

Dracula Transect Expedition

Explorers Club Flag Report - Flag #44

Dates: July 24 – August 18, 2021

Fieldwork Dates: July 27 – August 13, 2021

Dracula Reserve, Carchi Province, Ecuador

Latitude, 0.97469; Longitude, -78.21706

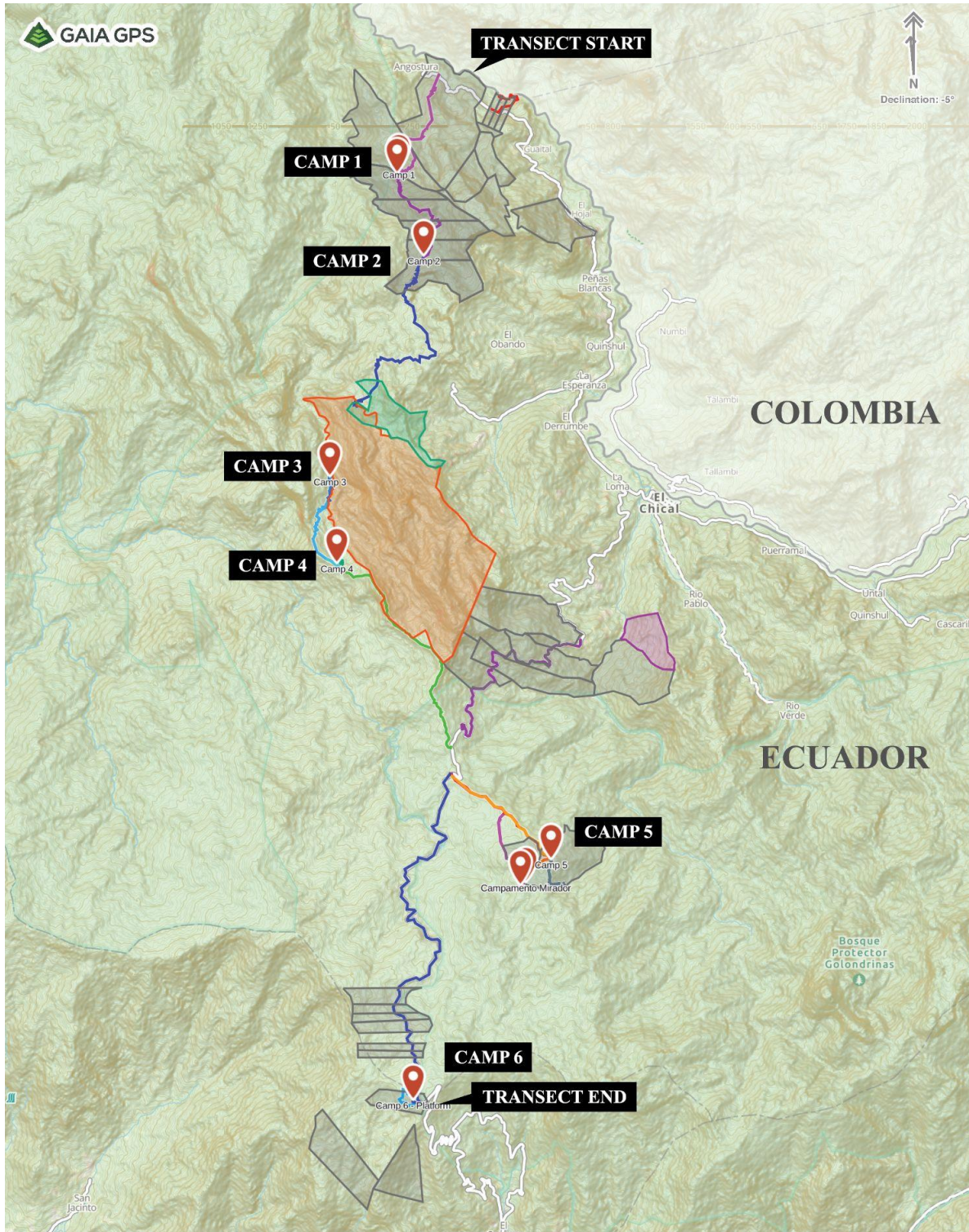


The expedition members with some of the support team at Camp 5. Front (L-R): Geovany Guerra, Pearson McGovern, Marco Monteros, Bella Lack, Callie Broadus (MN'21), Julio C. Carrión, Natalia Espinoza, Josh Newman, Milton Canticuz. Back (L-R): Viviana Casanova, David Yela, Javier Robayo, Brayan Orbe, Nilo Ortiz, David Canticuz. *Photo by Ross Maynard*

Project Overview:

The Dracula Transect Expedition team completed the first contiguous north-south transect of Dracula Reserve and the properties that connect this reserve's disparate parcels, conducting scientific research and filming a conservation documentary along the way. Over the 50-km route, the team conducted visual encounter surveys for herpetofauna (reptiles and amphibians), plants, birds, and mammals, searching for species relevant to ongoing research in the reserve as well as new species to science. Potential new-to-science species discovered on the expedition include 5–12 orchids, 5–7 frogs, 1 dwarf gecko, and 1 caecilian. Range and elevation extensions were also documented for a number of species. Mist netting and visual encounter bird surveys indicate the need for further monitoring, with several species appearing outside of their known distribution or elevation range. The team's unexpected discovery of illegal mining activity inside and around the protected area has had an immediate impact on conservation priorities, increasing the need for investment in additional park guards, critical land purchases, and further scientific study and exploration of the most threatened habitats. The planned documentary is now in post-production, and a trailer can be viewed at www.reservaylt.org/otracosa.

Dracula Transect Expedition Map:



Gaia Topo (meters): © Gaia GPS, OpenStreetMap

2 mi
Web Mercator | EPSG: 3857

Descriptive Key: Colored lines indicate the transect path (gaps exist due to shortage of GPS battery). Colored plots indicate areas not yet included in the protected area. Grey plots are part of Dracula Reserve.

Project Explanation:

