replacement for a series of cancelled Climate Change Forum discussions. <https://ntbg.org/news/a-changing-climate/>. Ben Nyberg also edited multiple shorter and longer videos presenting NTBG's mission and gardens.
- Two professional videos were presented in the YouTube series PlantsAreCoolToo as part of the NSF-funded project on 'Unlocking the evolutionary history of a rapid Hawaiian Islands radiation with extraordinary breeding system diversity'. (See the McBryde Chair report.)
- Walsh talked at a City of Miami Beach Sustainachella virtual community workshop, Nyberg featured NTBG's drone program on Vice News, <https://www.vice.com>, and Nyberg and Walsh were featured in podcasts by <https://www.InDefenseOfPlants.com/Podcast>.

Please refer to the Education Report on page C-39 to learn about the education being done by Science and Conservation.

International Center For Tropical Botany at The Kampong

Dr. Chris Baraloto, Director

ADMINISTRATIVE UPDATES

- The ICTB joined FIU's Institute of Environment to form one of the largest and most impactful environmental research programs in the world.

STAFF UPDATES

- ICTB welcomed two new faculty, Dr. Adam Roddy and Dr. Oscar Valverde-Barrantes. A third recent hire, Dr. Anna Simonsen, will be joining us in early 2021.
- In addition, Dr. Elliot Gardner was hired as a postdoctoral fellow, who will be co-mentored by Dr. Chris Baraloto and Dr. Nina Rønsted.

ACADEMIC PRODUCTION

- ICTB researchers have maintained high productivity with several dozen publications in the past six months including in prominent journals such as *Nature*.

HEADQUARTERS BUILDING UPDATE

We have made considerable progress on the ICTB headquarters.

- The ICTB Headquarters received official Notice to Proceed on January 25, 2021.
 - Site preparation began in February 2021
 - The building is expected to be completed before 01/25/2022
- We continue with the maintenance of the gardens on the Douglas Road front of Hissar, as part of the Commodore Trail
 - We have planted a butterfly friendly landscape, including many Florida native plants.

EDUCATION AND OUTREACH PROGRAMS

Collaborative Online International Learning Course in Biodiversity Monitoring

- ICTB Director Chris Baraloto initiated a course entitled Biodiversity Across Ecosystems in 2021 in collaboration with three other international universities, UNAM-Merida (Mexico), UNESP-Sao Paulo (Brazil) and USFQ-Quito (Ecuador). The course instructs 50 students with case studies from terrestrial, aquatic and marine ecosystems around the globe. NTBG scientists Dr. Nina Rønsted and Mr. Ben Nyberg participated with excellent case studies on IUCN Red Listing and drone monitoring of threatened Hawaiian plants. The annual course is planned to be the first phase in a program that will include international field courses in multiple countries in the coming years.

Grove ReLeaf

- Our team of students and volunteers has now measured more than 3,500 trees representing more than 150 species across Coconut Grove. Our open database allows Miami residents to explore the mapped and measured trees as well as enter trees from their own properties.
- We continue our partnership with Carrolton School of the Sacred Heart (Catholic college preparatory day school for girls in Coconut Grove) to include tree measurement and identification in their curriculum.

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- Our initial tree guide is in print and represents a tool to help residents identify the most common trees in the area.

Food Forests

- Complementing our partnership with The Education Fund's Food Forest in Schools Program, we are planning demonstration food forest plots at the ICTB Headquarters, one of which will feature parallels with the breadfruit plots at NTBG's McBryde Garden Regenerative Organic Breadfruit Agroforest (*ROBA*).
- Our food forest plant guide, to be printed in March, compiles a list of more than 70 edible and medicinal plants. The plants are chosen specifically for the South Florida climate and growing conditions.
- Demonstration workshops and plant giveaways are planned for early summer.

Tropical Botany at The Kampong

- International travel remains restricted; therefore, we have decided to postpone the Tropical Botany course. We expect the 2022 course to be held at the ICTB Headquarters.

Kampong Science Teacher Enrichment Program

- Considering that in-person programming remains limited, KSTEP has been postponed until Fall 2021.

Tropical Conservation Internship

- Students completed 2020 projects remotely. The Tropical Conservation Internship has been halted as per FIU policy and it is expected to resume in Fall 2021.

McBryde Chair Report

Prepared by Dr. Warren Wagner, NTBG McBryde Chair for Hawaiian Plant Studies 2020

REGIONAL FLORAS

These projects synthesize the best and most-recent classification of the plants of a particular region based on collecting exploration and related systematic research. Floras are invaluable resources for both science and conservation planning. For many decades these projects have been a significant component of the research programs of NTBG, and usually in collection with regional partners and a long-standing collaboration with the Smithsonian Institution. As part of our commitment to documenting the flora of the Pacific, SCI-CON is continuously leading or collaborating on several major Floras of Pacific regions currently including Floras of the Hawaiian and Marquesas islands, Samoa, and Micronesia. The completion of the Marquesas project has come to fruition with the publication of Volume 1 in 2019 and Volume 2 in September 2020. The two-volume set, totaling 1,134 pages, includes introductory chapters covering the project's history, Marquesan geology and climate, a history of plant collecting in the islands, floristic qualities and plant communities, threats to the flora, conservation status of species including IUCN Red List recommendations, critical conservation considerations, and many other aspects, as well as taxonomic treatments of the native and naturalized ferns, lycophytes, monocots, and dicots. The volumes are richly illustrated with 391 full page figures including 273 plates of color images, 84 illustrations by Smithsonian illustrator Alice Tangerini, who also served as illustration coordinator, and 34 illustrations by other illustrators. This is one of the first flora projects fully developed and presented in a web format <https://naturalhistory2.si.edu/botany/marquesasflora/> launched in 2002. Over the course of the project 35 additional publications by Dr. David Lorence, Wagner, and other collaborators were completed, and include 86 species new to science, increasing the known native flora by 25%. About one half of these were published in two special issues in *Allertonia* (1997) and *PhytoKeys* (2011).

NSF-FUNDED COLLABORATIVE PROJECT ON *SCHIEDEA*

The team of Ann Sakai and Steve Weller (University of California, Irvine), Michael Moore (Oberlin), Norm Wickett and Krissa Skogen (Chicago Botanic Garden), Warren Wagner (NTBG/Smithsonian), and Lauren Weisenberger (U.S. Fish & Wildlife Service) uses molecular methods to allow for considerable enhanced detail of the evolution of *Schiedea*, one of the largest Hawaiian endemic lineages in the carnation family. In 2020, two science videos were completed in collaboration with Chris Martine (Bucknell) produced as part of the Plants Are Cool, Too! YouTube series (Episode 1: Rare plant biodiversity at the National Tropical Botanical Garden, and Episode 2: How to save a species from going extinct). During the past year NTBG provided additional collections from fieldwork and herbarium. Seeds of *Schiedea kauaiensis* were germinated in NTBG's seed lab and propagated in the nursery resulting in hundreds of plants. Outplanting was carried out in Pa'aiki Gulch and Ku'ia Gulch preserves and NTBG's Limahuli preserve. These population outplantings will help protect the species from extinction, and allow for study of moth pollinators and reproductive success. Several aspects of the grant such as fieldwork on several islands to study moth pollination and hybridization as well as a 2-day workshop/symposium, co-sponsored by NTBG, on new methods in plant conservation scheduled for June 2020 have been postponed due to the Covid-19 pandemic.

NEW NSF-FUNDED PROJECT ON HAWAIIAN PLANT BIOGEOGRAPHY

Funded for 3 years starting 2021 for \$1,121,030 (\$200,603 to NTBG) and led by a team of Michael Landis (Washington University St. Louis), Felipe Zapata (University of California Los Angeles), Bruce Baldwin (Berkeley), Warren Wagner (NTBG/Smithsonian) and Nina Rønsted (NTBG). Understanding how the Hawaiian flora originated and diversified can help direct conservation efforts, particularly for rare plants. This research will develop a suite of new statistical modeling software to reconstruct how, when, and where groups of closely related species originate, disperse, and go extinct among regions with complex geological histories. The project will integrate existing herbarium collections and newly collected plant specimens to generate a large genomic dataset for nearly 400 understudied Hawaiian plant populations, then infer how this diversity originated with the newly developed software. A second objective will reconstruct the biogeographical histories of 12 understudied, but ecologically diverse, Hawaiian plant radiations. This systematic work will be supported by a shared post-doctoral fellow based at NTBG in the third year. In addition to early-stage researchers through the research, the project will host computational biogeography workshops and develop a series of free teaching modules on the biogeography of Hawaiian plants.

NTBG Staff Publications January 1st – December 30th, 2020

NTBG Staff highlighted in bold and associates underlined. <https://ntbg.org/science-conservation/ntbg-staff-publications/>

- Allasi Canales, N., T. G. Hansen, C. Cornett, K. Walker, F. Driver, A. Antonelli, C. Maldonado, M. Nesbitt, C. J. Barnes, **N. Rønsted** (2020). Historical chemical annotations of Cinchona bark collections are comparable to results from current day High-Pressure Liquid Chromatography technologies. *Journal of Ethnopharmacology* 249, 112379. <https://doi.org/10.1016/j.jep.2019.112375>
1. Allasi Canales, N., T.G. Hansen, C. Cornett, K. Walker, F. Driver, A. Antonelli, C. Maldonado, M. Nesbitt, C.J. Barnes, **N. Rønsted** (2020). Historical chemical annotations of Cinchona bark collections are comparable to results from current day High-Pressure Liquid Chromatography technologies. *Journal of Ethnopharmacology* 249, 112379. <https://doi.org/10.1016/j.jep.2019.112375>
 2. Appelhans, M.S., C. Paetzold, **K.R. Wood**, W.L. Wagner (2020). RADseq resolves the phylogeny of Hawaiian *Myrsine* L. (Primulaceae) and provides evidence for hybridization. *Journal of Systematics and Evolution* 58(6), 823-840. <https://doi.org/10.1111/jse.12668>
 3. Baskin, C., J. Baskin, A. Yoshinaga, **D. Wolkis** (2020). Seed dormancy in Campanulaceae: morphological and morphophysiological dormancy in six species of Hawaiian lobelioids. *Botany* 0:ja. <https://doi.org/10.1139/cjb-2020-0009>
 4. Baskin, C.C., J.M. Baskin, A. Yoshinaga, **D. Wolkis** (2020) Physiological dormancy in seeds of tropical montane woody species in Hawai'i. *Plant Species Biology* 36(1), 60-71. <https://doi.org/10.1111/1442-1984.12295>
 5. Bernard, J., K.C. Brock, V. Tonnell, **S. Walsh**, J.P. Wenger, **D. Wolkis**, G.D. Weiblen (2020). New species assemblages disrupt obligatory mutualisms between figs and their pollinators. *Frontiers in Plant Science*, 8, 406. <https://doi.org/10.3389/fevo.2020.564653>
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 7. Clement, W.L., S. Bruun-Lund, A. Cohen, F. Kjellberg, G.D. Weiblen, **N. Rønsted** (2020). Evolution and classification of figs (*Ficus*, Moraceae) and their close relatives (Castilleae) united by involucre bracts. *Botanical Journal of the Linnean Society* 103(3), 316–339. <https://doi.org/10.1093/botlinnean/boaa022>
 8. Hassemer, G. & **N. Rønsted**. (2020). The Critically Endangered Saint Helena endemic *Plantago robusta* (Plantaginaceae): typification, complete morphological account and discussion of knowledge gaps. *Phytotaxa*, 471(2): 127-138. <https://doi.org/10.11646/phytotaxa.471.2.3>
 9. Hoban, S., T. Callicrate, J. Clark, S. Deans, M. Dosmann, J. Fant, O. Gailing, K. Havens, A. Hipp, P. Kadav, A. Kramer, M. Lobdell, T. Magellan, A. Meyer, M. Pooler, E. Spence, P. Thompson, R. Toppila, **S. Walsh**, M. Westwood, J. Wood, P. Griffith (2020). Taxonomic similarity does not predict necessary sample size for ex situ conservation: a comparison among five genera. *Proceedings of the Royal Society B* 287, 20200102. <https://doi.org/10.1098/rspb.2020.0102>
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11. Knope, M. L., V.A. Funk, M.A. Johnson, W.L. Wagner, E.M. Datlof, G. Johnson, D. Crawford, J.M. Bonifacino, C.W. Morden, **D.H. Lorence**, **K.R. Wood**, J.-Y. Meyer, S. Carlquist. (2020). Dispersal and adaptive radiation of *Bidens* (Compositae) across the remote archipelagoes of Polynesia. *Journal of Systematics and Evolution*, 58(6), 805-822. <https://doi.org/10.1111/jse.12704>
 12. **Lorence, D. H.** & W.L. Wagner. (2020). Flora of the Marquesas Islands. Volume 2: Dicots. *National Tropical Botanical Garden*. 722 pp.
 13. **Lorence, D.**, W.L. Wagner, **K.R. Wood**, G. Johnson (2020). *Pogostemon guamensis* Lorence & W.L.Wagner (Lamiaceae), a new species from Guam, Mariana Islands. *PhytoKeys* 169: 61-73. <https://doi.org/10.3897/phytokeys.169.58107>
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 16. Martinez-Swatson, K., E. Mihály, C. Lange, M. Ernst, M. Dela Cruz, M.J. Price, T. Nørgaard Mikkelsen, J.H. Christensen, N. Lundholm, **N. Rønsted** (2020). Biomonitoring of polycyclic aromatic hydrocarbon deposition in Greenland using historical moss herbarium specimens shows a decrease in pollution during the 20th century. *Frontiers in Plant Science*, 11, 1085. <https://doi.org/10.3389/fpls.2020.01085>
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 20. Salvidia, P., **K.R. Wood**, D.A. Orlovich, J.M. Lord (2020). *Pacifigeron indivisus* (Asteraceae: Astereae), a new species endemic to Rapa, Austral Islands, and a new delimitation of the *Celmisia* group. *Phytotaxa* 442(4), 239-266. <https://doi.org/10.11646/phytotaxa.442.4.1>
 21. Winter, K., N.K. Lincoln, F. Berkes, R.A. Alegado, N. Kurashima, K.L. Frank, P. Pascua, Y.M. Rii, F. Reppun, I.S.S. Knapp, W.C. McClatchey, T. Ticktin, C. Smith, E.C. Franklin, K. Oleson, M.R. Price, M.A. McManus, M.J. Donahue, K.S. Rodgers, B.W. Bowen, C.E. Nelson, B. Thomas, J.-A. Leong, E.M.P. Madin, M.A.J. Rivera, K.A. Falinski, L.L. Bremer, J.L. Deenik, S.M. Gon III, B. Neilson, R. Okano, A. Olegario, **B. Nyberg**, A.H. Kawelo, K. Kotubetey, J.K. Kukea-Shultz, R.J. Toonen (2020). Ecomimicry in Indigenous resource management: optimizing ecosystem services to achieve resource abundance, with examples from Hawai'i. *Ecology and Society* 25(2), 26. <https://doi.org/10.5751/ES-11539-250226>
 22. **Wolkis, D.**, S. Blackwell, **S.K. Villanueva** (2020). Conservation seed physiology of the ciénega endemic, *Eryngium sparganophyllum* (Apiaceae). *Conservation Physiology* 8,1, coaa17. <https://doi.org/10.1093/conphys/coaa017>
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Additional publications by NTBG associated researchers in 2020.

1. Draper, F.C., T.R. Baker, C. Baraloto, J. Chave, F. Costa, R.E. Martin,... G.P. Asner (2020). Quantifying tropical plant diversity requires an integrated technological approach. *Trends in Ecology & Evolution* 35(12), 1100-1109. <https://doi.org/10.1016/j.tree.2020.08.003>
2. Fortunel, C., C. Stahl, P. Heuret, E. Nicolini, C. Baraloto (2020). Disentangling the effects of environment and ontogeny on tree functional dimensions for congeneric species in tropical forests. *New Phytologist*, 226(2), 385-395. <https://doi.org/10.1111/nph.16393>
3. Hogan, J.A., O.J. Valverde-Barrantes, Q. Ding, H. Xu, C. Baraloto (2020). Morphological variation of fine root systems and leaves in primary and secondary tropical forests of Hainan Island, China. *Annals of Forest Science*, 77(79). <https://doi.org/10.1007/s13595-020-00977-7>
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10. Winter, K.B., T. Ticktin, S.A. Quazi (2020). Biocultural restoration in Hawai'i also achieves core conservation goals. *Ecology and Society* 25(1), 26. <https://doi.org/10.5751/ES-11388-250126>

Education: A compilation from all Gardens and Programs

Throughout our organization, our Garden and Program Directors work with their staff to create educational opportunities. Never has it been more important to provide this support, especially in our communities, as our teachers struggle with distance learning and student engagement. We are all excited about the possibility of hosting more educational groups in the garden as COVID vaccination increases and travel restrictions are eased. However, knowing that digital communications are here to stay, we are taking this opportunity to develop more educational courses, webinars and videos that can be made available online.

The following reports are from the Garden and Program Directors, describing in their own words the educational opportunities they have had in 2020.

EDUCATION – GARDENS

Kahanu Garden and Preserve

Mike Ogenorth, Director of Kahanu Garden and Preserve

Kahanu Garden's strategy to continue education in the midst of the COVID-19 pivoted to a greater focus on social media. Information about plants, Hawaiian ancestral knowledge, garden happenings, and inspiring photos helped connect and educate our supporters that could not be here in person. Led by Kahanu Garden Operations Manager Hi'ilani Aiona, new social media content nearly tripled from 21 posts on Instagram in 2019 to 61 posts in 2020. While in person visits reduced dramatically, Kahanu Garden did host two local Hāna groups led primarily by their teachers. On June 18, 35 students from Ke Kula Kaiapuni, the Hawaiian language immersion school, had the opportunity to walk through and experience Kahanu Garden. On July 24, the garden welcomed 10 Hāna students involved in the Mālama Hāloa (literally, to take care of the taro plant) program that were interested in experiencing the diversity of breadfruit at Kahanu Garden.

