



# THE NATIVE ORCHID CONFERENCE JOURNAL



VOLUME 17.2



**The Native Orchid  
Conference, Inc.**

P. O. Box 2047 Boone, NC 28607-2047

**Websites**

www.nativeorchidconference.org  
groups.yahoo.com/neo/groups/  
nativeorchidconference  
www.facebook.com/groups/  
460264675690/

**Officers**

President: Ben Rostron, Ph.D.  
ben.rostron@ualberta.ca

Vice-President: Robert Sprague  
bobsatcyndal@aol.com

Secretary: Linnea Hanson  
linneachanson@gmail.com

Treasurer: Richard Barmore  
rebster61@yahoo.com

**Board Members at Large**

Rick Burian bur.rick@att.net  
David McAdoo ncorchid@yahoo.com  
Jean Stefanik jeango4it@aol.com

**Case Grant Committee Chair**

Doug Martin, Ph.D.  
dofrma44@gmail.com

**Communication Chair**

Bill Kress wckress@gmail.com

**Technical Advisor**

Paul M. Catling, Ph.D.  
brenda.kostiuk@gmail.com

**Editor**

Chelsea Kieffer  
chelseakieffer@gmail.com

# THE NATIVE ORCHID CONFERENCE JOURNAL

VOLUME 17, ISSUE 2 : TABLE OF CONTENTS

FRONT COVER	<i>Platanthera tipuloides</i> Photo: Mark Larocque
3	Message from the President, Ben Rostron, Ph.D.
4-7	Orchids on U.S. Stamps, Part I: The New Wild Orchids Stamps Unveiled By Chelsea Kieffer
8-23	Orchids on U.S. Stamps, Part II: The History of Orchids on U.S. Stamps By Chelsea Kieffer
24-26	<i>Neottia smallii</i> , formerly known as <i>Listera smallii</i> By Tom Sampliner
27-36	Once in a Lifetime By Mark Larocque
37	2020 Case Fund Grant Recipients
BACK COVER	<i>Neottia smallii</i> Photo: Tom Sampliner

## Message from the President:

When I last wrote one of these notes, the NOC Board had just made the agonizing decision to postpone the Annual Symposium. What a crazy few months it has been since then. Each of us has been affected by the Covid pandemic in different ways. We all wish things were ‘back to normal’ but we don’t know when that will be. I was told “some folks have speculated that the proverbial light at the end of the tunnel is simply an oncoming train. Perhaps though, it's the sun. Rising, as it does every day, the sun brings life to fields and forests, prairies and bogs and other special places where our cherished orchids grow.”

We can all take those words of wisdom to heart. I know I missed the Annual Symposium, but I replaced that trip to a “local” (Alberta) site that I had been meaning to visit for many years – and ended up seeing more than 15 species including a new location where we saw 800+ *Cypripedium montanum* in full flower. The message is, look for positive things that are coming out of this crisis: perhaps you have some new-found time... use that time to rest, reflect, write (an article for the NOC Journal?), sort photos, connect with family and friends, and yes, you can safely still go out and look for orchids!

This issue of the Journal is packed with great native orchid info. Our editor, Chelsea Kieffer, contributed two articles: first, an incredible story about 10 photographs by one of “our own” (Jim Fowler) being released as USA postage stamps. Chelsea’s second article provides a history and fascinating details of native orchids featured on USA postage stamps. An article by Tom Sampliner on *Neottia smallii* outlines the trials it takes to find and photograph this elusive species... hint, being a contortionist helps. Finally, Mark Larocque contributes an article on a “once in a lifetime” trip he took in 2019 with Stephan Ambs. It’s not often that you get a chance to see/photograph six of the rarest orchids in North America, and retire to your hotel to feast on as much crab and fresh halibut as you can eat!

In closing, remember, the 2020 NOC Symposium was not cancelled ... it was merely postponed. We can all look forward to June, 2021 when the sun will rise over Olympic National Park to light up our annual gathering, a lot of smiling faces and a host of spectacular orchids. Please tell us what you've been up to and we'll report it in the next NOC Journal.

Stay safe and healthy. Take care of yourselves, your family and your friends.

*Ben Rostron*  
Edmonton, Alberta  
August, 2020

***We are sad to report the passing of Charter Member Bettie Creutz of Rancho Santa Fe, CA.  
A regular symposium attendee, Bettie was the long-time companion of John Horner.***

# ORCHIDS ON U.S. STAMPS

## Part I: The New Wild Orchids Stamps Unveiled

Text by Chelsea Kieffer, [chelseakieffer@gmail.com](mailto:chelseakieffer@gmail.com)

Many of us who love orchids have also taken up photography or other art forms to document and depict the beauty of orchids in all their interesting, colorful, and inspiring ways. Stamp collecting has been another way that I have enjoyed the combination of art and science, by learning about geography and natural history, and appreciating the many styles and forms of art featured.

Jim Fowler, a good friend to me and the Native Orchid Conference, is my all-time favorite wildflower photographer. We photographers know very well the challenges associated with photographing orchids:



The unveiling of the Wild Orchids Forever Stamps with ceremony participants from left to right: Georgia Tasker (horticulture writer and Pulitzer Prize finalist), Jim Fowler (author and photographer), Jacqueline Strako (Postal Service's chief customer and marketing officer), local students Noah Celic and Kimberly Lampidis, Lawrence Zettler (Director of the orchid recovery program at Illinois College), Donna Shalala (U.S. Representative of Florida) and Susan Wedegaertner (AOS President). Photo by Walter Ezell.

undesirable lighting, wind blowing and moving flower stems back and forth, getting up close to tiny orchid flowers, and keeping them in focus! And let us not forget the first challenge—the adventure of finding orchids in the wild! Often, I would be surprised how tiny some orchids really are, expecting them to be larger, having only seen them in closeup photos. All these factors and my experiences have made me appreciate Jim’s photos all the more.

Jim has seen and photographed thousands of orchids, and like he says, it’s all about “capturing the light.” Jim’s photographs are bright and sharp, and composed so beautifully. He does such a wonderful job capturing these unique orchids in the best way. No wonder the United States Postal Service Art Director, Ethel Kessler, couldn’t just choose the originally proposed four stamps! Jim’s work is amazing and truly an inspiration to all. I am so happy that Jim’s photos were chosen to be on these stamps. Congratulations Jim!



The First Day of Issue Dedication Ceremony at The American Orchid Society Library at the Fairchild Tropical Botanic Garden in Coral Gables, Florida. Photo by Walter Ezell.

On February 21, 2020 the United States Postal Service (USPS) unveiled the Wild Orchids Forever Stamps during the First Day of Issue Dedication Ceremony. The ceremony was held at the American Orchid Society Library at the Fairchild Tropical Botanic Garden in Coral Gables, Florida.

Welcome remarks were made by Susan Wedegaertner, president of the American Orchid Society (AOS) who spoke about AOS’s three pillars: education, research, and conservation. They are proud to support students and groups engaged in the study of orchid habitats and conservation, and they hope that these stamps will help raise awareness.

Dr. Lawrence Zettler, professor, researcher and the Director of the Orchid Recovery Program at Illinois College also spoke at the dedication ceremony. Zettler has spent nearly 30 years studying orchids, including the Eastern Prairie Fringed Orchid featured on one of the new stamps. His work focuses on the study of orchids and their relationships with specific fungi, which he and Illinois College students use to grow orchids from seeds in the laboratory. He described how orchids need specific kinds of fungi in their environment to trigger seed germination as well as specific pollinators for reproduction in order to survive in the wild. With approximately half of the 300 orchids in the United States now vulnerable to extinction, Zettler's mission is to ensure that these beautiful and unique plants survive so that future generations will be able to see, smell, and appreciate the orchids that are part of our ecosystem and our nation.



Jacqueline Strako, Lawrence Zettler, Jim Fowler and Susan Wedegaertner sign First Day Cover envelopes at the dedication ceremony.  
Photo by Teresa Decker.



Lawrence Zettler, Director of the orchid recovery program at Illinois College, speaks at the Dedication Ceremony.  
Photo by Teresa Decker.



Jim Fowler speaks at the Dedication ceremony about his photography and wild orchids. Photo by Walter Ezell.