Dracula Reserve is a private protected area in the tropical Andean chocó bioregion of northwestern Ecuador, spanning foothill and montane environments from 900 m to 2400 m in elevation. Owned and managed by Ecuadorian NGO Fundación EcoMinga, the reserve is home to some of Ecuador's most critically endangered plant and animal species. Its proximity to the Colombian border has deterred scientific survey work, leaving this threatened key biodiversity area underexplored and in need of rapid documentation. The Dracula Transect Expedition surveyed protected areas included in long-term studies as well as unprotected areas never before explored by researchers. By completing our route as a contiguous transect, we were able to observe the entire corridor under similar conditions over 2.5 weeks, providing comparisons that will inform EcoMinga's reserve expansion priorities.

Since EcoMinga began the Dracula Reserve project, their scientific surveys have yielded numerous new species to science, including orchids (eg. *Lepanthes tulcanensis*¹), herpetofauna (eg. *Anolis dracula*² and *Hyloscirtus conscientia*³), and rodents (eg. *Pattonimus* gen. nov.⁴). While these discoveries have been the products of research expeditions within Dracula Reserve, local park guards also perform daily monitoring of species on the IUCN Red List, such as the critically endangered Brown-headed Spider Monkey, endangered Black-and-Chestnut Eagle, critically endangered Rio Faisanes Stubfoot Toad (*Atelopus coynei*), endangered Carchi Andes Toad (*Rhaebo colomai*), critically endangered *Phragmipedium fischeri* orchid, and others.

The reserve comprises a growing patchwork of properties with intact forest, strategically placed to create a wildlife corridor between the Awá indigenous territory and the Cerro Golondrinas protected area. For nearly a decade, this protected area has been growing parcel-by-parcel with support from the Botanical Garden at the University of Basel (and their individual donors), the Orchid Conservation Alliance, and Rainforest Trust, and is now 5,342 acres in size, with an area approximately the same size currently under temporary management and/or negotiation for purchase. EcoMinga identifies sites with a high diversity of orchid species, which serve as bioindicators of local biodiversity to inform their purchases.