Bailey Spry, joined Kahanu Garden for five weeks as a Summer KUPU Leadership Intern. During her time at Kahanu Garden, she was provided the opportunity to learn nursery management, living collections documentation, and organic farming. After completing the program, Bailey moved on to obtain a bachelor's degree in botany from the University of Hawai'i at Mānoa. In the coming year, Kahanu Garden hopes to continue involvement in the KUPU year-long Conservation Leadership Development Program, Summer Conservation Leadership Program, the Bay Watershed Education and Training (B-WET) high school program with Hāna High and Elementary School and welcome back more educational groups in the fall semester as current restrictions related to COVID-19 subside.

The Kampong

Craig Morell, Director of The Kampong

There have been several long-standing educational programs at The Kampong. Most of the heritage programs were cancelled or put on hold due to COVID-19 group restrictions in 2020. The Tropical Botany Course, Kampong Science Teacher Enrichment Program (K-STEP), The Barnyard After School Program and the Botanical Illustration Course with Sarah Roche were suspended, and none have yet been renewed for 2021.

There is hope for lecture and educational programs to return by the end of 2021, as we have seen more groups visiting and being more comfortable with the safety protocols and social distancing requirements that are in place.

Some programs that were held pre-COVID-19 in early 2020 were:

The Kampong Lecture Series

- January lecture by Paul Marcellini, Florida Fine Art Photographer. Lecture Topic: *Florida, A Land of Water*.
- February lecture by renowned ethnobotanist Dr. Jan Salick, Senior Curator Emerita at the Missouri Botanical Garden, and 2020 recipient of the David Fairchild Medal for Plant Exploration. Lecture Topic: *Neither Man nor Nature*.

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- The remainder of the lectures scheduled for 2020 were canceled, and the lecture series has not been re-scheduled for the remainder of 2021.

Aerial Landscaping - The Final Frontier - A new joint venture with the University of Miami (UM) and NTBG's The Kampong, was initiated in December 2020 and was slated to launch in January 2021. The course is going forward really well and is on track to have a quality module about Everglades Orchid Conservation for Homeowners available at the end of April 2021. The educational module will be added to the NTBG website as part of an educational video library by May 2021.

2021 Education Goals: Establish solid connections with Miami-Dade College Horticulture Program and with University of Miami Environmental / Ecosystem Science Policy School.

Limahuli Garden and Preserve

Lei Wann, Director of Limahuli Garden and Preserve

Although 2020 has been a tough year to welcome educational groups and programs in our garden, Limahuli continues to be resilient in the face of change and hardship. This year encouraged us to become creative about how we approach education.

- In 2020, we continued to offer opportunities for individual families to bring their children (17 and under) free of charge to Limahuli Garden. In addition, we offered discounted rates to encourage people to come and visit our garden. Each family was provided an educational guide book upon arrival free of charge. We did this because we knew that many families and children are doing education from home. We feel it is important to offer opportunities and resources to supplement curriculum while our local schools struggle to reopen.
- In August 2020, we started to collaborate with a local high school called Kanu I Ka Pono Charter School. We offered several Horticultural and Hawaiian Culture-based classes in the garden via a virtual platform. Students could actually tour the garden and learn about plants from their homes in the middle of the pandemic. As a result, a unique curriculum was developed between Limahuli Garden and Preserve and Kanu I Ka Pono Charter School. Students were given individual projects, which required intensive research and study on various plants in Limahuli Garden and Preserve. Limahuli staff was available for interviews and emails to help support their projects. Randy Umetsu, Limahuli Garden Horticulture Specialist, and Lei Wann assisted 28 students virtually from Limahuli Garden and Preserve from August 2020 through October 2020 through this program.
- Randy Umetsu and Lei Wann gave a presentation in the 2020 'Ōhi'a Love Fest to 86 global learners. The topic of their presentation was called "Growing a Lei Garden." This presentation combined the culture of lei making, history and types of lei, horticulture techniques, and great conservation and biosecurity practices when making leis.
- From July 2020 through December 2020, we welcomed 12 homeschool/family groups. In these small educational groups, we were able to social distance and wear masks throughout the garden while learning about plants and Hawaiian culture. For some of these homeschool/family groups, we were able to support and supplement school standards.
- During 2020, we welcomed two KUPU Interns to our Limahuli crew. Darren Jiron joined our crew from February 2020 to August 2020. Darren spent a majority of his time working in the garden and Lower Limahuli Preserve. Kassandra Jensen joined us in October 2020, and is currently working in the Lower Limahuli Preserve.

South Shore Gardens, Kaua'i

Janet Mayfield, CEO, and Lorna Lopes, Education Coordinator

As with all our locations and programs, the South Shore Gardens Education Programming had to adjust and adapt to our new reality in order to deliver on our goal of supporting educators in our community.

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- Pre-COVID, we were able to host the *Botanical Illustration Workshop* led by Wendy Hollander. The three-week session got in right under the wire before everything shut down.
 - We were able to provide educational experiences to about 185 students in the gardens before mid-March. Since that time, Department of Education on Kaua'i has not allowed any excursions off-property, but we have been able to provide other means of connection, including videos.
 - The videos made in collaboration with Kaua'i Community College Cognition Learning (COGS) were a series called *Sprout Learning*, designed to provide fun and factual information about plants. The videos thus far are: *Miracle Berry*, *Awapuhi*, *Natural Dyes*, *Breadfruit*, *Ferns*, *Kukui Nut*, *Decorating for the Holidays with Lauhala*, and *Plantable Seed Paper*. All videos are available at <https://www.youtube.com/c/NTBGSavePlants/videos>. We plan to continue producing these in the future.
 - We adapted our Keiki Camps to provide a safe environment for the participants. The camps were limited to 6 participants ages 8-10 and had strict protocols, including masks, hygiene and social distancing. One was held in July and the other in October 2020. The parents and children were thrilled with being able to have an opportunity to get out into nature and the camps filled up quickly.
 - Brian Yamamoto, Professor at Kaua'i Community College (KCC), usually integrates visits to NTBG into all of his botany classes. He was able to begin bringing his students into the gardens again in September 2020, when KCC began in-person classes.
 - Although we were not able to hold our usual two-week Science Teachers Enrichment Program (STEP), we were able to provide a two-day STEP Workshop during winter break in December. Seven teachers participated and were very appreciative of the experience and the opportunity to learn in the garden and develop ideas for teaching their students.

EDUCATION – PROGRAMS

Breadfruit Institute

Diane Ragone, Director of the Breadfruit Institute

Education/outreach for the institute revolves around the Regenerative Organic Breadfruit Agroforestry (ROBA) demonstration in McBryde Garden. The ROBA is intended to serve as a living laboratory for producers, agriculturists, chefs, entrepreneurs, home gardeners, community organizations, researchers, students, and others interested in learning about breadfruit, breadfruit agroforestry, and regenerative organic agriculture.

- During the first 10 weeks of 2020, Noel Dickinson, Agroforestry Project Manager, and Graham Talaber, Agroforestry Technician, hosted 32 work-study students and instructors from Waimea High School and Kapa'a High School Agriculture Academy, two members of the Master Gardener Program, a graduate student from Northwestern University, and several volunteers. Visitors on South Shore Garden tours and special tours for donors/others were able to see the demonstration and learn about it through interpretive signage, and in some cases, conversations with Ms. Dickinson and/or Mr. Talaber.
- Plans to engage groups, individuals, volunteers, and interns in hands-on learning sessions were put on hold from March 15 through the end of the year, to adhere to COVID-19 guidelines. These included two Patagonia employees who were scheduled to volunteer through the company's competitive program for paid internships with an organization of the employee's choice. One was to spend two weeks helping in the ROBA, the other to be on site for one month assisting with the ROBA and resource/asset organization and digitization. We were also unable to secure an intern through a special KUPU program related to CARES Act funding.

In lieu of on-site activities, we accelerated efforts to share information resources on social media through Facebook.com/Breadfruit Institute and Instagram *breadfruit institute*. See Breadfruit Institute report for details (page C-25).

Living Collections and Horticulture

Michael DeMotta, Curator of Living Collections

Growing plants, especially rare native Hawaiian plants, is the most important thing we do in our nursery and in our gardens. Teaching others about how to do this is the second most important thing we do. Education starts with our staff, volunteers and all garden associates. Members of our program are asked to participate in education programs throughout the year and throughout all our gardens.

- We have been providing intern training opportunities at our nursery for many years. Even with the challenges of 2020, we hosted four KUPU Interns with three still ongoing in 2021. We have also had two additional interns through other programs. The goal with any internship is to expose people to the entire rare plant conservation experience that only NTBG can offer. With the extensive conservation history of our nursery, we provide a unique educational experience in plant propagation and database management that is not available anywhere else.
- In collaboration with Kaua'i Community College, we have used our living collections to produce educational videos for the Cognitive Learning Center that will expose young students on Kaua'i to plants and their uses. In this way, we continue our tradition of reaching out to all age groups and are able to bring our garden to students in a fun, interesting, and interactive way.
- Early in 2020, we helped facilitate garden tours for visiting schools, including Sacred Hearts Academy from Honolulu. Our collections, as well as our connection to Hawaiian culture and the plants important to Hawaiians, makes NTBG a unique resource to educators across the state.

Science and Conservation

Nina Rønsted, Director of Science and Conservation

- In 2020, SCI-CON has hosted a full-year KUPU Intern, Kelli Jones, based in the Seed Bank Laboratory and a cross-departmental KUPU Intern, Matthew Kahokulua, working with both Living Collections and Limahuli Garden and Preserve to support a Fondation Franklinia-funded project on Endemic Endangered Trees of Kaua'i.
- In 2020, SCI-CON has received funding from the Maxwell Hanrahan Foundation for an annual field-based research internship of three months starting in spring 2021. SCI-CON has also submitted summer internship proposals to the Pacific Internship Programs for Exploring Science (PIPES) program under the University of Hawai'i Hilo.
- In 2021, SCI-CON is developing a new virtual summer course titled "Botanical Conservation Collections - from Discovery to Restoration" showcasing NTBG's work and expertise for the Natural Resources and Environmental Management program at the University of Hawai'i at Mānoa. This course will also give students credits towards the Ecology, Evolution and Conservation Biology Graduate program, which three staff members are associated advisors for. When possible, the course should include optional extra credits for a final week of field program on Kaua'i.
- In 2021, SCI-CON staff is teaching on an international course titled "Biodiversity Across Ecosystems" led by the International Center for Tropical Botany (ICTB) at The Kampong in collaboration with universities in Mexico and Brazil.
- SCI-CON staff has occasionally provided lectures to Campbell and other university programs in 2020, as well as visited local schools.
- Three NTBG staff, Seana Walsh, Conservation Biologist, Dustin Wolkis, Seed Bank & Laboratory Manager, and Mike Opgenorth, Director of Kahanu Garden and Preserve, have been enrolled in the PhD program at the University of Copenhagen (UCPH) supervised by Nina Rønsted. Two BS students from UCPH have conducted a survey of the impact of COVID-19 on breadfruit farmers in Hawai'i, supported by SCI-CON, the Breadfruit Institute and Kahanu Garden. In 2021, three MS students from UCPH will be conducting projects with NTBG, one on conservation of *Gardenia remyi* supporting Mike Opgenorth's PhD project with UCPH, and two on

chemical evaluation of Hawaiian medicinal plants and *Wikstroemia* plants used for fish-stunning respectively. An MS student from the University of Chicago is working with Walsh and Wolkis on the effect of inbreeding level on pollen viability and pollen conservation of *Brighamia insignis*.



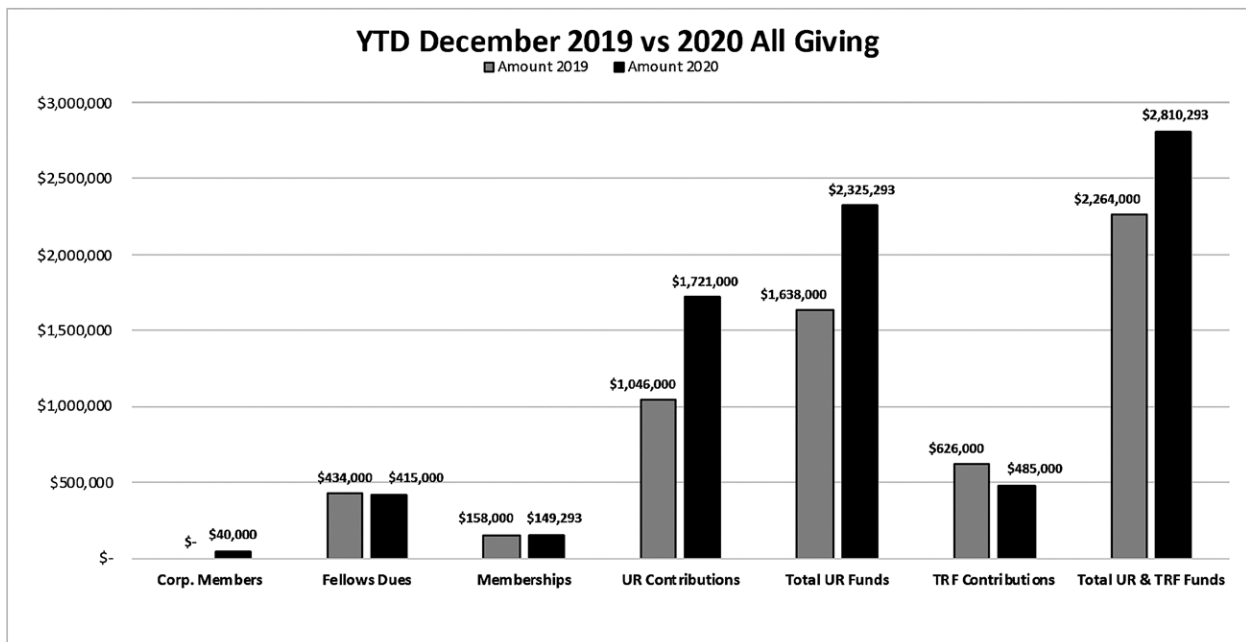
Section D Development

Development

Heather George, Director of Philanthropy

MEMBERSHIP, FELLOWSHIP, AND DONATIONS

- In 2020 we've gained 719 new general members, 12 new Fellows and 2 new corporate members at the \$10,000 and \$25,000 levels. NTBG ended the year with a total of 1,573 members, 165 Fellows and 4 corporate members, which rose over to \$564,000 in member and Fellows dues.
- Our *Healthy Plants. Healthy Planet.* Fall end of year appeal campaign was very successful allowing us to meet our budget goals. We have raised over \$182,000 in unrestricted gifts with a total of 359 donors (41 being brand new donors to NTBG!).
- These results are very positive considering the uncertainty in the charitable giving landscape this year. In 2021 we plan to focus on; increasing stewardship of existing and new members and donors, building new audiences and donors digitally and virtually.



OTHER ACTIVITIES AND EVENTS

- Our online auction in September (in place of the Moonlight & Music live event) was a success with over \$38,000 raised with the theme *Caring for the People who Care for the Plants*. Funds were raised to help the gardeners who support our Living Collections and Gardens. Many trustees and other generous donors helped and supported the event, with almost 100 items donated. We are planning another online auction in August 2021.
- We hosted our first online member event by Zoom in October for Hawai'i members, hosted by Mike DeMotta who gave an educational presentation about growing native Hawaiian plants. The event was attended by fifteen households and was lively and interactive. We plan to hold three virtual member mixer events in 2021.
- We also held four "Fellows and Friends" virtual Zoom events in the fall with guests grouped together by region. Hosted by Emerson Knowles and other Trustees, these were a successful way to have intimate conversations with Fellows and other major donors, and approximately \$20,000 was raised through these events. We plan to hold one each quarter in 2021.

GRANTS

- During the final six months of 2020, NTBG was awarded 19 grants for a total of \$1,445,152. Six requests, totaling \$289,000 were declined. Grant awards ranged from \$2,000 from the Hawai'i Community Foundation's Na Hoaloha 'Ekolu Community Fund (for Kahanu Garden) to \$200,000 from the Marisla Foundation (for the Conservation Program). We were also pleased to receive a one-time \$100,000 general operations grant from an anonymous foundation, which was used as a match for our fall appeal. Another eight grants (totaling \$660,497) were still pending as of December 31, 2020.
- It was encouraging to discover that grantors (foundations as well as government agencies) were very willing to work with us when we had to request extensions or modifications for several 2020 grants as a result of COVID-19 complications.
- We are pleased to start 2021 with a strong showing in grants as two long-awaited requests worth \$500,000 were awarded by the County of Kaua'i in January. One of our primary 2021 grant goals for the remainder of the year is to seek out grants to increase our communications capacity.

COMMUNICATIONS

- Even throughout a year of uncertainty and a devastating impact to the tour program, our total audience grew through increased and improved digital communication strategies. We gained more than 1,300 in email subscribers and more than 3,000 new social media followers. We saw an increase in email appeal click-through rates and dollars generated in the fall appeal from 65,049 in 2019 to 182,341 in 2020.
- We improved messaging by adopting a funnel based plan that targets audiences more effectively, and we are focused on meeting our audiences wherever they are in their stages of awareness of NTBG. We have also begun tracking month over month statistics to gain a better science of our communication performance.
- Our Volunteer Coordinator, Amanda Beisch continues to focus much of her time on digital communications, and our cross-departmental communications team meets every two weeks – both of which have served to strengthen and better plan our communications activities.

VOLUNTEERS

- We maintained our core volunteer base and ended the year with a total of 10,905 hours served by 294 individuals, despite the suspension of the volunteer program in the spring. This is a significant decrease in hours over the previous few years. However, volunteers still actively contributed to core activities such as horticulture center needs, herbarium specimen mountings, garden and facility maintenance, docents (when gardens reopened), and many other actions.
- We hosted 20 dedicated volunteers and their site supervisors for a guided walk through Allerton Garden and a celebratory meal in December. We also distributed 75 decade NTBG Volunteer face masks as a recognition gift to active volunteers at Headquarters, McBryde, Allerton, Limahuli Gardens and The Kampong.



