ORCHID CONSERVATION ALLIANCE

DECEMBER 2023 NEWSLETTER



Photo by Jon Dunn

OCA Year-End Summary

2023 has been a busy year for the OCA. Thanks to the support of our membership and your generous donations, we reached our fundraising goals to support the purchase of new and valuable additions to the Dracula Reserve in northern Ecuador. Our partner, Fundación EcoMinga, was able to purchase the new properties earlier in the year. The Dracula Reserve is still threatened by incursions from gold miners, and our current fundraising campaign for the reserve will enable the purchase of two additional properties that will effectively shut off access by mining interests to a critical area of this fantastically biodiverse, orchid-rich habitat. Details about the Dracula Reserve were described by Javier Robayo, president of EcoMinga, during our second conservation symposium (see below). More information about the reserve and our campaign to complete the purchase of two additional properties is provided later in this newsletter.

One of our other conservation partners, Corporación SalvaMontes, is also in the process of expanding their reserve to include a new property rich in orchid species and other threatened flora and fauna. Current activities by SalvaMontes have led to the discovery of several new orchid species. Sebastian Vieira, president of SalvaMontes, is now in the process of obtaining the necessary permits and finalizing designs to build a small research station, an effort partially funded by a generous donation to the OCA from The Pleurothallid Alliance. Sebastian also spoke at the conservation symposium and provided more information about the proposed new land purchase, which the OCA will help to pursue in 2024.

During the past year, we offered 6 different Orchids in Wild Ecotours, and all were nearly fully booked and very successful. This year, groups traveled to Europe (Sicily), the Ohio Valley (East Central US), the Rio Negro (Amazon, Brazil; 2 tours), Madagascar, and the Cape region of South Africa. These tours offer opportunities for our members to visit orchid-rich habitats, learn more about how orchids grow in the wild, and provide a firsthand view of how these biodiverse localities are threatened by human activities and climate change. The cost of each tour includes a tax-deductible donation to the OCA, and collectively these tours provide a very important component of the OCA's fundraising activities. We have some wonderful tours scheduled for next year, including trips to Rhodes (March), Nepal (April), the Rio Negro (May-June), Spain (May-June), Newfoundland (July), Yunnan (October) and Madagascar (November). All of these tours are currently open for registration, and they often fill quickly! If you're interested in learning more, visit our website: <u>orchidconservationalliance.org/ecotours/</u>. Photos from this year's tours are provided later in the newsletter.

The OCA held its second conservation symposium in November, with more than 240 registrants from all over the world. For those of you who missed the symposium or would like to view the presentations again, we will be posting videos of each presentation on our website. The symposium featured a leadoff presentation by Dr. Ken Cameron of the University of Wisconsin, and provided insights about orchid conservation in an era with rapid climate change. This was followed by presentations from Javier Robayo (Fundación EcoMinga, Ecuador) and Sebastian Vieira (Corporación SalvaMontes, Colombia), who provided updates on activities in the reserves that these two partners oversee. The symposium ended with an exciting presentation from Nicholas Locke on how he established and currently manages his reserve, REGUA, in the Atlantic Rain Forest, Brazil.

Thank you to all of our members for your much valued support. In 2024, we look forward to continuing our efforts to advance the conservation of orchids by helping to protect their habitats.

Please consider an end-of-the-year donation to help us fund the acquisition of the two new properties in Ecuador (Dracula Reserve) and the new property in Colombia. Donations can be made directly through our website: <u>orchidconservationalliance.org/donate/</u> or by mailing a check payable to the Orchid Conservation Alliance to:

Mary Gerritsen President, Orchid Conservation Alliance 541 Parrott Drive San Mateo, CA 94402

You also can renew your membership through our website:

orchidconservationalliance.org/membership/

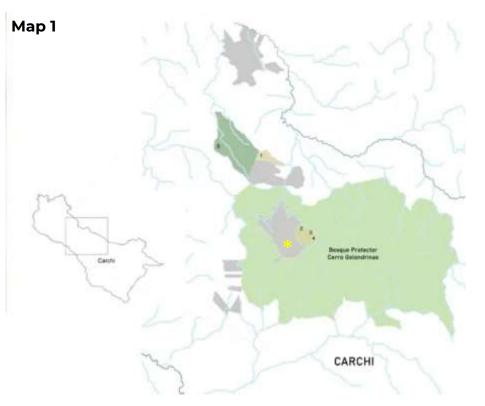


or by mailing a check to Mary Gerritsen (see above). All donations and memberships may be tax-deductible, as the OCA is a 501(c)3 non-profit organization.