The greatest threats to this region include gold mining exploration by several international companies, cattle ranching, and agricultural cultivation of naranjilla (*Solanum quitoense* Lam.)—a fruit that requires heavy pesticide use, leaving soil destroyed after 1–2 years of production. The Covid-19 pandemic has exacerbated the financial situations of many in the local and indigenous communities, leaving landowners more susceptible to the interests of mining companies.

¹ Baquero, Luis & Monteros, Marco. (2020). A new tall and exceptional species of *Lepanthes* from north-west Ecuador (Orchidaceae: Pleurothallidinae). *Lankesteriana*. 20. 331-338. 10.15517/lank.v20i3.44602.

² Yáñez-Muñoz MH, Reyes-Puig C, Reyes-Puig JP, Velasco JA, Ayala-Varela F, Torres-Carvajal O (2018) A new cryptic species of *Anolis* lizard from northwestern South America (Iguanidae, Dactyloinae). *ZooKeys* 794: 135-163. <https://doi.org/10.3897/zookeys.794.26936>

³ Yáñez-Muñoz MH, Reyes-Puig JP, Batallas-Revelo D, Broaddus C, Urgilés-Merchán M, Cisneros-Heredia DF, Guayasamin JM. 2021. A new Andean treefrog (Amphibia: *Hyloscirtus bogotensis* group) from Ecuador: an example of community involvement for conservation. *PeerJ* 9:e11914 <https://doi.org/10.7717/peerj.11914>

⁴ Brito J, Koch C, Percequillo AR, Tinoco N, Weksler M, Pinto CM, Pardiñas UFJ. 2020. A new genus of oryzomyine rodents (Cricetidae, Sigmodontinae) with three new species from montane cloud forests, western Andean cordillera of Colombia and Ecuador. *PeerJ* 8:e10247 <https://doi.org/10.7717/peerj.10247>

The newest expansion of Dracula Reserve is a 244-acre parcel known as Dracula Youth Reserve—the world's first entirely youth-funded nature reserve—a partnership between Reserva: The Youth Land Trust, Fundación EcoMinga, and Rainforest Trust, in which thousands of children from around the world helped fund the site's protection. This project was the impetus for the Dracula Transect Expedition, our storytelling objectives, and our youth-centered team.

The expedition was a joint effort between Reserva: The Youth Land Trust and Fundación EcoMinga. The expedition team consisted of a core group of 8 scientists and storytellers who hiked the contiguous transect, as well as 43 local members of the Support Team who made this massive undertaking possible. Unlike any other expedition to this site, the Dracula Transect Expedition centered around youth leadership and skillbuilding, with 5 of the 8 team members being pulled from Reserva's international Youth Council—the group of youth aged 26 & under whose efforts led to the creation of Dracula Youth Reserve.

While this report will focus largely on the findings of the Transect Team, we want to highlight the contributions of the Support Team, organized by Gabriela Puetate Huaca, most of whom are from local and indigenous communities that have been stewards of this landscape for hundreds of years. Without their endurance, commitment, and sheer strength, this expedition would not have been possible. And without their kindness and good humor, it would have been far more difficult.

