

OUR IMPACT

2023 ANNUAL REPORT | PUBLISHED APRIL 2024



How Your Support Helps



YOUR SUPPORT MATTERS

Every gift to the Duke Lemur Center is an investment in furthering our mission. Your generosity makes so much possible:



CARE AND WELFARE

We provide world-class care, daily enrichment, and high-quality food for all 200+ animals in our care.



VETERINARY MEDICINE

The DLC is a global authority on lemur medicine. We share our expertise with veterinarians, students, and zookeepers around the world, improving the care and health of lemurs everywhere.



FACILITIES AND MAINTENANCE

Our lemurs live on 100 acres in Duke Forest, with indoor/outdoor housing and access to naturally forested free-ranging enclosures.



SCIENTIFIC DISCOVERY

The DLC is an internationally renowned center for scientific research. Studying lemurs' health, reproduction, and social dynamics informs their care in captivity and conservation in the wild. It also has implications for understanding ourselves and other primates.



OUTREACH AND EDUCATION

We're proud to nurture the next generation of scientists and environmental stewards through tours, educational programs, internships, and research opportunities in Durham, in Madagascar, and beyond, thanks to virtual and social media platforms.



CONSERVATION

For almost 40 years, the DLC has partnered with the people of Madagascar to protect lemurs in their natural habitat while improving the lives of local people. In Durham, we've celebrated 3,400+ births through our conservation breeding program for lemurs, Earth's most endangered mammals.

WE'LL NEVER LET GO of our quest and responsibility to learn from, care for, and protect these extraordinary primates and their natural habitat. Thank you for your friendship and support!



lemur.duke.edu/donate

LETTER FROM THE DIRECTOR

**"You teach me, I forget. You show me, I remember. You involve me, I understand."
—Edward O. Wilson**



Dear Duke Lemur Center friends and stakeholders,

In all that we do at the Duke Lemur Center, we strive to engage and involve. Through our annual Impact Report, our annual magazine, and other updates throughout the year, we strive to bring you—our friends, stakeholders, and interested community members—into our world of lemurs, science, and Madagascar. We invite you not only to understand, but also to be involved in our work, sharing in our progress toward ambitious goals to further our impact in conservation, education, and research.

The year 2023 marked my first trip to Madagascar, the touchstone of the DLC's purpose: learning from, caring for, and protecting lemurs and their natural habitat. It was rewarding and motivating to meet in person the DLC's staff and partners on the island, and to see and appreciate the island's flora and fauna in its natural environment. Most of all, it was profound to experience the connections that our DLC team and partners have nurtured with the organizations and people of Madagascar.

Back in the U.S., the Duke Lemur Center had a year filled with some notable challenges courtesy of Mother Nature, as well as many accomplishments. We're proud to share those with you in this year's Impact Report. To those of you who choose to be involved in our work through your interest, engagement, and support—now and into the future—thank you.

GREG DYE

Executive Director, Duke Lemur Center

2023 HIGHLIGHTS: ANIMAL CARE & WELFARE

The Duke Lemur Center provides world-class care, daily enrichment, and high-quality food for our colony of more than 200 lemurs and bush babies.

IMAGE 1: Our remarkable colony of lemurs grew by a total of 25 animals in 2023! This included a near-record birth season for our mouse lemur colony with 14 infants born, including triplets Jack Frost, Seaweed, and Cattail pictured here. We attribute our mouse lemurs' breeding success to modifications to our animal care and welfare protocols for this species.

IMAGE 2: Our aye-aye program welcomed Nirina, a 19-year-old male, from the San Diego Zoo. He is grandfather to the DLC's one-year-old Binx and a potential match for one of our females.



We received two pairs of mongoose lemurs in the summer of 2023 (including Zoe, pictured left), who are eventually Germany-bound. This is a collaboration between two zoos in the U.S., the DLC, and the European Association of Zoos and Aquariums. Mongoose lemurs are a critically endangered species, and our global participation is necessary to save this species.

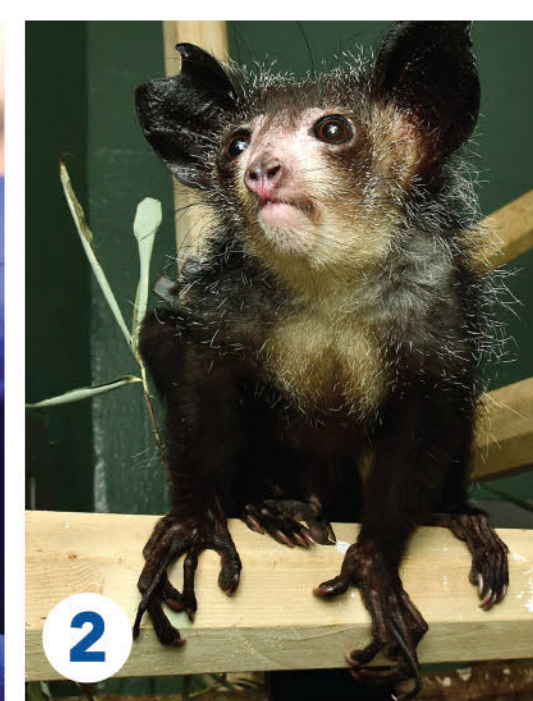
The DLC's last red-fronted lemur, 28-year-old Cardinal, lost his longtime mate, Redbay, in 2023. For companionship, he has been paired with Kidman, a 29-year-old female blue-eyed black lemur. This mixed-species pairing has been a heartwarming success.