Dracula Reserve

In our December 2022 newsletter, we described our ongoing efforts to protect some exceptional orchid habitat in northern Ecuador through our ongoing partnership with Fundación EcoMinga. At present, the protected area is nearly 2600 hectares (almost 6400 acres), helping to provide a safe home for orchids as well as the numerous other plants and animals that occur in this exceptionally biodiverse region. Unfortunately, this area is under continuing threat from gold mining interests; however, we are closing in on some key strategic land purchases that should safeguard a large, contiguous section of the area.

Map 1, to the right, shows in light gray the areas already protected by the Dracula Reserve. section The indicated by the yellow asterisk (*) was acquired in early 2023 with funding from the OCA, primarily using proceeds from our Orchids in the Wild Ecotours and generous donations from our members. As you can see, this addition to the Dracula Reserve was substantial, and it helped to protect a key area that has been a focus for exploratory activities by gold miners.

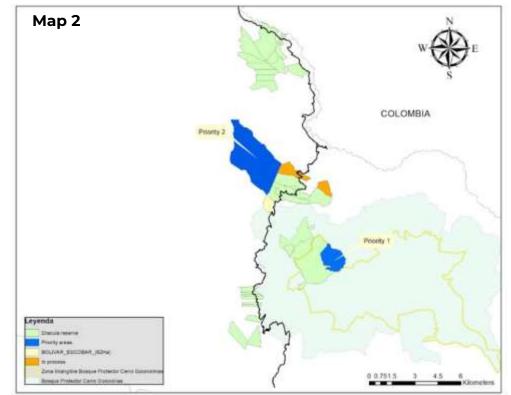


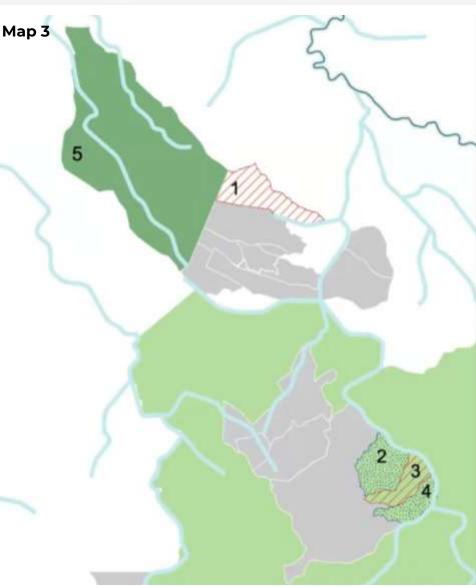
This section of the Dracula Reserve is adjacent to El Bosque Protector Cerro Golondrinas (the Cerro Golondrinas Protected Forest), which, with the Dracula Reserve, has the potential to create a large, contiguous protected area, much of which is not near the margins of the reserve. This is especially important for minimizing "edge effects" that have the potential to adversely impact plants and animals living near the boundary of the reserve.

As you'll see from the map above there are still some areas that are not yet protected, and one of these, adjacent to the property whose purchase we funded earlier this year, is the focus of the OCA's current fundraising campaign. Map 2, to the right, highlights two areas that Fundación EcoMinga has identified as high priority for protection and incorporation into the Dracula Reserve. Initial exploration in these areas has revealed a largely intact ecosystem with rich biodiversity. Based on recent expeditions, this area contains a number of undescribed species of orchids and other flora and fauna, and the potential for new discoveries is high.