Naturalist, author and photographer Jim Fowler spoke about his photography and love of orchids. Since his mother was an accomplished portrait photographer in his little hometown in South Carolina, Jim grew up with camera in hand and always spent a lot of time outdoors. Jim says that photography boils down to capturing the light. He was encouraged to grow plants by his great-grandmother, who was a plant specialist with the U.S. Department of Agriculture (Cooper). It was about 50 years ago when Jim took his first photo of an orchid when a friend suggested he take a look at a Pink Lady's-slipper on her property and he has been in love with orchids ever since. For Jim, these orchid stamps represent a combination of his passions for photography, orchids, and stamps! In an interview with the Greenville Journal, Jim shared about collecting stamps with his brother starting at a young age, and with his experience as a computer programmer for about 35 years, he developed software to create stamp album pages on the computer (Cooper).

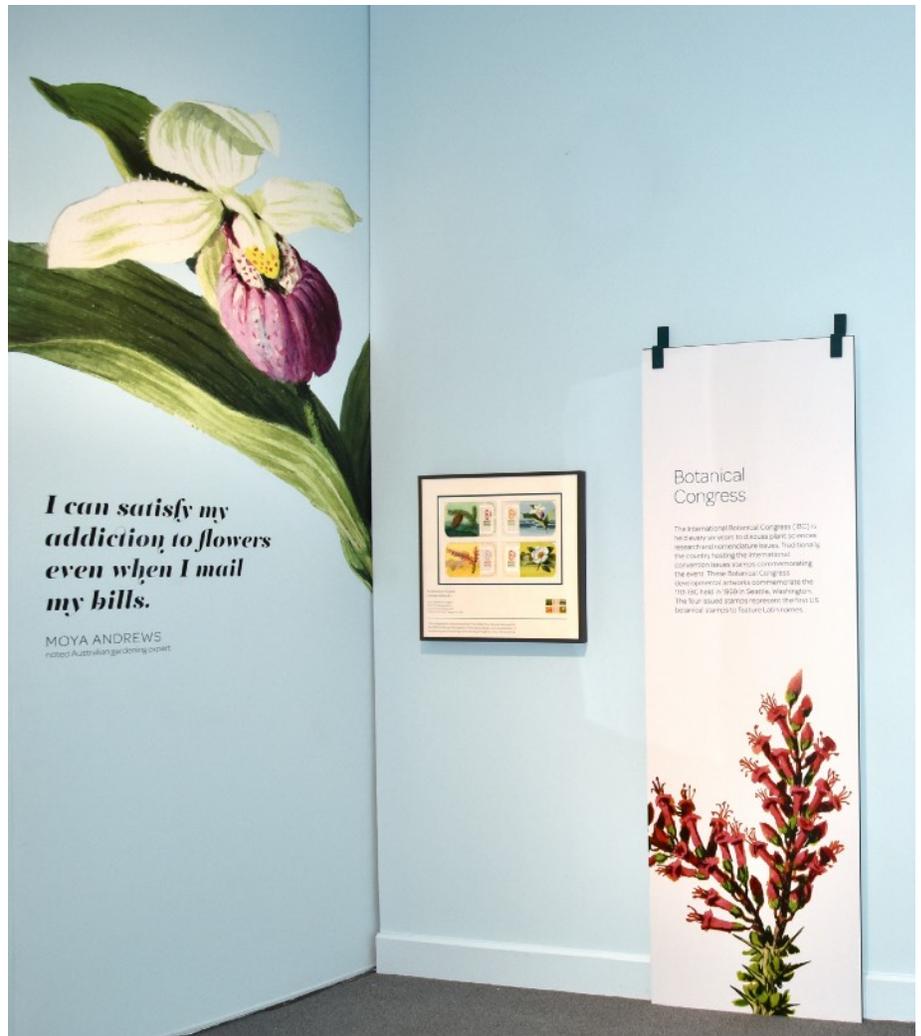
Jim is the author of two books: *Wild Orchids of South Carolina: A Popular Natural History*; and *Orchids, Carnivorous Plants, and Other Wildflowers of the Green Swamp, North Carolina: Exploring North America's Most Diverse Ecosystem*. His photography and writing have appeared in many publications, including the America Orchid Society's *Orchids Magazine*, the *North America Native Orchid Journal*, and the *Native Orchid Conference Journal*. They have also been featured on the North American Orchid Conservation Center's online gallery. Jim also writes a nature blog sharing his travels and botanical adventures, along with his beautiful photographs (<http://www.jfowlerphotography.com>).

ORCHIDS ON U.S. STAMPS  
Part II: The History of Orchids on U.S. Stamps  
Text by Chelsea Kieffer, chelseakieffer@gmail.com

1969: BOTANICAL CONGRESS



The International Botanical Congress is a meeting held by botanists about every six years to discuss plant sciences research and nomenclature. The 11th Congress convened in Seattle, Washington in 1969, at which the United States Postal Service issued four different stamps in block format commemorating plants from four corners of the country: the very tall (higher than a football field is long) Douglas-fir, *Pseudotsuga menziesii*, from the northwest; the large and spectacular Showy Lady's-slipper orchid, *Cypripedium reginae*, from the northeast; the spiny Ocotillo, *Fourquieria splendens*, with its bright crimson flowers from the southwest; and from the southeast, the mysterious and spectacular Franklin tree, *Franklinia alatamaha*, named after Benjamin Franklin and saved from extinction by his friend William Bartram around 1790. These stamps were painted with gouache by Stanley Galli and were the first set of botanical stamps to represent flora from diverse regions within the country and to include Latin names. They were showcased in an exhibit called *Beautiful Blooms: Flowering Plants on Stamps*, held at Smithsonian's National Postal Museum October 20, 2017- July 14, 2019. The exhibit featured floral stamps issued over the last 50 years, along with beautiful artwork of both conceptual designs and the final stamps.



Preliminary sketches from Smithsonian National Postal Museum, Beautiful Blooms Press Materials: <https://postalmuseum.si.edu/beautiful-blooms-press-materials>; Top right photo of exhibit by Chelsea Kieffer

1976: AMERICAN BICENTENNIAL, STATE FLAGS



The American Bicentennial was a series of celebrations during the mid-1970's commemorating the historic events leading to America's independence. The celebrations culminated on July 4, 1976 on the 200th anniversary of the adoption of the Declaration of Independence. That year, the United States Postal Service issued for the first time a pane featuring 50 different stamps of the 50 state flags arranged in the order for which each state was admitted into the Union (#1664 – 1976 13c State Flags: Minnesota).

Minnesota's state flag is included in our list since lady's-slippers encircle the center seal design. Minnesota's state flag was born during the 1893 Chicago World's Fair when the woman's auxiliary board requested that the assembly hall be decorated with flags from all of the states. Since Minnesota didn't have a flag at that time, a contest was held for a flag design. The winning design was awarded to Amelia Hyde Center. Her design used the original state seal wreathed with the state flower (Showy Lady's-slipper) and a red ribbon entwined with Minnesota's motto, *L'Étoile du Nord* (French for "The Star of the North"), and three dates: 1819, the establishment of Fort Snelling; 1858, their statehood; and 1893, the date the flag was adopted. "Minnesota" was written underneath. Nineteen gold stars were arranged in clusters forming the points of a star to represent being the 19th entry into the union after the original 13 colonies. The prototype flag was embroidered on silk by sisters, Pauline and Thomane Fjelde, immigrants from Norway. The flag won a gold medal for embroidery at the Chicago exposition (Anderson). The flag was white on one side and azure blue on the other, bordered with bullion fringe, with a staff topped with a gold gopher.

This flag underwent more changes, including an updated state seal and in 1957, the flag was redesigned to royal blue on both sides to save on manufacturing costs. They also simplified the design and changed the colors of the lady's-slippers on the flag to look more like the pink and white Showy Lady's-slipper. The staff is surmounted by a bronze eagle with outspread wings (1.141 State Flag). This is the design most likely featured on this stamp.

Minnesota is fortunate to have an outstanding guide to the state orchids. It was written by Welby Smith and illustrated by Vera Ming Wong and Bobbi Angell (Smith 2012). It shows that "Showies" are widespread in the state and it includes some very helpful information about ecology and conservation.

