

KID'S KORN ER

Tenrec's Of Madagascar Come In Variety Of Sizes

WASHINGTON — At one point in his research stint on Madagascar, zoologist Martin Nicoll awakened to the scampering of as many as 228 tiny feet across his bedroom floor. They belonged to 57 tenrecs, Madagascar's oldest living mammals.

The island off Africa's east coast has at least 25 species of tenrecs, some tiny and mouselike, another growing as big as a rabbit. Nicoll, hoping to learn about tenrec eating and reproductive habits, had acquired an assortment of them from the wild. They included streaked tenrecs, mouse-eared tenrecs, and mole tenrecs. The population soon multiplied, which is a special tenrec talent; one species can produce 32 to a litter.

"To my surprise, I would come home and find several tenrecs of different species, normally very aggressive, sleeping together and mutually grooming one another's faces," Nicoll recalls.

Behavior Bizarre

Nicoll, research associate at the National Zoo in Washington, has studied tenrecs across their range of west-central Africa, the Seychelles Island chain, and Madagascar. He is one of the few scientists to observe and record the many bizarre facets of tenrec anatomy and behavior.

One-third of the species he observed on Madagascar had never before been seen alive. He confirmed that tenrecs are extremely cool, with an average temperature 7 to 10 degrees Celsius lower than that of other placental mammals. His work is partly funded by the National Geographic Society.

Nicoll reports:

- Although most tenrecs dwell on land, three aquatic varieties live in the rivers of west-central Africa.

Two have webbed feet and a very flat head.

- One aquatic tenrec has large, radar-like ears and a tail shaped like a beaver's, but turned sideways. The tail is knife-sharp. If a person wanders in its streams and tries to touch the animal, it will bite.

- A similar but rare aquatic tenrec travels fast-flowing rivers of Madagascar, where two of its five known habitat sites have deteriorated. Its fur is like a mink's.

- The pygmy hedgehog tenrec, which resembles a hedgehog, is arboreal but clumsy, spending much of its time trying to get back into trees. "You walk through the forest and occasionally hear soft thuds, and the animals are falling out," Nicoll says. "They're not very competent climbers."

- Two tenrec species are streaked. The black-and-white streaked ones live on Madagascar's central plateau and are nocturnal. The black-and-yellow streaked variety stays in the eastern rain forest and is partly diurnal.

Communicate With Quills

- Both streaked versions and the juveniles of the tailless tenrec "stridulate" — rubbing together a group of specialized quills on their backs to produce high-frequency sounds for communication. When alarmed, they stridulate in intense bursts.

- Streaked tenrecs forage in groups. Nicoll stalked them in his attempts to capture individuals for study. "When you go after one, the group immediately goes into a defensive mode, making buzzing calls and rubbing the quills on their backs together," he says. "As you put your hand down to pick one up,



Just one of at least 25 kinds of tenrecs on the Indian Ocean island of Madagascar, this streaked tenrec bears a crest of long quills on its head and shorter ones on its body. The streaked tenrec communicates by rubbing its quills together to make high-frequency sounds.

it detects you and all of the quills previously lying flat are thrown up into a great corona. Then the animals jump back at you, while giving out a 'zip, zip!'"

The animal has turned into a virtual pincushion. "If you would persist in annoying it, it would continue to attack and you could end up with 30 barbed spines in your hand," Nicoll says. Meanwhile, the rest of the group has scattered and frozen, disappearing in the leaf cover.

- Many tenrecs "echolocate" while exploring strange places by producing tongue clicks.

- The tailless, or common, tenrec, known as tandraka by the Malagasy people, is hunted for food (the streaked kind is taboo). But it takes persistence to overcome its quills, pungent odor, and formidable jaws. "My whole hand was put out of action once when it was bitten by a common tenrec," Nicoll says.

- Tailless tenrec males in the Seychelles frequently fight over females, the smaller males sneaking up to try to mate and scurrying away at the approach of the "huge" males. The huge males have thick pads of skin on their backs, enormous teeth, and massive head muscles.

"When a huge male's mouth opens, his jaw muscles bulge so that it looks as if he's got two balloons stuffed inside," Nicoll says.

Torpid About Temperature

Rain-forest tenrecs appear to keep relatively steady body temperatures, but across the island in the desert, the tenrecs practice torpor, allowing their temperatures to fluctuate with the air temperature, sometimes as much as 15 degrees a day. On a wintry desert night, the pygmy hedgehog tenrec doesn't seem to

notice the cold.

"The peculiarity is that when a mammal has offspring, she generally becomes a very efficient thermoregulator. But these animals don't. On cold days, a whole family will cool down," Nicoll says.

Tenrecs are insectivores, feasting mostly on insects and earthworms. Like many of Madagascar's animals, some tenrecs appear to be fighting for survival. The island has one of the world's highest levels of rain-forest destruction, and the main habitats of tenrecs have already been lost.

"Besides being models of primitive mammals, tenrecs are important links in a variety of food chains," Nicoll says. "We hope that by studying tenrecs, we'll find out more about how man is affecting Madagascar's natural ecosystems."

COLOR THIS!

1. BLACK	6. PEACH
2. PINK	7. GREEN
3. YELLOW	8. LT. BROWN
4. GREY	9. LT. BLUE
5. BROWN	10. LT. GREEN

PANDA: THIS IS THE NAME OF A GROUP OF ANIMALS RELATED TO THE RACCOONS. THEY LIVE IN CHINA AND TIBET. THERE ARE VARIOUS TYPES OF PANDAS. GIANT PANDAS LOOK LIKE A BEAR. THEY ARE A POPULAR ANIMAL FOUND IN AMERICAN ZOOS. MOST OF THE PANDAS ARE NOT VERY LARGE. THEY LOOK LIKE RACCOONS.