The property labeled "Priority 1" on Map 2 is just under 194 hectares (478 acres) and is made up of three separate parcels, numbered "2, 3, 4" on Map 3. **This is the focus of the OCA's current fundraising campaign.**

Acquisition of these last three parcels will complete the coverage of the Dracula Reserve in the area adjacent to Cerro Golondrinas. protecting this entire habitat from the threat of development, including gold mining. We have worked with EcoMinga to purchase parcel 3 (138 acres) and put down payments on parcels 2 (214 acres) and 4 (126 acres). To complete the purchase of these two parcels, we need to raise \$73,000 by March 2024. We hope to raise a portion of this money through upcoming Orchids in the Wild Ecotours, and we are asking you, our members, to make a contribution and help EcoMinga complete this important land purchase.





Once the land purchase is complete, we are confident that this remarkable ecosystem will be well-protected into the future. Not only will the land have legal protection, but EcoMinga has established very strong relationships with the local community that should provide critical support. As part of the management of the Dracula Reserve, in April 2022, a municipal ordinance was created between Fundación EcoMinga and the Tulcan Municipality. This agreement will help to promote conservation actions, preserve ecosystem services, including the water supply, and encourage the sustainable communities development the of surrounding the reserve. Also, as part of EcoMinga's outreach activities, a sticker album with photographs highlighting the biodiversity of the Tulcan area and the Dracula Reserve was developed with the support of the municipality. This album is being distributed to 14,000 school children, who will learn about the beautiful species and landscapes that can be found in the Dracula Reserve and the biodiversity and

cultural features of the canton.

In 2022, a new species of orchid, *Platystele finleyae*, was described, and two other new orchid species, a *Pleurothallis* and a *Lepanthes*, are in the process of being described. Also, a frog species in the genus *Phyllonastes* is in the process of being confirmed as new to science. The number of new species discovered every year in the Dracula Reserve is astonishing and illustrates the high biodiversity and conservation significance of this area.

In addition, a manuscript is being prepared document the expansion to of the distribution ranges of Lepanthes acrogenia, L. planadensis, L. ricautensis, L. quadricornis and L. elata. The first four of these have recorded from previously onlv been Colombia, while L. elata, has a wide distribution from Central America to Bolivia, but was previously not known from Ecuador. All five species have been recorded in different sectors of the Dracula Reserve.



Gold Mining

One of the largest issues impacting OCA's reserves in South America is the proliferation of illegal gold mining activities. Gold mining continues to be a major driver of deforestation in South America, particularly in the Amazon rainforest. One of the most insidious side effects of gold mining is the poisoning of water, soil, and hundreds of endangered and threatened species. The environmental damage is far-reaching.

The process that miners use has three parts, each harmful to the environment in its own way:

(i) Miners clear forests to build roads and access mining sites; (ii) they use heavy machinery to dig up and process ore, which can damage soil and vegetation, and they leave behind enormous volumes of barren tailings, remnants of the gold extraction process; (iii) they use the toxic metal mercury to extract gold from the ore, which contaminates soil, water, and air, and poses a health hazard to plant and animal life, including humans.

Mercury can accumulate through the food web and cause neurological damage in humans and wildlife. In the Amazon, mercury contamination from gold mining has been linked to health problems in indigenous communities, as well as declines in populations of fishes and other wildlife. Mercury can interfere with photosynthesis, root growth, and nutrient uptake in plants, but is even more harmful to animals, which tend to accumulate higher levels of mercury in their bodies. Gold mining is poisoning hundreds of threatened species in the Amazon, including jaguars, giant river otters, and sloths.

Illegal gold mining is often carried out by criminal organizations that exploit workers and damage the environment. Gold mining can also lead to violence and conflict, particularly in indigenous communities.

There are a number of things that can be done to stop the environmental damage that accompanies gold mining operations in South America. First, governments need to crack down on illegal gold mining and enforce legal property rights and environmental regulations. Second, the demand for gold needs to be reduced. This can be done by consumers choosing to buy certified gold that has been mined responsibly or by avoiding the purchase of gold. Third, alternative livelihoods need to be provided to people who are currently dependent on gold mining.

Gold mining is driving deforestation in areas that are home to some of the world's most valuable and fragile ecosystems, including regions of the Amazon and highly biodiverse areas in the Andes, such as those near the Dracula Reserve in northern Ecuador, near the border with Colombia.