Transect Team

Science: Javier Robayo - Ecuador (*Co-leader*) - Birds / Orchids
Science: Pearson McGovern - Poland - Herps
Science: Julio César Carrión - Ecuador - Herps / Birds
Science: Marco Monteros - Ecuador - Orchids
Storytelling: Callie Broaddus (MN'21) - USA (*Co-leader*)
Storytelling: Josh Newman - New Zealand
Storytelling: Natalia Espinoza - Ecuador
Storytelling: Bella Lack - UK

Support Team

Coordinator: Gabriela Puetate Huaca
Chefs: Sra. Viviana Casanova with help from Darío Loza, Sra. Albita
Park Guards: Milton Cantincuz, Geovany Guerra, Héctor Yela, Nilo Ortiz, David Yela, Brayan Orbe
Porters: Marcelo Narváez, Francisco Narváez, Ebelio Casanova, Bayardo Pascal, Darwin Cantincúz, David Cantincuz, Fredy Taicus, Enrique García, Elmo Nastacuaz, Cristian Nastacuaz, Milian Nastacuaz, Ángel Nastacuaz, Andrea Nastacuaz, Esteban Pascal, Esteban Casanova, Wilson Chamba, Celso Guanga, Medardo Guanga, Arturo Guanga, Rubén Pascal, Olmer Pascal, Antony Pascal, Eduardo Guanga, Byron Pascal, Carlos Chamba
Drivers: Fausto López, Ramiro Reina, Alexander Orbe, Byron Hurtado, Francisco Jativa, Frank Montenegro, Wilson Pepinoza
Lodging: Casa Foch (Quito), Casa Drácula (El Chical)



The Transect Team at the expedition endpoint, the high-altitude platform in Dracula Reserve. *Photo by Callie Broaddus*

Project Objectives:

Scientific Exploration:

1. Complete the first north-south transect of the Dracula Reserve corridor on foot—crossing both protected and unprotected lands—beginning at the Rio San Juan and ending at the high altitude platform at Dracula Reserve’s southernmost point.
2. Throughout the transect, collect scientific data on the region’s birds, herpetofauna, mammals, and orchids in the first corridor-wide assessment of species population density.
 - a. Search for target species *Atelopus coynei* and *Rhaebo colomai*; photograph each individual and swab to test for the presence of chytrid fungus.
 - b. Conduct mist netting for birds at camps 2, 4, 5, and 6, and visual encounter surveys throughout the transect.
 - c. Conduct the first-ever scientific surveys of proposed expansions to Dracula Reserve’s protected area network to begin assembling baseline data of species present.
 - d. Search for target species, *Noblella sp.*, a new species and potential new genus, with one individual discovered by Javier Robayo earlier this year. Search for *Hyloxalus breviquartus cf.*, with one individual found by Pearson McGovern in November 2020.
 - e. Search for species potentially new to science or to the region.
 - f. Search for additional target species pertinent to ongoing research (herpetofauna and orchids).

Storytelling:

1. Film a short documentary that showcases youth involvement in the conservation of this site and communicates the expedition’s scientific research and conservation assessments to a general audience.
2. Capture high-quality photos of all animal and plant specimens.

Project Methods:

Scientific Exploration:

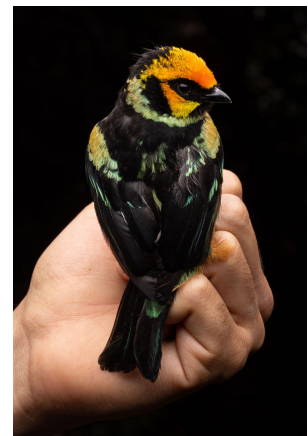
Throughout the entirety of the 50-km transect, we conducted visual encounter surveys of birds, herpetofauna, mammals, and plants. At each of the six camps, we conducted more thorough localized surveys, including mist netting for birds and nighttime herping excursions. The expedition route was planned in advance using GaiaGPS, matched with known routes from previous expeditions and surveys conducted on foot by the Dracula Reserve park guards. Where we lacked existing trails, the park guards team ensured the new routes were passable in advance, while also scouting potential camp locations. While on expedition, routes were tracked daily using GaiaGPS. Due to the amount of camera gear in tow as we filmed the expedition, we were always accompanied by 1-2 park guards or porters when moving between camps, with as many as eight porters hired for the largest camp movements.



