

#### **Centre ValBio Newsletter**

August 2025

### **CVB News**

# Publications in "Nature" on Mouse Lemur Research by CVB Scientists

Mark Krasnow, his Centre ValBio research team, and Steve Quake and the Tabula Microcebus Consortium are bringing the attention of the scientific community to Madagascar's mouse lemurs, which are the smallest, fastest reproducing, and



among the most abundant primates in the world.

*Nature* has published two back-to-back papers on their research.

## 1. <u>"A molecular cell atlas of mouse lemur, an emerging model</u> primate"

Researchers created Tabula Microcebus, a transcriptomic atlas of 226,000 cells from 27 mouse lemur organs. They define and biologically organize more than 750 lemur molecular cell types and their full gene expression profiles. This reveals cell-type-specific patterns of primate specialization and many cell types and genes for which the mouse lemur provides a better human model than mouse. The atlas provides a cellular and molecular foundation for studying this model primate and establishes a general approach for characterizing other emerging model organisms.

2. "Mouse lemur cell atlas informs primate genes, physiology and disease"

Researchers have uncovered thousands of previously unidentified lemur genes and hundreds of thousands of new splice junctions including over 85,000 primate splice junctions missing in mice. They also present expression patterns of more than 400 primate genes missing in mice, many with similar expression patterns to humans and some implicated in human disease. This work establishes a foundation for molecular and genetic analyses of mouse lemurs.

*Nature* has published an accompanying commentary to the papers titled, "The tiny mouse lemur could make for a mighty model organism". The article highlights the mouse lemur cellular atlas, which could set the stage for scientists to use the primate as a model organism that has more human relevance than rodents.

Six more companion papers have been published in other journals, plus eight additional papers that developed the associated methods using the mouse lemur cell atlas data. The papers can be read on the <u>Tabula</u> <u>Microcebus web portal</u>.

Photo credit: Zeph Pendleton

## **Education Department Leads Creation of Murals**

The Education Department has been leading the creation of murals at Ranomafana Primary School, Ambodipaiso Primary School, and the Nature Center. One of the murals is completed, and two are in process.

Written at the top of the mural pictured is "Ny ala ro maha



Tagnala." This translates to "Forest is Tagnala Identity." Tagnala is the name of the main ethnic group around Ranomafana. This mural is located in Ambodipaiso Primary School.

These works of art are more than decoration—they are daily visual reminders of the importance of protecting Madagascar's unique biodiversity. Children were excited to participate in painting, giving them a sense of pride and ownership in their schools and their natural heritage.

## Recap: "Ivohiboro: the lost forest" Screening in Westerly, RI

On August 20, fifty people were in attendance for the Westerly, Rhode Island screening of "Ivohiboro: the lost forest" at Weekapaug Yacht Club.

Julia Bradford hosted the event, and Dr. Patricia Wright gave a presentation.



Photo credit: Jennifer Levine

## "Ivohiboro: the lost forest" Film Screening in Queens, NY

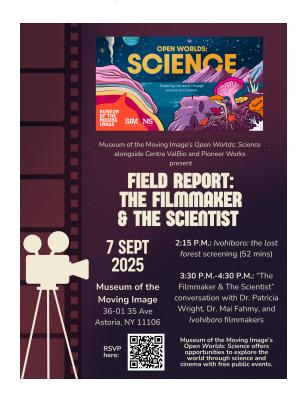
A film screening of *Ivohiboro: the lost forest* in the large theater at the Museum of the Moving Image in Queens, NY. Admission is free.

#### Sunday, September 7, 2025

2:15 p.m.: Film screening (52 mins)
3:30 p.m. - 4:30 p.m.: "The
Filmmaker & The Scientist"
conversation

Museum of the Moving Image 36-01 35 Ave, Astoria, New York

This is part of Museum of the Moving Image's Open Worlds 2025 and Open Worlds: Science.



Produced by Haut et Court in collaboration with UNESCO. Presented in partnership with Pioneer Works and Centre ValBio.

Learn more here.

Researchers: Centre ValBio Lab Upgrades Planned for Nov/Dec, Impacting Availability

The lab at Centre ValBio will be undergoing upgrades and maintenance to various infrastructural systems in November and December 2025. Services and space availability will be impacted during this period.



We will coordinate with researchers who may be affected.

Photo credit: Noel Rowe

## Centre ValBio Annual Report 2024

The Centre ValBio **Annual Report 2024** is officially released.

The year was marked by noteworthy progress across our research, conservation, and community programs. Features include:



- Infant Care and Behavioral Flexibility in Endangered Propithecus edwardsi (pq. 18)
- Updates from our long-running environmental education programs, including Conservation Club, My Rainforest My World & Rainforest Class, and Madaworks (pg. 30)
- New partnerships with our Health Department to implement child immunizations and provide pre- and post-natal consultations for pregnant women in remote villages (pg. 32)
- Initiatives in our Restoration Ecology Department, including the Forest Corridor Project, which seeks to ensure sustainable development for local communities by creating a vast forest corridor (pg. 36)
- Training Ecosystem Stewards for the Future of Madagascar (pg. 38)
- Bones of Extinct Hippo Found in Cave in Ranomafana National Park (pg. 45)
- And much more.

#### Read Centre ValBio Annual Report 2024 here.

#### Photo credit: Carolyn Taylor

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Annual Report 2024











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