IMAGE 3: Conservation Technician Grayson Pellerito devoted three months in mid-2023 at Madagascar's Parc Ivoloina, where the DLC is collaborating with the Parc's staff to share best practices for zoo animal well-being and to train new Malagasy zookeepers. The program is making great progress. Grayson returns to Madagascar in April of 2024 for her next stint.

In a collaborative effort to develop Madagascar's first Studbook and Species Survival Program (SSP), DLC Colony Curator Britt Keith is working with the Ministry of the Environment, a Malagasy veterinarian, and four private parks in Madagascar to gather data on captive Coquerel's sifaka populations. They are modeling the U.S. Association of Zoos and Aquariums (AZA) programs, which strive to build genetic safety nets for captive populations of endangered species.

IMAGE 4: The DLC's curatorial team received Duke University's highest staff and faculty honor. Huge congrats to Colony Curator Britt Keith, Assistant Curator Kristin Clark, and Curator of Behavioral Management and Welfare Meg Dye—recipients of Duke's 2022-23 Presidential Award! We're incredibly proud of Britt, Kristin, and Meg for all the effort they put into caring for our lemur colony.

IMAGES 5, 6: Congratulations to Lead Primate Technician Danielle Lynch, who wrote an article discussing how utilizing creativity in the training process can help overcome initial challenges. The article was selected as the cover/featured article for the ABMA (Animal Behavior Management Alliance) quarterly magazine and published in January 2024. The article highlights the training process with ring-tailed lemur Griselda to receive nebulizer treatments and aye-aye Poe to voluntarily open his mouth for dental examinations.



2023 HIGHLIGHTS: VETERINARY MEDICINE

As a global leader in lemur medicine, the Duke Lemur Center shares our expertise with students, veterinarians, and zoos around the world, improving the care and health of lemurs everywhere.

IMAGES 1, 2: 2023 marked our second year in the state-of-the-art hospital and laboratory spaces of the Anna Borrueel Codina Center for Lemur Medicine and Research, and we have made great strides in advancing comprehensive veterinary care for our lemurs. We have also expanded and strengthened our collaborations with the NCSU College of Veterinary Medicine's clinicians, residents, students, and researchers in zoo and wild animal medicine. As one example, veterinary surgeons from NCSU and experts from our own DLC Museum of Natural History worked alongside DLC veterinarians to facilitate a special surgical procedure to alleviate chronic sinus congestion in one of our ring-tailed lemurs, Griselda.

Intensive care unit spaces were utilized to house mothers with infants that required extra neonatal care, as well as post-surgical patients requiring close monitoring after surgery.

IMAGE 3: The DLC's highly detailed digital radiography and ultrasonography equipment allowed us to document and create digital records of normal and abnormal anatomy of all our lemur species. Pictured: Aye-aye Fady hangs upside down for a voluntary ultrasound. Training lemurs to voluntarily participate in their own health care reduces stress, promotes positive interactions with animal care staff, and helps us provide the highest quality of care.

IMAGE 4: Thanks to the Borrueel Center's sterile surgery suite, this year's many successful surgical outcomes included a liver biopsy, a cesarean section, an enucleation, and even an abdominal exploratory surgery that identified and corrected an intestinal intussusception in a black and white ruffed lemur.

IMAGE 5: We hired Brendan Johnson, D.V.M., Ph.D. as the DLC's Associate Veterinarian. Brendan joined us in 2024 to contribute to the clinical care of our lemurs and expand the veterinary department's contributions to teaching, research, and conservation. Here, he examines a three-day-old Coquerel's sifaka during a routine infant wellness check.

Our veterinary student externship program provided strengthened curriculum and in-depth training and experience to third- and fourth-year veterinary students in two- to four-week blocks.

A highly talented Malagasy veterinarian was selected to join us at the DLC beginning early 2024 to gain hands-on experience in lemur medicine through our Malagasy Veterinary Internship Program. The funding for this program is provided by the FS Foundation.

Multiple research projects at the DLC benefited from the expertise and support of the veterinary team. We also hosted several groups to learn about lemur medicine at the DLC.