Source: <u>Amazon rainforest gold mining is</u> poisoning scores of threatened species





Lepanthes quadricornis











Pleurothallis aff bivalva



















MEMBERSHIP INFORMATION

The end of 2023 is fast approaching!

Have you renewed your Orchid Conservation Alliance Membership? Your dues are considered a donation and may be tax deductible.

We have several levels of membership:

Individual \$40

You will receive periodic newsletters that provide updates on our projects to establish or expand reserves. These newsletters will also report on recent OCA trips to orchidaceous destinations around the world. An important benefit of membership is that you will get early notice of upcoming Orchids in the Wild trips as they become available. These trips often sell out, sometimes very quickly.

Family Membership \$75

Enroll your entire family in the fight to preserve orchids and orchid habitats. You receive all the benefits of an Individual Membership plus a discounted membership rate.

Patron Membership \$175

Membership at this level enables the purchase of half an acre of orchid-rich habitat in the tropics. In addition to all the benefits of Individual Membership, a \$100 discount on an Orchids in the Wild trip.

Benefactor Membership \$350

Membership at this level enables the purchase of an acre of orchid-rich habitat or supports the guards who both document species of the reserves and help to protect the land. In addition to all the benefits of Individual Membership, you receive a \$200 discount on an Orchids in the Wild trip.

Sponsor Membership \$1000

Sponsor membership pays the salary of a reserve guard for one month or enables the purchase of three acres of orchid-rich habitat. In addition to all the benefits of Individual Membership, you get a \$300 discount on an Orchids in the Wild trip.





ORCHIDS IN THE WILD ECOTOURS OF 2024

ORCHIDS OF RHODES - MARCH 20-30 – Learn More

Terrestrial Orchids, Spring flowers, Historic sites. Our tour guide will be Jon Dunn, an expert on the island of Rhodes and its vegetation. Maximum tour size 10. Tour Leaders Jon Dunn and Sara Cuttle

ORCHIDS OF NEPAL - APRIL 15-28

ORCHIDS OF SPAIN - MAY 27-JUNE 8 - Learn More

This tour of northern Spain features swathes of verdant pastures and hay meadows, rocky bluffs, and the limestone scenery of the Picos de Europa. A plethora of terrestrial orchids, spring flowers and lots of butterflies. Maximum tour size 10. Tour leaders Teresa Farino and Judith Rapacz-Hasler.

BRAZIL: ORCHIDS OF THE RIO NEGRO - MAY 31-JUNE 10 - Learn More

This is the only way to view the orchids of the Amazon, on a cruise aboard a riverboat designed for seeing nature. Air conditioned staterooms with en suite bathrooms, wonderful meals, and orchids, plus peace and quiet! Motorized canoes take you to within arm's reach of many orchids for easy photography. Almost no hiking, and no transferring to new hotels or traveling by bus. Just relaxed cruising. Tour accommodates a maximum of 17 travelers and the tour leaders, Peter Tobias and Gilberto Castro.

ORCHIDS OF NEWFOUNDLAND - JULY 13-21 - Learn More

Experience the fabulous scenery of Gros Morne National Park, a UNESCO World Heritage site, along with the amazing orchid flora of Newfoundland, Canada. Enjoy the serpentine barrens, moonscapes and a fantastic display of alpine flowers, as well as ancient Native American and early Viking sites. Maximum tour size 10. Tour Leader Todd Boland.

BRAZIL: ORCHIDS OF THE ATLANTIC RAINFOREST - SEPTEMBER (DATES TBD)

Based at REGUA (<u>www.regua.org</u>), northeast of Rio de Janeiro, we will explore orchid-rich areas from the coastal habitat of Cattleya intermedia to the high mountain habitat of Cattleya (Sophronitis) coccinea. We will get a behind-the-scenes tour of the world-famous Rio Botanical Garden and spend several days in the forest highlands, visiting the Araça project (<u>www.araca-project.org</u>) in Macaé de Cima. A total of 12 people can be accommodated on this trip.

