

2018 Annual Report



Lynde Uihlein, CPC Board Chair

Message from the Chair

2018 has been a year of rapid growth at the Center for Plant Conservation. We have firmly established our roots at San Diego Zoo Global, extended our outreach to Participating Institutions nationwide, and developed cutting edge technology in the service of endangered plant conservation. Our board is strong and engaged in the expansion of our mission, to Save Plants.

Thank you for your interest in and support of CPC. I look forward to all that 2019 has in store for us.



To date, we now have more than one third of North American imperiled plants (over 1,500 of 4,400 kinds) secured in the CPC National Collection. We have active research programs going on in dozens of organizations in the U.S., all working to overcome conservation challenges for the remaining two thirds of imperiled North American plants. Challenges such as seed storage, plant propagation and preservation/recovery of species in the wild, are all being addressed by CPC partners.





advance

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advocate

2018 in review

At CPC, we Save Plants. And we are doing it well. For 2018, we once again shattered all expectations by saving more plants than ever before. Through the hard work of our National Office team, overseen by our dedicated Board of Trustees, and accomplished through the unwavering commitment of our Participating Institutions, we have added 138 additional species to the CPC National Collection of Endangered Plants, for a total of 1,511 kinds of plants safeguarded from extinction. But we aren't stopping there. With eight new Participating Institutions added in 2018, and our greatly enhanced web tools and new conservation guidelines, collectively known as Plant Nucleus, we are poised to do even more in 2019. Read on to learn about all that CPC and our partners accomplished in 2018. Together we **Save Plants** — for them, for us, and for the planet.



advance



Best Practices

For more than 30 years, CPC conservationists have worked to save imperiled plants. Drawing on this wide and varied expertise within the CPC network, in 2018, CPC updated and electronically published the CPC Best Plant Conservation Practices to Support Species Survival in the Wild. In the years since the last update, advances in research have led to an increased understanding of best practices in topics ranging from seed storage to reintroduction. CPC Vice President of Conservation and Science, Dr. Joyce Maschinski, led this network-wide effort resulting in the most comprehensive and up-to-date compendium on plant conservation in the world.

There is urgent need to share these guidelines widely so that all engaged in plant conservation are best equipped for success. We are finalizing plans to both print and post online, multi-media versions of the guidelines. Our goal is to make these guidelines accessible and relevant to all those working to **Save Plants**.

CPC Best Plant Conservation Practices to Support Species Survival in the Wild is available at saveplants.org as a downloadable PDF.

IMLS Grant

CPC secured an Institute of Museum and Library
Services (IMLS) National Leadership Grant to
advance our online conservation tools and leverage
the collective power and conservation knowledge of
the CPC network. The grant provides funding for the creation
of instructional videos and an online community forum designed to
support the Best Plant Conservation Practices to Support Species Survival in the Wild.
Spanning three years, the \$491,000 grant is just the first step in CPC's plans to use the
power of the cloud to strengthen the network, a project now known as Plant Nucleus.

PLANT NUCLEUS





CPC National Meeting

The Botanical Research Institute of Texas (BRIT) hosted the 2018 CPC National Meeting in Fort Worth, Texas. This annual three-day conference brought together more than 80 CPC Participating Institution conservation leaders to share and learn cutting-edge science and technology used to save imperiled plants. Nearly 40 presentations covered the breadth of current plant conservation science, from in-the-field efforts to seed storage to conservation genetics.







PI Presentation Videos

For the first time, CPC recorded conservation officers' presentations at our 2018 National Meeting in Fort Worth. These videos bring the Best Practice Guidelines to life by showcasing the people and stories behind our conservation methods.

Multimedia support of the Best Practices is critical to saving plants by sharing the knowledge of the CPC network with a broader conservation audience. Through our IMLS grant, we are working to expand our canon of videos to include instructional vignettes, inspirational stories, and descriptive animations, all designed to enhance the Best Practices Guidelines.



More Than 100 New Species in our **National Collection**

In 2018, 138 species were added to the CPC National Collection of Endangered Plants, bringing us ever closer to having all 4,400 imperiled plants in the U.S. and Canada in conservation collections. Many of these new additions are a result of seed collecting projects coordinated by the CPC National Office and funded through our partners, including the Kew Millennium Seed Bank Partnership and the U.S. Department of Agriculture Forest Service.



8 new Participating Institutions





The Polly Hill Arboretum

Newfields



North American Orchid Conservation Center



UC Davis Arboretum and Public Garden



Marie Selby Botanical Gardens



The Dawes Arboretum



Institute for Applied Ecology



UC Santa Cruz Arboretum and Botanic Garden

CPC is a national network of leading plant conservation organizations dedicated to saving plants. In 2018, we welcomed eight new Participating Institutions into our network. These new partnerships expand on our already extensive breadth of knowledge and experience and create new win-win opportunities for all CPC partners and the plants we work to save.