IMAGE 6: Thanks to the Borrueel Center's dedicated quarantine wing, the process of transferring five new lemurs to our colony was accomplished with much greater efficiency than ever before. Juanito, the critically endangered mongoose lemur pictured here, arrived from Zoo Miami in September.



2023 HIGHLIGHTS: SCIENTIFIC DISCOVERY

The Duke Lemur Center is an internationally renowned center for scientific research. Studying lemurs' health, biology, social dynamics, and evolution informs their care in captivity and conservation in the wild. This research also helps us understand ourselves and other primates.

In 2023, the DLC celebrated the one-year anniversary of the opening of the Borrue Center. With the ideal infrastructure to support and expand the scope of the DLC's critical work in both veterinary medicine and research, the Borrue Center has notably increased the DLC's capacity and scientific merit of the DLC's hibernation, biomechanics, and energetics research.

DLC Research is growing! For the first time in our history, we have more research requests than we are able to accommodate, a very good problem to have. Duke approved for us to hire a third Research Technician to facilitate research at a record pace.

The DLC was awarded a \$1-million grant (over four years) from the National Science Foundation to support the lemur colony as a critical resource for biological research.

The DLC's Research Advisory Committee (RAC) met for their annual review of the DLC's research programs and provided a report with recommendations, noting their "excitement at the prospect of expansion" thanks to the Borrue Center's research wing and that with growth, "the DLC and Duke University would benefit in terms of research, education, and visibility."

In 2023, the DLC contributed to 24 scientific manuscripts published in peer-reviewed journals.

IMAGE 1: The DLC Field Station in Anjajavy, Madagascar was constructed in 2023 to provide the necessary infrastructure to advance our Madagascar Research Program in serving as a training ground and site of study for Malagasy students and researchers. The DLC is currently sponsoring a Malagasy student's three-year Ph.D. program utilizing the field station for his thesis research on the behavioral ecology and physiology of hibernating dwarf lemurs.

IMAGE 2: DLC Director of Research Erin Ehmke traveled to Madagascar to inform her strategies for the DLC's Anjajavy Research Station, and to meet the people with whom the DLC collaborates. The experience was inspiring and has been integral in helping to develop plans for a student exchange research program for U.S. and Malagasy college students.



The DLC Museum of Natural History opened a new exhibit showcasing the largest, most diverse collection of primate fossils in North America. The exhibit and tour were developed with the Education team, and it helps students, researchers, and visitors understand the epic journey of lemurs, monkeys, and humans across the continents.

IMAGE 3: In Utah and Wyoming, the museum team searched for primate fossils deposited during a time of extreme climatic swings that eventually led to the extinction of lemur-like primates in North America. These specimens will help researchers to understand how climate change impacts ecological complexity through time.

IMAGE 4: For the first time since 2008, the DLC's museum team went on an expedition in Madagascar. Working in the caves of southwestern Madagascar, the team of American and Malagasy researchers found the fossils of extinct giant lemurs, horned crocodiles, and elephant birds.

DLC Museum intern Ren Collins and Duke undergraduate Orion Kornfeld presented their research at the annual meeting of the Society of Vertebrate Paleontology. The DLC Museum is one of just two fossil preparation labs in NC, helping train the next generation of evolutionary biologists and paleontologists.

Curator of Fossils Matt Borths, Ph.D. helped to develop a series of workshops across the country focused on building a National Biodiversity Center and Database to make it easier for researchers and educators to utilize the incredible biodiversity data locked in natural history collections.

Scans and models of DLC specimens continue to grow in use by researchers and students around the world through Morphosource, a digital museum sponsored by the NSF and hosted by Duke.



2023 HIGHLIGHTS: CONSERVATION

For nearly 40 years, the Duke Lemur Center has partnered with the people and organizations of Madagascar to protect lemurs and their natural habitat, while simultaneously improving the lives of local people.

IMAGES 1, 2: In Madagascar, the DLC's SAVA conservation team (DLC-SAVA) engaged more than 1,200 Malagasy farmers in learning sustainable living strategies including vegetable farming, agroforestry, chicken husbandry, rice agriculture, vanilla, pisciculture, and nutrition education.