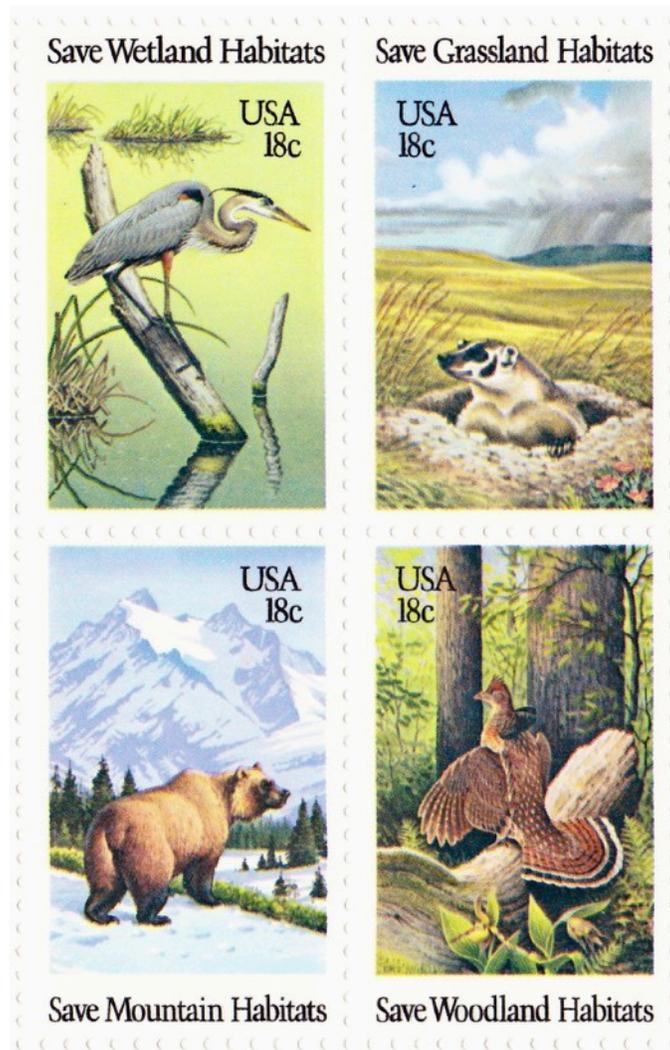


Top left: The original painting and winning design for Minnesota's state flag by Amelia Hyde Center, 1893. Photo from [https://twitter.com/ADMN\\_Minnesota/status/1113814660015362048](https://twitter.com/ADMN_Minnesota/status/1113814660015362048)

Top right: Minnesota's prototype flag embroidered by Fjelde sisters. Photo from Minnesota Historical Society.

Left: Minnesota's flag after it was redesigned in 1957. Photo from Minnesota Historical Society.

## 1981: PRESERVATION OF WILDLIFE HABITATS



In an effort to raise awareness to preserve habitats for wildlife, the United States Postal Service issued a stamp series depicting four different habitats: wetland, grassland, mountain and woodland. These habitats are made up of complex, interconnected relationships among many organisms. With a close examination of the *Save Woodland Habitats* stamp, a ruffed grouse perched on a log is featured along with two Yellow Lady's-slippers in the foreground. Orchids rely on specific mycorrhizal fungi for germination and on specific insects for pollination and sometimes on specific disturbances that “reset” a natural process of ecological succession. Such requirements are fragile, and sensitive to human modifications of the landscape.

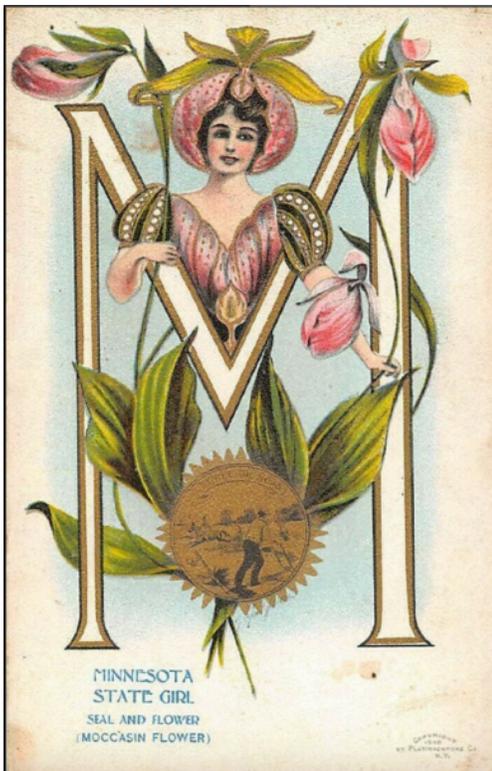
The stamps were illustrated by wildlife author and artist Chuck Ripper and were printed in a process called photogravure, in which the design is photographed on the printing plate through a fine screen, creating very fine, square dots (Stamps; Saving Wildlife Habitats).

## 1982: STATE BIRDS AND FLOWERS



In 1978, Fleetwood, a First Day Cover producer, hired Arthur and Alan Singer, father-son wildlife artists, to create 50 original watercolor paintings of state birds and flowers. Arthur painted the birds and Alan painted the flowers. When the U.S. Postal Service saw their work, they wanted to showcase their artwork in a stamp series, which was issued on April 14, 1982 and included 50 states. The stamps were modeled by Peter Cocci and printed in the photogravure process (#1975 – 1982 20c State Birds and Flowers: Minnesota). The Common Loon and the Showy Lady's-slipper, *Cypripedium reginae* are featured on Minnesota's stamp.

The history of Minnesota's state flower however, is a bit more complicated. In preparation for the 1893 Chicago World's Fair, the women's auxiliary board petitioned for a state flower to be named and be used for decorative purposes. The board appointed the state botanist, Professor Mr. Conway MacMillan, to provide a small list of suitable native flowers so that all women of Minnesota would have the opportunity to express their choice for the state flower (A State Flower). The Showy Lady's-slipper, then named *Cypripedium spectabile* was chosen; however, *Cypripedium calceolus* was erroneously written in the petition, and was adopted on February 4, 1893 (Flandrau). Records show that this subject led to arguments that exposed previous confusion in stating the correct species latin name. Further, other publications listed the state flower as *C. pubescens* and *arietinum*. In 1902, the women from the Saint Anthony Study Circle of Minneapolis brought it to the attention of the Legislature that their state Lady's-slipper's variety, *C. calceolus*, was not even native to Minnesota! (On This Date) The Minneapolis Tribune reported: "State Flower Called Fake." The Senate passed a new resolution clarifying the latin name, *Cypripedium reginae* as Minnesota's state flower on February 18, 1902. The status of the Showy Lady's-slipper as Minnesota's state flower was written into law in 1967.



**STATE FLOWER  
CALLED "FAKE"**

St. Anthony Study Circle As-  
serts Official Posie Does Not  
Grow Wild Here.

**EVIDENCE IS SUBMITTED**

Women Ask Senate to Make an  
Amendatory Resolution Chang-  
ing to Another Species.

Evidence was submitted to the senate yesterday by the St. Anthony study circle of Minneapolis to show that the state has masqueraded under false colors for nine years. Botanists and the women of the circle assert that the "state flower," indorsed by joint resolution of the legislature on Feb. 4, 1893, is not native to Minnesota at all, and can claim only a family relationship to the Minnesota species.

Common names such as "Wild Lady's-slipper" or "Moccasin Flower" can allude to any number of Lady's-slipper species. Artwork and postcards dated in the early 1900's show the use of various native Lady's-slippers associated with Minnesota's state flower. The North American Yellow Lady's-slippers have had numerous synonyms and varieties since it was originally described in 1791. Gibson, in his book *Our Native Orchids*, dated 1905, described large and small Yellow Lady's-slippers in the United States named *Cypripedium hirtsutum* and *parviflorum*, respectively (14-19). However, *Cypripedium calceolus*, which has been known to be the European Yellow Lady's-slipper's, was once an accepted name for all Yellow Lady's-slippers found in the northern temperate climates around the globe. Specimens were morphologically similar throughout Europe and Asia, but variable in North America, with three varieties: *parviflorum*, *planipetalum* and *pubescens* (Luer 44-51). It wasn't until 1985 that the North American plants were recognized as a separate species and were split off of the Eurasian species. The European Yellow Lady's-slipper remained *C. calceolus* and the North American Yellow Lady's-slippers were named *Cypripedium parviflorum*, with four varieties: *exiliens*, *makasin*, *parviflorum* and *pubescens*.