Section E Financials

Audit, Tax, Risk Management

2021 FINANCIAL STATEMENT AUDIT

We have been in contact with our audit firm, KKDLY, who has tentatively scheduled our audit field work to start in early May. The audit will be conducted remotely, similar to last year's audit, and is on track to be completed by June 30, 2021.

2021 RETIREMENT PLAN 403(B) AUDIT, FORM 5500, AND 990 TAX RETURNS

The fieldwork for the annual retirement plan audit will begin once the annual financial statement audit is completed and the 5500 will be filed by the extended due date of October 15, 2021. The 990 and 990-T will be extended to November 15, 2021 and will be filed once the audit has been completed as we use the audited numbers to complete the returns. We do not anticipate any tax liability.

RISK MANAGEMENT

Cybersecurity Update

Our IT Manager, Matt Goodale, just recently completed an upgrade of our two servers and continues to perform monthly security scans. Our cyber insurance increased about 25% due to the number of cyber attacks that have increased exponentially during the pandemic.

As per our comprehensive Payment Card Handling Policies and Procedures, we continue to require annual training for all staff and volunteers who handle credit card information. We also make use of training tools from our cyber policy carrier that we plan on using to train staff on phishing scams and other security awareness training.

Directors & Officers (D&O) Insurance

We were recently notified upon renewal of our Directors & Officers liability policy that the carrier was reducing coverage from \$10M to \$5M. Fortunately, we were able to add an excess D&O policy of \$5M without an overall increase in cost, so the amount of coverage stayed consistent. Apparently, the insurance market is having a very tough time, and guidelines are getting much more stringent.

Culture of Safety

We have been updating our COVID safety policy as new guidance is issued by the CDC and other regulatory agencies. We are committed to keeping our employees, volunteers and visitors as safe as possible during the pandemic. Many staff have been working remotely whenever possible and travel has been restricted. We hope to be able to resume more of our normal activities later in the year as people get vaccinated and travel and social distancing restrictions ease.

We have instituted mandatory monthly online safety trainings in 2021 and hope to be able to hold some of the in-person trainings that we had to cancel last year potentially in the second half of the year.

Tamara A. Rollins
Chief Financial Officer
March 9, 2021

From: Merrill L. Magowan

The year 2020 was a tumultuous period for anyone involved in investments, and in particular the stock market. The year started innocently enough, but once the pandemic was identified and had begun to spread, widespread panic ensued. At its bottom at the end of March most indices were down 25%. This was reflected in the economy with widespread losses in a host of industries and large scale unemployment.

Miraculously, with no good news on the horizon, the stock market bottomed on March 23, and without any major positive economic news, began a sharp reversal. At the end of the year the Standard and Poor's 500 rose 16.25 %.

Against this backdrop, the NTBG portfolios performed well. The Chilton Trust account, which includes 30% of assets in fixed income, gained 16.9%, with equities leading the way up 23.56%. Everett Harris, which also holds 30% in fixed income, continued their steady ways, with the total portfolio up 10.9% and equities slightly outperforming the S & P 500. Hamlin Capital Management was the trailer, with their all-equity portfolio rising 5.36%. As discussed at our meeting on Nov. 11, there was widespread feeling that value-oriented investing was about to make a comeback. This bold sentiment was rewarded when Hamlin finally outperformed their peers with a gain of 15% in the fourth quarter.

At the Nov. 11 meeting, we also discussed entering the world of Environmental, Social and Governance (ESG) investing. Of our three current investment managers, only Chilton has a dedicated offering, and at that they were somewhat new - 2 years - to this world. In an effort to kick the tires and learn specifics as to how they were participating, Pat Henry and I visited them on Nov. 30 at their offices in Palm Beach. After a fruitful discussion, I recommended to the Committee to remove \$2.4 million from our existing Chilton equity portfolio to be placed in their ESG offering. After a series of emails to members of the Committee I directed Chilton to do so, and it was accomplished in mid-January. I eagerly await the first monthly statement of this new effort to precisely see the nature of the holdings.

In conclusion, our portfolios have weathered one of the most turbulent years in Wall Street history in good shape.

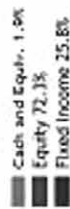
CHILTON TRUST

NATIONAL TROPICAL BOTANICAL GARDEN

Quarterly Overview

Net of Fees | US Dollar
12/31/2020

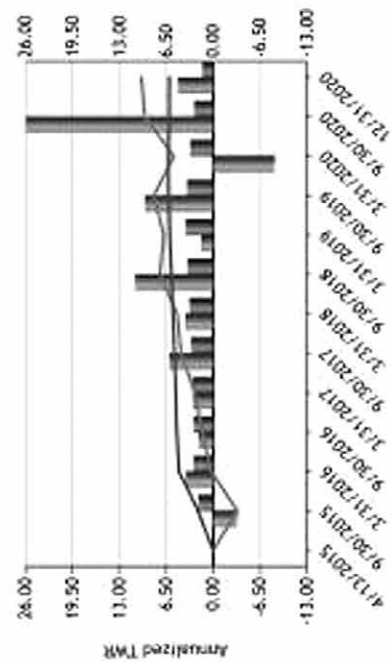
Allocation by Asset Class



Activity Summary

	Quarter To Date	Year To Date	Annualized Latest 3 Years	Annualized Inception To Date (4/13/2015)
Beginning Market Value	6,958,976	6,370,241	5,193,679	5,000,000
Net Additions + Withdrawals	-129,745	-223,912	-430,602	-976,952
Gains/Losses + Expenses	332,762	1,015,665	2,398,916	3,138,945
Ending Market Value	7,161,993	7,161,993	7,161,993	7,161,993
Time Weighted Return	4.85	16.19	14.08	9.93

Performance Since Inception (4/13/2015)



■ NATIONAL TROPICAL BOTANICAL GARDEN ■ T-BILL - 5% INDEX

Performance Summary

Asset Class	Market Value	Quarter To Date	Year To Date	Annualized Latest 3 Years	Annualized Inception To Date	Current Yield
NATIONAL TROPICAL BOTANICAL GARDEN	7,161,993	4.85	16.19	14.08	9.93	1.2
Cash and Equiv.	135,347					
Equity	5,180,207	6.74	23.56	20.25	14.83	1.0
Fixed Income	1,846,439	0.83	6.39	4.38	3.02	2.0
Other	-	-	-	-	-	-
Index						
T-BILL - 5% INDEX		1.42	5.54	6.61	6.05	

EVERETT HARRIS & CO. STATEMENT

EVERETT HARRIS & CO.
PERFORMANCE BY ASSET CLASS
Discounted Cash Flow Method Gross of Fees

1712ntbg

From 12-31-19 To 12-31-20

	CASH & EQUIVALENTS	FIXED INCOME	EQUITIES	OTHER ASSETS	EQUITIES - (MBW - LOAN COL.)	REAL ESTATE & MORTGAGES	Total Portfolio
Market Value on 12-31-19	47,374.89	1,219,241.33	3,591,343.36	0.00	0.00	0.00	4,857,959.58
Accrued Interest	0.00	12,985.63	3,164.78	0.00	0.00	0.00	16,150.41
Purchases/Contributions	970,058.33	666,139.07	87,628.43	0.00	0.00	0.00	1,975.36
Sales/Withdrawals	-946,073.36	-727,024.42	-281,353.77	0.00	0.00	0.00	-232,601.08
Transfers In	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfers Out	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Realized Gains	0.00	20.00	-86,706.43	0.00	0.00	0.00	-86,686.43
Unrealized Gains	0.00	-335.50	784,414.18	0.00	0.00	0.00	784,078.68
Interest Income	293.10	57,403.36	17,119.89	0.00	0.00	0.00	74,816.35
Dividend Income	0.00	0.00	53,188.37	0.00	0.00	0.00	53,188.37
Change in Accrued Interest	0.00	-1,744.04	0.00	0.00	0.00	0.00	-1,744.04
Market Value on 12-31-20	71,652.96	1,215,443.84	4,165,634.03	0.00	0.00	0.00	5,452,730.83
Accrued Interest	0.00	11,241.59	3,164.78	0.00	0.00	0.00	14,406.37
Total Gain before Fees	293.10	55,343.81	768,016.01	0.00	0.00	0.00	823,652.92
IRR for 1.00 Years	0.32%	4.59%	22.00%	0.00%	0.00%	0.00%	17.21%

Everett Harris & Co.

As of December 31st, 2020 the account value was \$5,452,731; the allocation was 76.4% equities and 23.6% fixed income and cash.

Performance summary:

	FY 2020		
	Fixed income	Equities	Portfolio
1712ntbg	4.59%	22.00%	17.21%
Index (*)	7.51%	18.40%	

	December 2020		
	Fixed income	Equities	Portfolio
1712ntbg	0.49%	4.93%	3.83%
Index (*)	0.14%	3.84%	

(*) Fixed Income index: Barclays Aggregate US Bond Index
Equities index: S&P500

HAMLIN CAPITAL MANAGEMENT LLC STATEMENT

Hamlin Capital Management, LLC
PERFORMANCE SUMMARY
NET OF FEES
National Tropical Botanical Garden
First Hawaiian Bank / 714183028
December 31, 2020

PORTFOLIO COMPOSITION				CHANGE IN PORTFOLIO	
	Market Value	Pct. Assets	Cur. Yield		
Cash	53,101.88	1.0	0.0	Portfolio Value on 12-31-19	5,405,180.22
Stocks	5,360,076.65	99.0	3.6	Net Additions/Withdrawals	-235,810.11
Bonds	0.00	0.0	-	Realized Gains	-761,511.09
Taxable Bonds	0.00	0.0	-	Unrealized Gains	847,153.80
Short Term	0.00	0.0	-	Income Received	206,615.31
Municipal Bonds					
Total	5,413,178.53	100.0	3.6	Management Fees	-48,449.61
				Portfolio Value on 12-31-20	5,413,178.53
				Total Fees	-48,449.61

TIME WEIGHTED RETURN					
	Month To Date	Quarter To Date	Year To Date	Last 12 Months	Inception To Date
Account	2.81	15.01	5.22	5.22	100.03
Stocks	2.83	15.51	5.55	5.55	129.94
S&P 500 Index	3.84	12.15	18.40	18.40	178.93
Russell 1000 Value Index	3.83	16.25	2.80	2.80	104.81
DJ US Select Dividend Index	3.56	19.09	-4.56	-4.56	102.44

CHANGES IN INVESTMENT ACCOUNTS

National Tropical Botanical Garden
Changes in Investment Accounts
For the Twelve Months Ended December 31, 2020
Estimate of Net Investment Income/Realized & Unrealized Gains/Losses

NTBG Investment Assets					
	Dec. 31, 2019 Market Value	Contributions (Distributions) to NTBG	Fees	Income Gains/(Losses)	Dec. 31, 2020 Market Value
Endowment Funds					
General Endowment	\$ 2,988,425	\$ (123,039)	\$ (14,306)	\$ 380,292	\$ 3,231,372
Endowment I	916,879	(37,750)	(4,389)	116,678	991,418
Endowment II	872,826	(35,936)	(4,178)	111,072	943,784
Endowment III	1,038,579	(42,760)	(4,972)	132,164	1,123,011
Conservation Endowment	1,093,251	(45,011)	(5,233)	139,122	1,182,129
Kampong/Sweeney	1,765,897	(72,707)	(8,453)	224,719	1,909,456
Kampong Capital Endowment	25,746	(1,060)	(123)	3,276	27,839
Limahuli Endowment [A]	464,327	17,861	(2,223)	59,088	539,053
McBryde Endowment	5,992,215	(246,711)	(28,685)	762,540	6,479,359
Director of Science [B]	254,670	206,950	(1,211)	32,182	492,591
Davies-Weeden Endowment	2,475,337	(74,260)	-	243,322	2,644,399
Kampong BRE	1,213,471	(49,961)	(5,809)	154,420	1,312,121
Total NTBG Investment Assets	\$ 19,101,623	\$ (504,384)	\$ (79,582)	\$ 2,358,875	\$ 20,876,532
Investment Balances by Manager					
Hamlin Capital Mgmt. (FHB)	\$ 5,397,870	\$ (218,838)	\$ (14,423)	\$ 240,830	\$ 5,405,439
Everett Harris & Co. (FHB)	4,857,820	(196,942)	(10,081)	801,760	5,452,557
Chilton Trust Co. (SSB)	6,370,596	(221,294)	(55,078)	1,072,963	7,167,187
Leuthold Funds	2,475,337	(74,260)	-	243,322	2,644,399
Deposited after 12/31/20 [B]	-	206,950	-	-	206,950
Total Endowment Funds	\$ 19,101,623	\$ (504,384)	\$ (79,582)	\$ 2,358,875	\$ 20,876,532
Charitable Gift Annuity					
Port Capital [C]	\$ 1,520,164	to Beneficiary \$ (81,600)	\$ (3,531)	181,738	\$ 1,616,771
Beneficial Trust Funds					
	Dec. 31, 2019 Market Value	Distributions to NTBG		Income Gains/(Losses) net of fees	Dec. 31, 2020 Market Value
Trust Funds					
Waterhouse	\$ 10,493,148	\$ (421,811)		\$ 1,153,774	\$ 11,225,111
Crum Trust	3,365,209	(145,464)		280,591	3,500,335
Allerton I	1,007,278	(44,709)		107,860	1,070,429
Allerton II	1,357,936	(69,490)		163,682	1,452,128
Allerton III (net of MV of RE)	12,203,458	(605,798)		1,314,158	12,911,818
Total Trust Funds	\$ 28,427,029	\$ (1,287,272)		\$ 3,020,065	\$ 30,159,821
TOTAL FUNDS INVESTED	\$ 49,048,816				\$ 52,653,124

[A] An endowment contribution was received in March, 2020 in the amount of \$36,978 from the Hashimoto Unitrust to benefit the Limahuli Endowment. This amount is netted with the distributions.

[B] The Director of Science Endowment was established in 2019, funded with a \$500,000 pledge of which \$250,000 was received and deposited in Chilton Trust Co. in December 2019. In 2020, \$206,950 was received toward the pledge and was in transit at the end of the year.

[C] In January 2015 a contribution was made in the form of a Charitable Gift Annuity (CGA). The CGA amount of \$1,200,000, along with an additional 10% required by the State of Hawaii, and is in a segregated reserve fund with Port Capital. Quarterly payments of \$20,400 are made to the beneficiary.

COMPARATIVE RECAP OF INVESTMENTS

**National Tropical Botanical Garden
Comparative Recap of Investments
Dec 2017 - Dec 2018- Dec 2019- Dec 2020**

	<u>Dec. 31, 2017 Market Value</u>	<u>Dec. 31, 2018 Market Value</u>	<u>Dec. 31, 2019 Market Value</u>	<u>Dec. 31, 2020 Market Value</u>	<u>Original Corpus</u>	<u>MV as % of Corpus</u>
<u>Endowment Funds</u>						
General Endowment	\$ 2,703,640	\$ 2,513,072	\$ 2,988,425	\$ 3,231,372	\$ 3,665,267	88%
Endowment I	829,505	770,875	916,879	991,418	1,000,000	99%
Endowment II	789,649	733,837	872,826	943,784	1,210,847	78%
Endowment III	939,607	873,195	1,038,579	1,123,011	1,499,743	75%
Conservation End.	989,069	919,341	1,093,251	1,182,129	1,000,000	118%
Kampong/Sweeney	1,597,615	1,484,986	1,765,897	1,909,456	2,500,000	76%
Kampong Capital End.	23,292	21,650	25,746	27,839	27,500	101%
Limahuli Endowment [A]	420,079	390,464	464,327	539,053	636,978	85%
McBryde Endowment	5,421,183	5,025,819	5,992,215	6,479,359	3,570,263	181%
Director of Science [B]	-	-	254,670	492,591	456,950	108%
Davies-Weeden Endowment	2,296,979	2,092,703	2,475,337	2,644,399	2,301,940	115%
Kampong BRE	1,097,833	1,020,519	1,213,471	1,312,121	1,000,000	131%
Total Endowment Balances	\$ 17,108,451	\$ 15,846,461	\$ 19,101,623	\$ 20,876,532	\$ 18,869,488	
<u>Investment Balances by Manager</u>						
Hamlin (FHB)	\$ 5,226,726	\$ 4,631,212	\$ 5,397,870	\$ 5,405,439		
Everrett Harris (FHB)	4,391,066	4,130,507	4,857,820	5,452,557		
Chilton Trust (SSB)	5,193,679	4,992,039	6,370,596	7,167,187		
Leuthold Funds	2,296,980	2,092,703	2,475,337	2,644,399		
Deposited after 12/31/20 [B]	-	-	-	206,950		
Total Investment Funds	\$ 17,108,451	\$ 15,846,461	\$ 19,101,623	\$ 20,876,532		
<u>Charitable Gift Annuity</u>						
Port Capital [C]	\$ 1,356,529	\$ 1,234,199	\$ 1,520,164	\$ 1,616,771		
<u>Trust Funds</u>						
Waterhouse	\$ 10,175,980	\$ 9,105,265	\$ 10,493,148	\$ 11,225,111		
Crum Trust	3,304,747	2,997,373	3,365,209	3,500,335		
Allerton I	1,008,399	876,393	1,007,278	1,070,429		
Allerton II	1,333,478	1,182,957	1,357,936	1,452,128		
Allerton III (net of MV of RE)	12,290,872	10,716,022	12,203,458	12,911,818		
Total Trust Funds	\$ 28,113,476	\$ 24,878,010	\$ 28,427,029	\$ 30,159,821		
Total Funds Invested	\$ 46,578,456	\$ 41,958,670	\$ 49,048,816	\$ 52,653,124		

[A] An endowment contribution was received in March, 2020 in the amount of \$36,978 from the Hashimoto Unitrust to benefit the Limahuli Endowment.