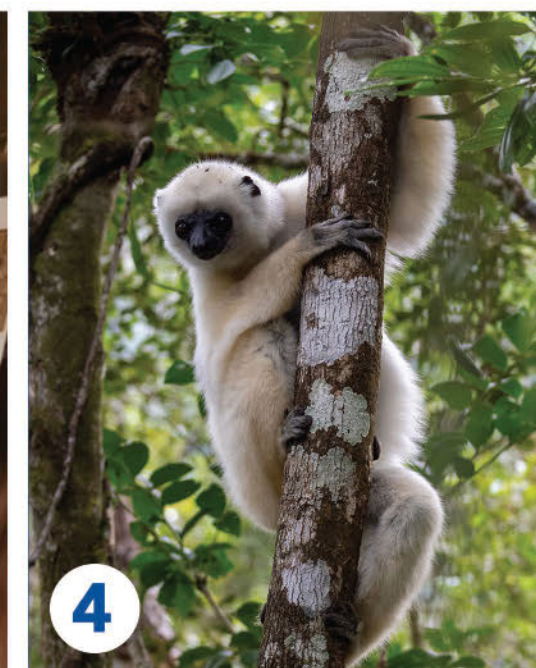
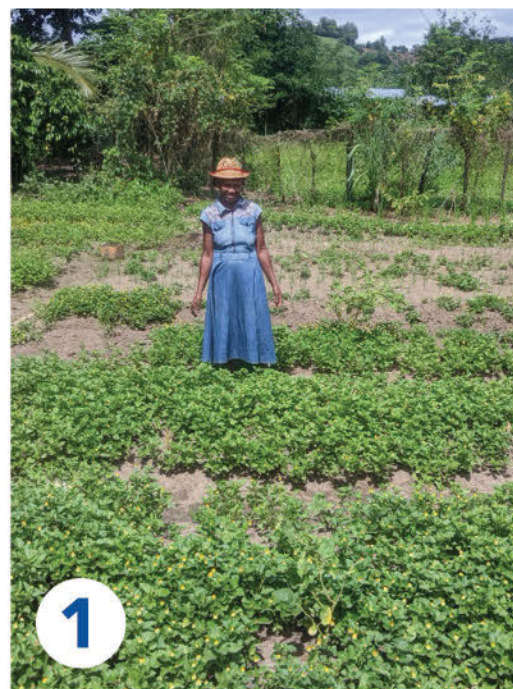
More than 2,500 families in the SAVA region have received fuel-efficient cooking stoves, which use 50% less fuel than traditional stoves and thereby reduce pressure on the environment and household budgets. The stoves also produce less smoke, which reduces air pollution in the home.

IMAGE 3: DLC-SAVA reached 3,000+ people through environmental education programs like tree-planting events, visits to the New Generation School Garden and Marojejy National Park, and town-hall presentations.

IMAGES 4, 5: In the remote rainforests, DLC-SAVA searched for and monitored the area's threatened lemurs (including the silky sifaka and red-bellied lemurs pictured here), and disarmed lemur traps and reported other illegal activities like deforestation and logging.

DLC-SAVA planted more than 21,000 trees in 2023 and checked and evaluated 115,000 trees that had already been planted, and has distributed 15,000 trees to 250 farmers since 2021.

IMAGE 6: More than 1,000 women in the SAVA region received free family planning consultation and subsidized contraceptives through our partner, Marie Stopes International. We have served more than 4,000 women since we started the program.



The DLC is a major resource for undergraduate and graduate student education. Here, Duke Ph.D. candidate Camille DeSisto (far right) and colleagues study the relationships between people, plants, and lemurs in northern Madagascar, where the health of one species depends on the health of others.

2023 HIGHLIGHTS: EDUCATION & OUTREACH

We're proud to nurture the next generation of scientists and environmental stewards through tours, educational programs, internships, and research opportunities in Durham, in Madagascar, and beyond, thanks to virtual and social media platforms.

IMAGE 1: In 2023, the Education Department hosted nearly 15,000 visitors for educational tours and events onsite at the DLC.

We hosted over 7x more visitors during our winter off-season by developing new tour options, including the return of new and improved Wild Workshops—now available year-round!

IMAGE 2: Our 56-page annual magazine, dubbed "The Women's Issue," highlighted female dominance in primatology and the lemur world, female farmers of Madagascar, and the women leading the way at the DLC. We hope these stories will inspire students interested in pursuing careers in STEM. Read it free at lemur.duke.edu/magazine.

90,000 friends and followers from around the world connected with the DLC's work through hundreds of videos, photos, and updates posted to Facebook and Instagram, all featuring the DLC's lemurs and our work in Durham and Madagascar. Don't have your own social media accounts? Get in on the fun at lemur.duke.edu/social-media with no log-ins or personal accounts necessary.



The DLC's official podcast, Aye-aye Pod, released two new seasons focused on ring-tailed lemurs and Coquerel's sifakas. Listen on Spotify, Apple Podcasts, Google Podcasts, or on our website (no subscription or account necessary): lemur.duke.edu/aye-aye-pod.