Top left: Postcard dated 1906 eBay seller cartophilians

Top right: Postcard c. 1907-1915 eBay seller mdcgbg

Bottom left: Article dated February 19, 1902 from Minneapolis Tribune

1984: ORCHIDS



On March 5, 1984 a set of orchid stamps were issued in conjunction of the opening of the Eleventh World Orchid Conference in Miami, Florida. The stamps feature four native orchid species: Wild Pink, *Arethusa bulbosa*; Yellow Lady's-slipper, *Cypripedium calceolus* (now *C. parviflorum*); Spreading Pogonia (also sometimes called the Rosebud Orchid), *Cleistes* (now *Cleistesopsis*) *divaricata*; and Pacific Calypso, *Calypso bulbosa* (var. *occidentalis*). The stamps were designed by Manabu Saito, modeled by Clarence Holbert and printed in the photogravure process (Orchids Issue)... but the story behind these stamps doesn't end there.

It was during the 2015 Native Orchid Conference in New Hampshire where I discovered the other part of this story. Some of us met before the conference in Manchester and toured the gardens and greenhouses of Dr. George Newman, a pathologist and horticulturist. From his house, the group carpooled to take a tour of Ponemah Bog Wildlife Sanctuary. My mom and I rode with Ron and Jan Coleman and upon our return, my mom realized that she locked her keys in her SUV. So, while the rest of the group went on their way, Dr. Newman invited us into his house while we waited for a locksmith to arrive. I remember perusing his living



room looking at the pictures on the wall. I then came upon a matted collage frame with a photo of him, the 1984 orchid stamps and a cut out newspaper column: *Dr. Newman Stops to Smell 'Orchids' Along the Way*. The article explains that he was called and asked to lend two of his orchid photographs to be used in the making of the orchid stamps. The photos were turned into transparencies and then drawn by an artist. The two orchids were the Spreading pogonia that he described having taken him several years to find, and Wild pink that he went specifically to Bar Harbor to photograph them at their peak.

Left: Dr. George Newman showing us his orchids in his greenhouse during the Native Orchid Conference field trip near Manchester, NH. Photo by Marsha Kieffer.

## 1992: WILDFLOWERS

A set of 50 stamps featuring wildflowers from the United States were issued on July 24 in Columbus, Ohio, where the Ameriflora '92 International Floral and Garden Exposition was held. Of the 50 wildflowers, two orchids were featured: Rosebud Orchid (a species of *Cleistesiopsis*) and Yellow Lady's Slipper (see above for history of latin names). Each flower was painted in watercolor by Karen Mallery and were produced in the offset lithography process (Wildflower Issue). Originally the Postal Service planned for a block of four garden flowers, but after seeing her work, they were very enthusiastic and expanded the project to 50 separate stamps. They also produced a 64-page album supplementing each stamp with details and photographs (McAllister).



Images by Smithsonian National Postal Museum

## 1998: HOLIDAY WREATHS



A set of four wreath stamps were issued on October 15, 1998 in the town of Christmas, Michigan. Each wreath was created by a different floral designer and photographed by Marc Simon. The actual stamps (shown on left) were printed in the offset process printing technique in which the inked image is transferred from a plate to a rubber blanket, then to the printing surface (1998 Christmas Issue). The tropical wreath, enlarged on the right, was designed by Michele Thunin and features brightly colored orchids, including *Cattleya*, *Phalaenopsis*, *Dendrobium*, and either *Arachnis* or *Renanthera* hybrids. Nearly 261 million of these orchid stamps went into circulation (Rach). Photo on right by U.S. Postal Service.

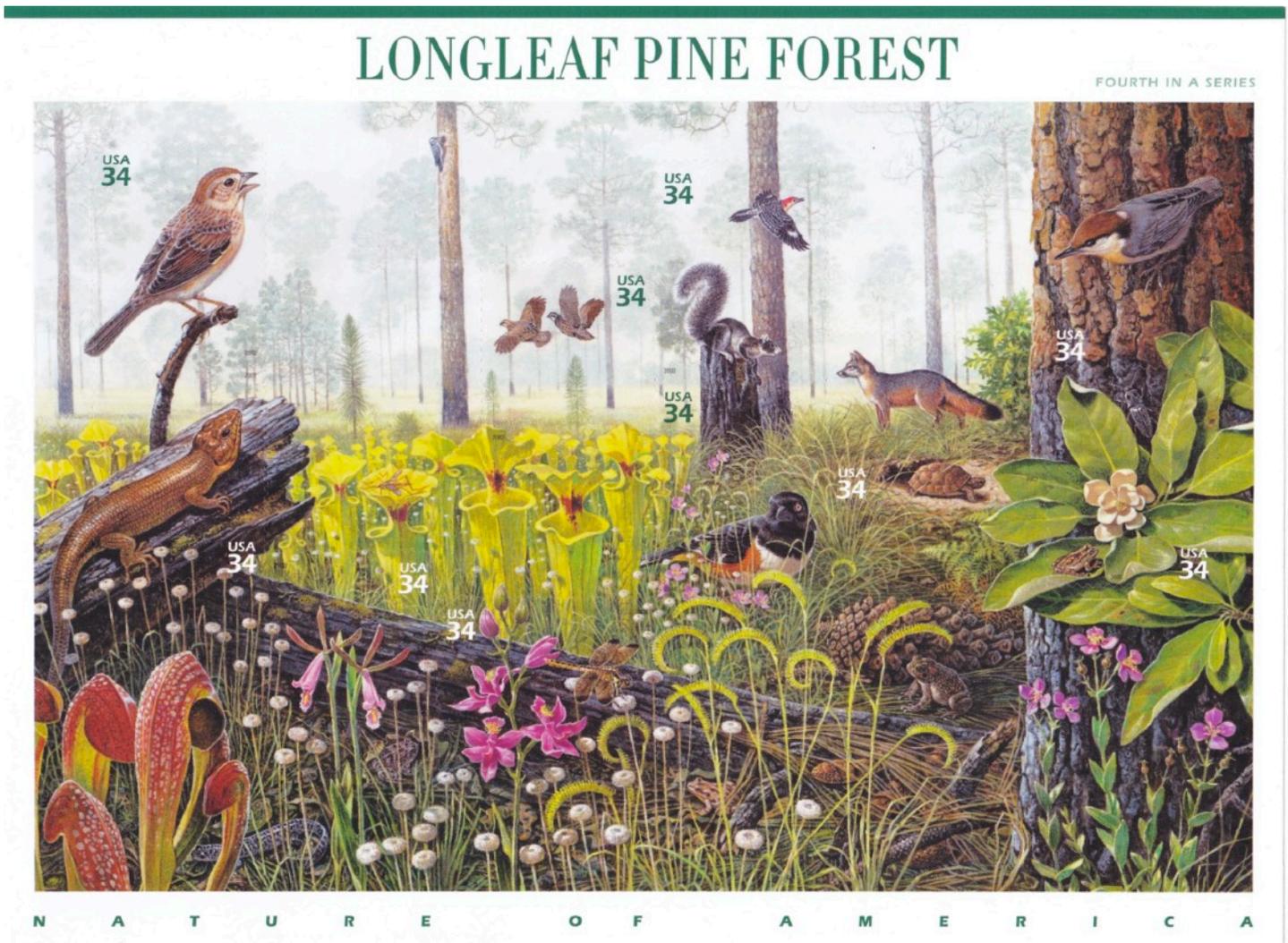
## 2000/2001: FLOWERS



This set of four flowers feature *Freesia*, Asian hybrid Lily, *Cymbidium* orchid and Easter Lily. These stamps were designed by Derry Noyes and the flowers were photographed by Robert Peak, a renowned photographer, designer, and filmmaker. The stamps were first issued in late 2000 as a non-denominated stamp, awaiting a rate increase, and then were issued again early 2001 as 34-cent stamps (First-Class & 34 cent Flowers). Photos by Smithsonian National Postal Museum

