

Class of 1966

Class Agent
Cal Black

June 15, 2022

Dear Men of '66,

THE ANNUAL FUND NEEDS OUR HELP!

The College fiscal year ends on 6/30, and we are behind in donors for this year. If you have not made a gift to Wabash yet, please consider doing so before 6/30/22. Thank you for your consideration.

George Taybos sent a very thoughtful email in memory of our deceased classmate, Mike Hall. Thank you George for remembering a True Little Giant!

Attaching for you slides from the Vietnam Memorial. Every time I visit DC, I go to the Memorial to visit with our classmate, Mike Hall. Please share with our classmates. George



The last class letter featured a wonderful article by Bill Cook. Bill Kerney responded to that article with this email:

From the last class agent letter I exchanged some emails with Dennis Whigham about biology and the Smithsonian's treatment of Richard Sternberg. I've been into machine learning/AI for the last 35 years including the source of information in our DNA.

Bill Cook's letter reminded me of my offer to him to bring Saint Francis of Assisi back to life in the form of a deep fake interactive augmented 3D Saint Francis who would see and interact with students as the original would have - Bill is in my opinion the #1 expert in the world on Saint Francis and would know what he would say so that the virtual Saint Francis answers would be 100% authentic.

My family (wife, son and daughter) won 43 Teaching American History grants from the Department of Education and first person history was in a number of the grants. We sent teachers to Plimoth Plantation where all the actors are historical figures from 1627 who speak to you in character. Turns out a virtual Thomas Jefferson who speaks to kids in a high school history classroom only will get about 650 different questions so Bill would have an easy time bringing Saint Francis back to life to interact with an unlimited audience.

We tried this model at the Department of Education last year for an SBIR grant (we won 2 of them to teach American history in VR) but no dice. If anyone reading this wants to make this project happen - Bill Cook bringing Saint Francis back to life - let me know. We placed Bill in one of our TAH grants in NoCal and the teachers loved him.

Bill Kerney '66
wkerney@earthlink.net

Our featured classmate for June is Dennis Whigham, and "Whigies" email and accompanying material and photos follow.

Now that the dust has settled after another successful day of giving, I assume you are mostly watching where the fires are in your part of the country and getting ready to return to C'ville for the Big Bash. We will start a new project in AZ in late July and are hoping that fires don't cause a problem.

All is well here. I will retire at the end of 2023 so that mental process has already started - even though there are still several projects to keep me engaged. Spring in our area is also a good time to raise the spirits as the earth comes back to life - an important counterweight to all of the world's issues. If only the world could come together as the Wabash community does - even when there are vastly divergent views on many issues among our fellow-alums.



I will be hitting the road soon. Jan and I will travel to Tacoma, WA to visit Jan's sister and her family for a few days before proceeding to Homer, Alaska. Our oldest granddaughter will be graduating from High School (hard to believe). I also have a little research-related work to do while in Homer. After a couple of days home at the end of May I depart for Japan, where I will be at the time of the Big Bash. This will be the third visit there to engage in the possibility of wetland and stream restoration efforts in an area what was heavily damaged during the massive tsunami in 2011. They have rebuilt everything but the Japanese are heavy on the engineering and not very green when it comes to restoration. There is a group that is attempting to initiate efforts to improve some areas using approaches for restoration that are more common here. This is an interesting cross-cultural effort that I hope eventually moves forward. This time we will be meeting with some members of the Japanese Diet, the governor of the province where the work would be done, and the head of a major engineering company. These visits are very busy times

because they schedule each day from dawn to beyond dusk and there are lots and lots of meeting with all sorts of officials and citizen groups. I will give several presentations including a public forum where I will have to wear something other than blue jeans (I attach photo of me after a public talk that I gave on a previous trip). The presentations take a lot of effort because we send them to Japan in time for a person there to replace all of the English on the Powerpoint slides with Japanese. We also add notes to the slides because the same person does a simultaneous translation during the presentations. They do a lot of maricultural in the area so there will also be a boat trip to examine their efforts to raise oysters and mussels (among other things). The taste-test is always a winner!

I continue to work on the development of a national (and eventually global) orchid conservation effort (see page 4). We have made a lot of progress but the big mountain to climb is to find endowment funds to keep it going after I retire. As a part of our educational and outreach efforts we have joined an international publisher to market a box-set of 20 of our *orchid-gami* models (see page 6). We have developed almost 30 models and have distributed over 60,000 for different activities. The commercial venture will hopefully reach a larger international audience and bring in a few dollars to support our

efforts. I hoping that you can include the two NAOCC-related attachments in a class letter as the box-set is a nice gift and it is a good opportunity for our classmates to support a conservation effort. The box-set also had input from John Flanagan. I contacted John to get advice on how to communicate with a commercial publisher to get the best deal. John's advice was helpful.