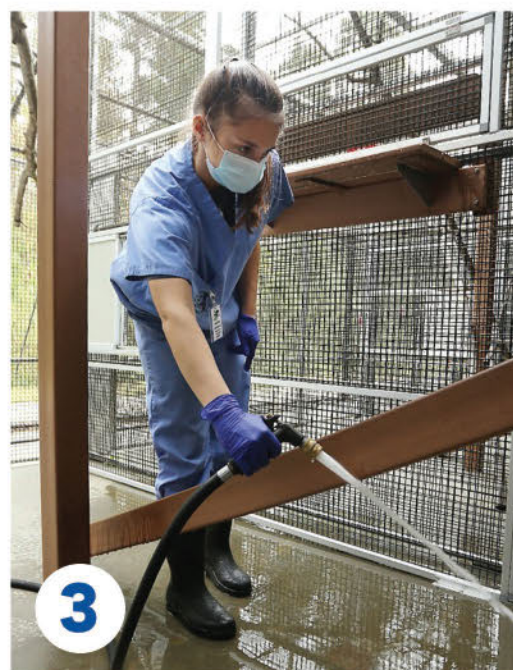
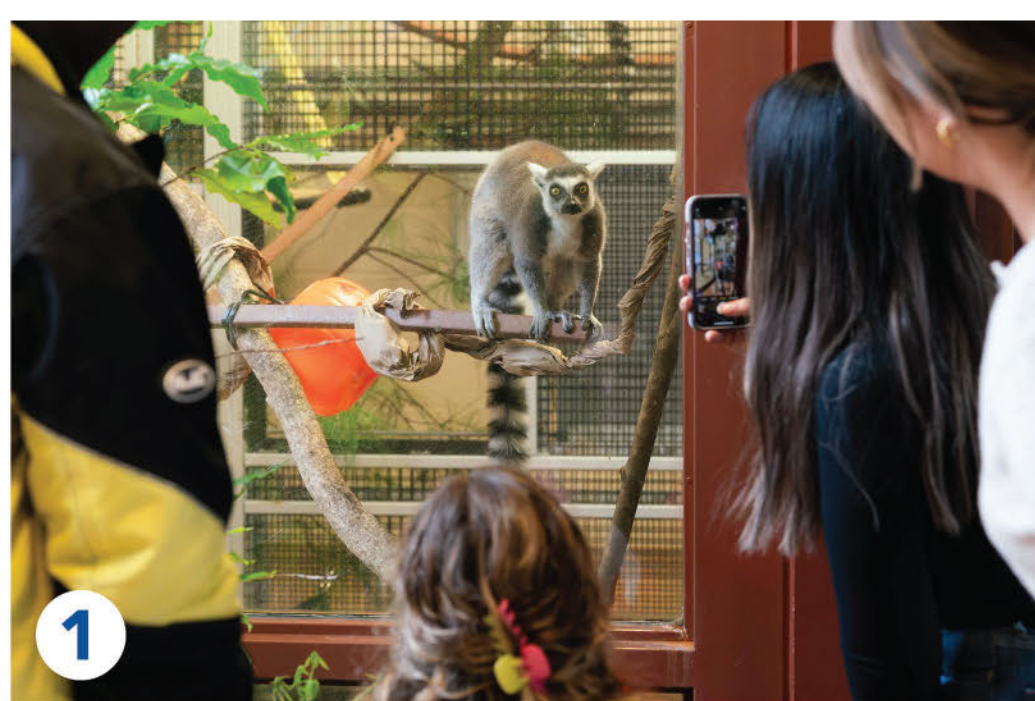
IMAGE 3: 126 volunteers served a total of 10,800 volunteer hours. 44 of our volunteers are high school, undergraduate, or graduate students.

IMAGE 4: For the first time, the DLC's internship program provided all seven summer interns with a salary to engage students across all socio-economic lines.

IMAGE 5: With federal grant support administered by the North Carolina Museum of Natural Sciences, we developed free outreach programs available for Durham Public Schools—heading into classrooms in spring '24!

Thanks to donor support, we launched our third year of partnership with Lakewood Montessori Middle School, engaging 100 new sixth-grade students in STEM through field trips and classroom programs throughout the school year.

IMAGE 6: For the 2023-24 academic year, the DLC partnered with four graduate students from NYU's Robert F. Wagner School of Public Service to develop three lemur-centric "plug and play" lesson plans for middle school teachers. The curriculum modules focus on evolution, adaptations, and female dominance and bring the expertise of the DLC's tours and educational programs to classrooms across the United States. They will be available free on the DLC website beginning May 2024.



2023 HIGHLIGHTS: FACILITIES & MAINTENANCE

Our lemurs live on 100 acres in Duke Forest, with indoor/outdoor housing and access to naturally forested free-range enclosures. Our main campus also houses a gift shop, staff and faculty offices, classrooms, and a state-of-art facility for veterinary care and non-invasive research: The Anna Borrueel Codina Center for Lemur Medicine and Research. Our natural history collection resides at the DLC Museum of Natural History, located just north of Duke's East Campus.