Top, (L-R) Marco Monteros, Bella Lack, Callie Broaddus (MN'21), Javier Robayo, and Julio C. Carrión compare their planned route on GaiaGPS with a trusted printed map. *Photo by Natalia Espinoza* | Right, Flame-faced Tanager. *Photo by Callie Broaddus*

Birds:

Visual and audio encounters of birds were added to an e-bird list each day. When possible, species were confirmed with photographic evidence. At three of the expedition's six campsites, we conducted mist netting for birds, following the recording parameters established by the MoSI Program. Individuals were measured, photographed, and released. We estimated bird richness and abundance through 96 m of mist nets and 7 days of surveying. For each bird caught in the nets, we used Birds of Ecuador (Freile and Restall, 2018), Fieldbook of the Birds of Ecuador (McMullan and Navarrete, 2017) and Merlin Bird ID (2021) for species identification, and retrieved morphometric measures such as weight, wing length, beak length, and tarsus length. For sex and age, we used plumage and molting as indicators.





Top, *Diaphorolepis wagneri* | Left, Josh Newman films Julio C. Carrión releasing a Western Basilisk (*Basiliscus galeritus*). Photos by Callie Broaddus

Herps:

For the herpetological survey, we were particularly interested in obtaining accurate counts of key populations of critically endangered amphibians, such as *Atelopus coynei* (CR) and *Rhaebo colomai* (EN), that were suspected to live at several points throughout the transect. These endangered toads were monitored by conducting visual encounter surveys during both day and night. For every individual found, we collected microhabitat data, swabbed them for the presence of Chytrid fungus, and subsequently released them at their point of capture as suggested by Boyle et al. (2004)⁵. We also photographed each individual from the ventral, dorsal and lateral sides, allowing for future identification of any recaptures.



For herpetological collections, we followed the guidelines for use of live amphibians and reptiles in field research suggested by Beaupre et al. (2004)⁶. Collected specimens of reptiles and amphibians were prepared in the field, tissues were extracted from the liver in order to later extract DNA; specimens were fixed with formalin and stored in alcohol; a field and museum number was assigned for each specimen. Specimens and tissues were deposited at the INABIO museum collection (National Institute of Biodiversity in Ecuador) curated by Mario H. Yáñez-Muñoz.

For specimens that could not be identified to species level with identification guides or under stereomicroscopes, DNA will be extracted from the tissue samples for PCR amplification and comparisons with a DNA library. If a specimen is different enough

⁵ Boyle DG, Boyle DB, Olsen V, Morgan JA, Hyatt AD. Rapid quantitative detection of chytridiomycosis (*Batrachochytrium dendrobatidis*) in amphibian samples using real-time Taqman PCR assay. *Dis Aquat Organ*. 2004 Aug 9;60(2):141-8. doi: 10.3354/dao060141. PMID: 15460858.

⁶ Beaupre SJ, Jacobson ER, Lillywhite HB, Zamudio K. 2004. Guidelines for use of live amphibians and reptiles in field and laboratory research. Lawrence: American Society of Ichthyologists and Herpetologists.

from its closest relatives after analysis of its morphology, genetics, ecology, and bioacoustics, a manuscript will be prepared to describe the new species in a peer-reviewed journal.

Orchids:

Orchids were sampled along the entire transect route and surrounding areas. The orchid species that were in flower at the time of sampling were georeferenced. Individuals of potentially new species were collected so that they could be analyzed in greater detail. Photographic material of each of the collected species was prepared and flowers were stored in a 70% alcohol and glycerin solution. A section of each collected individual was pressed and dried to be later deposited at the National Herbarium of Ecuador (QCNE). Another part of each collected individual was cultured for further analysis and research related to the description of a new species.

After returning from the field, we compared field guides with high-resolution imagery, confirming identifications made in the field and further analyzing images of fresh flowers collected in alcohol. For species confirmed to be new to science, a manuscript will be prepared to describe the new species in a peer-reviewed journal.