## 1999- 2010: NATURE OF AMERICA SERIES

For 12 consecutive years, the U.S. Postal Service issued a new stamp pane in an *educational series focusing on the beauty and complexity of major plant and animal communities in the United States*. John Dawson painted these scenes depicted on the stamp panes after spending months in the field researching, photographing, and sketching the flora and fauna of each unique ecosystem. Orchids are featured in the following three stamp panes:



The fourth stamp pane in this series, which was issued in 2002, features the *Longleaf Pine Forest*. The Longleaf Pine Forest extends from the coastal plains in southeastern Virginia to eastern Texas and supports orchids such as the two featured on this stamp pane: Grass-pink Orchid, *Calopogon tuberosus* and Rosebud Orchid, *Cleistes* (now *Cleistesopsis*) *divaricata*. Periodic fires have always been an essential part of the natural history of Longleaf Pine forests. Fires are important for controlling shade-creating shrubs, trees and

dense grass cover, and restoring minerals back into the ground. Plants growing in this type of environment have adapted to fires by storing starch reserves in underground tubers, bulbs, corms, and rhizomes (Liggio et al. 1999). As Grass-pink Orchid's latin name *tuberosus* implies, this orchid has a round corm which makes it possible to persist in dormancy for years. Both Grass-pink and Rosebud orchids have been observed to benefit from periodic fires and can have prolific blooms a few years after a burn (Liggio et al. 1999, Brown 2004). Management of Longleaf Pine Forest using fire helps to maintain high biodiversity in general.

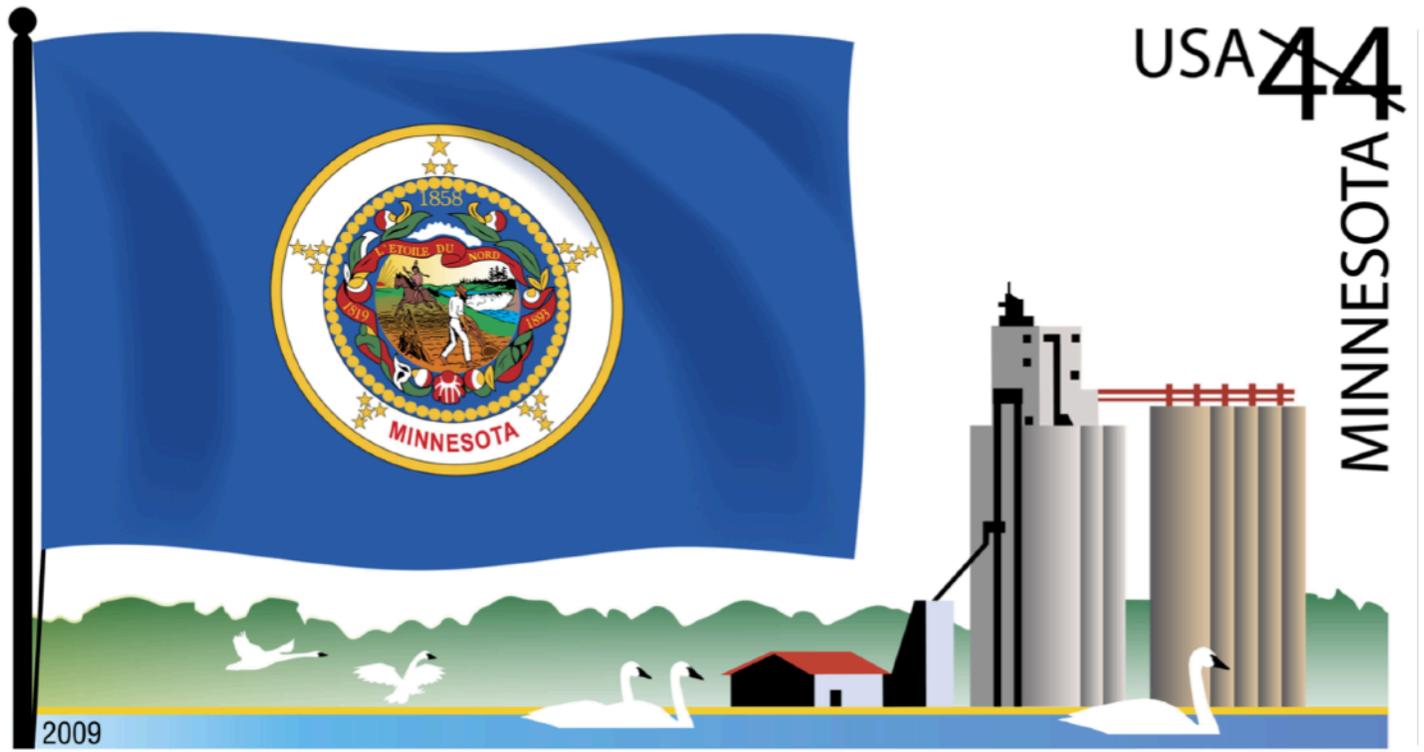
The eighth stamp pane in this series, which was issued in 2006, features the *Southern Florida Wetland*. Florida is home to about half of the orchids native to North America, and the Greater Everglades, located in southern Florida, is where more than half of those grow (Brown 2002). Orchid diversity is rich since Florida's geographic position is where northern and southern orchids overlap. Orchids are both terrestrial and epiphytic, including the two orchids featured on this stamp pane: Cowhorn Orchid, *Cyrtopodium punctatum* and Leafy Vanilla Orchid, *Vanilla phaeantha*. These orchids have been over collected and are both endangered in the state. Both are protected in southern Florida parks.



The twelfth and final pane in the Nature of America series, which was issued in 2010, is the *Hawaiian Rain Forest*. Approximately 1,400 vascular plant species are native to the remote Hawaiian Islands, with nearly 90 percent of these plants found nowhere else in the world, including the Jewel Orchid, *Anoectochilus sandvicensis*, featured on this stamp pane. The Jewel Orchid is one of only three orchids native to Hawaii (Zettler & Oppenheimer 2012). The other two, also endemic, are the Hawaiian Twayblade, *Liparis hawaiiensis* and the Hawaiian Bog Orchid, *Peristylus holochila*. Hawaiian ecosystems are threatened by habitat destruction and the introduction of non-native plants and animals, which has resulted in a rapid decline of many native species. Hawaii is often referred to as the “Endangered Species Capital of the World,” having 44% of United States’ Endangered and Threatened plant species (Rare Plant Program).



2008-2012: FLAGS OF OUR NATION



Beginning in 2008, the United States Postal Service issued a multi-stamp series featuring the 50 states over the course of five years in alphabetical order. The stamps were created by Tom Engeman and designed by Howard Paine (Flags of Our Nation). Again, Minnesota's flag is included in our list since lady's-slippers encircle the center seal. Since the flag stamps issued during America's Bicentennial in 1976, Minnesota's state seal changed again in 1983. Instead of the Indian rider fleeing westward in the seal design, the Indian rider is portrayed to be trotting southward facing the white man (The Great Seals of Minnesota). This change was reflected in the updated flag, as well as the background changing from royal blue to a medium blue.

Who knows how much longer the Showy Lady's-slipper will grace Minnesota's state flag, which has been widely criticized for many years. In 1989 two vexillologists (flag specialists), Rev. William Becker and Mr. Lee Herold, proposed a new design for the state flag. The design features a star, representing their state French motto, *L'étoile du Nord*, meaning "The Star of the North;" and the colors blue, white and green in a wavy stripe, representing Dakota Sioux's word *mnisota*, meaning "sky-tinted water," winter, farmlands and forests (Design & Symbolism). The move to change the flag in this fashion has yet to be approved by the legislatures. Photo by U.S. Postal Service.

## 2020: WILD ORCHIDS



These beautiful stamps (see preceding article), issued on February 21, feature photographs by award-winning author and photographer, Jim Fowler and were designed by USPS Art Director Ethel Kessler. The ten Wild Orchid stamps are: Three Birds Orchid (*Triphora trianthophoros*), California Lady's-slipper (*Cypripedium californicum*), Crested Coralroot (*Hexalectris spicata*), Showy Lady's-slipper (*Cypripedium reginae*), Marsh Ladies' Tresses (*Spiranthes odorata*), Eastern Prairie Fringed Orchid (*Platanthera leucophaea*), Three Birds Orchid (*Triphora trianthophoros*, -the second stamp of this species), Greater Purple Fringed Bog Orchid (*Platanthera grandiflora*), Yellow Cowhorn Orchid (*Cyrtopodium flavum* (previously *C. polyphyllum*)), Tuberous Grass Pink (*Calopogon tuberosus*). All of these are native with the exception of the Yellow Cowhorn Orchid, a terrestrial native of Brazil which is naturalized in south Florida. Photo by U.S. Postal Service.