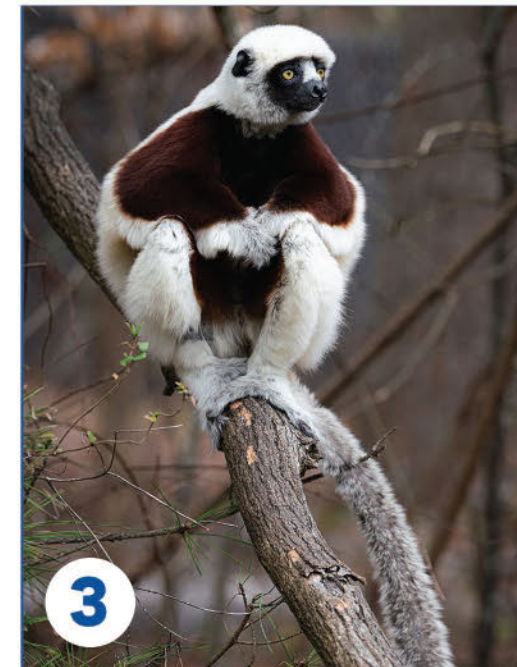
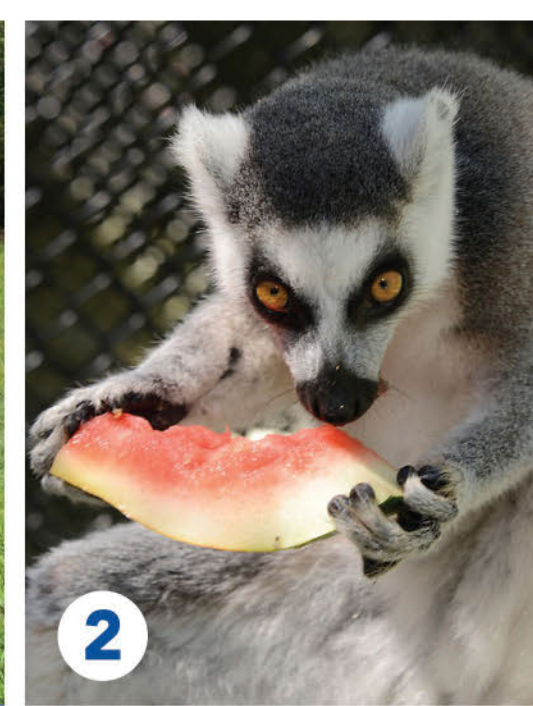
When the Borrueel Center opened and our research and veterinary teams moved into their new offices, they left behind their old spaces inside the Main Building—and new, exciting opportunities to repurpose them! Renovations created more efficient and professional spaces for our husbandry and curatorial staff, including an office for the Assistant Curator, private workstations for Primate Technicians, a “Zoom room” for private meetings and calls, and spaces to organize gear for volunteers. The hallway just outside of the kitchen, which was once crowded with shared workstations, techs and volunteers bumping into one another, and coats draped over the backs of chairs, is now a sunny, open space with bar-height tables for casual meetings and lunch.

IMAGES 1, 2: It was a record-setting year for the DLC garden! This year's harvest included 403 pounds of cucumbers, 136 pounds of tomatoes, 160 pounds of cantelopes, 457 pounds of watermelon, 69 pounds of pumpkins, eight pounds of blueberries, 37 pounds of green beans, and a whopping 303 pounds of greens! That is a lot of leafy matter (as relished by our folivorous lemur friends)! Many, many thanks to our garden volunteers for making this possible, as there is no way we could have achieved anywhere near these amounts without them.

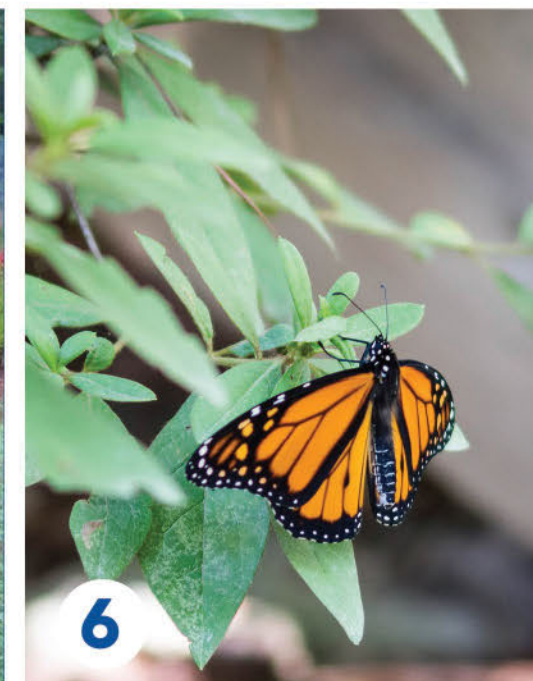
IMAGE 3: Two mini free-ranging enclosures were created for lemurs who would not normally have access to the forest, including Coquerel's sifakas Valeria and Carlo (pictured). We're seeing great success with the new enclosures' impact on the lemurs' welfare.