[B] The Director of Science Endowment was established in 2019, funded with a \$500,000 pledge of which \$250,000 was received and deposited in Chilton Trust Co. in December 2019. In 2020, \$206,950 was received toward the pledge and was in transit at the end of the year.

[C] In January 2015 a contribution was made in the form of a Charitable Gift Annuity (CGA). The CGA amount of \$1,200,000, along with an additional 10% required by the State of Hawaii, and is in a segregated reserve fund with Port Capital. Quarterly payments of \$20,400 are made to the beneficiary.

Financial Narrative

FINANCIAL REPORTS

The following financial reports are included in this section:

- 2020 Cash Dashboard
- December YTD Statement of Cash Flow
- December 31, 2020 YTD Financial Statements
 1. December 2020 Financial Dashboard (As compared to 2019)
 2. Balance Sheet
 3. Statement of Operations - All Funds
 4. Statement of Operations - Unrestricted Fund
- FY 2021 Approved/Revised Budget

CASH DASHBOARD 2020

Because our restricted and unrestricted cash is combined in our checking, maximizer and certificates of deposit accounts, the **Cash Dashboard** helps us track how much of our cash balance is for the projects in our temporarily restricted fund (TRF) and, after that is determined, how much is left to be used for general operations of the Garden.

Total cash in the bank at December 31, 2020 was \$3.082K of which \$1.896K is designated for direct costs associated with our temporarily restricted projects (\$1.689K) and a permanently restricted contribution (\$207K) that was transferred to our investment accounts after December 31, 2020. We currently have 92 projects represented in our TRF fund. Overall the cash requirements in our TRF fund increased approximately \$417K since December 2019.

NTBG ended the year with a large operating cash balance of \$1.186K which is about double the amount we normally have at the end of the year. This is attributable to several factors:

- Our receipt of \$1.263K in Paycheck Protection Program funds from the SBA (PPP) and \$150K from the SBA for an Economic Injury Disaster Loan (EIDL) that covered our net earned revenue gap.
- Reduced spending in visitor programs.
- An increase in unrestricted giving of \$669K over 2019.

Included in the \$1.186K is \$250K that we have invested in Certificates of Deposit with varying maturity dates. These CDs were purchased in 2018 and were not needed to fund operations in 2020.

The \$1.186K operating cash balance puts us in a favorable cash flow position going in to 2021. The COVID-19 pandemic has critically impacted our earned revenue stream in 2020 and we do not expect any significant change in this until much later in the year with the hope that people will be able to safely travel and that Hawai'i will be open to both domestic and international tourism. We are experiencing an approximate \$300K use of cash each month without our usual deposits from tours, site fees and gift shop sales so this operating cash surplus will help us maintain our daily operations. Additionally, we have received another PPP loan of \$1.257K that will enable us to maintain our current staffing levels without furloughs for the foreseeable future.

Other possible sources of cash, in the event we begin to run low at any point, is our net line of credit with First Hawaiian Bank in the amount of \$240K (\$600K less \$360K reserved to support a stand-by letter of credit for our KIUC

loan) and proceeds from the sale of the Theobald property that we will put up for sale in early 2021.

The report directly following the cash dashboard is the Statement of Cash Flow which is a detailed report that lists how changes in balance sheet accounts affect cash. This report is similar to the one that is included in our audited financial statements every year and is included in case you are interested in seeing more detail of what impacts our cash flow.

DECEMBER 31, 2020 YTD FINANCIAL STATEMENTS

Following the Statement of Cash Flow are the YTD financial reports:

1. Financial Dashboard

The first report is called the Financial Dashboard. This report shows how we did in total for the year in our general operations (or unrestricted fund, now called the fund without donor restrictions) as compared to the budget. It also includes the previous year's actual results for comparison purposes. You will note that our actual revenue came in very close to budget with a \$16K positive difference. Our net expenses (operating plus capital) came within \$86K of budget. Because of this, and the receipt of \$1.263K in PPP loan, which was subsequently 100% forgiven, we realized an operating surplus of \$266K. We also are reflecting a non-cash gift of land that was donated to NTBG in 2020 and was valued at \$940K. The land is adjacent to Limahuli Garden and will be kept in perpetuity as a conservation parcel.

2020 revenue was impacted by the COVID-19 pandemic, which necessitated revising the budget that had been originally approved in 2019 to better reflect the realities of 2020. The revisions took into account the shut down of our visitor programs and the impact of COVID-19 on the tourism industry in Hawai'i and Florida after we were able to re-open. Overall unrestricted revenue for the organization was down 24% from the previous year. The following describes details on how we ended this very difficult year:

- **Contributed revenue** – 2020 turned out to be a record year in unrestricted charitable giving as it exceeded both our revised COVID-19 budget goals as well as exceeded 2019 contributions by \$669K. We attribute much of this to donors increasing their normal giving levels because of the pandemic and the impact it has had on the economy, coupled with a strong stock market and our ability to reach our donors through social media and other online platforms, including our virtual Fall 2020 Board Meeting via Zoom. Additionally, our Trustees and Trustees Emeriti really stepped up and increased their unrestricted giving by approximately 222%. We hope to maintain this momentum into 2021 and further as we continue to improve our outreach to our donors and potential new donors about our mission and its impact on plant conservation which will soften our heavy reliance on earned revenue streams.
- **Visitor program revenue** saw a decline of \$2.2M over 2019. Most of the revenue received in 2020 was earned in the first quarter of the year. Kaua'i was shut down to visitors through May and then only very limited tourism occurred during the 2nd half of the year. We laid off over 30 visitor program staff and are keeping only a skeleton visitor program staff on at our gardens for the foreseeable future. We started an online store that we hope to grow over the next year to help with retail sales and held a variety of plant sales to keep our members stopping by to see us.
- **Site fees and rents** also saw a sharp decline in 2020 due to COVID-19 and social distancing restrictions. Most events and weddings were either postponed or cancelled. The events that were held were small in size. We are seeing a significant amount of deposits come in for late 2021 and in to 2022. NTBG housing has been closed to visitors due to COVID-19.
- **Net assets released from restriction** is down approximately 25% from 2019. This is primarily due to the safety restrictions placed on us due to COVID-19. Travel to the field locations via helicopter was severely restricted and other travel to and from Hawai'i has been shut down, limiting our ability to make significant progress on several of our projects.

-
- **Operating Expenses** were reduced by \$1.2M. Most of this was due to the layoff of visitor program staff, some employee furloughs and cuts to tour program expenses such as marketing and meals. We also had a very strict spending policy to help us preserve cash since we did not know how long the pandemic was going to last.
 - **Capital Expenses** were to complete the steel repair under the CEO's office, repairs to culverts damaged by a flash flood in McBryde Garden, and replacement of two of four compressors on the Botanical Research Center's HVAC system.
 - **PPP Proceeds** of \$1,263K were received in May 2020. We had calculated 87% of this to be forgiven based on the number of full-time equivalents that we were able to retain and budgeted \$1,099 as the portion we were able to use as a grant. However, NTBG fell under a safe-harbor rule based on our inability to operate at pre-COVID-19 levels due to federal and state safety restrictions and received 100% forgiveness of the loan.
 - **Non-cash donation of land** valued at \$940K was received in the fall of 2020. The parcel is adjacent to Limahuli Garden. It will be held as conservation land.

2. Balance Sheet

The December Balance Sheet provides a snapshot in time of the financial stability of the organization. NTBG has a healthy Balance Sheet with assets of \$74M and fund balances of \$73M. Even in times of a pandemic, we have been able to grow our balance sheet.

Assets increased by \$1.5M due to the land contribution of \$940,000 and increase in cash accounts.

Notes payable increased in 2020 due to the SBA Economic Impact Disaster Loan of \$150K that we applied for and received in April 2020. It is payable over 30 years beginning in May 2021 at 2.75% interest. Other loans include a non-interest-bearing loan from KIUC for the Visitor Center improvements and a loan from Blue Planet Foundation for the 2015 installation of HVAC improvements. This loan will be paid off in early 2021.

3. Statement of Operations – All Funds

The fund "Without Donor Restrictions" (formerly unrestricted fund) reflects all revenues and expenses associated with the general operations of the Garden. We ended the year with a surplus in the unrestricted fund (UR) due to a large contribution of land (non-cash) and realizing some large year-end contributions that exceeded what we had budgeted. The fund "With Donor Restrictions" includes both our temporarily restricted fund (TRF) and Permanently restricted fund (endowment and other holdings). We ended with a surplus of \$435K in the TRF fund and a surplus of \$37K in our permanently restricted (endowment) fund. The surplus in the TRF fund is due to unspent revenue that will be used in future years due to time restrictions. The \$37K increase in the endowment fund is due to a donation for Limahuli Garden to be added to the Limahuli endowment.

Funds with Donor Restrictions will be combined on the audited financial statements and shown as one fund but will continue to be shown separately on our internal Statement of Operations as Temporarily Restricted Fund and Permanently Restricted Fund.

4. Statement of Operations – Unrestricted Fund

This statement reflects unrestricted operations in more detail than what is reflected on the Financial Dashboard. It provides a comparison of 2020 to 2019 and 2018 (internal, unaudited financial statements). Please see the analysis of this financial statement in the Financial Dashboard section above.

FY 2021 APPROVED/REVISED BUDGET

We made some revisions to the preliminary budget presented at the Fall Board Meeting. The revisions are based on how we ended 2020 as well as current information that allows us to predict more accurately what will happen in 2021 and the effects COVID-19 is having on the tourism industry and our earned revenue as follows:

-
1. Contributed revenue: Increased about \$49K. While still well below what we ended 2020 with in unrestricted contributions, we felt that many of our top donors will give again in 2021 as we continue to navigate the downturn in earned revenue.
 2. Visitor Program Revenue: Decreased by \$542K. Tourism in Hawai'i is very low and we don't expect it to increase until the vaccine is widely distributed. We project losses in our Hawai'i tour programs until the last quarter of the year when we are hopeful that people will be able to safely travel and vacation in Hawai'i. The Kampong should see close to normal levels of visitors.
 3. Trusts, Endowments and Allerton Trust: Increased \$237K. Trust and endowment distributions will all go up due to the strong upward trend in the stock market in 2020. The increase also includes about \$76K of additional Allerton Trust funding for needed building repairs and painting.
 4. Site Fees and Rents: Decreased about \$38K due to social distancing restrictions. We are seeing many weddings being pushed back into late 2021 and into 2022.
 5. Net Assets Released from Restriction: Decreased \$73K based on looking at the budgets on awarded grant and contracts that we currently have. However, we should be able to realize more in 2021 than in 2020 as travel loosens up and we can move about more freely. We hope to make up some ground this year.
 6. Other Revenue: Increased \$10K. We plan to hold more plants sales at all gardens in 2021.
 7. Personnel Costs: Increased \$381K. The revised budget does not include any furloughs or decreases in the 2% retirement match and 2% discretionary match. We have gotten approval for our second Payroll Protection Program (PPP2) loan of \$1.257K and we are hoping for another year of consistent, unrestricted giving that will allow us to not have to make deeper cuts in payroll. We still plan to hold off on hiring most open positions until we see the economy is turning around and our cash reserves are adequate. We did not budget for cost of living increases or merit raises in 2021.
 8. Operating Expenses: Increased \$18K, but still very restrictive spending again in 2021.
 9. Capital Expenses: Increased \$153K due to the need to make some safety improvements at Pump Six and purchase a couple of utility vehicles. Also includes Allerton building repairs.
 10. PPP2 Loan: We were approved for \$1.257K of funding. The funds were received in February.

We are pleased that we are able to present a balanced budget even during a pandemic. The receipt of the PPP2 loan is pivotal to our ability to operate without having to furlough existing staff and cut benefits. We are cautiously optimistic that our donor base will continue to provide us with much needed general operating funds.

While there still remains much uncertainty in 2021, we feel optimistic that we can get through this difficult time without significantly depleting our operating cash reserves. Our staff remains diligent in applying for grant funding opportunities while carefully watching spending. We are fortunate to have enterprising, dedicated and resilient staff to take us into the future.

Tamara A. Rollin
Chief Financial Officer
February 8, 2021

NTBG CASH DASHBOARD

National Tropical Botanical Garden Cash Dashboard December 2019 to December 2020

		Measurement Dates											
	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
Total Cash in Bank	\$ 1,952,341	\$ 1,851,556	\$ 1,522,108	\$ 1,277,270	\$ 2,474,030	\$ 2,439,174	\$ 2,681,934	\$ 2,425,585	\$ 2,079,412	\$ 1,743,209	\$ 1,832,581	\$ 1,861,275	\$ 3,082,506
Less: Temporarily Restricted Fund (TRF) Cash Requirement & Permanently Restricted Cash deposited to endowment after 12/31/20	\$ 1,272,260	\$ 1,489,719	\$ 1,238,661	\$ 1,362,751	\$ 1,537,487	\$ 1,837,729	\$ 1,721,818	\$ 1,441,359	\$ 1,584,430	\$ 1,381,530	\$ 1,521,101	\$ 1,347,190	\$ 1,896,495
Cash for General Operations or (Borrowed from TRF)	\$ 680,081	\$ 361,837	\$ 283,447	\$ (85,481)	\$ 936,543	\$ 601,445	\$ 960,116	\$ 984,226	\$ 494,982	\$ 361,679	\$ 311,480	\$ 514,085	\$ 1,186,011
[A]													
External Borrowing:													
PPP Loan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,263,100	\$ 1,263,100	\$ 1,263,100	\$ 1,263,100	\$ 1,263,100	\$ 1,263,100	\$ 1,263,100	\$ -
SBA EIDL Loan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
[B]													
[C]													

[A] Cash available to fund operations going into our next fiscal year, 2021, is \$1,186K. This is about double what we normally have going into the next year but it is needed to cover the loss of earned revenue which, in a normal year, would net about \$1M to help fund general operations. We are expecting a small net loss in our earned revenue in 2021 due to COVID-19 and the slow recovery of tourism in Hawaii.

[B] In January, 2021, NTBG applied for full forgiveness of the Payroll Protection Program (PPP) loan and was approved by the SBA on February 4, 2021.

[C] In April, 2020, we received an Economic Injury Disaster Loan from the SBA of \$150K. Payments are to begin in May, 2021 at 2.75% interest over 30 years.

The supporting detail for this report is the Statement of Cash Flow and the Temporarily Restricted Fund Detail on the following pages.

NTBG STATEMENT OF CASH FLOW

National Tropical Botanical Garden Statement of Cash Flow For the Year Ended December 31, 2019

	Total YTD 2019
Cash flows from operating activities:	
Net Surplus (Deficit) in Unrestricted Operations	\$ 1,206,103
Net Surplus (Deficit) in TRF Operations	\$ 435,046
Net Surplus (Deficit) in PRF Operations	\$ 36,978
Total Net Surplus (Deficit) in All Operating Activities	\$ 1,678,127
Adjustments to reconcile net surplus (deficit) to net cash provided by (used in) operating activities:	
(Increase) decrease in Accounts Receivable	\$ 102,503
(Increase) decrease in A/R Allerton Garden	\$ (30,964)
(Increase) decrease in Pledges Receivable	\$ 381,216
(Increase) decrease in Employee advances	\$ 2,038
(Increase) decrease in Stock contributions	\$ (5,223)
(increase) decrease in A/R - Govt. Contracts & Grants	\$ (13,242)
(Increase) decrease in Receivables - Endowments/Trusts	\$ (1)
(Increase) decrease in Inventory	\$ 9,748
(Increase) decrease in Prepaid Other	\$ 15,373
Increase (decrease) in Accounts Payable	\$ (102,185)
Increase (decrease) in Accrued Payroll/Other Liab.	\$ 32,074
Increase (decrease) in Deposits	\$ (33,823)
Increase (decrease) in Deferred Revenue	\$ (7,698)
Net cash provided by (used in) operating activities	\$ 2,027,943
Cash flows from investing activities:	
(Increase) decrease in Investment accounts	\$ (36,978)
(Increase) decrease in Capital purchases	\$ (940,000)
Net cash provided by (used in) investing activities	\$ (976,978)
Cash flows from financing activities:	
Increase (decrease) in Notes Payable - Blue Planet	\$ (25,700)
Increase (decrease) in KIUC Interest Free Loan (VC Renovation)	\$ (45,000)
Increase (decrease) in SBA EIDL Loan	\$ 149,900
Net cash provided by (used in) financing activities	\$ 79,200
Net increase (decrease) in cash and cash equivalents	\$ 1,130,165
Cash and cash equivalents at beginning of period	\$ 1,952,341
Cash and cash equivalents at end of period	\$ 3,082,506
Less: Temporarily Restricted Funds (TRF) & PRF Cash Required	\$ 1,896,495
Less: Borrowed Balance on Line of Credit (LOC)	\$ -
Unrestricted Cash Remaining or (Borrowed from TRF)	\$ 1,186,011
Certificates of Deposit	\$ 250,000
Cash for General Operations	\$ 936,011
Unrestricted Cash Remaining or (Borrowed from TRF)	\$ 1,186,011

NTBG FINANCIAL DASHBOARD PROFIT AND LOSS STATEMENT

National Tropical Botanical Garden FINANCIAL DASHBOARD General Operating Fund (Unrestricted) - Year Ended December 31, 2020

(\$ in 1,000s)

	Twelve Months Ended December 31						
	2020				2019		
REVENUE:	Budget	Actual	Variance		PY Actual	Variance	
Contributed Revenue	\$ 2,163	\$ 2,497	15%	\$ 334	\$ 1,828	37%	\$ 669
Visitor Program Revenue	\$ 1,046	\$ 999	-4%	\$ (47)	\$ 3,205	-69%	\$ (2,206)
Trusts, Endowments & Allerton	\$ 1,944	\$ 1,919	-1%	\$ (25)	\$ 1,932	-1%	\$ (13)
Site Fees & Rents	\$ 129	\$ 164	27%	\$ 35	\$ 337	-51%	\$ (173)
Net Assets Released from Restriction	\$ 1,633	\$ 1,345	-18%	\$ (288)	\$ 1,794	-25%	\$ (449)
Other Revenue	\$ 36	\$ 43	19%	\$ 7	\$ 59	-27%	\$ (16)
TOTAL REVENUE [A]	\$ 6,951	\$ 6,967	0%	\$ 16	\$ 9,155	-24%	\$ (2,188)
EXPENSES	Budget	Actual	Variance		PY Actual	Variance	
Operating Expenses	\$ 7,964	\$ 7,866	1%	\$ 98	\$ 9,074	13%	\$ 1,208
Capital Expenses	\$ 86	\$ 98	-14%	\$ (12)	\$ 81	-21%	\$ (17)
TOTAL EXPENSES [B]	\$ 8,050	\$ 7,964	1%	\$ 86	\$ 9,155	13%	\$ 1,191
TOTAL NET INCOME (LOSS) BEFORE PPP LOAN	\$ (1,099)	\$ (997)		\$ 102	\$ -		
PPP Proceeds Applied to Payroll & Utilities [C]	\$ 1,099	\$ 1,263		\$ 164	\$ -		
TOTAL NET INCOME (LOSS) AFTER PPP LOAN	\$ -	\$ 266		\$ 266	\$ -		
Non-cash Donation of Land [D]	\$ -	\$ 940		\$ 940	\$ -		
TOTAL NET INCOME	\$ -	\$ 1,206		\$ 1,206	\$ -		

[A] Revenue overall came in within \$14K of budget but about \$2.2M under from 2019 - all of which is due to the impact of COVID-19 on tourism which wiped out our earned revenue stream beginning in Mid-March 2020 and was not able to rebound for the balance of the year. Contributed revenue exceeded budget expectations and provided a much needed boost to cash flow.