Natalia Espinoza and Darío Loza inspect *Lepanthes tulcanensis* in situ. Photo by Callie Broaddus

Storytelling

For the scientific documentation of species, primary equipment was a Canon R5 body with 100mm macro lens and Profoto B2 strobe with softbox. Additional images were shot using a Canon 1DXii or Sony a6600 and various lenses and off-camera lighting equipment. For every reptile or amphibian specimen collected, photographs were made of the front, back, lateral, ventral, and dorsal sides on a white background. Photos were made in-situ for individuals not collected, but a natural environment was recreated to photograph specimens in a controlled environment if the specimen was being collected as a potential new species. We followed strict ethical protocols for wildlife photography, ensuring that the wellbeing of the individual was paramount. Other than as necessary to position specimens for identification images, animals were never manipulated for photographs. Photos were processed in Adobe Lightroom and captioned with species data and, where applicable, the specimen's field ID number.

For documentary filmmaking, our primary equipment was a Sony FS7II body, with a Canon R5, Sony A7 III, and iPhone 12 Pro Max used as B-cameras. Drone footage was captured using DJI Mavic II Pros. Each day, footage was offloaded onto redundant SanDisk SSD ExtremePro 2TB V2 drives; 6 2TB drives were needed to store and back up all footage. The storytelling team is now in post-production, using Adobe Premiere Pro Teams to process and assemble footage.

Project Results:



Brayan Orbe inspects the damage caused by illegal mining exploration at Dracula Reserve. *Photo by Callie Broaddus*

Unexpected Results:

The most significant result of this expedition was the unexpected discovery of illegal gold mining. On the morning of August 8, Marco Monteros hiked out from Camp 5 to search a neighboring property—a planned expansion of Dracula Reserve—for orchids. He found an unfamiliar trail inside of Dracula Reserve and followed it to the canyon that borders Dracula and the neighboring property. At the base of that trail, and for 400 m upstream, the canyon walls had been stripped of foliage and washed clean by gold miners. The destruction was evidently recent, likely within one week, as cut leaves and branches were still vibrant. Along the edge of this destruction, Marco found the exposed, glimmering veins of pyrite, also known as “fools gold,” which can contain traces of real gold and may indicate the presence of gold reserves. The environmental

Marco returned immediately to camp with this news, enabling us to quickly mobilize to document and explore the destruction. One of the park guards found an active mining camp about 500 m from our camp and 500 m from the destruction. We returned to our home base, a local hostel called Casa Dracula that is owned by a park guard, and regrouped to plan our next steps to collect evidence in defense of the reserve. Early on the morning of the 10th, a group including park guards, Marco Monteros, Javier Robayo, Callie Broaddus, and Josh Newman walked into the miners’ camp to confront this group about the damage we found. With Callie and Josh filming, Javier questioned two members of the mining camp on their activities and informed them that they do not have permission to enter Dracula Reserve. Though initially

reluctant to share information, the miners told us that they work for Cornerstone Capital Resources (a Canadian mining company), and gave us the names of their bosses in town. They denied personal responsibility for the damage we found nearby, but directed us to speak to their bosses instead.

Since this exchange, miners from the same company have been found trespassing to explore for gold in other areas of Dracula Reserve, and each time have been confronted and recorded. EcoMinga has now retained attorneys to begin exploring options to fight the illegal destruction of the Reserve and the mining company's unfettered trampling of the constitutional Rights of Nature.