IMAGE 4: On August 16, the DLC was hit by a microburst weather event that took the Durham area by surprise. Thankfully, all lemurs and DLC staff were unharmed. The strong winds and fallen trees damaged multiple buildings (including the Triplex, pictured here) and all 11 natural habitat enclosures were rendered unusable. Repairs are ongoing, and our goal is to have lemurs back out in the forest in late spring 2024.

IMAGES 5, 6: The DLC's pocket prairie, planted behind our faculty/staff parking lot in 2022 in partnership with Duke Gardens, thrived in its first full growing season. The pocket prairie joins the DLC's Monarch Waystation (along our summer tour path) as a valuable teaching tool that illustrates how conservation starts literally in our own backyards. Our local ecosystems, habitats, animals, and insects must be protected and supported, in the same way that lemurs and their habitat in Madagascar must be.



Ring-tailed lemurs forage along one of the DLC's secure double fencelines.





Artwork by Natasha Mutch for the Duke Lemur Center.

NEVER LET GO.

We can't think of a better message to epitomize the Duke Lemur Center's passionate commitment to our mission, which guides our decisions every day.

For 58 years, the Duke Lemur Center has held strong to its extraordinary purpose: to learn everything we can about lemurs, so we can better care for them in captivity and protect them in the wild.

We've expanded our mission to encompass non-invasive research, Madagascar conservation, and public outreach and education. We've broadened our scope to teach and inspire the next generation of environmental stewards, and to be world leaders in the care and conservation of lemurs, Earth's most endangered mammals.

Throughout our long history, the Lemur Center has been sustained through your support—and your donations continue to make a meaningful impact on our work, now and in the future.

We hope that you share the pride we have in our accomplishments. Likewise, we hope you **never let go** of the Duke Lemur Center as an important way you can make a difference in the world.

Warmest regards,

GREG DYE, Executive Director

WE INVITE YOU TO MAKE A DONATION TODAY.

Please visit LEMUR.DUKE.EDU/DONATE, scan the QR code, or call our development officer, Mary Paisley, at 919.401.7252.



2023 HIGHLIGHTS: DEVELOPMENT

From July 1, 2022 through June 30, 2023, the Duke Lemur Center received just over \$3.5 million in gifts, including the final \$2 million payment toward the transformational \$8 million gift that established and supports operations of the DLC's state-of-the-art facility for our veterinary care and non-invasive research, the Anna Borrueel Codina Center for Lemur Medicine and Research.

Additional gifts and commitments of \$25,000+ through December 31, 2023 are listed below.

NEW DLC ENDOWMENTS: Thanks to a special \$500,000 gift from Allie's Friends Foundation to support the DLC in perpetuity, the DLC has a new endowment: The Alexandra Adelle Dowd Lemur Inspiration Fund. In addition, we received an initial gift from a longstanding DLC donor to fund a \$1 million endowment for the DLC in the next few years. The support from these two new endowment funds will continue to make a difference and meaningful impact to our future work.

LEGACY GIFT COMMITMENTS: We had an exciting surge in new legacy gift commitments prompted by a special matching opportunity offered by Duke University's Duke 100 Challenge. A total of eight DLC donors submitted signed legacy commitment forms, and the estimated value of these eventual gifts is approximately \$1.5 million! We were thrilled that these new commitments earned the DLC a total of \$57,000 in matching funds for use in our current budget thanks to the special Duke promotion, which ended in December.

A gift from Jonathan Wilfong and Wendy Baker was received to support several projects in Madagascar, the internship program, and general operations.

Significant contributions in support of our work in Madagascar were received from Julie and Darren Cooke, Bob and Sue Knox, The FS Foundation, and General Mills.

A gift by Drs. Kathy Andolsek and Don Bradley was received to support the internship program and two additional DLC projects.

A gift from Dr. Rose Smiley and Dave Raderman provided seed funding for an additional Primate Technician position.

A gift from Michael and Karen Stone was received to support the DLC's general operations and conservation work in Madagascar.