[B] Expenses came in very close to budget and were well under 2019 levels due to staff reductions in visitor programs at all Gardens and tight restrictions on spending. To offset the loss of the earned revenue stream of \$2.2M, we were able to cut \$1.2M in expenses.

[C] In April, 2020, NTBG was awarded a \$1.263M PPP loan to help cover payroll costs for several months. We were approved for 100% forgiveness of the loan in early 2021.

NTBG BALANCE SHEETS

**National Tropical Botanical Garden
Balance Sheets
December 31, 2020 and 2019**

	2020		2019
	<u>Pre-audit, internal</u>		<u>Audited</u>
Assets			
Cash and cash equivalents	\$ 3,082,507		\$ 1,952,342
Accounts receivable	101,656		175,233
Contributions receivable	776,112		1,138,863
Merchandise inventories	222,313		237,685
Prepaid expenses and other	129,772		139,520
Land, buildings, equipment, and library, at cost, less accumulated depreciation and amortization	36,246,937		35,306,937
Botanical art collection	465,220		465,220
Land held for investments	1,335,000		1,335,000
Land held for preservation (Conservation Easement)	980,000		980,000
Loy McCandless Marks Botanical Library	8,000,000		8,000,000
Long-term investments	19,138,600		19,101,622
Charitable Gift Annuity Investment & Reserves	1,438,564		1,520,164
Beneficial interest in perpetual trust	2,365,214		2,365,214
Total assets	<u>\$ 74,281,895</u>		<u>\$ 72,717,800</u>
Liabilities and Net Assets			
Liabilities:			
Accounts payable and accrued expenses	\$ 697,920 [A]		\$ 809,552 [A]
Charitable Gift Annuity Obligation	380,563		462,163
Notes payable	413,236 [B]		334,036 [B]
Total Liabilities	<u>1,491,719</u>		<u>1,605,751</u>
Net assets:			
Without donor restrictions	33,808,272		32,602,169
With donor restrictions	38,981,904		38,509,880
Total net assets	<u>72,790,176</u>		<u>71,112,049</u>
Total liabilities and net assets	<u>\$ 74,281,895</u>		<u>\$ 72,717,800</u>
[A] Accounts payable and accrued expenses			
Accounts Payable	116,528		218,713
Payroll Liabilities	485,068		452,994
Deferred Revenue-Deposits, Other	96,324		137,845
	<u>\$ 697,920 [A]</u>		<u>\$ 809,552 [A]</u>
[B] Notes payable			
Note Payable - Blue Planet Fdn.(HVAC)	836		26,536
Note Payable - KIUC (SSVP)	262,500		307,500
Note Payable - SBA EIDL (pmts begin May, 2021)	149,900		-
	<u>\$ 413,236 [B]</u>		<u>\$ 334,036 [B]</u>

NTBG STATEMENT OF OPERATIONS – ALL FUNDS

National Tropical Botanical Garden Statement of Operations - All Funds For the Twelve Months Ended December 31, 2020 and 2019 Internal Management Format - Modified Cash Basis - Unaudited

(\$ in 1,000's)	Without donor restrictions	With donor restrictions		2020 Total	2020 % of Total	2019 Total	2019 % of Total
	Unrestricted	Temporarily Restricted	Permanently Restricted				
Revenues							
Contributions, Fellows & Memberships	\$ 2,325	\$ 485	\$ 37	\$ 2,847	30.18%	\$ 2,964	24.88%
Grants	169	2,661	-	2,830	30.00%	2,466	20.70%
Fundraising	3	36	-	39	0.41%	134	1.12%
Investments				-			
Trusts	681	-	-	681	7.22%	678	5.69%
Endowments	644	105	-	749	7.94%	695	5.83%
Other							
Allerton fees	327	-	-	327	6.30%	327	5.49%
Allerton reimbursements	267	-	-	267	↓	327	↓
Visitor Programs							
Tours (all Gardens)	899	-	-	899 [C]	10.59%	2,871	26.90%
Gift shop (all Gardens, net of COS)	90	-	-	90	↓	281	↓
Café (net of COS)	10	-	-	10	↓	53	↓
Contract Revenue	9	473	-	482	5.11%	488	4.10%
Site Fees & Rents	164	-	-	164	1.74%	337	2.83%
Other Revenue	34	13	-	47	0.50%	292	2.45%
Net Assets Released from Restriction	1,345	(1,345)	-	-		-	
Total Revenues	\$ 6,967	\$ 2,428	\$ 37	\$ 9,432	100.00%	\$ 11,913	100.00%
Expenditures							
Salaries and Personnel Costs	\$ 6,224	\$ -		\$ 6,224		\$ 6,647	
Meetings, Conferences, other Travel	23	33		56		239	
Operating Costs	686	239		925		1,783	
Professional Fees	139	17		156		229	
Maintenance and Supplies	794	308		1,102		1,341	
Subtotal Expenditures	7,866	\$ 597	\$ -	\$ 8,463		\$ 10,239	
Capital Expenditures	98	133	-	231		775	
Subtotal Operating & Capital Exp	\$ 7,964	\$ 730	\$ -	\$ 8,694		\$ 11,014	
Change in Net Assets before PPP							
Loan Release	\$ (997) [A]	\$ 1,698	\$ 37	\$ 738			
PPP Loan Release	1,263	(1,263)		\$ -			
Change in Net Assets after PPP	\$ 266	\$ 435	\$ 37	\$ 738			
Non Cash Contribution of Land	940			940			
Change in Net Assets 12/31/2020	\$ 1,206	\$ 435 [B]	\$ 37	\$ 1,678		\$ 899	

NOTES:

[A] This is the amount of operating loss we would have if we had not received a PPP loan. In April, 2020 NTBG received a PPP loan of \$1,263K that was used to cover payroll costs over a 24 week period. 100% of the loan was forgiven by the SBA in January, 2020.

[B] The temporarily restricted fund has a surplus at the end of 2020 of \$435K. This surplus is the result of delayed work on projects that we received restricted revenue on due to the COVID-19 pandemic.

[C] Visitor program revenue declined by 69% in 2020 compared to 2019 due to the decline in tourism caused by the COVID-19 pandemic.

NTBG STATEMENT OF OPERATIONS – UNRESTRICTED FUND

National Tropical Botanical Garden Statement of Operations - Unrestricted Fund For the Twelve Months Ended December 31, 2020 - 2019- 2018 UNAUDITED--MODIFIED CASH BASIS

(\$ in 1,000s)

	2020		2019	2018
	Budget	Actual	Actual	Actual
Revenues				
Contributions:				
NTBG	\$ 1,276	\$ 1,375	\$ 754	\$ 721
Breadfruit	58	103	187	42
Limahuli	33	60	18	66
Kahanu	39	50	35	26
Kampong	61	133	52	123
Fellows Memberships				
NTBG	202	245	240	232
Allerton	9	3	12	12
McBryde	9	3		
Breadfruit	17	22	16	14
Limahuli	36	37	44	45
Kahanu	29	39	31	75
Kampong	92	66	91	81
Corporate Memberships	5	40	-	10
General Memberships	176	149	158	191
Fundraising Events	5	3	84	92
Grants - Unrestricted	116	169	106	64
Subtotal Fundraising Revenue	\$ 2,163	\$ 2,497	\$ 1,828	\$ 1,794
Investments				
Trusts	\$ 678	\$ 681	\$ 678	\$ 654
Endowments	644	644	599	600
Allerton fees & reimbursements	622	593	654	597
Contracts	9	9	26	
Tours (all Gardens)				
South Shore	723	714	2,534	2,653
Limahuli	125	121	171	145
Kahanu	40	36	134	120
Kampong	35	28	32	33
Gift Shop (net of COS)				
South Shore	82	61	235	266
South Shore Garden Food & Beverage	15	10	53	69
Limahuli	20	19	36	26
Kahanu	6	10	10	(5)
Net Assets Released from Restriction				
Grants	1,111	991	1,207	1,061
Contracts	321	309	310	421
Individuals	195	46	223	326
Endowments	6	-	53	49
Site Fees and Rents	129	164	337	217
Other Revenue	27	34	35	77
Gain on Sale of Land	-	-	-	250
Total Revenues	\$ 6,951	\$ 6,967	\$ 9,155	\$ 9,353
Expenditures				
Salaries and Personnel Costs	\$ 6,247	\$ 6,224	\$ 6,639	\$ 6,381
Meetings, Conferences, other Travel	29	23	95	83
Operating Costs	707	686	1,145	1,272
Professional Fees	175	139	196	228
Maintenance and Supplies	806	794	999	964
Subtotal Expenditures	\$ 7,964	\$ 7,866	\$ 9,074	\$ 8,928
Capital Expenditures	86	98	81	149
Total Expenditures	\$ 8,050	\$ 7,964	\$ 9,155	\$ 9,077
Change in Net Assets before PPP Loan	\$ (1,099)	\$ (997)	\$ -	\$ 276
PPP Loan	1,099	1,263		
Change in Net Assets after PPP Loan	\$ -	\$ 266	\$ -	\$ 276
Contribution of Land		940		
Change in Net Assets	\$ -	\$ 1,206	\$ -	\$ 276

2021 APPROVED/REVISED BUDGET FY 2021

National Tropical Botanical Garden

Approved/Revised 2021 Budget

As Approved by the Executive Committee on Behalf of the Board of Trustees

	2021 Preliminary Budget	2021 Approved Revised Budget	Variance	2020 Actual
REVENUE:				
Contributed Revenue	\$ 1,856,488	\$ 1,905,654	\$ 49,166	\$ 2,496,817
Visitor Program Revenue	1,104,884	563,337	(541,547)	999,454
Trusts, Endowments & Allerton	1,927,053	2,163,768	236,715	1,918,496
Site Fees & Rents	221,180	182,800	(38,380)	164,033
Net Assets Released from Restriction	1,669,584	1,596,508	(73,076)	1,345,350
Other Revenue	31,001	41,400	10,399	42,578
TOTAL REVENUE	\$ 6,810,190	\$ 6,453,467	\$ (356,723)	\$ 6,966,728
EXPENSES:				
Personnel Costs	\$ 5,472,794	\$ 5,853,328	\$ 380,534	\$ 6,224,167
Operating Expenses	1,671,407	1,689,381	17,974	1,642,361
Capital Expenses	15,000	168,000	153,000	97,565
TOTAL EXPENSES	\$ 7,159,201	\$ 7,710,709	\$ 551,508	\$ 7,964,093
NET (LOSS) BEFORE PPP LOAN	\$ (349,011)	\$ (1,257,242)	\$ (908,231)	\$ (997,365)
Second Round PPP Loan Proceeds	-	1,257,242	1,257,242	1,263,100
NET INCOME (LOSS) AFTER PPP LOAN	\$ -	\$ -	\$ -	\$ 265,735
Non-cash Contribution of Land	-	-	-	940,000
NET INCOME	\$ -	\$ -	\$ -	\$ 1,205,735

See Budget Narrative for details and assumptions



Section F

Ancillary Materials

Future Meetings

One in-person meeting a year and one virtual meeting a year planned for future meetings.

2021

In-person Fall Dates:

- Meetings - Kaua'i: October 18-21, 2021
- Post-Meeting - Maui: October 21-23, 2021

If the in-person Fall 2021 Board Meeting in Hawai'i is canceled due to circumstances beyond our control, it will take place virtually; dates to be announced.

2022

We hope to hold the in-person meeting in Miami with visits to The Kampong in the Spring of 2022 so attendees will also have an opportunity to attend Bali Hai, The Kampong's signature event and legendary garden party in April.

In-person Spring Dates:

- Meetings - Miami: April - dates to be announced
- Virtual Fall Meeting: dates to be announced

If the in-person Spring 2022 Board Meeting is canceled due to circumstances beyond our control, it will take place virtually; dates to be announced.

If the in-person Spring 2022 Board Meeting is held virtually, the Fall 2022 Board Meeting will be held in-person in Miami; dates to be announced.

--March 10, 2021

Fall 2021 Board of Trustees and Fellows Meetings – Hawai‘i

PRELIMINARY SCHEDULE OF MEETINGS AND ACTIVITIES

*Preliminary schedule based on our ability to hold an in-person meeting on these dates.

MEETING PORTION: LIMAHLI GARDEN AND PRESERVE

Monday, October 18

Day	Visit to Limahuli Garden and Preserve with lunch
Evening	Cocktails & Dinner - tba

MEETING PORTION: GRAND HYATT KAUA‘I RESORT & SPA

Tuesday, October 19

Day	Meetings at the Grand Hyatt Kaua‘i Resort & Spa Visit to McBryde and Allerton Gardens
Evening	Cocktails & Dinner - tba

Wednesday, October 20

Day	Meetings at the Grand Hyatt Kaua‘i Resort & Spa
Evening	Cocktails & Dinner - tba

Thursday, October 21

Day	Meetings & lunch at the Grand Hyatt Kaua‘i Resort & Spa
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POST-MEETING PORTION: MAUI

Thursday, October 21

Day	Departure to Maui Check-in to Hyatt Hāna-Maui Resort
Evening	Cocktails & Dinner at Hāna-Maui Resort

Friday, October 22

Day	Day in Kahanu Garden with lunch
Evening	Cocktails & Dinner at Hyatt Hāna-Maui Resort

Saturday, October 23

Day	Check-out - Hyatt Hāna-Maui Resort Departures from Hāna to Kahului Airport, Maui
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--March 3, 2021

ATTENDANCE REPORT

ATTENDANCE - (# OF INDIVIDUALS)		
January through December 2020 - 12 Months Total		
	TOTAL 2020	TOTAL 2019
South Shore Visitors Center & Gardens, Kauaʻi	17,300	62,295
Allerton Garden Guided Tour	6,344	19,863
McBryde Garden Self-Guided Tour	4,932	21,832
Discovery Combination Tour	886	4,452
Sunset Allerton Estate Tour	1,223	3,072
Other Tour	418	1,095
NCL Cruise Ship Tour	993	3,007
Other Cruise Ship Tour	331	1,173
<i>Subtotal Tours</i>	<i>15,127</i>	<i>54,494</i>
Gift Shop & Walk-ins (no tours)	2,046	6,099
Special Events (Mother's Day, others)	127	1,702
Kahanu Garden and Preserve, Maui	3,913	16,056
Self-Guided Tour	3,567	14,621
Guided Tour	24	60
Other Visitors (volunteers, school groups, etc.)	322	1,375
The Kampong, Florida	2,439	4,079
Self-Guided Tour	1,882	1,983
Guided Tour	215	661
Education Program participants	41	296
Special Events	301	1,139
Limahuli Garden and Preserve, Kauaʻi	8,232	11,314
Self-Guided Tour	7,435	10,348
Guided Tour	259	407
Other Visitors (volunteers, school groups, etc.)	538	559
Guest Passes from Headquarters	135	326
VIP Tours (HQ)	14	33
BRC - Visitors to Library/Herbarium (include exhibits when applicable)	36	208
Kauaʻi Education Program (HQ) participants:	762	2,410
Community Lectures & Workshops	4	248
Brown Bag Lectures	3	52
Garden as Classroom (GAC) program	185	627
Horticultural Internship Program (fall program)	0	5
Other Internships (includes summer and year long)	5	29
Kauaʻi Community College courses (students from)	139	152
Science Teachers Enrichment Program	7	13
Environmental Journalism Program (May program)	0	7
Other Courses	0	63
Kids Camps (Keiki o ka ʻĀina) (July program)	12	25
Education Outreach	69	947
Other Groups (includes volunteer work groups)	338	242
GRAND TOTAL	32,831	96,721

Website Quick Links

NTBG website	ntbg.org
Make a Donation	ntbg.org/support/donate
Join/Renew as a Member	ntbg.org/support/membership
Join/Renew as a Fellow	ntbg.org/support/fellows
Tours	ntbg.org/tours
News & Events	ntbg.org/news
Courses & Internships	ntbg.org/education

NTBG SOCIAL MEDIA

Facebook	facebook.com/saveplants Facebook app: saveplants
Twitter	twitter.com/NTBG Twitter app: @NTBG
Instagram	instagram.com/NTBG Instagram app: ntbg
YouTube Channel	youtube.com/ntbgsaveplants

ALLERTON GARDEN:

Instagram	@allertongarden
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MCBYRDE GARDEN:

Instagram	@mcbrydegarden
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BREADFRUIT INSTITUTE:

Facebook	facebook.com/breadfruitinstitute
YouTube	youtube.com/breadfruitinstitute1
Instagram	@breadfruit_institute

LIMAHULI GARDEN:

Facebook	facebook.com/limahuli
Instagram	@limahuligarden

KAHANU GARDEN:

Facebook	facebook.com/kahanu
Instagram	@kahanugarden

THE KAMPONG:

Facebook	facebook.com/thekampong
Instagram	@thekampong

As of January 5, 2021



Section G Policies

(Published in Board Book every Spring odd-numbered year)

Background: Documentation of Board Policies

The Board of Trustees has adopted motions that establish ongoing policies. These adopted motions are recorded as part of the minutes for the particular meeting.