## 2020: CONTEMPORARY BOUTONNIERE

The latest stamp that features an orchid is *Contemporary Boutonniere*, issued on April 2. Floral designer Carol Caggiano arranged this boutonniere using a light burgundy mini-cymbidium orchid bloom, a succulent, green hydrangea and a variegated lily grass. Cymbidium orchids are popular for boutonnieres and corsages because of their beauty and long-lasting flowers. This boutonniere was photographed by Renée Comet and the stamp was designed by Art Director Ethel Kessler (*Contemporary Boutonniere*). Photo by U.S. Postal Service.



## REFERENCES

- “#1664 – 1976 13c State Flags: Minnesota.” Mystic Stamp Company, <https://www.mysticstamp.com/Products/United-States/1664/> USA.
- “#1975 – 1982 20c State Birds and Flowers: Minnesota.” Mystic Stamp Company, <https://www.mysticstamp.com/Products/United-States/>.
- “1.141 State Flag.” *2019 Minnesota Statutes*, Minnesota Legislature, <https://www.revisor.mn.gov/statutes/cite/1.141>.
- “1998 Christmas Issue.” *Arago*, Smithsonian National Postal Museum, [https://arago.si.edu/category\\_2042716.html](https://arago.si.edu/category_2042716.html).
- Anderson, M. “Minnesota’s First State Flag.” *Collections*, Minnesota Historical Society, 24 July 2008, <http://discussions.mnhs.org/collections/2008/07/minnesotas-first-state-flag/>.
- A State Flower. *New Ulm Review*. 5 October 1892. *Minnesota Digital Newspaper Hub*.
- Brown, P.M. 2002. *Wild Orchids of Florida*, University Press of Florida.
- Brown, P.M. 2004. *Wild Orchids of the Southeastern United States, North of Peninsular Florida*. University Press of Florida.
- "Contemporary Boutonniere." *Postal Store*, United States Postal Service, [https://store.usps.com/store/product/buy-stamps/contemporary-boutonniere-S\\_572304](https://store.usps.com/store/product/buy-stamps/contemporary-boutonniere-S_572304).
- Cooper, Alex. “New stamps feature Greenville man’s wild orchid photography.” *Greenville Journal*, 19 February 2020, <https://greenvillejournal.com/news/new-stamps-feature-greenville-mans-orchid-photography/>.
- “Design & Symbolism.” The North Star Flag, a Proposal for a New Minnesota State Flag, <http://mnflag.tripod.com/rationale.html>.
- “First-Class & 34 cent Flowers.” *Arago*, Smithsonian National Postal Museum, [https://arago.si.edu/category\\_2037665.html](https://arago.si.edu/category_2037665.html).
- “Flags of Our Nation.” *Newsroom*, United States Postal Service, [https://about.usps.com/news/national-releases/2009/pr09\\_068.htm](https://about.usps.com/news/national-releases/2009/pr09_068.htm).
- Flandrau, C. 1900. *The History of Minnesota and Tales of the Frontier*, E.W. Porter.
- Gibson, W. 1905. *Our Native Orchids*. Doubleday, Page & Company.
- Liggio, J., A.O. Liggio, and D.H. Riskind. 1999. *Wild Orchids of Texas*. Corrie Herring Hooks Series.
- Luer, C. A. 1975. *The Native Orchids of the United States and Canada, Excluding Florida*. The New York Botanical Garden.
- McAllister, Bill. “Flowering of an Artist.” *The Washington Post*, 10 July 1992, <https://www.washingtonpost.com/archive/lifestyle/1992/07/10/flowering-of-an-artist/bac79350-f684-469c-a02b-5c8b17ae853a/>.
- “On This Date In Twin Cities History- February 4, 1902,” Historic Twin Cities, <http://www.historictwincities.com/this-day-in-history/>.
- “Orchids Issue.” *Arago*, Smithsonian National Postal Museum, [https://arago.si.edu/category\\_2038586.html](https://arago.si.edu/category_2038586.html).
- Rach, Nina. “An Introduction to Orchid Stamps.” [http://www.autrevie.com/stamp\\_intro.html](http://www.autrevie.com/stamp_intro.html).
- “Rare Plant Program.” *Division of Forestry and Wildlife*, State of Hawaii, <https://dlnr.hawaii.gov/ecosystems/rare-plants/>.
- “Stamps; Saving Wildlife Habitats.” *Arts*, The New York Times, <https://www.nytimes.com/1981/06/28/arts/stamps-saving-wildlife-habitats.html>
- Smith, W.R. 2012. *Native Orchids of Minnesota*. Minnesota Dept. Natural Resources and University of Minnesota Press.
- “The Great Seals of Minnesota.” The North Star Flag, a Proposal for a New Minnesota State Flag, <http://mnflag.tripod.com/seals.html>.
- “Wildflower Issue.” *Arago*, Smithsonian National Postal Museum, [https://arago.si.edu/category\\_2036077.html](https://arago.si.edu/category_2036077.html).
- Zettler, L.W. and F. Oppenheimer. 2012. Hawaii’s native orchids: a closer look at the trio. *Orchids*, February: 100-101.

*NEOTTIA SMALLII*, FORMERLY KNOWN AS *LISTERA SMALLII*

Text and photos by Tom Sampliner, tomsam2651@hotmail.com

Known since 1899 the species name changed in 1995 to the currently accepted name (Flora of North America). It is commonly called the Kidney-leaf or Appalachian Twayblade. *Neottia smallii* ranges from Georgia, North Carolina, South Carolina, Tennessee, and Kentucky, Maryland then northward into portions of New Jersey, West Virginia and Central Pennsylvania. This last region is where I saw it. In the northern parts of its range, the species is rare while not so in the south (Go Orchids). In Pennsylvania, New Jersey and Maryland it is considered to be “Critically imperiled” but overall it is considered “secure” (Natureserve Explorer 2020).

*Neottia smallii* grows in damp, acidic humus in shady forests, usually in a “rhododendron hell” —a dense thicket of Rhododendron growing very close to the ground which makes penetration extremely difficult. Another habitat is in sphagnum thickets and bogs.

Bentley (2000) has an interesting observation naming the rhododendron species he has seen at orchid sites for this species in the southern Appalachian region. He lists the following Rhododendrons: *R. catawbiense*, *R. maximum* (below), and *Kalmia latifolia*.

Luer (1975) at page 94 has an interesting habitat description writing that he finds them in “...darkly shaded, weed-free humus below rhododendron.”



Depending upon the location being discussed, flowering is either in June or July. About 15 tiny flowers per stem is the maximum. Each flower has two identical lip lobes angled away from the stem with a cleft at the apex of the lip with a tiny tooth in between these lateral lip lobes. The flowers on any given stem are uniform in color being either solid grayish-green or a salmon-pink. Partway up the stem are the opposite kidney-shaped leaves. A variegated leaf form has been reported (per. comm. from James Nusser).



My most recent visit was to central Pennsylvania, which is the closest site for this orchid species to where I live. After a very long hiatus of not seeing this orchid, I was of a mind to see it once more and hopefully get some images. In mid-July in the summer of 2019 I made plans to travel. I met up with an acquaintance from the greater Pittsburgh area. We carpoled to central Pennsylvania, a multi hour ride even from his home base. He had very specific directions so that we would not be wandering aimlessly for hours over a very extensive territory. He had received an oral report our visit would be timely for blooms. Nonetheless site directions get you close but not necessarily to the exact location of these tiny blooming orchids. The

weather was hot but not as humid as some of the worst summer days can be in this region. Normally such summer conditions mean you are in for a rough time with the local insects. However, the mixed evergreen and deciduous forest of the state gameland near State College we were visiting had been dry long enough so that the insect pests were minimal. Nonetheless, carrying a tripod, heavy backpack loaded with camera gear and long sleeve shirt to act both as sunscreen and bug protection is not exactly what you would wish to be carrying or wearing once you get into the rhododendron hell. A machete would have been very handy and welcome were it not frowned upon in state forest. The good thing about thick forest cover especially shade from the deciduous trees is that the temperature seems to be about a dozen degrees below that of open sunny areas.