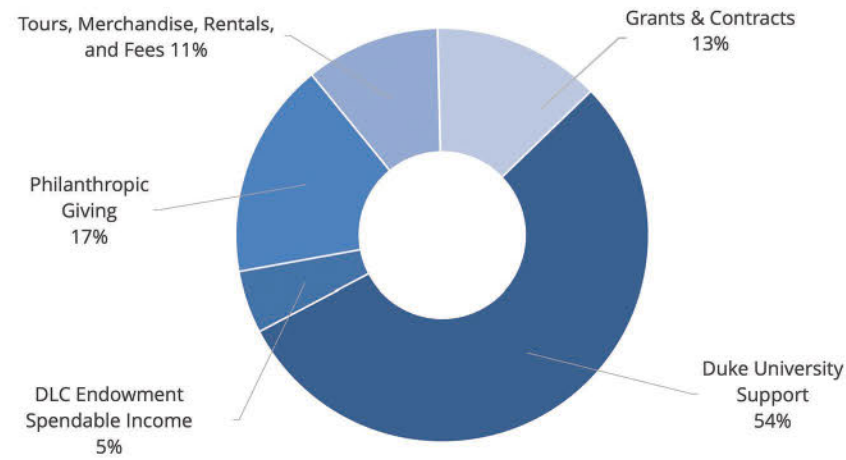
THANK YOU TO THESE GENEROUS DONORS AND TO EVERYONE WHO CHOOSES TO INVEST IN OUR VISION AND WORK!

Please note that the DLC does not provide a public list of our giving society members in our publications or on our website. We do recognize business sponsors on our website and in publications. Our Circle of Life and corporate donors of \$5,000+ are also recognized on our wall in the Lemur Landing Gift Shop. All giving society members are eligible for benefits as our way to thank them for their generosity. Learn more about our donation options a lemur.duke.edu/donate.

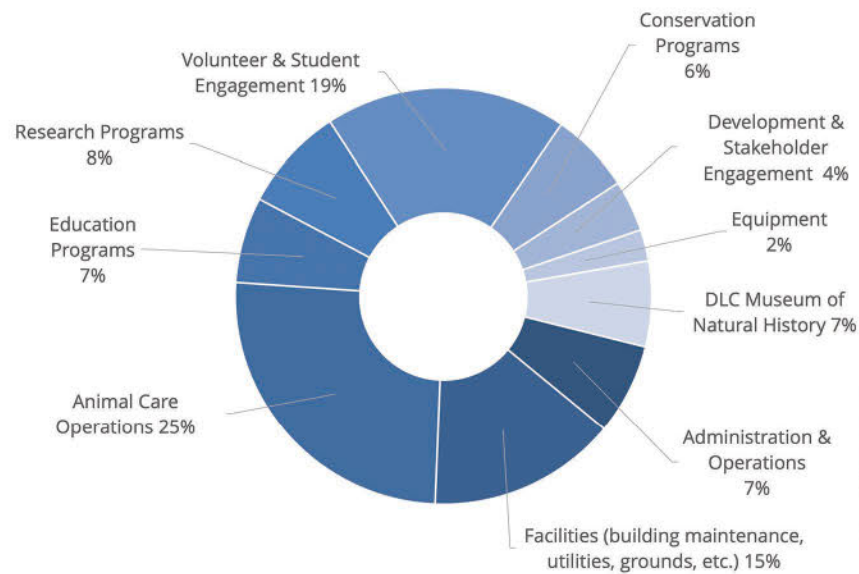
JUNE 2022 - JULY 2023: FINANCIAL OVERVIEW



FISCAL YEAR 2023 INCOME



FISCAL YEAR 2023 EXPENSES



FISCAL YEAR 2023 FINANCIAL SUMMARY

Income	
Duke University Support	\$ 2,984,848
DLC Endowment Spendable Income	\$ 266,151
Philanthropic Giving	\$ 927,834
Tours, Merchandise, Rentals, and Fees	\$ 576,455
Grants and Contracts	\$ 719,518
Total Income	\$ 5,474,806

Expenses	
Administration & Operations	\$ 488,807
Facilities & Maintenance	\$ 1,013,560
Animal Care	\$ 1,758,158
Education Programs	\$ 459,888
Research Programs	\$ 557,547
Volunteer & Student Engagement	\$ 104,130
Conservation Programs	\$ 431,500
Dev't & Stakeholder Engagement	\$ 275,361
Equipment	\$ 167,888
Museum of Natural History	\$ 459,292
Total Expenses	\$ 5,716,131



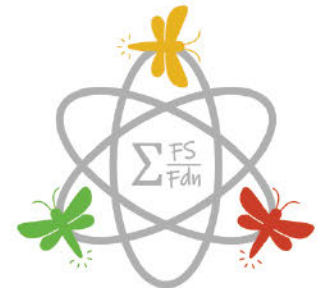
The Duke Lemur Center is a non-profit, tax-exempt organization operating under Duke University (EIN 56-0532129), and is accredited both by the Association of Zoos and Aquariums (AZA) and the American Association for Accreditation of Laboratory Animal Care (AAALAC).

Thank you to the following premier corporate sponsors and other organizations whose support provided a cornerstone to our success in fiscal year 2023. Click on each logo to learn more about them!

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