Other than the Conflicts of Interest Policy, prior to the Spring 2015 meetings, these policies were not formalized as policy documents that could be provided to new Board members and serve as a reference to all Trustees, management staff, and when appropriate, our auditors. Documents were created and first published in the Spring 2015 Board Book; these indicated the responsible standing committee. During the Spring 2015 meetings each committee, and the Board as a whole, undertook a full review of existing policies, making any amendments deemed appropriate.

At that time, the Board also established the practice of reviewing these policies at least every other year, and set the Spring Board of Trustees Meetings in every odd-numbered year for facilitating such a review. The policies were last published in the Spring 2019 Board Book and are now included in this Board Book.

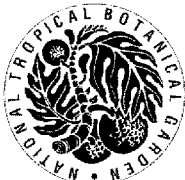
Chair of the Board, Gordon L. Deane, stresses the importance of reviewing these policies for the upcoming meetings April 27 – 29, 2021.

BOARD OF TRUSTEES POLICIES

1. Code of Ethics and Confidentiality
2. Conflicts of Interest
3. Executive Committee Authorization
4. Formal Review of Organization
5. CEO Annual Performance Evaluation and Compensation
6. Transmittal of IRS Form 990 to Trustees
7. Reporting of Accumulated Net Unrealized and Realized Gain in NTBG's Endowment Accounts
8. Investments Policy for Endowment Funds
9. Working Capital, TRF Borrowing, and Line of Credit – General Operations
10. Pooled Asset Appreciation
11. Distributions from Endowment Funds
12. Undesignated Bequests of \$100K or Greater
13. Donor Privacy
14. Gift Acceptance, Donor Crediting, and Gift Income Reporting
15. Addendum No. 1 to Gift Acceptance Policy: Gift Recognition
16. Management of The Living Collections
17. Access to Plant Genetic Resources and Benefit-Sharing

1. CODE OF ETHICS AND CONFIDENTIALITY

POLICY NAME: CODE OF ETHICS AND CONFIDENTIALITY



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: CODE OF ETHICS AND CONFIDENTIALITY

First adopted: 04/01/19

Last revised: 04/01/19

Last reviewed: 04/01/19

GOAL: To encourage and foster open and candid discussion at its meetings, the Board of Trustees of National Tropical Botanical Garden (NTBG) believes confidentiality must be maintained. Board members acknowledge that any violation of this policy could cause harm to NTBG and frustrate Board deliberations. Therefore, any Board member who violates this policy may be subject to termination of his/her Board position.

POLICY:

I. Duty of Loyalty

Among the fiduciary obligations of a Board member of a non-profit corporation is a duty of loyalty to the non-profit corporation. This includes supporting, and not publicly opposing directly or indirectly or taking any other stance against, the policies and positions duly adopted by NTBG's Board of Trustees. As representatives of NTBG, Board members are obligated to maintain this duty of loyalty in all manner of activities during their terms of office. This duty of loyalty is not intended to, nor should it, discourage debate within Board or committee meetings. Such debate is encouraged and is part of the individual's responsibility in the deliberations process.

II. Confidentiality of Board and Committee Discussions and Documents

In order to encourage and foster open and candid discussion at its meetings, the Board of Trustees of NTBG believes confidentiality of such deliberations must be maintained. Therefore, it is the policy of the Board of Trustees of the NTBG that each Board member shall keep confidential any and all information relating to discussions of policies, procedures and personnel at its meetings, including any and all materials, e.g., correspondence, reports, record of individual votes, etc., unless compelled by legal process to disclose such information, or as otherwise agreed by the Board. While Board members are free to discuss actions adopted by the Board, disclosing or distributing any information normally considered confidential concerning the discussion of such items during the Board meeting is prohibited. Nothing in this policy prevents the distribution of, or discussion of matters published in, the minutes of such meetings.

Board members acknowledge that any violation of this policy could cause harm to NTBG and frustrate Board deliberations. Therefore, any Board member who violates this policy may be subject to censure, including, without limitation, removal from a committee, removal of a position of authority in any committee, or termination of his/her Board position.

PAGE 1 of 1

2. CONFLICTS OF INTEREST

POLICY NAME: CONFLICTS OF INTEREST



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: CONFLICTS OF INTEREST

First adopted: 3/17/10

Last revised: 4/8/2018

Last reviewed: 4/01/2019

GOAL: The goal of this policy is (1) to maintain an ethical framework of transparency to protect the interests of the National Tropical Botanical Garden; (2) to answer in the affirmative the question in NTBG's IRS-990 filing that Trustees and Officers, and any other individuals with voting privileges on a Board-empowered committee, were required to disclose any potential conflicts of interest annually and that the organization regularly and consistently monitored and enforced compliance with the policy; and (3) to achieve and maintain high ratings by the Better Business Bureau and key charity evaluators, which may take into consideration whether an organization has a written conflicts of interest policy with which it complies.

POLICY:

ARTICLE I

Purpose

Trustees, members of a committee with Board-delegated powers (Committee), and officers of National Tropical Botanical Garden (a tax-exempt, nonprofit organization, hereinafter "Corporation"), have an obligation to carry out their responsibilities within guidelines that minimize and make transparent actual or potential Conflicts of Interest. The purpose of this Conflicts of Interest Policy is to maintain an ethical framework of transparency to protect the interests of the National Tropical Botanical Garden when it is contemplating entering into a transaction or arrangement that might benefit the private interest of a Trustee, a member of a Committee, or an officer of the Corporation. This policy is intended to supplement but not replace any applicable state and federal laws governing conflicts of interest applicable to nonprofit and charitable organizations.

The underlying premises of this Conflicts of Interest policy are:

(a) that no Trustee, member of a Committee, or officer should engage in activities that might interfere with the discharge of his or her responsibilities to the Corporation, or participate

PAGE 1 of 5

POLICY NAME: CONFLICTS OF INTEREST

in transactions that might reasonably affect the judgment he or she might exercise on behalf of the Corporation; and

(b) that full disclosure of an actual conflict of interest or of a potential conflict of interest is key to avoiding or mitigating any claim or a potential claim of a conflict of interest when a decision or action of the Corporation is questioned; and

(c) that exclusion from voting or influencing votes, either through recusal or determination by disinterested persons when any conflict of interest is determined, is in the best interests of the Corporation.

ARTICLE II

Disclosure and Determination

Section 2.1 Duty to disclose

A. Disclosure of Potential Conflicts of Interest Statement: Trustees, members of Committees, or officers who have not previously completed a "Disclosure of Potential Conflicts of Interest Statement" shall complete and return this form for review prior to the person influencing or voting on any matter relative to a potential conflict of interest. New Trustees or new non-Board Officers shall be provided with the policy and statement form as part of his or her orientation.

B. Annual Statement - Disclosure of Potential Conflicts of Interest: The Corporation is required annually to file Form 990 with the Internal Revenue Service. In order for the Corporation to complete Form 990 fully and accurately, each Trustee, member of a Committee, and each officer must disclose the information requested in the statement and acknowledge that he or she 1) has received a copy of the Conflicts of Interest policy; 2) has read and understands the policy; 3) agrees to comply with the policy; and 4) understands that the Corporation is a non-profit organization and that it must engage primarily in activities which accomplish one or more of its purposes.

C. At any time, should any Trustee, member of a Committee, or officer become aware of a potential conflict of interest on his or her part that has not been previously disclosed,

the interested person must disclose to the Corporation the existence and nature of his or her interest.

Section 2.2 Review of disclosure

A. Recognizing that disclosures may occur at any time outside of meetings of the Board of Trustees or Committees, a Conflicts Review Panel, consisting of the Governance Committee Chair, Chief Executive Officer, Chief Financial Officer, and Director of Philanthropy shall conduct the initial review of disclosures. Should a member of the Conflicts Review Panel be an interested person, the Chairman of the Board of Trustees and the Chairman of the Governance Committee shall take the place of that interested person to address the disclosure(s) at hand.

B. Should a potential conflict be disclosed during a meeting of the Board of Trustees or Committee, the disinterested members of the Board or Committee shall review the potential conflict immediately. Should the Board or Committee not be able to make an immediate determination, the person shall be excused from any vote taken during the meeting that is relative to the interest.

Section 2.3 Determination of Conflicts

A. Disclosed outside of meetings of the Board or Committees: After reviewing all facts at hand, should the Conflicts Review Panel determine that the potential for conflict does exist and has not been previously disclosed to the Board of Trustees, the Panel shall put the matter before the Executive Committee for review and determination. Should the Executive Committee find in its deliberations that a conflict appears to exist, the interested person may elect to make a presentation to the Executive Committee. The interested person shall then be notified if the final determination is that a conflict exists and that he or she is excused from any votes on matters relative to the interest.

B. Disclosed within meetings of the Board or Committees: The Board of Trustees or members of the Committee shall determine if a conflict of interest exists or if further information is needed from the interested person. An interested person may elect to recuse themselves from any discussion and vote relative to the interest or make a presentation at the meeting regarding the potential conflict. Determination may be made with the interested person present or, at the

POLICY NAME: CONFLICTS OF INTEREST

discretion of the chair for the meeting, the interested person may be asked to temporarily leave the meeting. If a determination is made that a conflict of interest exists, the interested party will be excused from any further discussion and vote on the matter. Only disinterested members of the Board of Trustees or Committee shall vote on the matters relative to the interest.

Section 2.4 Violations of the Conflicts of Interest Policy

A. If, at any time, there is reasonable cause to believe that a Trustee, member of a Committee, or officer has failed to disclose actual or possible conflicts of interest the matter is to be brought before the Chairman of the Board and the Chairman of the Governance Committee. They shall inform the individual of any basis for such belief and afford the individual an opportunity to explain the alleged failure to disclose.

B. If, after hearing the response of the individual and making such further investigation as may be warranted by the circumstances, the Board of Trustees determines that the individual has in fact failed to disclose an actual or possible conflict of interest, it shall take appropriate disciplinary and corrective action.

Definitions

Interested Person: A person is an interested person if he or she (a) is a Trustee, a member of a Committee, or an officer of the Corporation and (b) has a direct or indirect financial interest or non-financial interest in a transaction or arrangement to be entered into with the corporation or in which the Corporation is participating. If a person is an interested person with respect to either the Corporation or an affiliated organization, he or she is an interested person with respect to both the Corporation and the affiliated organization.

Conflict of Interest: A conflict of interest exists when the interests, whether financial or otherwise, of a Trustee, a member of a Committee, or an officer of the Corporation may be reasonably perceived as conflicting or competing with the interests or concerns of the Corporation, whether due to the Trustee, the member of a Committee, or an officer having a financial interest or a non-financial interest. This includes where a Trustee, a member of a Committee, or an officer of the Corporation may personally benefit, directly or indirectly, by a decision made by the Board. Such a conflicting or competing interest may, but does not necessarily have to, involve an outside organization that has received funds or other consideration from the Corporation, has provided funds or other consideration to the Corporation, or has provided the Corporation with goods or services.

Financial Interest: A person has a financial interest if the person, directly or indirectly, through business, investment, or family or other relationship: (1) has an ownership or investment interest in any entity with which the Corporation has a transaction or arrangement (as defined below), (2) has a compensation arrangement with the Corporation, (3) has, or is seeking, a compensation

POLICY NAME: CONFLICTS OF INTEREST

arrangement with any entity or individual with which the Corporation has a transaction or arrangement, (4) has a prospective ownership or investment interest in, or compensation arrangement with, any entity or individual that has, is seeking, or is negotiating a transaction or arrangement with the Corporation, or (5) is indebted to, or is seeking a loan from, any entity (other than a financial institution) or individual with which the Corporation has, or is negotiating, a transaction or arrangement.

A person's ownership or investment interest in an entity is not a financial interest if that entity is a corporation listed on a national stock exchange or traded over the counter and the person's ownership or investment interest is one percent or less of the corporation's outstanding shares.

Compensation includes direct and indirect remuneration as well as gifts, discounts, entertainment, or other favors that are not insubstantial. For purposes of this paragraph, gifts, discounts, entertainment, or favors are more than "insubstantial" if the total aggregate value exceeds \$500.00 during any calendar year.

A financial interest is not necessarily a conflict of interest. A person who has a financial interest may have a conflict of interest only if the Board of Trustees decides that a conflict of interest exists.

Non-financial Interest: A person has a non-financial interest if the person, directly or indirectly, through business, investment or family or other relationship, would reasonably be expected to benefit by the Corporation entering into a transaction or arrangement with a person or party, such as by employment, issuance of a favorable ruling or determination, or granting of priority treatment of that party, due to the person being a Trustee, a member of a committee with board-delegated powers, or an officer of the Corporation.

A non-financial interest is not necessarily a conflict of interest. A person who has a non-financial interest may have a conflict of interest only if the appropriate Board of Trustees or committee decides that a conflict of interest exists.

Transaction or Arrangement: The Corporation has a transaction or arrangement with an individual or another entity, if (1) the Corporation purchases supplies, materials, or property from the individual or other entity, (2) the individual or other entity renders services to the Corporation, (3) the Corporation renders services or furnishes materials or goods to the individual or other entity, (4) the individual or other entity leases space or property to, or from, the Corporation, (5) the individual or other entity has any other contractual or business dealings with the Corporation, or (6) the Corporation renders a decision or makes a determination to or for the benefit of a person or party.

3. EXECUTIVE COMMITTEE AUTHORIZATION



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: EXECUTIVE COMMITTEE AUTHORIZATION

Board Committee: Governance Committee

First adopted:

Last revised: Reaffirmed 4/01/15

Last reviewed: 4/01/19

GOAL: To provide for actions to be considered and acted upon during the interim period between meetings of the Board of Trustees.

POLICY:

The Board of Trustees, when it created the Executive Committee (the Committee), authorized the Committee to act on its behalf during the interim period between Regular or Special Meetings of the Board.

4. FORMAL REVIEW OF ORGANIZATION



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: FORMAL REVIEW OF ORGANIZATION

Board Committee: Governance Committee

First adopted: 3/17/10

Last revised: 3/17/10

Last reviewed: 4/01/19

GOAL: The goal of this policy is to formalize the review process already conducted on an ongoing basis by the Board of Trustees in order to achieve and maintain a high rating by the Better Business Bureau. The Bureau, in determining its ratings, takes into consideration whether the governing board of an organization regularly evaluates the performance of an organization and analyzes whether to make changes.

POLICY:

It shall be the policy of the NTBG Board of Trustees to conduct a formal review as a part of a regular Board Meeting program (or at a Special Meeting or as part of a Special Meeting) at least once every two years.

Such review shall be for the purpose of evaluating the performance of the organization and each of its gardens and programs, and analyzing whether changes should be made (to improve; to expand; to reduce; to close; etc.), and for the purpose of evaluating whether other initiatives, programs, or actions should be undertaken or further explored to assist NTBG to achieve its mission.

5. CEO ANNUAL PERFORMANCE EVALUATION AND COMPENSATION



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: CEO ANNUAL PERFORMANCE EVALUATION AND
COMPENSATION

SUPERSEDES: POLICY RE. EVALUATION OF PERFORMANCE OF NTBG'S
DIRECTOR/CHIEF EXECUTIVE OFFICER (Adopted by the Board
3/17/10)

Board Committee: Compensation Committee

First adopted: 4/01/15

Last revised: 4/01/15

Last reviewed: 4/01/19

GOAL: The goal of this policy is (1) to follow best practices; (2) to provide information for NTBG's IRS-990 filing on the method used to determine the CEO's compensation; and (3) to achieve and maintain high ratings by the Better Business Bureau and key charity evaluators, which may take into consideration whether and how an organization conducts a review annually of the performance and compensation of its CEO.

POLICY:

Evaluation

The Chairman of the Board of Trustees shall be responsible for the annual performance evaluation of NTBG's Chief Executive Officer¹. In evaluating said performance, the Chairman shall solicit and consider the views of all Trustees, in particular with respect to (1) the individual's effectiveness in managing the operations of NTBG's properties and its many programs and (2) whether, under his/her leadership, the organization is viewed as achieving its goals.

Compensation

The Compensation Committee² of the Board of Trustees shall meet no less than annually to review and determine compensation for the Chief Executive Officer.

In doing so, the Committee will take into consideration compensation data for similar job profiles with comparable skills and experience, as well as the performance rating from the Chairman of the Board.

¹ In accordance with NTBG's bylaws last revised October 6, 2014, the Chief Executive Officer is/shall be the individual holding the offices of President and/or Director.

² The creation of the Compensation Committee was approved by the Board of Trustees in its meeting of October 9, 2007. In accordance with NTBG's bylaws (revised October 6, 2014) appointments to the Committee will be at the discretion of the Chairman of the Board.

6. TRANSMITTAL OF IRS FORM 990 TO TRUSTEES



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: TRANSMITTAL OF IRS FORM 990 TO TRUSTEES

Board Committee: Audit Committee

First adopted: 4/01/15

Last revised: 4/01/15

Last reviewed: 4/01/19

It shall be the policy of the Board of Trustees that, in order to answer in the affirmative the IRS Form 990 question that the organization has provided a copy of form 990 to all members of its governing board, a completed but not yet filed copy of the 990 shall be transmitted to all NTBG Trustees annually.