ORCHIDS OF YUNNAN - OCTOBER 1-OCTOBER 14 - Learn More

This botanical study tour through southern and southeast Yunnan offers the opportunity to see a variety of orchid species, including Bulbophyllum, Holcoglossum, Paphiopedilum, Pleione, and Vanda. We will also enjoy the rich ethnic diversity of this part of Yunnan. Maximum tour size 11. Leaders Wenging Perner and Hong Jiang.

ORCHIDS OF MADAGASCAR - NOVEMBER (DATES TBA)

Led by Johan and Clare Hermans, we will visit some areas not previously visited on our 2019 and 2023 tours. Additionally, we will be traveling somewhat later in the season, so we should see species in flower that were not seen on previous tours. We are still finalizing the itinerary and pricing, and will have information up soon.

ORCHIDS OF SIGILY APRIL 10-19, 2023

Ophrys explanata

Sicily

This was the fourth OCA sponsored botanical excursion to Europe. The other three were Southern France, Greece (Crete and Attica), and Switzerland (alpine areas).

On this trip we traveled to Sicily, the largest island in the Mediterranean, and а crossroads of both botanic and cultural interest. The European orchids are fascinating plants with a long association with people; are relatively easy to find, and most bloom within a limited time (4-5 weeks) in the spring, making it guite feasible to find a variety of orchids in a short time span such as our tour (9 days). The European orchids are all terrestrial plants that go dormant in the hot Mediterranean summers. Our guide on this trip was Jon very knowledgeable and Dunn. а experienced naturalist, and the OCA representative was Spiro Kasomenakis.

The group met up in Catania, a small city on the south part of the island near Mt. Etna. After leaving the airport hotel the next day, we were on our way to our first home base, an "agriturismo". We made day trips out from this site over the next few days exploring sites on the slopes of Mt. Etna, and natural areas around Ferla, Monte Lauro, Dirillo and Priolo.

Unfortunately, Covid 19 raised its ugly head, and we had several people that had to end their trip early due to Covid infections. Despite public opinion, Covid remains a problem. with complete lack of а precautions on the plane or in the airports. It was our experience that almost no one wore a mask, or took any precautions whatsoever Fortunately all of our trippers recovered fully after mild to to moderate infections. Because of these issues we have now written a firm Covid policy for our tours which we will be posting on the website.

The remaining travelers had a day exploring the ancient town of Siracusa, birthplace and hometown of its most famous citizen: Archimedes. We had an English-speaking guide to take us around the most important sites of the ancient city. We also had another guide a few days later in Agrigento (ancient Akragas), where we were able to enjoy the valley of temples, the museum, and the Baroque city of Noto.

We transferred to another hilltop agriturismo, in another part of the island, this one a 19th century hunting lodge, converted to a hotel and catering hall. From this second base, we explored the areas around the Madonie Massif, a very rich and diverse collection of habitats.



The flora, and specifically the orchids of the spectacular. island were Though Mediterranean orchids tend to be small in stature, they more than make up for it in their unusual and sometimes bizarre appearance and pollination strategies. And because some are very rare and localized, special there are а treat and accomplishment when spotted. Jon had, through his contacts, lists of very specific sites where very special plants were seen.

One, like the site of a natural hybrid of *Orchis italica* and *O. anthropophora* was completely unexpected: growing on top of a retaining wall by a busy road!

We saw a little less than 50 species (a very good number for Europe), and all but one or two of the special endemics of the island, and that is only because they must be blooming a little later!



There was an almost endless variety of bee orchids (*Ophrys sps.*), no two looking alike, even if they were the same species! Identifying them takes experience and great observational skills, and learning about their pollination strategies is almost awe inspiring!

The weather was mostly sunny, but cool: a perfect combination, and the locals friendly and curious. The food was good; we did have several opportunities to sample the local specialties and of course the local wines.

We departed from Palermo airport, some staying an extra day to see the town. As the unpleasant memory of Covid fades, and everyone is back to normal, what remains from this trip are the wonderful and sometimes unexpected natural beauty of this place, the very photogenic orchids and the time spent clambering over lava fields and hillside terraces!

