

COMMUNITY COLLABORATIONS IN BIODIVERSITY RESEARCH

UNCOVERING REPTILES AND AMPHIBIANS IN SAMBO WILDLIFE SANCTUARY

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Science never sleeps. At all hours of the day and night, a team of researchers, rangers and community members explored Sambo Wildlife Sanctuary's forests in search of understudied reptiles and amphibians. During weeks of scouting diverse habitats, the team pursued more than snake, frog and lizard sightings; they also sought out meaningful partnerships to advance scientific knowledge and locally-led conservation.

Sambo Wildlife Sanctuary, meaning “plentiful” or abundant” in Khmer, has a name that reflects its rich biodiversity. This new protected area was established only seven years ago, and recent extensions in 2023 now provide shelter to countless species, many of which have yet to be studied. Since 2018, WWF-Cambodia and the Biodiversity Inventory for Conservation (BINCO) have undertaken research to document the sanctuary's biodiversity for the benefit of local communities and conservation efforts.



A research team member and community partner on a night survey in Phnom Ses Community Forest.



Sao Sinoun examining a gecko for data collection on biodiversity in Sambo Wildlife Sanctuary.

“Every species is unique and plays an important role in the ecosystem.”

Sao Sinoun, a local student at the Royal University of Phnom Penh's Center for Biodiversity Conservation, is carrying the torch to continue this critical research. Collaborating with international reptile and amphibian experts, she is collecting data for her master's thesis on snake diversity and coexistence with humans. The team also recorded species diversity in extended areas of Sambo Wildlife Sanctuary and investigated sensitivity to water loss driven by climate change.



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“I want to be a researcher myself, and I’m happy to learn what the team has shared with me.”

Meak Phala, alongside other local rangers and community members, worked closely with researchers to expand collective knowledge about the sanctuary’s wildlife. Deeply familiar with the landscape, members of Phnom Ses Community Forest and other community groups guided the team to ideal habitats and directly to target species.

Knowledge also flowed back to communities through outreach events and capacity-building in scientific methodologies. The research team trained Phala in data collection practices, from taking measurements and collecting samples for genetic analyses to registering sightings in online databases. One day, communities can conduct their own research to better address habitat loss and climate change.

Reptiles and amphibians are some of the species most vulnerable to changes in their habitat. When logging destroys an area, these animals are among the first to disappear. That’s why close partnerships with the communities protecting the forest were at the heart of this research: people can only thrive when nature thrives too.



Meak Phala, a Ministry of Environment ranger, learning how to weigh a frog specimen from master's student Sao Sinuon.



Beyond these research efforts, WWF-Cambodia’s SCALE-UP 2 project supports seven community forests in Sambo Wildlife Sanctuary to conduct patrols that curb unsustainable resource extraction. Learn more about the SCALE-UP 2 project in our [website](#).

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