

USAID Program and National Geographic document significant number of species on Angola highlands expedition



Vehicles geared up and ready for the off-road expedition. Photo Credit NGOWP Research Director Rainer von Brandis

USAID RESILIENT WATERS PROGRAM

USAID Resilient Waters is a five-year, \$32 million project implemented by Chemonics International. Its goal is to build more resilient and water secure Southern African communities and ecosystems through improved management of trans-boundary natural resources and increased access to safe drinking water and sanitation services.

During December 2019, the USAID Resilient Waters Program took part in the National Geographic Biodiversity and Community Consultation expedition into the central Moxico Province of Angola as part of the National Geographic Okavango Wilderness Project (NGOWP). The aim of this expedition was for a team of over 20 top scientists to conduct a wet season survey collating biodiversity data across a wide variety of populations of organisms; collect household baseline surveys; and run consultation workshops in the villages around the source lakes in the Angolan highlands.

South-eastern Angola is one of the last wild places on Earth, but large parts of this watershed feeding the Okavango systems have been inaccessible to conservationists because of landmines – a legacy of Angola’s civil war that ended in 2002. In 2015, National Geographic launched the Okavango Wilderness Project (NGOWP), recognizing the urgent need to protect the river basin for future generations. The aim of NGOWP is to facilitate better knowledge and understanding about basin ecosystems and the services they provide through biodiversity and environmental monitoring, as well as community engagement. This work will support the effective



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management of the natural resources of the Okavango-Zambezi Water Tower, capacity building, and sustainable development of tourism in the region.

The NGOWP Director Kai Collins, Research Director Rainer von Brandis, and the Research Manager Gotz Neef, led a team of scientists, including entomologists, botanists, ornithologists, zoologists, herpetologists and livelihood specialists into the Angolan highlands. The USAID Resilient Waters program provided support in the form of technical assistance by sending their Biodiversity Advisor, Kristine Maciejewski on the expedition.

Biodiversity Surveys



USAID Resilient Waters Program Biodiversity Advisor, Kristine Maciejewski observing source lake formation.

The identification of potentially new and endemic species in the area was of particular importance. Biodiversity surveys were conducted using state-of-the-art motion sensing camera traps to determine the presence of mammals, which were subsequently collected and identified with tissue samples being taken for DNA analysis. The survey team also prioritized freshwater and terrestrial species, recording a significant number of avifauna (bird), not only through direct observations but also from calls. The ability to work across scientific disciplines in these activities became a strength of the team. In addition, the three source lakes were visited to allow the hydrologists and geologists to study the geomorphology (the study of the physical features of the surface of the earth) of the area. These specialists were evidently exhilarated – and occasionally confounded – in their exploration of how these lakes were formed. The process of uplift, back-tilting, down-warping, deposition, erosion and river capture, were debated and discussed for days as the origin of these source lakes.

Community Consultations

Another pioneering innovation of the expedition was that of community engagement to inform and design future conservation initiatives. Even though studies have indicated that an exciting opportunity to develop a conservation model that benefits both wildlife and people exists in Angola, little community engagement has actually taken place to date. This is largely because the conservation sector in Angola has had little exposure

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to community-based conservation models and the involvement of NGOs in conservation projects. The aim of the community consultations was to review current practices and future potential for community-based conservation and natural resource management and identify opportunities, gaps and constraints.



The Golden Orb Spider, aptly named for the gorgeous, string golden-coloured webs they weave. Photo credits: Kristine Maciejewski

Conserved Biodiversity and Ecosystems Services and livelihoods adaptation

The USAID Resilient Waters Program is committed to improving the conservation of biodiversity and the sustainable management of high-priority ecosystems across southern Africa. This includes building resilience by strengthening the ability of communities and key institutions to adapt to change, particularly to impacts of climate change. Taking part in this expedition was of critical importance. Apart from Angola being a central part of the USAID Resilient Waters Program footprint area, the source lakes play an important role in building resilience in the Okavango River Basin against a range of disturbances. Protecting these forests and maintaining the diversity and ecosystem processes requires raising awareness and educating residents on the importance of protecting these forests for the ecosystem services and the diverse livelihood options they offer.

Participating in the expedition was a great opportunity the USAID Resilient Waters Program to collaborate with the NGOWP. Going forward, USAID Resilient Waters will assist in producing the NGOWP assessment report, in particular outlining potential alternative livelihood strategies for communities within the watersheds of the Kavango-Zambezi, and the Okavango River Basin.