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: REPORTING OF ACCUMULATED NET UNREALIZED AND
REALIZED GAIN IN NTBG'S ENDOWMENT ACCOUNTS

Board Committee: Audit Committee

First adopted: 10/21/08

Last revised: 10/21/08

Last reviewed: 04/01/19

With the consent of the donors who are living and the consent of the representative of donors who are no longer living, the Board of Trustees authorizes the reclassification as of December 31, 2006, of the accumulated net unrealized and realized gain on investments of certain of its endowment accounts such reclassification to be consistent with the investment income classification of these accounts. Such reclassification is to be effective as of January 1, 2007 and thereafter.

8. INVESTMENTS POLICY FOR ENDOWMENT FUNDS



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: INVESTMENTS POLICY FOR ENDOWMENT FUNDS
SUPERSEDES: NATIONAL TROPICAL BOTANICAL GARDEN ENDOWMENT FUNDS - INVESTMENT POLICY (Adopted by the Board 4/03/11) AND NTBG INTERNAL LONG-TERM ASSET ALLOCATION GOALS (Adopted by the Board 4/06/11)
Board Committee: Investments Committee
First adopted: 2/09/15 by the Executive Committee
Last revised: 2/09/15
Last reviewed: 4/01/19

Goal: To achieve through prudent investments an asset growth that outpaces withdrawals and inflation, and to maintain sufficient liquidity in order that the Endowment Funds may assist materially in supporting NTBG's operations (and portfolio rebalancing).

Policy: The governing body of the National Tropical Botanical Garden ("NTBG") is its Board of Trustees, and such Board, at its regular meeting held April 1, 2015, reaffirmed the decision taken by the Executive Committee on February 9, 2015 where it approved this policy, which delegates to NTBG's Investments Committee (the Committee) the power and authority to manage and invest the Endowment Funds held by the NTBG as trustee. The Committee understands that the purpose of the Endowment Funds is to provide NTBG with a dependable and growing source of income for operations and to provide NTBG with a "financial safety net".

The principal function of the Committee is to manage the Endowment Funds by placing these funds with carefully selected, experienced money managers with established records of successful investing and managing, and to monitor systematically the performance of these managers and to replace them, as and when warranted. The three goals of "prudence", "growth" and "liquidity" (stated above in "Goal") shall be used in selecting appropriate managers.

More specifically, all managers must demonstrate to the satisfaction of the Committee that they will invest NTBG funds in the traditional investment classes of equities and fixed income according to the Prudent Man Rule which considers the following factors:

- the needs of beneficiaries;
- the need to preserve the estate (or corpus of the trust); and
- the amount and regularity of income.

POLICY NAME: INVESTMENTS POLICY FOR ENDOWMENT FUNDS

The Committee shall seek to ensure that the investments of the Endowment Funds are monitored quarterly and reported promptly at each of the regular meetings of the NTBG Board of Trustees. The Committee shall also seek to ensure that appropriate records regarding the management and investment of the Endowment Funds are maintained.



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: WORKING CAPITAL, TRF BORROWING, AND LINE OF CREDIT - GENERAL OPERATIONS

Board Committee: Finance Committee

First adopted: 4/09/14

Last revised: 4/09/14

Last reviewed: 4/01/19

The Board of Trustees hereby authorizes NTBG management to:

- (1) establish a Working Capital Account of up to \$800,000, subject to funding being determined by the Board of Trustees;
- (2) borrow internally as necessary from the Temporarily Restricted Funds for General Operations up to \$800,000, with borrowed funds to be repaid by December 31 of each fiscal year; and
- (3) to borrow on its Line of Credit, as necessary, with First Hawaiian Bank for General Operations up to \$600,000, subject to NTBG Management providing the Board of Trustees with “dashboard” reports on balances of these three categories.

10. POOLED ASSET APPRECIATION



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: POOLED ASSET APPRECIATION

SUPERSEDES: POOLED APPROACH TO INVESTMENT GAINS/LOSSES FOR
ENDOWMENTS (Adopted by the Executive Committee 12/22/14)

Board Committee: Finance Committee

First adopted: 4/01/15

Last revised: 4/01/15

Last reviewed: 4/01/19

GOAL: To share all income and expenses (including interest, dividends, fees, realized and unrealized gains and losses) from various investment managers equitably across all NTBG endowment funds on a pro rata basis.

POLICY:

NTBG will apply the pooled approach of accounting for all endowment funds. This will include, but not be limited to: interest, dividends, fees, realized gains and losses, unrealized gains and losses, and any other income and expense related to the investments. The pooling approach to accounting for endowment funds calls for recording all previously described income and expense on a pro rata basis to all endowment funds. This method of accounting will be applied retroactively to begin with FY2014 and continue through future fiscal years.

11. DISTRIBUTIONS FROM ENDOWMENT FUNDS



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: DISTRIBUTIONS FROM ENDOWMENT FUNDS

Board Committee: Finance Committee

First adopted: 9/22/09

Last revised: 11/16/10

Last reviewed: 4/01/19

Distributions from NTBG endowment funds shall now be at the rate of "not to exceed" 4.5% of the three-year rolling average of the value of the respective endowment funds as of January 1. In any event, no distributions from any separate endowment may be made if the effect of such distribution would be to reduce the balance of that fund below 50% of the historic dollar value.

12. UNDESIGNATED BEQUESTS OF \$100K OR GREATER



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: UNDESIGNATED BEQUESTS OF \$100K OR GREATER
SUPERSEDES: UNDESIGNATED BEQUESTS (Adopted by the Board 10/09/07)
Board Committee: Finance Committee
First adopted: 4/01/15
Last revised: 4/01/15
Last reviewed: 4/01/19

The Board of Trustees at its discretion may assign all or any portion of an undesignated bequest to a Board-restricted endowment account. Undesignated bequests of \$100k or greater shall be reviewed by the Board for such consideration.

13. DONOR PRIVACY



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: DONOR PRIVACY POLICY

Board Committee: Development Committee

First adopted: 10/13/16

Last revised: 10/13/16

Last reviewed: 04/01/19

The National Tropical Botanical Garden understands the importance of protecting the personal information of its donors. All information concerning donors or prospective donors, including their names, addresses, and telephone numbers, the names of their beneficiaries, the amount of their gift, etc., shall be kept strictly confidential by the National Tropical Botanical Garden, its staff, and volunteers, unless permission is obtained from donors to release such information.

National Tropical Botanical Garden will not sell, share, or trade our donors' names or personal information with any other entity, nor send mailings to our donors on behalf of other organizations. This policy applies to all information received by the National Tropical Botanical Garden, both online and offline, as well as any electronic, written, or oral communications. To the extent any donations are processed through a third-party service provider, our donors' information will only be used for purposes necessary to process the donation.



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

Board Committee: Development Committee

First adopted: 4/10/13

Last revised: 4/01/15

Last reviewed: 4/01/19

The following policies are set forth: (a) to define the working rules for the acceptance of gifts and pledges to National Tropical Botanical Garden (NTBG); (b) to instill confidence among donors that their gifts accord with the purposes of NTBG and are administered with their charitable intentions; and (c) to protect NTBG and its staff and volunteers from inappropriate or undesirable gifts and pledges.

The acceptance of any gift by NTBG may be subject to review by the Board of Trustees. The Board of Trustees has ultimate authority to decide which gifts are or are not acceptable. The policies and procedures set out below are intended to provide general guidance to those concerned with giving to NTBG and fundraising on behalf of NTBG. In an effort to be donor centered, the application of these guidelines to a proposed gift may be reviewed on a case-by-case basis.

I. General Policies, Guidelines, and Definitions

- A. The following terms are referred to throughout this document: Count refers to the numeric summary of activity, results and progress towards a goal. Report refers to the process of conveying to an audience clearly and transparently what has happened during a specific timeframe. Book or account refers to the process of keeping financial records based on a set of generally accepted guidelines and principles. Recognize or Credit refers to the way NTBG grants recognition to its donors.
- B. While gifts of cash or marketable securities are the forms of donor commitment that will have the greatest impact on NTBG and its plans for the immediate future, all gift and pledge commitments, regardless of size, designation or gift type, will be respectfully considered, gratefully accepted and acknowledged except in the very rare instance where a gift may be contrary to NTBG's best interests. Notwithstanding the foregoing, NTBG reserves the right to accept (or, in cases where absolutely necessary, to decline) any commitment that is offered to it.
- C. NTBG accepts both unrestricted and mission-related restricted gifts, providing that donor restrictions do not significantly diminish the value of the gift. NTBG will

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

provide all possible staff and volunteer assistance to potential donors to discuss the garden's funding priorities, the donor's interests, and the various ways to give. However, in general, gifts to support current operations and capital projects must be cash, marketable securities, credit card charges or in-kind gifts (of goods and services) as they can be used immediately and can have the greatest impact on NTBG and its future plans.

- D. Gifts to NTBG should be made in the name of the National Tropical Botanical Garden and will be received, held and administered under the direction of the Board of Trustees. All gifts to NTBG should be directed to the Development Office where they will be accepted, acknowledged, and administered in accordance with these policies.
- E. No formal solicitations of current outright gifts or future planned or deferred gifts for the benefit of NTBG shall be made by anyone without the knowledge and approval of the CEO and Director and the Director of Philanthropy and coordinated through the Development Office.
- F. Pledges should be made in writing and should commit to a specific dollar amount that will be paid according to a fixed time schedule. The recommended maximum pledge period is five years. Individuals making gifts and pledges that are eligible for matching corporate gifts are encouraged to utilize these programs to maximize the value of their gift or pledge to NTBG. However, a matching gift cannot be used to fulfill a pledge commitment as the donor has no control over whether that match will be made nor can they legally obligate the company or entity to honor that pledge.
- G. NTBG will use the applicable guidance provided in IRS publications (and accounting rules) where necessary to determine the fair market value of gifts, including the present value of future gifts.
- H. All financial accounting statements prepared by NTBG will be in accordance with Generally Accepted Accounting Principles (GAAP).
- I. During any major gift initiative or campaign period, prospective donors may be asked to make an unrestricted annual gift commitment and a major gift commitment to NTBG. In some cases, the prospective donor(s) may also be asked to consider a deferred or planned gift.
- J. Restricted gifts which have been accepted by NTBG will be used in accordance with the restrictions specified by the donors. Wishes (which fall short of restrictions) expressed by donors about the use of their gifts will be honored to the maximum extent consistent with the well-being of NTBG.
- K. The Development Office, with the cooperation of other NTBG program and administrative staff, will inform donors about the value of their gifts to NTBG and about the uses made of restricted gifts.

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

- L. The Director of Philanthropy, CEO and Director, and CFO shall have the authority to sign planned giving agreements on behalf of NTBG. Any gift agreement, which does not meet the requirements of the current guidelines, shall require the approval of the Board of Trustees.
- M. NTBG will acknowledge and recognize all gifts promptly and appropriately. Requests by donors for anonymity will be honored.
- N. A donor whose gift is matched by their company will be recognized for the total amount of their individual gift plus the matching portion on their gift record. They will receive the name recognition associated with the appropriate recognition club for that total amount; however they will receive benefits accruing only to the value of their personal gift. NTBG will credit an individual donor for the matching gift associated with their personal gift at the time the matching gift form is signed by both the donor and an authorized officer of NTBG and is submitted to the corporation. At this time the corporation will also be credited with the matching gift so that it can be recognized appropriately.
- O. Matching gifts will be booked as gift income when the matching gift check is received. Matching gifts will only be booked as pledges if and when an intent-to-pay/acknowledgement letter is received from the corporation prior to receiving a matching gift check. Gift income reports for each group of constituents will include personal gifts only. The associated matching gifts will be reported separately in a matching gift category as appropriate.
- P. Gifts that necessitate expenditures or administration by NTBG, both at the time of the gift or at some future date, must be evaluated on a case-by-case basis and approved by the CEO and Director, the Director of Philanthropy, and/or the CFO before they are accepted. Executive Committee approval will be sought as needed.
- Q. Gifts that require matching fundraising efforts by NTBG must be approved by the CEO and Director, the Director of Philanthropy, and/or the CFO before they are accepted. Executive Committee approval will be sought as needed.
- R. Gifts that are tied to a requested naming opportunity or which might otherwise warrant a naming opportunity in recognition of the donor (or the donor's designee) shall be handled in accordance with NTBG's Gift Recognition Policy which is attached hereto as Addendum No. 1.

II. The Donor Bill of Rights

- A. In accordance with the standards established by the Association of Fundraising Professionals, NTBG adheres to the following Donor Bill of Rights which note that a donor has the right to:

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

1. Be informed of the Garden's mission, of the way the Garden intends to use donated resources, and of its capacity to use donations effectively for their intended purposes.
2. Be informed of the identity of those serving on the Garden's Board of Trustees, and to expect the Board to exercise prudent judgment in its stewardship responsibilities.
3. Have access to the Garden's most recent financial statements.
4. Be assured their gifts will be used for the purposes for which they were given.
5. Receive appropriate acknowledgement and recognition.
6. Be assured that information about their donation is handled with respect and with confidentiality to the extent allowed by law.
7. Expect that all relationships with individuals representing organizations of interest to the donor will be professional in nature.
8. Be informed whether those seeking donations are volunteers, employees of the Garden or hired solicitors.
9. Have the opportunity for their names to be deleted from NTBG's mailing lists.
10. Feel free to ask questions when making a donation and to receive prompt, truthful and forthright answers.

III. Gift Reporting

- A. All gifts and pledges that fall under the basic principles listed above will be reported to all internal and external constituencies of NTBG on an on-going basis according to the gift acceptance policies herein. All reports should be based on the following:
 1. The total of outright gifts and written pledges received will be reported at face value. A signed pledge card or letter of intent must be filed with the Development Office before a pledge commitment is reflected on reports except as noted below in item 2.
 2. The total of deferred (future) irrevocable commitments counted at face value, which will be received at an undetermined time in the future, will be tracked separately.
 3. Revocable future gifts will also be tracked internally and separately either at the face value disclosed by the donor or, if no value is indicated, at a minimum value assigned by the Garden. Revocable gifts will not be booked as gift income.

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

4. The value of any canceled or unfulfilled pledges must be subtracted from totals when it is determined they will not be realized.
5. Gifts shall be valued on the date the donor(s) relinquished control of the assets in favor of NTBG.

IV. Policies Pertaining to Certain Types of Commitments

- A. Donations of assets other than cash or marketable securities will be reviewed by the Director of Philanthropy, CEO and Director, and CFO. Donations of such assets may be accepted if the prospect for eventual benefit to NTBG outweighs the burden of holding the asset. A consideration in reaching this decision may be the degree of flexibility permitted by the donor in the use of the gift.

In rare circumstances, when the consideration of an asset outside of cash or marketable securities is deemed questionable, the Finance Committee Chairman may choose to select a sub-group of the Finance Committee members to conduct a closer examination of the proposed gift and make a recommendation based on their determinations relative to acceptance. Board approval will be sought when needed.

- B. Gifts of marketable securities will be reported and credited at the average of the high and low market value on either: 1) the day of personal delivery of a signed certificate and/or stock power; 2) the date the certificate and stock power is mailed; or 3) the day the electronic transfer is received by NTBG. Such securities will be conveyed to NTBG for immediate sale. It is NTBG's practice to liquidate such gifts immediately.
- C. In cases where gifts are made and accepted with assets other than cash or marketable securities, the decision on when to liquidate, report and recognize these assets will be made on a case-by-case basis by the Director of Philanthropy, CEO and Director, and CFO or following the review of a sub-group of the Finance Committee as described in item A. The following general guidelines will be observed:
1. Gifts of closely-held stock will be reported and credited at the per-share cash purchase price of the most recent transaction or current valuation information from the company if there is a buy-back transaction with the company. If no buy-back is consummated, a gift of closely-held stock may be credited at the value determined by a qualified independent appraiser. Typically, shares of closely held stock will be liquidated as soon as possible.
 2. Outright gifts of real estate and/or bargain sales (real estate sold at a discounted price) will be reported and credited at fair market value at the time the property is transferred to NTBG, less any encumbrances. A qualified independent appraiser employed by the donor shall determine the fair market value of the property.
 3. Gifts of real estate with a retained life interest on the part of the donor shall be evaluated on a case-by-case basis and must have a minimum appraised value of \$250,000 for consideration. The donor will deed the property to NTBG

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

immediately and a contractual agreement shall be made between NTBG and the donor. The gift will be booked at the appraised fair market value, less any encumbrances, at the time of the gift agreement.

4. Outright gifts of tangible personal property for which donors qualify for a charitable gift deduction under current IRS rules will be reported and credited at the appraised value of the property at the time it is transferred to NTBG, less any encumbrances, so long as the property has been held by the donor for more than one year and has a use related to the exempt purposes of the Garden. Gifts of property that have been held for less than one year and have a use that is unrelated to the exempt purpose of the Garden will be reported and recognized at the level of their cost basis only.
 5. Gifts of real estate intended to be used as property to be held in perpetuity by NTBG must align with the mission of the Garden. Such gifts will be evaluated and accepted on a case-by-case basis. In general, real estate offered with the understanding that it is held in perpetuity should be gifted with an endowment that is sufficient to support the property's long-term operations.
- D. The following are general guidelines or considerations in connection with gifts of tangible personal property:
1. Generally, NTBG's acceptance of such gifts cannot involve significant additional expense for their present or future use, display, maintenance, or administration.
 2. Generally, no burdensome financial or other obligations can be incurred, directly or indirectly, by NTBG as a result of its acceptance of such gifts.
 3. Gifts of personal property (jewelry, paintings, antiques, rare books, etc.) exceeding \$5,000 in value shall be reported and recognized at the fair market value placed on them by an independent, expert appraiser employed by the donor at the time the donor relinquished control in favor of NTBG. Gifts of under \$5,000 may be reported and recognized at the value declared in writing by the donor. If the donated property is sold or otherwise disposed of within three years upon receipt from the donor, the nonprofit must file a form 8282 with the IRS.
 4. NTBG will not accept gifts of tangible personal property (such as books, paintings, etc.) if such gifts are to be made on the condition, understanding, or expectation that the gifted items will be loaned to the donor or to persons designated by the donor for life or for an extended period of time as determined by the donor.
 5. It is the responsibility of the individual or company making such a gift to provide the documentation to determine its fair market value.
- E. Charitable Lead Trusts will be reported and credited at the face value of all annuity payments to be received during the life of the trust.