Scientific Exploration:

1. We successfully completed the entire transect on foot. What was initially expected to be about 40 km was actually 50 km of hiking from camp to camp, which doesn't include daily explorations or nighttime surveys around each camp.
2. We collected data on more than 80 bird species, approximately 25 herpetofaunal species, five mammal species, and 39 orchid species. Despite the inclusion of filming into our schedule and the fast pace of our transect, with only 1–3 nights at each camp, we were able to make a corridor-wide comparison of species richness and overall forest quality. These notes and datasets indicated at least two unprotected areas in urgent need of further exploration due to the high number of potentially new species found there. In other areas, the pressure of local hunters was obvious by the relative silence of the forest and conspicuous lack of birds.
 - a. Though we were unable to record *Atelopus coynei* on this transect, likely a result of the unseasonably dry conditions we encountered during the first few days of the expedition, we had great success in locating *Rhaebo colomai*. We captured each encountered individual, collected microhabitat data, swabbed them for the presence of Chytrid fungus, photographed them, and subsequently released them at their point of capture. A total of eight individuals were seen during this expedition, greatly increasing the number of swab samples collected for this vulnerable population.
 - b. We estimated bird richness and abundance through 96 m of mist nests during 7 days of surveying at Camps 2, 4, and 5, observing more than 80 species in total. Due to time constraints, we did not set up mist nets at Camp 6. Significant records included two Golden-hooded Tanagers above their expected elevation range; a Moustached Puffbird (only recently recorded for the first time in Ecuador); three Indigo Flowerpiercers (outside of map area according to IUCN); two Black Solitaires registered at 2,000 m (100 m above the top of their IUCN-listed range); a dense population of Hoary Puffleg hummingbirds; Toucan Barbets (IUCN-NT) heard and seen throughout the transect; two individuals of White-throated Wedgebill (*Schistes albogularis*, which has numerous English names) were recorded—a hummingbird with restricted distribution and a potential expansion of its geographic range towards the west of this area. In addition to important records of Purplish-mantled Tanager, with very healthy adult and juvenile individuals.
 - c. The initial survey of the high-altitude Camp 4 site was extremely productive for every area of study, indicating that this should be a high-priority area for conservation. Drone flights from the site also show complete connectivity in the surrounding area, with very little deforestation.
 - d. We were able to collect two individuals of the target species, *Noblella sp.*, as well as an individual of a different *Noblella sp.* Together, these individuals are now being used to describe a new genus of frog. We were also successful in collecting another individual of *Hyloxalus brevipartus* cf. to enable further study into this potentially new species.
 - e. After the analysis of the information collected in the field and the photographic material, results of our orchid research are 5 new species confirmed, 7 species to be confirmed as new, and 3 new registrations for Ecuador. Additionally, we collected 1 potential new

species of caecilian (*Caecilia* sp.), 1 potential new species of dwarf gecko (*Lepidoblepharis* sp.), and 5–7 potential new species of frogs.

- f. We encountered nearly every species we expected to register on the transect, with highlights including the newly-published frog, *Hyloscirtus conscientia*, fresh Puma tracks, an Olingo, an Olinguito, an Ocelot on camera traps, Brown-headed Spider Monkeys (calls only), the glassfrogs *Centrolene heloderma* and *Nymphargus grandisonae*, the newly-published *Lepanthes tulcanensis* orchid, 2 species of caecilians, and 7 species of snake.

Storytelling:

1. We captured high-quality footage for our entire story. Because the terrain was so muddy and steep, we relied on our B-cameras and iPhones to record more of the moving footage than we expected to, using the A-camera mainly for still shots and tripod-based movements. Our gear worked well for our purposes, apart from the occasional interference of the mountain with our drone equipment (this mysterious phenomenon also seems to impact GPS functionality in certain locations, and would be interesting to study further).

Our immediate output from the expedition was a message from Javier Robayo filmed minutes after confronting miners in their camp. This message was sent to Dracula Reserve's long-time supporters, who all jumped to EcoMinga's aid in order to hire the additional guards necessary to patrol for mining activity. (Watch: <https://youtu.be/JfLA2WyMFP0>)

We are now in post-production on the documentary film and seeking funding to edit and distribute this story to a wider audience. A preliminary trailer is now available on our website at www.reservaylt.org/otracosa.

2. The images captured on the expedition are now being used by scientists to assist with the identification or description of new species. While the film is in post-production, we are also using these images to share stories of the expedition and conservation messages about the region on our social media (i.e. [instagram.com/reservaylt](https://www.instagram.com/reservaylt)).