Tools for PIs

Through our Participating Institution portal, CPC implemented new avenues for data sharing and communication among Network Partners. In 2018, CPC instituted an electronic application process for our PIs to apply for Millennium Seed Bank funding and enabled direct transfer of seed collection data generated through this initiative to our partner in seed storage and research, the U.S. Department of Agriculture's National Laboratory for Genetic Resources Preservation (NLGRP). Data transferred to NLGRP in Fort Collins, Colorado, is now available for download by Conservation Partners in NLGRP Accession Viewer.

Rare Plant Finder

CPC is committed to helping its partners identify and prioritize the rare plant taxa yet to be conserved in conservation collections. To help in this effort, we deployed the Rare Plant Finder tool, which allows members to view the globally rare plant species in their state that have not yet been recorded by CPC as being incorporated into a conservation collection.

The challenge

Endangered
plants often
are located in
wild and
remote areas

Rare plants are diverse - from ferns to conifers to cacti, and everything in between

Access
to info about
conserving rare
plants is limited

There are still many unknowns as to how to save the rarest of these plants

1

Plants are essential to life on Earth. But over 80,000 kinds around the world face extinction and over 4,400 of these are in the U.S. alone. Many unanswered questions remain on how best to save these plants.

8

A better community, harnessing the strength of its partners through the power of the cloud.

This is Plant Nucleus.

As more partners interact in the community, the system learns and grows, all guided by how partners use it.

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> This freedom w fast knowledg lets conservati saving mo

PLANT NUCLEUS is the solution

In 2018, CPC started working on these components.

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nd efficient.

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Access to information is limited, even when the answers to the questions are known. We need to make data available in ways that increase knowledge and make conservationists better able to save plants.



On Plant Nucleus:

Questions will be answered by plant experts



Not everyone accesses information in the same way. We need to better connect researchers and practitioners in a community that works for them.



Interactive guidelines will be fully integrated into the forum



Conservation science FAQs will be readily available

Plant Nucleus is a cutting edge, web-based platform that will allow users to choose how they both share and use data as they interact within this community.



Community
discussion will
occur around
plant conservation
topics





Archived conservation information will be easily accessible



Rare Plant Seed Banking Effort

Collaborating with the U.S. Forest Service

Working with regional botanists for the Southwestern Region of the U.S. Forest Service, Kathryn Kennedy, CPC Executive Director (2000-2014), initiated a project to assess the current status of seed banking for high-priority species on National Forest lands and set priorities for further efforts. In the first six months of putting the project into action, CPC subcontracted with The Arboretum at Flagstaff, Desert Botanic Garden and Lauritzen Gardens, who made collections and conducted seed germination trials. In 2108, the project added 4 new accessions of rare plants to the National Collection and confirmed viability of seeds held frozen in storage for 20 years.

Rookies for Recovery Program

Working with the Bureau for Land Management

Through a grant from the Bureau of Land Management, and in partnership with San Diego Zoo Global, CPC co-established a new intern training program – Rookies for Recovery – to train tomorrow's conservation professionals in the science and policy of rare species conservation while achieving measurable, real-world recovery outcomes. The "Rookies" program consists of a hands-on classroom training module at San Diego Zoo Global where interns are educated on current policies and practices in plant and animal conservation. Following the module, interns are assigned to one of various *in situ* conservation projects at affiliated BLM or related government offices around the country. Outcomes for year one included training materials useful in teaching interns and others interested in the conservation of federally threatened and endangered species.





advocate

UN Convention on Biological Diversity Goals

CPC President and CEO, Dr. John Clark, participated in the Global Partnerships in Plant Conservation meeting in Cape Town, South Africa. The original Global Strategy for Plant Conservation (GSPC), introduced in 2002 as part of the UN Convention on Biological Diversity (CBD), set 16 targets in plant conservation to be achieved by 2010. To help nations meet the targets, a consortium of international and national plant and conservation agencies formed the Global Partnership. The Partnership is working to implement the GSPC and provide tools and resources on how each country can meet the targets. John presented the current state of plant conservation in North America, with a focus on the CPC network and our collective achievements.

APGA Panel Advocacy Discussion

CPC Vice President of Operations and Advancement, Maureen Wilmot, assembled a panel, including board member, Lindsay Marshall and leaders of CPC Participating Institutions to discuss The Nature of Advocacy at Public Gardens during the American Public Garden Association Conference in Los Angeles. Gardens often grapple with the roles of advocacy within their institutions. The panel provided expert advice and first-hand experience to answer questions regarding these issues.