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

- F. Bequest intentions and other revocable deferred gifts will not be reported as income but will be tracked internally as "future" expectancies of NTBG.

Bequest intentions and other revocable deferred gifts will be reported and credited, subject to the donor's specific request and intent, only when the funds are irrevocably committed to NTBG or when the gift matures. Bequests will be counted, reported and credited at the value established at the time of probate and/or at the fair market value on the date of the transfer of the asset(s). If any portion of the total amount was previously tracked internally as a "future" expectancy, this amount shall be subtracted from the total value of these expectancies.

- G. Gifts of whole life insurance to NTBG will be made by either designating NTBG as the beneficiary of the policy or as both owner and beneficiary.
1. When the gift is irrevocable because NTBG is the owner and beneficiary and the policy is paid up, the donor shall receive gift credit for the cash surrender value or replacement value.
 2. Where the gift is revocable because the donor still owns the policy or the policy is not paid up, premium payments made directly to the insurance company will be credited if the donor sends evidence to NTBG of the payment. The gift will be tracked internally like revocable bequests. No gift income will be reported unless NTBG owns the policy and it is paid in full and therefore becomes irrevocable.
- H. Gifts of term life insurance will be tracked internally like revocable bequests; however no gift income will be reported or credited unless the policy matures during the term period.
- I. Life Income Agreements:
1. In the rare case that NTBG serves as the trustee, charitable remainder trusts or charitable gift annuities should be funded initially with assets of at least \$100,000. Trusts may be established for lesser amounts if it can be determined that the charitable remainder portion of the gift is sufficient to cover the administrative costs (including third party custody and administration fees) and provide a substantial future gift to NTBG.
 - a. Trusts should be limited to one or two income beneficiaries and to beneficiaries over 40 years of age (unless a generous outright gift is combined with the trust, in which case trusts can include younger beneficiaries, to be determined by the CEO and Director, CFO and Director of Philanthropy on a case-by-case basis).
 2. In general, funds received for annuities and trust agreements will be administered by a financial institution approved by the NTBG Board of Trustees. Separate accounting is provided to the donor for each life income agreement. Annuity or trust payments shall be made at the donor's choice: monthly, quarterly, semi-

POLICY NAME: GIFT ACCEPTANCE, DONOR CREDITING, AND GIFT INCOME REPORTING

annually or annually. In order to control the cost of trust and annuity administration, NTBG prefers to make payments quarterly or semi-annually.

3. Irrevocable charitable gift annuities and charitable remainder trusts will be reported at their face value.
- J. Future gifts that specify NTBG as a contingent beneficiary shall not be counted.

V. Policies Pertaining to Endowment Funds

- A. For the purposes of this policy statement, "endowment fund" shall refer to any fund, or any part thereof, not wholly expendable by NTBG on a current basis under the terms of the applicable gift instrument with NTBG.
- B. Endowment funds are invested according to the investment policies established by the Board of Trustees of NTBG.
- C. Endowment gifts may be used to establish a special endowment fund or may be added to an existing endowment fund.
- D. The minimum gift for any type of named endowment fund is \$250,000.
- E. Named chairs (for a full-time position) require a minimum gift of \$1,000,000.
- F. Donors may start named endowment funds with lesser amounts for purposes of accumulation, through additional gifts and accrued earnings, in order to reach the minimum gift requirements for naming.
- G. An accumulation fund is an embryonic endowment fund. It is the repository for gifts from donors who want to establish an endowment fund but need or want to build the corpus over a multiyear period.
- H. Accumulation funds require a memorandum of understanding drafted by the Development Office approved by the CEO and Director and signed by the donor. This document will address the name of the fund, the purpose of the fund, the target amount, the time period for accumulating the target amount, and the use of the fund if the target amount is not reached.
- I. When establishing an endowed fund, a formal Letter of Agreement will be used to specify the name of the donor(s), the amount of the gift, the name of the fund and the donor's purpose for use of the earnings. This Agreement is dated and executed with the signature of the CEO and Director, the Director of Philanthropy, Chairman of the Board and the donor(s).
- J. In designating an endowment gift for a specific purpose, the donor is encouraged to describe that purpose as broadly as possible and to avoid detailed limitations and restrictions.

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- K. NTBG reserves the right to review the minimum amounts required for named endowments periodically and to amend the minimum amount required so as to ensure that endowment proceeds are sufficient to fund the intended purpose(s) of the endowment. If, and when, NTBG acts to increase the minimum amount required to establish a particular named endowment fund, such action shall not be retroactive to funds already established and named.

VI. Exclusions

- A. The following types of funds may be accepted by NTBG but will not be reported or credited as gift revenue by NTBG:
1. Contract revenue
 2. Contributed services unless the services received: a) create or enhance non-financial assets or b) require specialized skills, and are provided by individuals possessing those skills that would typically need to be purchased if not provided by donation.
 3. Contributions and/or revenue from cities and regional governments, even though those entities may be incorporated; government funds whether local, state, or federal (including state matching grants).
 4. Earned income
 5. Sale of merchandise
 6. Investment earnings

VII. Donor Responsibilities

- A. The tax deductibility of gifts is the responsibility of the donor. NTBG recommends that all donors consult with their legal tax counsel when planning all gifts especially non-cash gifts or future planned gifts. These policies are meant to conform to all IRS and general accounting standards and can be amended if the laws change.

15. ADDENDUM NO. 1 TO GIFT ACCEPTANCE POLICY: GIFT RECOGNITION



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: **ADDENDUM NO. 1 TO GIFT ACCEPTANCE POLICY:
GIFT RECOGNITION**

SUPERSEDES: CULTIVATING PARADISE CAMPAIGN RECOGNITION POLICY
(Adopted by the Board April 9, 2014)

Ad hoc committee: *Gift Stewardship Committee*

First adopted: 4/01/15

Last revised: 4/01/15

Last reviewed: 4/01/19

General Policies

NTBG may seek to recognize the efforts and contributions of donors by listing their names in publications, on dedicated plaques and/or through individual naming opportunities associated with specific locations in our gardens.

The Board has delegated to the *Gift Stewardship Committee* the power and authority to oversee and manage the recognition process as noted throughout this policy. The *Gift Stewardship Committee* will consist of the NTBG Director and CEO, the Chairman, Senior Vice Chairman, and Vice Chairman of the Board of Trustees, the Development Committee Chair, the Finance Committee Chair, and the Director of Philanthropy. The *Gift Stewardship Committee* will respond to requests from staff for guidance in interpreting and applying this policy and will be called on to approve all naming opportunities offered to donors who make gifts of \$250,000 or more. Other naming opportunities suggested by potential donors will be submitted to and reviewed by the *Gift Stewardship Committee* prior to confirming any request for naming.

To ensure compliance, consistency, and the fair and equitable distribution of donor recognition, the following framework will be used by NTBG's staff and volunteers to:

1. Represent the best interests of donors
2. Guide recognition discussions with prospective donors
3. Ensure a uniform approach that is consistent with the values of NTBG

Recognition can apply to gifts or written pledges from individuals, corporations, and foundations. Pledges should be made in writing through a pledge form or letter of intent and should commit to a specific dollar amount that will be paid according to a fixed time schedule. All pledge forms and letters of intent shall be drafted and executed in a manner that is mutually agreed upon by NTBG and the donor. The recommended maximum pledge period is five years.

POLICY NAME: GIFT RECOGNITION

From time to time, a list of naming opportunities may be developed by NTBG staff and presented to the *Gift Stewardship Committee* for review and approval.

Gifts from a family can be recognized for the combined total of gifts from the individual family members. Gifts received from other private sources due to the sole control, discretion and direction of an individual may be included in that individual's recognition. This may include a gift from a privately held company owned by the individual or a family foundation. In cases where support is received from an organization composed of numerous individuals, recognition will be given to the organization rather than the numerous individuals in the organization.

The following types of gifts qualify for recognition:

- Gifts received in full will be recognized for the amount received. Gifts pledged over a period of five years or less will be recognized at the full commitment amount upon receipt of appropriate gift documentation.
- Gifts of publicly traded securities will be recognized at the average of the high and low market value on either: 1) the day of personal delivery of a signed certificate and/or stock power; 2) the date the certificate and stock power is mailed; or 3) the day the electronic transfer is received by NTBG. It is NTBG's practice to liquidate such gifts immediately.
- Gifts made through donor-advised funds or family foundations may be recognized by the donor, as opposed to the organization, who made the original gift to the fund or family foundation (and that person's spouse or partner, if applicable) if so desired.
- In the rare event that recognition offered to a donor becomes damaging to NTBG, its mission and values and/or its constituents, NTBG retains the right to cease the recognition with approval by its *Gift Stewardship Committee*. The discontinuance of recognition is a serious consideration, but it may become necessary in extenuating circumstances (e.g. when the donor does not follow through on a commitment and/or, in the opinion of the *Gift Stewardship Committee*, it is in the best interest of NTBG to separate itself from the donor). NTBG shall have no obligation to refund any contribution previously made to NTBG as a result of such decision.

Due to the unique nature of donor relationships, exceptions to the above may be appropriate and may be approved by the NTBG Director in consultation with *Gift Stewardship Committee*.

Forms of Recognition

- Requirements to Name a Building or Structure: In general, an outright gift is required to name a building or structure. Naming rights for any buildings or structures should be extended for no less than 50% of the total project cost to build or renovate the building. However, other factors used to determine gift requirements to name buildings or structures may be determined by the Director and CEO, in consultation with the *Gift Stewardship Committee*, and evaluated on a case-by-case basis. These may include but not be limited to building size, location, use and visibility or the history of service and contributions to NTBG for the named person or entity.

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The physical display of name recognition on a building or structure will be developed in concert with the benefactor and subject to final approval by the *Gift Stewardship Committee*. The period of time a donor's name will be attached to a building or structure may be determined at the time the gift is made. In general, this period will be for as long as the use of the building or structure remains substantially the same as specified at the time of the naming, subject to the need for renovation as discussed below.

- Requirements for Garden Location Recognition: Gift level requirements for locations or areas within our gardens will be developed based on a variety of factors including but not limited to space size, type, visibility, usage and perceived "market value" as determined by the Director and CEO in consultation with the *Gift Stewardship Committee*. In general, naming opportunities for locations or areas within the garden will be offered for no less than an outright gift of \$250,000.

Gifts will be recognized on signage displayed in or near the area or location itself; exact signage type will be determined by the *Gift Stewardship Committee* with respect for the donor's intent and wishes. NTBG will develop and ultimately approve the design of all site-specific space recognition.

Other forms of physical recognition may be developed as deemed appropriate by NTBG's *Gift Stewardship Committee* based on extraordinary support. The period of time a name will be attached to a location or area within the garden may be determined at the time naming recognition is implemented. In general, this period will be for as long as the use of the location or area remains substantially the same as specified at the time of the naming.

- Requirements to name an Endowment Fund: Benefactors of permanent endowment gifts may be recognized through the establishment of named funds with the minimum qualifying gift value of \$250,000. Exceptions may be approved on a case-by-case basis by the *Gift Stewardship Committee*.

Named endowment funds will be featured in NTBG's annual report, in addition to other collateral related to the use of the gift, as appropriate. Other forms of recognition may be developed as deemed appropriate by NTBG's staff in consultation with the *Gift Stewardship Committee*, as appropriate, based on extraordinary support.

- Recognition Display: From time to time, whether as part of a capital campaign, a special event such as an anniversary celebration, or for some other reason in NTBG's discretion, NTBG may recognize financial and other contributors to NTBG's mission through a recognition display which would be placed in a centralized location at a garden or in a building consistent with the purpose of the display and to maximize its public recognition. Individual, corporate, foundation and other benefactors will be recognized according to the level of their respective support. NTBG may also recognize donors through other vehicles (i.e. creative architectural elements such as bricks).
- Publications: NTBG will recognize donors in its annual report and other regular publications; gifts related to capital campaigns or other episodic giving initiatives will be recognized once

POLICY NAME: GIFT RECOGNITION

the campaign or initiative enters its public phase. NTBG may publish additional donor lists or rosters as deemed appropriate in newsletters, brochures and NTBG's website. When appropriate, donors may be recognized in publications that feature information on the building or garden locations they have supported.

- Other Recognition: In agreement with the donor, gifts of particular significance may be announced in external publications and media such as newspaper, magazines, television, etc. The donor will have the opportunity to approve any press releases generated to announce gifts.
- Renovating or Relocating a Building, Structure or Garden Feature: When it is necessary for NTBG to renovate or relocate a building, structure or garden feature that has been previously named - and this need falls within ten years of the initial recognition - the donor's name will remain associated with that building, structure or feature following the renovation or relocation unless the donor requests otherwise. Should NTBG renovate or relocate a building, structure or feature that has been previously named - and this action occurs after ten years of the initial recognition - NTBG will provide the relevant donors or the donors' heirs with the right of first refusal to make an additional gift to name the new building, structure or feature. The amount of the additional gift will be determined on a case-by-case basis by the *Gift Stewardship Committee*. If the original donors or their heirs are unable to make an additional gift, or NTBG is unable to contact the donors or their heirs, NTBG will acknowledge the original donors in an appropriate and meaningful manner as determined by the *Gift Stewardship Committee*.

Note: The principles set forth in this policy will serve as guidelines for other recognition opportunities which may arise from time to time, including recognition of non-monetary extraordinary contributions to NTBG and/or its mission.



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: MANAGEMENT OF THE LIVING COLLECTIONS

Board Committee: Living Collections and Horticulture Committee

First adopted: 4/4/17

Last revised: 4/4/17

Last reviewed: 4/01/19

FOUNDATIONAL STATEMENT: The National Tropical Botanical Garden was chartered by the United States Congress to establish, develop, operate, and maintain for the benefit of the people of the United States an educational and scientific center in the form of a tropical botanical garden or gardens.

GOAL: To ensure that NTBG's living collections retain their research and conservation value, which is fundamental to a botanic garden, and to advance the scientific, conservation, educational, and cultural mission of the institution.

POLICY:

1. The integrity of the living collections shall be maintained through adherence to the policies and procedures outlined in an institutional Living Collections Policy, which guides staff in the development, management, and enhancement of the institution's Living Collections. This institutional policy shall be periodically reviewed by staff to ensure it reflects the NTBG's goals and initiatives.
2. NTBG's collections focus is tropical and, in some cases, sub-tropical species. Emphasis is placed on rare and endangered and other species from the Pacific Islands.
3. Each garden may have a special collections focus that is in keeping with the place-based identity of that garden while adding value to the institution's overall collections focus.
4. Collections are currently defined through four main categories: economic or ethnobotanic, synoptic, conservation, and historical landscape. Some plantings may fall into more than one category.
5. Emphasis shall be placed on collecting and cultivating wild-collected plant material.
6. In the collection of plant material NTBG shall adhere to the policy on Access to Plant Genetic Resources and Benefit-Sharing, adopted by the Board of Trustees on February 27, 2007.

POLICY NAME: Management of the Living Collections

7. Care should be taken to prevent the introduction of invasive species into the collections. Plants ascertained to be invasive shall be removed. This may require the de-accessioning of specimens.
8. Thorough documentation of the living collections shall be assembled and the data maintained in accordance with the institution's Living Collections Policy.
9. Staff shall facilitate data access for the purpose of research, education, and plant maintenance.
10. All accessioned plants are to be identified with permanent labels or tags displaying the accession number and are to be mapped.
11. Disaster preparedness plans at each garden should prioritize measures to be taken based on criticality of species and ease of obtaining replacement specimens. Measures shall be in place to protect living collections data.
12. Conducting plant health assessments and providing proper horticultural maintenance shall be an ongoing part of caring for the living collections.
13. NTBG's public gardens should present visitors with visually rich landscapes that provide both emotional and educational experiences. Plant-out plans, particularly for thematic display plantings, should be developed within the scope of the Living Collections Policy while at the same time giving consideration to aesthetic appeal and interpretive value.



NATIONAL TROPICAL BOTANICAL GARDEN BOARD POLICY

POLICY NAME: ACCESS TO PLANT GENETIC RESOURCES AND BENEFIT-SHARING

First adopted: 2/27/07

Last revised: 2/27/07

Last reviewed: 4/01/19

The National Tropical Botanical Garden endorses the following Principles on access to plant genetic resources and benefit-sharing:

International and national treaties and laws related to access to genetic resources and associated traditional knowledge and benefit-sharing

- Honor the letter and spirit of the Convention of Biology Diversity (CBI), The International Treaty on Plant Genetic Resources for Food and Agriculture (The Treaty), The Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), the Endangered Species Act (ESA), and laws relating to access and benefit-sharing, including those relating to traditional knowledge.

Acquisition of genetic resources

- In order to obtain prior informed consent, provide a full explanation of how the genetic resources will be acquired and used.
- When acquiring genetic resources from in situ conditions, obtain prior informed consent from the government of the country of origin and any other relevant Stakeholders, according to applicable law and best practice.
- When acquiring genetic resources from ex situ collections (such as botanic gardens), obtain prior informed consent from the body governing the ex situ collection and any additional consents required by that body.
- When acquiring genetic resources from ex situ sources, whether from ex situ collections, commercial sources or individuals, evaluate available documentation and, where necessary, take appropriate steps to ensure that the genetic resources were acquired in accordance with applicable law and best practice.

Use and supply of genetic resources

- Use and supply genetic resources and their derivatives on terms and conditions consistent with those under which they were acquired.