Wishing you good health.

Best wishes,
Dennis

On 5/21/22, a high school football camp was held in Phoenix at Pinnacle High School. There were 600 high school juniors and seniors in attendance. This camp was designed for kids that are not D1 material but could play at the D2, D3 or NAIA level. There were forty colleges in attendance to evaluate these young men. Coach Don Morel called and asked if we might get some Wabash people from the Phoenix area to attend and help him greet and recruit these prospective Little Giants. With very little effort, we had eighteen alumni, parents, daughters, sons, former players and current players show up in their red and white Wabash College shirts. No other college had more than two coaches, and it was evident to all who attended that Wabash College was quite different and supportive of our recruiting efforts. Here is a picture of some of those who helped out that day.



1 L-R, Matt Gunty '97, Jacob Irick '25, Mike Rapier '87, Kyrra Gunty -11 years old, Coach Morel, Bo Putko, father of Michael Putko , former Little Giant star quarterback, Cal Black '66 and Enrique Ruiz '25.

The July class letter will feature John Flanagan, and he has provided really interesting information about his career and family. Who is next? Please let me know if you would like to provide an article for inclusion in a class letter. THANK YOU FOR ALL YOU DO FOR WABASH COLLEGE!

These fleeting years....

Cal



The North American Orchid Conservation Center (NAOCC) At a Glance



Why Orchids?

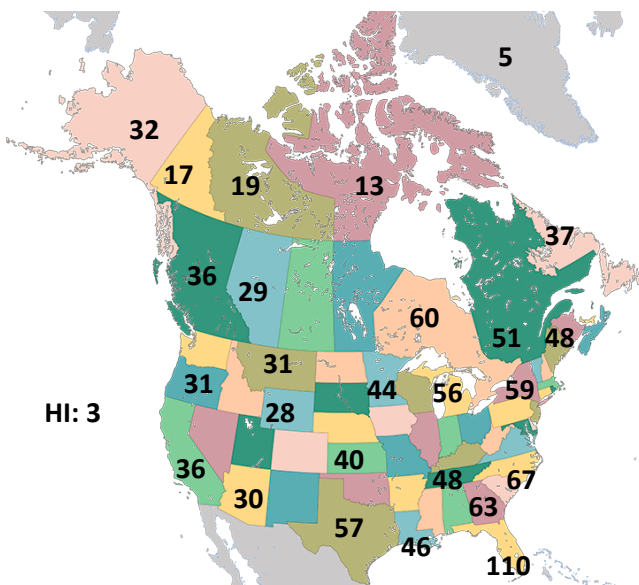
- Orchidaceae is the world's largest family of flowering plants, with 28,000+ species in 736 genera.
- The Orchid family represents a tremendous amount of biodiversity distributed across our planet's many ecosystems - from the tropics to the high Arctic regions. Orchids outnumber bird species 2:1 and mammal species 4:1.
- Orchids are the source of exciting biology in their own right, with much still unknown.
- There have been very few concerted efforts to conserve wild orchids via the establishment of plant, seed, and fungal banks representing their immense genetic diversity.
- Orchids are important for the study of evolution as a whole, to understand speciation, fungal relationships, pollinator interactions and habitat adaptability.

Orchids play a vital role in their natural ecosystems and environmental health. Due to their interdependence with specific trees, pollinators, soils and mycorrhizal associates, their presence indicates that the pieces of the environmental puzzle are in place. When orchids disappear from their historical habitats, it is an early sign that something may be wrong. With the current state of accelerated climate change and biodiversity loss, orchids are a "canary in the coal mine", posing an urgent need for conservation attention.

Orchid Conservation is a Puzzle



Orchid conservation is a puzzle - not yet solved for any North American native orchids.



Examples of North American native orchid species counts by State / Province

Why North America?