Even with our directions, it took a little bit of looking for our quarry.

We looked alongside the forested creeks hemmed in completely by thick rhododendron shrubs. Many were so thick that we were constantly being snagged, tripped, strangled or stripped of some of your gear. At places crawling was the best option. We found several dozen blooming specimens in mossy or grassy areas immediately adjacent to the creeks. They were mostly in excellent condition. Specimens showed off both color forms. Some were in prime bloom, a few were past or showing evidence of senility while a few were still to open. I did not find any of the leaf variegation that has been known from this site. Use of a tripod in these tight small areas requires you be a contortionist. Despite the difficulties of taking tripod mounted images, some reasonable images (shown on pervious page) were obtained.

## REFERENCES

- Bentley, Stanley L. 2000, *The Native Orchids of the Southern Appalachian Mountains*.
- “*Listera smallii*.” *Flora of North America*, [http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=242101756](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101756).
- “*Listera smallii*.” NatureServe Explorer, [https://explorer.natureserve.org/Taxon/ELEMENT\\_GLOBAL.2.151547/Listera\\_smallii](https://explorer.natureserve.org/Taxon/ELEMENT_GLOBAL.2.151547/Listera_smallii).
- Luer, Carlyle A. 1975. *The Native Orchids of The United States and Canada excluding Florida*.
- North American Orchid Conservation Center. 2020. *Go Orchids*. <http://goorchids.northamericanorchidcenter.org/>.

## ONCE IN A LIFETIME

Text and photos by Mark Larocque, pesllc@metrocast.net

Last year, on July 9, 2019, Stefan Ambs and I set out to Alaska on a once-in-a-lifetime trek to find the newly discovered colony of *Platanthera tipuloides* var. *behringiana* on Unalaska. It was discovered by local field botanist, Suzi Golodoff and was visited by two NOC members, Ben Rostron and Duane Erdmann in 2018. With their help and guidance of Suzi Golodoff, we decided to plan the trip back in January 2019.

We decided to make a stop in Anchorage for a few days, then fly to Unalaska, then spend a couple of days on the Olympic Peninsula at the end of the trip.



Day 1 - July 10: From Anchorage, we drove three hours east to Glennallen in hopes of catching late-flowering *Cypripedium passerinum*. Unfortunately, it was an extremely dry and warm year in Alaska, and all the plants we found were already in seed. We saw a good number of plants in the open disturbed areas along the road at the "Hub" (Junction of Routes 2 and 3). While poking around the adjacent woods we found some nice colonies of *Goodyera repens* (above left) just starting to bloom. On our return to Anchorage we stopped at a large lake system visible from Route 3 at Alascom Road. Along that road we found a nice population of *Platanthera huronensis* (above right) and *Spiranthes romanzoffiana* in bloom.

Day 2 -July 11: We decided to go to Fort Richardson and the Arctic Valley Ski area, both just north of Anchorage. We were looking for a bog that Stefan visited in the 1990's with Hal Horowitz to find *Malaxis paludosa*. After driving around the base dirt roads for an hour and getting lost, we finally found the spot. Along Artillery Road there is a bog area that had an open water spot. Out by the open water we found dozens of *Malaxis paludosa* (below right) in full bloom. From the base we crossed the highway and headed up to the ski area. This abandoned ski area is loaded with mountain wildflowers such as delphiniums, monkshood and many others. The stream through the meadow had hundreds of *Platanthera dilatata* in full bloom. While photographing some other flowers on the lower slopes, we noted dozens of *Dactylorhiza viridis* (below left) in bloom.



Day 3 - July 12: We got to the airport and waited for our flight to Dutch Harbor. The plane was delayed an hour due to fog at Dutch Harbor, but we finally got in the air. The approach landing to the Island is spectacular; you can see whales spouting as the plane comes in low on the water. We got situated in the hotel, and called Suzi to meet us. Suzi is a local naturalist on the Island and wrote a book on the wildflowers of Unalaska, *Wildflowers of Unalaska Island: A Guide to the Flowering Plants of an Aleutian Island, Second Edition* (Golodoff 2014). Since it was raining that day (the only day it rained on us) and it was already 3pm, Suzi drove us around to show us the locations for the various orchids. We visited Ptarmigan Road to see the locations for *Cypripedium yatabeanum*, Bunker Hill for *Malaxis diphyllus* and *Platanthera (Piperia) unalascensis*, and Pyramid Road, the site for *Platanthera tiploides*. The plants of *P. tiploides* were mostly in bud still, but a few were starting to open, so we would visit the site for the next four days waiting for the right time.



Day 4 - July 13: We went back to Ptarmigan Road to photograph the *C. yatabeanum* (left). There were hundreds if not thousands of plants in a small area of the valley just off the road. Plants of *C. yatabeanum* have more of a greenish coloration to the overall flower and deep brown patches on the pouch (lip). Other orchids we saw in bloom at this location included *Neottia (Listera) cordata* var. *cordata* (right),

*Dactylorhiza aristata* (top left), *Platanthera dilatata* var. *albiflora* (top center) and *Platanthera convallariifolia* (top right). *P. convallariifolia* is variable but is easily distinguished in the field as the sepals are large and almost perpendicular to the flower. The pollinia are flared outward similar to *P. grandiflora* or *P. leucophaea*. It's different from *P. huronensis*, which has more parallel pollinia and sepals flared back behind the flower and downward and from *P. aquilonis*, which has anthers which touch at the top and often has flowers with a yellowish lip and sepals that are angled back from the flower also. The best information available on the somewhat difficult *P. convallariifolia* was published in our own Native Orchid Conference Journal (Sheviak 2011).



We ventured further up the road from the *C. yatabeanum* site and found a really nice site for *Platanthera chorisiana* (very common on island, bottom left) and *Neottia (Listera) convallarioides* (bottom right).



Later that morning, we then went up to Bunker Hill. There is a good gravel walking trail up the hill about one mile and 600 feet in elevation. With directions we got from Ben, we found the *Malaxis monophyllos* var. *monophyllos* (formerly *M. diphyllus*) site easily and found several other spots along the trail. We saw 20-30 *M. monophyllos* var. *monophyllos* plants within a foot of the trail (pictured left and close up on right). This species is the same as the European *M. monophyllos* and similar to our eastern *M. brachypoda*. All the plants on Unalaska have two leaves and the flowers are upside down and the spike of flowers is very densely packed, unlike that of *M. brachypoda* which is sparsely-flowered and has upright-oriented flowers.



We also found several nice patches of *Neottia (Listera) cordata* var. *nephrophylla* (green-flowered form, below center) and *Spiranthes romanzoffiana* (left) along the trail.



Day 5 -July 14: We visited the *P. tipuloides* area and found several plants with single flowers open. We took a few photos then decided to take the drive around the island over the mountain pass on Overland Road, where we saw several bald eagles (top right). We stopped near the summit to find plants of *Platanthera stricta* (right) which is characterized by the sac-like spur. We saw numerous plants of *P. chorisiana* and the stunning endemic *Rhododendron camtschaticum* (bottom left) We also saw three species of louseworts, avens and many other wildflowers.



Day 6 -July 15: We went out first thing in the morning to the *P. tipuloides* site to take photographs. Several plants had good flowers, some were nipped off by the invasive ground squirrels. *Platanthera tipuloides* (habitat and plants above) is distinguished by its deep yellow flowers, large thick bracts, and long spur.



