



# AFRICA'S OTTER SURPRISE FLAGSHIP FOR CLEAN WATER

Some days you wait patiently for the briefest of glimpses. Other days, after hours of watching them eat, frolic, rub, groom, squabble and sleep you just wish they would leave so you can move again. But, no matter which kind of day it is, it is always a great day when you see the otters!

Many residents of East Africa have never heard of them and even fewer of the thousands of visitors know otters exist in Africa at all. Yet Africa is home to four of the world's 13 otter species. Three of these

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**Bottom: A** Female otter and yearling

are endemic to Africa: the Congo clawless (*Aonyx congicus*); African clawless (*Aonyx capensis*), and Spotted-necked (*Lutra maculicollis*). Of these, two, the African clawless and Spotted-necked otters historically were found throughout much of East Africa.

But this distribution is discontinuous with the Spotted-necked otter inhabiting only fresh-water systems including lakes and clear, unpolluted streams, rivers, and impoundments up to about 2,500 m altitude. The Spotted-necked otters' reliance on clear water is presumed to be tied to their use of sight when foraging for food. Historically, in Lake Victoria, these otters primarily foraged within about 10 metres (there is evidence now that in some areas they must forage further out) of the shoreline,

preying on fish, crabs, and crayfish with a small assortment of snails and perhaps, small birds, amphibians, and eggs consumed from time to time. Contrary to the popular misconception that they are aquatic animals, as with most otter species, the Spotted-necked is actually semi-aquatic spending up to 60% of its time on land where they rest, den, groom and dry their coats, eat larger prey items, and raise their young.

Weighing in at an average six kg, the Spotted-necked is one of the world's three smallest otter species. Adult females may weigh as little as three kg and some adult males reach as much as nine kg (this is particularly true for Rubondo, where the full-grown males typically are quite large). As indicated by their name, the Spotted-necked otter is further characterised by





varying amounts of cream to white blotch patterns on their necks, chest, and upper lips; features that can be convenient for field researchers wanting to identify individuals because otherwise their pelts are uniformly reddish to dark chocolate brown. A long, fully furred, tapering tail approximately 2/3rds to 3/4s the length of their body, webbed toes, and claws further identify this species.

Otters are regarded as key indicators of the health of aquatic and wetland ecosystems. Unfortunately, very little is known about the Spotted-necked otter outside of South Africa, hampering our ability to assess their status and the ability of East African nations to adequately institute appropriate conservation measures. At this time, the IUCN has listed the Spotted-necked as a species of Least Concern based on their extensive distribution throughout the African continent. However, it is believed that the population is in decline and likely vulnerable regionally. The fact is we really do not know how Africa's otters are doing. For this reason, the Rubondo Island Otter Project was begun in 2006 to assess habitats associated with the presence of this species, opinions held by surrounding communities regarding otters, and the appeal of viewing otters to tourists visiting Tanzania.

Within East Africa the spotted-necked otter was studied for varying lengths of time in Rwanda, Uganda and various Lake Victoria locations in the early 1960s and 1980s. When the East African Otter project began, Rubondo Island was selected because of its protected status and because one of these earlier studies included research carried out on Rubondo allowing us to build on and compare previous information.

Gazetted in 1977, Rubondo is a little-known jewel in the Tanzanian park system. The only Lake Victoria waters protected by National Park status are those surrounding Rubondo Island NP

which encompasses 456.8 km<sup>2</sup> (236.8 km<sup>2</sup> dry land and 220 km<sup>2</sup> water) in the Tanzanian portion of Lake Victoria, just south of the equator (Latitude 2° 18' 10.3" and Longitude 31° 51' 26.9"). The entire Park consists of 11 islets and the main island, which itself is formed by four hills of volcanic origin connected by lower elevation



and, of course, both of East Africa's otter species.

Our first sighting of the Spotted-necked otters on Rubondo was of two animals, sunning themselves on top of large boulders at what we would discover was one of the resident group's favorite resting and denning spots. Soon we were to realize that observing

isthmuses (the highest point is 351 metres above lake level). The main island is characterised inland by dense forest with patches of open grassland surrounded by a shoreline of sandy coves, rocky points, rocky shore forest-edge, and emergent wetland shoreline. It is home to introduced populations of elephant, giraffe, colobus monkeys, chimpanzees, suni and thriving native populations of many bird, reptile, and amphibian species. The island's native mammals include, hippo, sitatunga, bush buck, vervet

#### Bottom:

Two year old, first seen when he was about 7 months old.