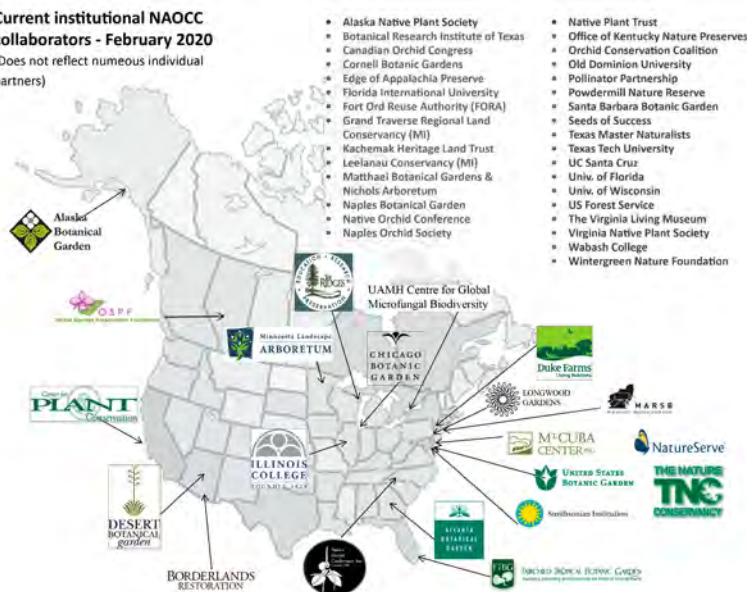
- North America (north of Mexico) has 200+ orchid species; over half are listed as endangered or threatened somewhere in their native range.
- Prior to NAOCC, there was no centralized effort to understand or preserve native orchids of North America - most research and propagation work had focused on tropical species.
- The pace of individualized efforts addressing North American orchids has been far too slow to assure the successful conservation of species.
- Recognizing that the survival of orchids will only be possible through a focused, large-scale and integrated effort that engages the public, The Smithsonian Institution and the United States Botanic Garden established the North American Orchid Conservation Center (NAOCC) to ensure the conservation of the native orchids in the U.S. and Canada.
- NAOCC is the first continent-wide collaborative effort to conserve native orchids - it offers a pioneering model which may be replicated world-wide.

About NAOCC:

- based at the Smithsonian Environmental Research Center
- a growing alliance of over 60 botanic gardens, public and private landowners, researchers, educators, and citizens
- founding partners include the National Zoological Park, the National Museum of Natural History, Smithsonian Gardens, and the U.S. Botanic Garden
- NAOCC collaborators work towards the common goals of preserving habitats, creating and maintaining national collections of seeds and orchid mycorrhizal fungi, and conducting research on orchid ecology, conservation and restoration.
- education and outreach are important aspects of NAOCC's aim to provide the public with opportunities to join in the effort to conserve native orchids.



Current institutional NAOCC collaborators - February 2020 (Does not reflect numerous individual partners)



- NAOCC's model and protocols have been adopted by European groups establishing the European Orchid Conservation Center and the Interactive Conservation platform for Orchids Native to Greece/Turkey (with funding through the European Union).
- In a joint initiative with the U.S. Forest Service's Institute of Pacific Islands Forestry, NAOCC is also establishing an orchid conservation program for the South Pacific island nation of Palau.

Together with our collaborators, NAOCC is

Investing in the future

- Preserving the genetic diversity of local orchid populations by collecting and storing seeds of native orchids in regional and national seed banks
- Building a living collection of fungi that play a critical role in the life cycle of orchids, especially for germination and growth

Growing for today and tomorrow

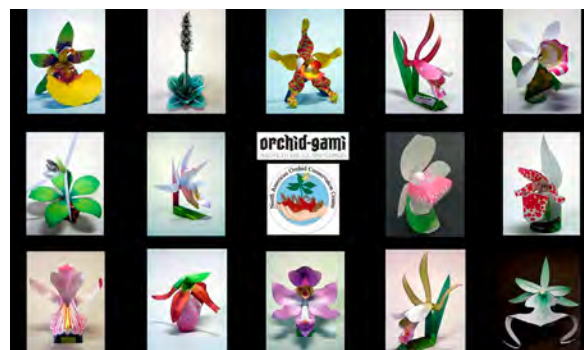
- Discovering how to cultivate new orchids in harmony with the right fungi and reintroduce them back into nature.
- Assuring the long-term survival of orchid populations by developing propagation protocols from re-



search on the biology of orchids and the roles of fungi and pollinators

Exploring innovation

- Creating online resources, such as the [NAOCC](https://northamericanorchidcenter.org/) and [Go Orchids](https://goorchids.org/) websites that engage and educate citizen scientists across a variety of platforms:
- Working with local schools to bring orchid science into the classroom.
- Blending art and science to inspire and inform all ages about orchid conservation through [orchid-gami](https://orchid-gami.org/)



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TUTTLE

TUTTLE

BY DENNIS WHIGHAM AND JAY O'NEILL
DESIGNED BY MAARTEN JANSSENS

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