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News Notes

Challenging Myths in Kenya

Bat conservation is struggling for a toe-hold in Kenya. Most people know very little about bats, have no sense at all of their value and often fear them as carriers of ghosts and evil spirits. Bat populations are collapsing in many parts of the country as agriculture, urban development and uncontrolled tourism threaten their cave and tree roosts. That is the challenge facing a determined band of about a dozen bat enthusiasts – the Mammals Committee of Nature Kenya – who are trying to reverse the trend before it is too late.

Armed with a BCI Global Grassroots Conservation Fund grant, which was entirely supported by the Wallace Research Foundation of Tucson, Arizona, team leader Bernard Risky Agwanda launched a wide-ranging education effort last fall.

The first step was to survey members of six area tribal groups to determine the level of knowledge and the nature of their perceptions about bats in order to develop effective education programs. Perceptions were almost uniformly negative, with the words “witchcraft” and “dirty” among the most often associated with bats.

The low level of public understanding was demonstrated by the fact that local languages typically have only one name for all bats, whether the fruit-eating bats that are essential for regenerating commercially important hardwood forests or insect-eating bats that help control agricultural pests. Birds and rodents, meanwhile, are named to the genus and often the species level.

Initial education efforts focused on a group of children ages 5 to 9, barely a third of whom had ever seen a bat. Team members made a presentation that included photos and models of bats and gave the youngsters bat pictures to color. More elaborate presentations were given to older students and teachers; these introduced the biology, economic importance and conservation needs of bats.

Agwanda and his team also visited the Eburu Forest Reserve and gave a bat-education talk to guides at the growing ecotourism site so they could add bats to their spiel for tourists.

Also during the first six months of the project, team members began training volunteers in the use of their new mist nets and bat detector, with the goals of locating new bat roosts and surveying bat populations along the Kenyan coast. They hope to establish a program to monitor the health of these colonies.

Agwanda is also developing educational materials to teach residents how to humanely exclude bats from homes and other buildings, where they now are routinely poisoned.

The challenges these volunteer conservationists face are enormous, but they are dedicated to protecting the bats of Kenya.

BCI’s Global Grassroots Conservation Fund supports locally driven conservation programs like this one around the world. Your help is invaluable. Please contact



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development@batcon.org to contribute.

Founderâ€™s Circle Ecotour of Uganda

Even by African standards, Uganda provides a breathtaking diversity of wildlife, from hippos and elephants to lions and leopards and almost everything in between. A single location offers 11 species of primates, 500 bird species and some of the worldâ€™s most spectacular bats. All that, plus luxurious accommodations in unforgettable landscapes, makes BCIâ€™s 2008 Founderâ€™s Circle Ecotour of Uganda a once-in-a-lifetime adventure.

BCI Founder Merlin Tuttle will lead the 14-day trip, with assistance from local bat biologist Robert Kityo and noted bat expert Fiona Reid. Tuttle expects to encounter hammer-headed bats, singing fruit bats, epauletted bats, tomb bats, slit-faced bats, horseshoe bats, straw-colored fruit bats, yellow-winged bats (photo at right) and many others. Among other wildlife activities, we will observe free-ranging gorillas and chimpanzees up close.

A few places are still available for this extraordinary trip to Uganda, November 12-25. For information or to reserve your place, please contact Dianne Odegard at dodegard@batcon.org.

Flying Came First

A 52 million-year-old fossil of the most primitive bat species ever found seems to solve a long-standing puzzle: Which did bats acquire first â€“ flight or the remarkable biological sonar called echolocation? â€œIt finally gives us an answer,â€ says biologist Nancy Simmons of the American Museum of Natural History. â€œFlying evolved first, echolocation second.â€

â€œWhen we first saw [the fossil], we knew it was special. Itâ€™s clearly a bat, but unlike any previously known,â€ said Simmons, lead author of the study published in *Nature*. â€œIn many respects, it is a missing link between bats and their non-flying ancestors.â€

Others on the research team included paleontologist Gregg Gunnell of the University of Michigan, Kevin L. Seymour of the Royal Ontario Museum in Canada and Jörg Habersetzer of the Senckenberg Research Institute in Germany.

Bats are the only mammals that can fly, and echolocation allows most of them to navigate and hunt insects while flying at high speed in the dark. Echolocating bats emit high-pitched beeps, then pinpoint an objectâ€™s location by analyzing the echoes that come bouncing back.

The remarkably well-preserved fossil, found five years ago in Wyoming, represents a new species, named *Onychonycteris finneyi*, the University of Michigan reports. Its skull lacks key features found in and around the ears in modern bats that use echolocation to navigate and hunt, the researchers said.

With that information, Gunnell said, â€œwe were able to determine that this particular animal was not capable of echolocating, which then suggests that bats flew before they developed their echolocation ability.â€

Some unexpected physical characteristics of the *Onychonycteris* fossil suggest the creature may have been a skilled climber. For instance, its limb proportions are different from all other known bats, with longer hind legs and shorter forearms “similar to those of climbing mammals such as sloths and gibbons that hang under branches, the scientists said. The new fossil also displays claws on all five fingers, while modern bats have claws on no more than two digits of each hand.

However, they said, the long fingers, keeled breastbone and other features show that it could fly under its own power like modern bats. Its short, broad wings, however, “suggest that it probably could not fly as far or as fast as most bats that came after it.” The teeth indicate that it mostly ate insects.

“We don’t know what the initial incentive was to take to the air,” Gunnell said. “My thought is that these bats probably were commuters at first “developing the ability to fly allowed them to travel to a particular place to feed, then fly back to their nesting area.” Without echolocation, *Onychonycteris* likely had to make do with visual, olfactory or passive audio cues to hunt.

Honors for a BCI Scientist

BCI Conservation Scientist Ed Arnett, Project Coordinator of the Bats and Wind Energy Cooperative, was honored by The Wildlife Society for his leadership role in producing the most comprehensive publication to date on wildlife and wind energy.

Arnett received an Outstanding Service Award for serving as lead author and review-committee chair for Impacts of Wind Energy Facilities on Wildlife and Wildlife Habitat. “I greatly appreciate the acknowledgement for my role in this project, and the entire team of authors deserves credit for making it happen,” said Arnett. In addition, the National Resources Council of America awarded its “Best State and Local Project of 2008” to The Wildlife Society for this important technical review.

The booklet, based on research by Arnett and several others, documents bat and bird fatalities at a range of wind facilities and notes that bat kills have been reported at every wind farm that has been surveyed. It explores the often-overlooked impacts on habitat and the potential threats as wind-generating sites move to such unstudied areas as coastal and offshore locations. It also offers recommendations to “help managers and decision makers meet the challenges of developing wind energy responsibly.”

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