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**Tua Samweli Kihedu** is a boat driver for TANAPA on Rubondo Island National Park

Spotted-necked otters on Rubondo is not unusual. This is due to their comparatively protected status in the sanctuary of the park's waters and their characteristic crepuscular (morning and early evening) to diurnal activity pattern. Results from our study indicate that the Spotted-necked otters on Rubondo are active throughout the day, with roughly 25% of the sightings occurring before 0900, 25% between the hours of 1500 and 1800, and the remaining 50% of sightings recorded between 0900 and 1500. Reports indicate that otters also are active at night but observations are difficult outside of daylight hours.

Spotted-necked otters are considered to be non-territorial, meaning they do not appear to defend a territory, but instead have extensive intra- and inter-sexual home-range overlap. Males generally have larger home ranges overlapping

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those of several females. This was often demonstrated on Rubondo where we frequently observed groups of up to 11 males suddenly appear in one of the core denning areas utilised by an adult female and her “extended family” of cubs and older daughters, who may or may not have young. These female groups often used the shoreline section simultaneously, sometimes sleeping together and on other occasions they used it serially.

When visiting, the males would typically announce their arrival with a series of grunts, whistles, and chirpings; often creating havoc as they swarmed over the rocks sniffing, rubbing, and assiduously leaving behind their scent marks on every available surface. Often these male bands would move on

**Top:**  
A otter cub about three to four months nursing

**Below:**  
Rubondo wetlands. Areas used by the otters for foraging

**Majaliwa Musiba Muhabi** is a Park Ranger on Rubondo Island National Park

**Hobokela Mwamjengwa** is an employee of TANAPA working on Rubondo Island NP

after only a few minutes but just as often they would settle in and spend several hours resting within five to 10 metres of other otters occupying the space.

Throughout the otters’ range, habitat destruction, erosion, unsustainable fishing practices including methodologies and overfishing and increasing conflict with human neighbors are believed to be their primary threats. In Lake Victoria this is particularly true. Recent years have seen a dramatic increase in the number of people (over three million) whose livelihoods are directly dependent on the lake’s fishery industry for employment and primary nutrition. This rising human presence has led to increasing pressures on the lake including declining fish stocks, deforestation, urbanisation, industrialisation, increased agriculture and increased conflict with the lake’s native wildlife. These core problems threaten the lake, the wildlife, and, most importantly, the people who have become dependent on the lake to sustain themselves.

Wildlife enthusiasts frequently wonder what can be done to conserve wildlife; there are several steps each of us can take and others that require concerted effort and political will. The first includes preserving natural vegetation buffers along rivers and lakes and natural corridors on private land.

These offer benefits such as erosion control, water management, and when used sustainably, resources to people; for wildlife they offer safe havens, food, and travel routes between required, protected habitats. Another step individuals can take is working within their immediate communities to restore damaged habitat and clean up trash.

At a larger scale, the restoration of wetlands is important for people and for wildlife. For people, wetlands serve as water storage locations and as filters and sponges, slowly cleaning and releasing water which helps recharge ground water and local wells. Wetlands also, importantly, slow rain water momentum, reducing erosion and costly property damage. For wildlife, wetlands provide refuge for fish and homes and food for a wide range of reptile, amphibian, bird, and mammal species. In East Africa the preservation of the wealth of wildlife conserves a valuable natural resource that may unlock many unanswered questions and add to the tourism appeal of many underutilised areas.

While the future of East Africa’s otters is uncertain, we do believe that there are several encouraging signs. These include work being done on the status and habitat requirements of Spotted-necked otters by the Wildlife Conservation Society (WCS) Tanzania programme in the area of Sao Hill, Mafinga, Tanzania, and ours on Rubondo. This work will assist in developing survey techniques that can be used throughout East Africa allowing us to better assess the status of this species. Additionally, there are budding grass-roots education outreach efforts best exemplified by work being done by the Tanzania Park Authority (TANAPA) on Rubondo and by the Kisumu Science Teacher Otter Conservation Group (KISTOC) in Kenya.

Rubondo Island TANAPA outreach staff have worked with neighboring village schools to create Conservation Clubs to familiarise students with resident wildlife as well as methods of preserving the lake’s shorelines and habitats on which their families depend. The KISTOC group, begun in 2006, has created Otter Clubs at 10 Kisumu area schools. The students are taught about Lake Victoria’s wildlife with a focus on the otters as the lake’s tourism and conservation ambassador. ●