Reintroduction Workshop in Seoul, South Korea

Building upon good relationships with plant conservation colleagues in South Korea, Joyce Maschinski, CPC Vice President of Conservation and Science, and Matthew Albrecht, Missouri Botanical Garden, presented a workshop on Rare Plant Reintroduction at Shingu Botanic Garden near Seoul, South Korea, in September. Hosts Dr. Sungwon Son, Korea National Arboretum, and Dr. Yong-Shik Kim, Chollipo Arboretum, envision strengthening a regional conservation network similar to CPC. Over 100 students from South Korea, Uzbekistan, Turkmenistan, Tajikistan, Kyrgyzstan and other Southeast Asian countries attended.

Call to Action for the Botany Bill

CPC's newly formed Board of Trustees Advocacy Task Force focused its first efforts to mobilize support for the "Botany Bill", the bipartisan legislation intended to promote botanical research and botanical sciences capacity and to support native plant research and use. The Task Force drafted a position paper on the legislation and CPC issued its first "call to action" email. This email garnered much support from our community.



Media Outreach

In 2018, we focused on creating compelling and dynamic content for our website and our monthly online newsletters. We collaborated with our partners and provided content for our own social media outlets as well as our partners'. Our goals to engage the public in better understanding the work we do to save plants and how we do it, and to share among our network the work our partners are doing individually and collectively was wildly successful. We increased Facebook followers by more than 60%. We had a 40% increase in people receiving our newsletters, and we saw a growing loyal and connected community worldwide.



CPC Board of Trustees

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Maureen Wilmot Vice President, Operations and Advancement



Katie Heineman, Ph.D. Plant Ecologist and Data Scientist



Christa Horn Newsletter Editor/Writer



Ann-Cathrin Howard
Senior Administrative Assistant



PHOTO CREDITS

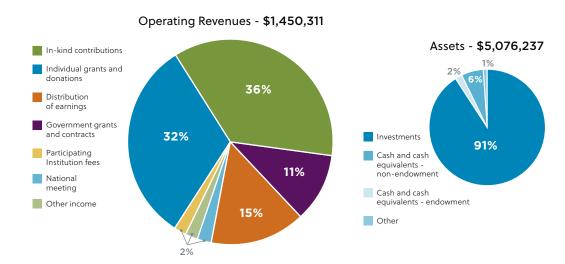
Page ii: Shiela Murray - The Arboretum at Flagstaff, James Lange - Fairchild Tropical Botanic Garden, Tom Kaye - Institute for Applied Ecology; Page 1: Cheryl Birker - Rancho Santa Ana Botanic Garden; Page 2: Patrick Griffith - Montgomery Botanical Center; Page 6: Denise Knapp - Santa Barbara Botanic Garden; Page 9-10: The Dawes Arboretum; Page 11: Duncan Bell - Ranch Santa Ana Botanic Garden; Page 12 and 13: Seana Walsh - National Tropical Botanical Garden; Page 13-14: Thiago Penedo, Missouri Botanical Garden; Page 15-16: Matthew Albrecht - Missouri Botanical Garden; Front/back cover: Denise Knapp, Santa Barbara Botanic Garden.

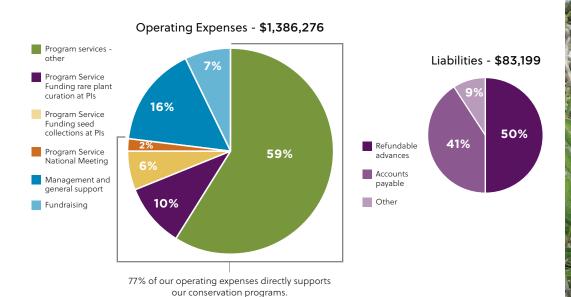
Financials

2018 proved to be another financially stable year for CPC. Our operating expenses remained around \$1.3M and our income at \$1.4M.

We thank our generous donors, including our dedicated Board of Trustees, for joining us in our effort to safeguard the rare and endangered plants of the United States and Canada.

In 2018, we were able to dedicate 77% of our operating expenses directly to the programs that result in saving more plant species, including \$81,000 for seed collections by our partners and \$137,500 in plant sponsorship payments.





CPC is a one-of-a-kind network of conservation partners, collectively known as CPC Participating Institutions, that collaboratively work to save the imperiled plants of North America.

CPC Pls maintain the CPC National Collection of Endangered Plants, a living conservation collection of imperiled plants, by working to collect and manage living seeds and plants, advancing our understanding of threats as well as means to save these species, and by communicating with partners within the CPC network to ensure that all are using the best and most up-to-date means possible to Save Plants.

HOW WE SAVE PLANTS

- We advance the science of saving plants.
- We apply this science to save imperiled plant species here in North America.
- We advocate on behalf of our collective efforts to Save Plants and promote the value of plants to humankind.



Center for Plant Conservation

National Headquarters, 15600 San Pasqual Valley Rd., Escondido, CA 92027 | 760.796.5686 | saveplants.org

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Santa Cruz Island by hmallow (Malacothamnus fasciculatus var. nesioticus). Photo by Denise Knapp, Santa Barbara Botanic Garden.