Europe is famous for a lot of things, and orchids must definitely be added to the attractions this continent has to offer.



OPHRYS ABOUND

Three different forms of **Ophrys** grandifolia







Photo by Jon Dunn

Ophrys oxyrrhynchos yellow variation







Ophrys grassoana







Naked Man Orchid Ophrys italica







Orchis italica x anthropophora



NATIVE ORCHIDS OF OHIO & ADJACENT STATES

MAY 14-25, 2023

Cypripedium pubescens

Photo by Mary Gerritsen

Ohio

This tour was our first (of what will hopefully be many) North American "Orchids in the Wild" adventures. Although the OCA has visited many foreign countries on our tours, we felt it was time to showcase some of the fascinating orchid species that occur in North America. The United States has over 211 native species, the majority of which are terrestrials. The few American epiphytic orchids are restricted to Florida, with the exception of *Epidendrum magnolia* which occurs as far north as North Carolina and as far west as eastern Texas.

The midwestern state of Ohio has 50 native orchid species plus 2 natural hybrids, including a number of the most spectacular ladyslippers (Cypripedium). We developed this native orchid tour in collaboration with Jeanne Rhinehart (of the Native Orchid Preservation and Education Society) and Angela Carter (of the Cincinnati Wildflower Society). Preservation The tour was principally centered in Ohio, but we also visited the neighboring states of Kentucky, Michigan and New York to expand our species list for the 11 days (May 14-May 25, 2023) of our visit.

Our small group (Louise Bowen, Charley and Sue Fouquette, and Mary Gerritsen) met up at our airport hotel Columbus, Ohio. After picking up a rental minivan at the airport counter, we set out for Portsmouth, a small city located on the north bank of the Ohio river across from the state of Kentucky. We met up with Angela and Jeanne at a gas station in southern Ohio, and were also joined by Ron Parsons who had spoken at one of the local orchid societies area a day or two before the tour and was traveling with Jeanne and Angela. Our first stop was a fallow meadow that was afire with hundreds of blooms of the scarlet Indian paintbrush (Castilleja coccinea). While the vast majority of the flowers were bright red, there were a few outliers, either a light orange or a bright yellow mixed in with the population.

Our primary destination for the first day was Shawnee State Park. This 1000+ acre park is nestled in the hills of the Shawnee State Forest. The park is crisscrossed by a network of roads and trails through the forested hills that form part of the Appalachian Plateau. known as "Ohio's Little Affectionately Smokies" the multiple ridges of the park roll way towards the horizon in a gentle blue haze. The hardwood forest is host to a variety of flora and fauna, including several orchid species. When we parked our vehicles at our first stop, Ron noticed a long dark colored snake lying across the road near our cars. This forest is home to over 20 different snake species, including two venomous ones (copperhead and timber rattler) so we approached the snake with some caution. However, it turned out to be a somewhat sleepy non-venomous king snake. After getting a few great photos, the group turned their attention to a sloping hillside next to the road. Our first sighting were a few solitary plants of the yellow ladyslipper, Cypripedium parviflorum var. pubescens. The plants were about a foot tall, with fairly large oval-ovate leaves that were somewhat pubescent. Held well above the foliage on a long stalk were one to two handsome flowers. Even more enticing, however, was a fairly large group of pink ladyslippers (Cypripedium acaule) that were blooming nearby under the shady mixed hardwood canopy. In this grouping was also one of the rarer white-pouched form of the species. The specific epithet "acaule" means "lacking an obvious stem" and refers to the short underground stem whereby the leaves appear to just emerge from the soil.

We explored several of the roads in the state spottina a dozen or so more park. Cypripedium parviflorum var. pubescens growing alongside and above the road banks. Angela pointed out several of the more noticeable wildflowers including the bellwort (Uvularia grandiflora), two-flowered cynthia (Krigia biflora), the dwarf crested iris (Iris cristata), lyreleaf sage (Salvia lyrata) great white trilliums (Trillium grandiflorum), Canada mayflower (Maianthemum canadense), wild yams (Dioscorea villosa), a azalea (Rhododendron native periclymenoides), and dog violets (Viola labradorica).