Project Implications:



Where forest meets landslide—the impacts of deforestation are already being felt through massive landslides like this one, which shut down a main road for five months this year. *Photo by Callie Broadus*

The team's discovery of illegal mining activity, though devastating to us as conservationists, will give EcoMinga the chance to combat the expansion of mining activity with contemporary documentation of damage and to immediately scale up patrols to hamper further illegal exploration on Dracula Reserve. The implications of this finding have already included the hiring of additional community members as park guards, emergency support rendered by EcoMinga's partners at Basel, Orchid Conservation Alliance, and Rainforest Trust, and the exploration of legal avenues of defense for this region. With a government in Ecuador that is currently pro-development, this is likely to be a long battle for the safety of Dracula Reserve and the precious biodiversity it contains. Our documentary story necessarily shifted in focus to highlight the threat of mining to biodiversity, also increasing the urgency for this film to get into the public eye.

Scientifically, the expedition will result in numerous publications, with likely more than 20 new species to science discovered over the 2.5 weeks we traversed the Dracula Reserve corridor. New species, which may take years to obtain IUCN Red List status, are the baseline for a long-term understanding of this region and its incredible endemism and biodiversity. The presence of officially threatened species helps make the case to mobilize funding for conservation of currently unprotected properties. The images and data collected on this expedition paint a picture of incredible opportunity for exploration and scientific discovery especially in two areas of potential expansion, near our camps 3, 4, and 5. This expedition will help make the case not only for the conservation of these landscapes, but also for continued investment in scientific exploration of this entire corridor.

Acknowledgements:

The Dracula Transect Expedition team would like to acknowledge the many people, communities, and organizations who contributed to this work. To begin, we were especially grateful to Mayor Christian Benavides and the children and community members in Tulcán, who welcomed us to the province and provided us the symbolic "keys to the reserve," and to Dr. Benavides for visiting us at the end of our transect to hear our stories. We'd also like to thank the land owners near Dracula Reserve who allowed us to pass through or conduct research on their land, especially the community of La Esperanza, whose support added greatly to our work. Thank you to Will Thompson, Lizzie Daly, and Paul John Bayfield for your support and inspiration. Thank you to our research partners: Herpetology research was conducted in partnership with INABIO (the National Institute of Biodiversity in Ecuador) researchers Mario H. Yáñez-Muñoz and Miguel Urgiles, and orchid research was conducted in partnership with Luis E. Baquero of the University of the Americas (UDLA). Thank you to Rainforest Trust, the Orchid Conservation Alliance, and the Basel Botanical Garden and friends for the support you have given to Dracula Reserve over the last decade; without your foresight, these species may have been lost before they were uncovered. Thank you to the individual donors who supported this expedition: Alan Sawyer, Alice Laimbeer, Allyson Shaw, Angela Yang, April Gaines, Barbara Schwankl, Becky Baines, Callie Broaddus, Catherine Jackson Boyce, Ellen Stephens, Howard Lack, Ike Broaddus, Jack Kotz, Janet Eaton Kappes, Jeanne Morency, Joan Gossett, Joe Villari, Joe Wilkins, Josh Newman, Julie Coles, Karen Baile, Kim Langbecker, Lori Keenan, Martha O'Donnell, Mary Chrisinger, Matt Sheedy, Matthew Scott, Max Hyman, Meg Greenhalgh, Megan Gallagher, Mike O'Connor, Nancy Hawkes, Nancy Williams, Nicole Watson, Nikki Roach, Patricia Munoz Chernitsky, Patricia Vos, Patti Jocz, Pearson McGovern, Rebecca Heald, Ruthann Eaton, Sharon Winnie, Sigrid Reinsch, Simon Schwartz, Sue Braswell, and Wanda Eaton Mast. And lastly to the Explorers Club, thank you for trusting us to take Flag #44 on our adventure!