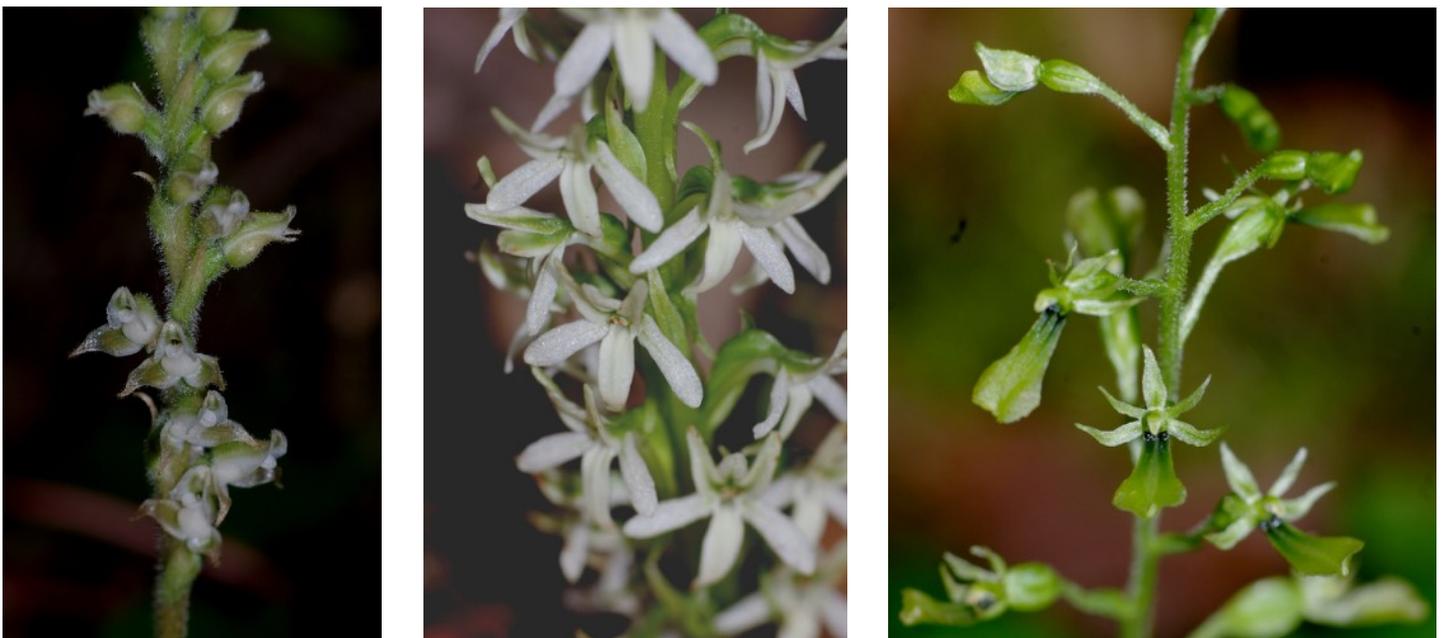
Day 7 - July 16: On our last day on the Island we revisited the *P. tipuloides* site and took additional photos. We also went back to Bunker Hill. Along the road at the base of Bunker Hill, there are some rock outcrops that have *Platanthera (Piperia) unalascensis* (above). We also drove up Mt. Ballyhoo to several of the old bunkers and found more *P. unalascensis* in flower. That afternoon, we took a flight back to Anchorage.

Day 8 - July 17: We flew out early to Seattle and hopped on the ferry to Bainbridge Island. We stopped along Route 101 at Diamond Point Road just east of Sequim. We found several plants of *Platanthera (Piperia) elongata* (below) in good bloom.





Day 9 - July 18: On our final day we drove out to Elwha, to Little River Road to see *Platanthera (Piperia) candida* (top left). We found numerous plants right along the road growing with the inland form (green) of *P. elegans*, (top center). We also found several *Platanthera (Piperia) transversa* (top right) just starting to bloom and many *Goodyera oblongifolia* in bloom (bottom left). We drove to Crescent Lake to the East Beach parking lot and found a dozen *Platanthera (Piperia) elegans* var. *maritima* (bottom center) in full bloom. We drove to the western portion of the lake and walked the Olympic Discovery trail and found some prime *Neottia (Listera) caurina* (bottom right) in bloom.



From there we drove up to Olympic National Park to the summit parking area. Along the road up, several of the stream crossings had *P. dilatata*, *Platanthera (Piperia) unalascensis* (top left), *Platanthera aquilonis* (bottom left and right) and numerous other wildflowers.



The trip was great. We saw over 20 species of orchids in bloom. The food at Dutch Harbor was excellent. If it were not so expensive to get there, I would go every year!

## REFERENCES

Golodoff, S.F. 2014. Wildflowers of Unalaska Island, 2<sup>nd</sup> ed. University of Chicago Press. Chicago, Illinois.

Sheviak, C.J. 2011. The identity and occurrence of *Platanthera convallariifolia* in North America. Native Orchid Conference Journal 8(3): 11-15; 21-25.

## 2020 CASE FUND GRANT RECIPIENTS

*The Native Orchid Conference is proud to sponsor a research grant program in memory of Mr. Frederick W. Case, Jr.—teacher, botanist and an internationally acclaimed expert on the North American Orchidaceae, Sarraceniaceae and Trilliaceae. The purpose of the grant is to support basic or applied research on orchids native to North America north of Mexico to university undergraduate or graduate students, or other approved researchers.*

This year we are pleased to award three recipients the Case Fund Grant:

### **Brandon Corder**

*University of Wisconsin*

#### **Partial Mycoheterotrophy in North American Orchids: Incorporating Evolutionary Ecological and Molecular Evolutionary Approaches.**

Mr. Corder's research will determine how much nutrition orchids obtain from photosynthesis and how much from fungal symbionts. He will measure the amounts of stable isotopes of carbon and nitrogen present in samples from approximately 65 orchid species native to the Great Lakes region and from non-orchid plants that are known to get nutrition either exclusively by photosynthesis (autotrophs) or exclusively from fungi (mycoheterotrophs). Comparison of these results will show which orchids obtain nutrition solely by each method and which orchids obtain it by a combination (partial mycoheterotrophs). The results will aid in conservation, restoration, propagation and culture of these orchids.

### **Monica Marcelli**

*George Mason University and  
Smithsonian Environmental Research Center*

#### **Using Phylogeographic Approaches and high-throughput DNA sequencing to Determine the Center of Genetic Diversity of *Cypripedium* spp. in the Pacific Northwest.**

Ms. Marcelli will use cutting-edge DNA sequencing techniques to determine the levels of diversity within and among several populations of *Cypripedium parviflorum*, *C. montanum* and their natural hybrid, *C. x columbianum*. These results will help determine centers of diversity for the orchids and aid conservation workers in their efforts.

### **Noah Brooks**

*MacEwan University*

Mr. Brooks will use DNA sequencing to gain insights into the levels of diversity within and between populations of *Cypripedium passerinum* in Alberta, Canada. The results of this study will provide genetic information which will aid conservation efforts for this vulnerable orchid.

*The Case Fund Grant is made possible by membership fees and donations. For more information contact Doug Martin, dofrma44@gmail.com To make a donation please contact NOC Treasurer, Dick Barmore, rebster61@yahoo.com*

The Native Orchid Conference Journal is published by the Native Orchid Conference, Inc. as a service to its members. The organization is devoted to fostering the study, conservation, and enjoyment of orchids native to North America.

Membership dues are \$15 (student), \$30 (individual), \$35 (family). Apply online: [www.nativeorchidconference.org/membership.html](http://www.nativeorchidconference.org/membership.html)

Or address inquiries about membership and requests for copies of the bylaws to: Richard Barmore, Treasurer, [rebster61@yahoo.com](mailto:rebster61@yahoo.com)

For printed back issues of the Native Orchid Conference Journal, contact: Jean Stefanik, [jeango4it@aol.com](mailto:jeango4it@aol.com)

Thanks for our contributors and our peer-review editors from our Publications Committee:

Katharine Gregg  
Robert Ramik  
Catherine Rostron  
Christine Stinson  
Carol Tullos

We are looking for articles and peer-review editors to join our Publication Committee. Please inquire or send articles to: Chelsea Kieffer, Editor [chelseakieffer@gmail.com](mailto:chelseakieffer@gmail.com)

Organization registered as 501(C)(3) with Federal EIN number 20-0216770

Native Orchid Conference Journal registered with ISSN 1554-1169

Copyright 2020



[nativeorchidconference.org](http://nativeorchidconference.org)  
[groups.yahoo.com/group/nativeorchidconference/](http://groups.yahoo.com/group/nativeorchidconference/)  
[www.facebook.com/groups/460264675690/](http://www.facebook.com/groups/460264675690/)

ISSN 1554-1169