Shawnee State Park has a lovely visitor's center, complete with lodging and a wellappointed restaurant. Our group enjoyed the "Mother's Day Special" and then resumed our exploration of the park for the duration of the afternoon. We found a few parviflorum Cvpripedium more var. pubescens, but all too soon it was time to depart for Portsmouth to check into our hotel. One of the problems we often run into on botanical trips is that by the time we are done for the day (usually after 8 pm), the choice of restaurants is guite limited. This was certainly the case for Portsmouth, which did not have much of a selection to begin with! We managed to find a fairly good Mexican restaurant a short walk from our hotel, and for most of the duration of our stay, it was our go-to dinner destination.











ORCHIDSOF MADAGASCAR

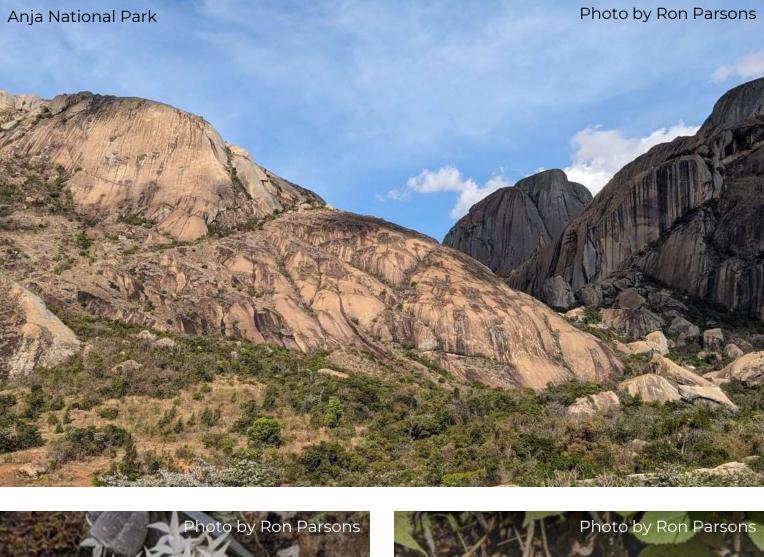
SEPTEMBER 21 - OCTOBER 2023

Pachypodium rosulatum var. gracilis













BRAZIL



Pleurothallis cf. picta









Dichea sp.

Photo by Peter Tobias









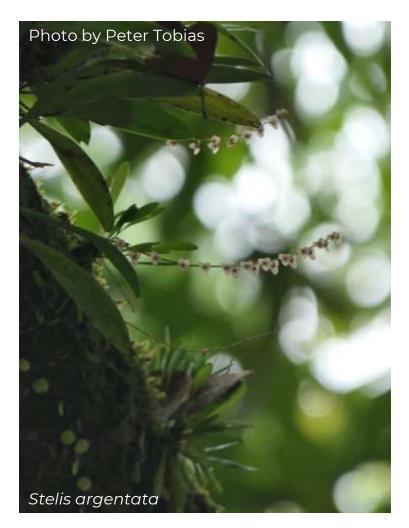




Photo by Peter Tobias













Our Income and Expenses for 2023

(Tax filings are available on our website)

January 1, 2023 - December 21, 2023

Carryover from 2022		
Dracula	\$125,000.00	
Other Assets	\$22,203.87	
Total Carryover	\$147,203.87	
Income		
Donations and Memberships	\$53,533.93	
Net Profits from Sale of Goods	\$565.07	
Net Profits for Orchids in the Wild Tours	\$67,783.76	
Total Income	\$121,882.76	
Expendable fund	S	\$269,086.63
Expenditures		
Legal and Professional Services	\$4,700.00	
Marketing and Website	\$1,029.40	
Office Expenses, Software subscriptions	\$1,713.23	
Insurance	\$3,289.00	
Taxes and Licenses	\$100.00	
Reserve Contributions		
Dracula	\$220,000.00	
Total Expenses		\$230,831.63
Assets		
Operating Funds		\$38,255.00

*Revenues for December 2023 are projected