first four to eight years (nobody knows just how many) of its existence, it is a blind and harmless larva, called an ammocoete, which lives in a burrow in the soft mud of quiet pools and eddies, and in the main body of lakes just off the mouths of streams. These ammocoetes possess a dendritic structure (Figure 2) that acts as a filter in separating microscopic food organisms from the surrounding water.

Shortly after hatching, the tiny, transparent ammocoetes work their way up through the gravel of their nest, where they are caught in the current and carried downstream. As soon as the current slackens they dive for the bottom, burrowing into the soft, oozy mud that is usually found there. Here they stay, unless washed out by eroding floods that sometimes carry them along with their cover further downstream or out into the main body of the Great Lakes.

At intervals the larvae come to the entrance of their burrows and feed on the microorganisms that are especially abundant in the thin layers of debris lying on the lake bottom. Dr. V. C. Applegate of the U. S. Fish and Wildlife Service has described this behavior in detail:

"When ready to feed, the ammocoete squirms upward in its burrow until the oral hood is at or near the surface of the bottom. Here it may lie for long periods of time, the branchial area expanding and contracting as water is pumped in and out for respiratory and feeding purposes. . . . Pumping action into the oral hood is easily discernible by following bits of detritus suspended near the bottom as they are drawn into the hood. Microscopic organisms are drawn into the hood on the water currents. At least some of these organisms are separated out from the detritus by the sieve apparatus and passed to the intestine for digestion. Periodically the detritus accumulated on the sieve is blown out. The larva is seen to expand its branchial region, the gill openings close, and with a rapid convulsive movement of that region and the head, a cloud of small particles is ejected from the hood. Typical pumping is resumed at once . . . At irregular intervals, the ammocoetes retreat to the depths of their burrows for varying periods."

Rare Lizard Reaches Museum

ROBERT F. INGER

Curator of Amphibians and Reptiles

Several weeks ago the Division of Amphibians and Reptiles received a highly publicized lizard from Mr. Tom Harrisson, Curator of the Sarawak Museum in Borneo. This lizard, called "Jorgen" by Mrs. Harrisson but *Lanthonotus borneensis* by herpetologists, is a member of a species about which we know very little.

Brown without a conspicuous pattern, about thirteen inches long, short legs, small eyes, flattened head, long tail—nothing about this lizard is especially striking except to a herpetologist. Scientific interest attaches to *Lanthonotus*—the earless monitor—because it is the least known member of the group of lizards from which snakes arose. If we are to understand the origin of snakes, we must first know their ancestors.

The mere half dozen or so specimens that reached museums between 1878 (when *Lanthonotus* was first discovered) and 1961 were sent by men who obtained the lizards from natives and were not interested in the biology of *Lanthonotus*. All we knew until this year was that the animal lived in Sarawak on the northwest coast of Borneo. Did it live in water? Did it burrow in the soil? Or was it one of those many lizards that live on the ground in the rain forests covering Borneo? These are the simplest questions to ask about an animal, yet we had no answers.

Now, however, the Harrissons have supplied at least partial answers. Our specimen was found about ten inches below the surface in soil of formerly cultivated land. The Harrissons kept the lizard alive for several months and after trying all sorts of food, induced it to eat the eggs of the green sea turtle, something *Lanthonotus* never encounters in nature. "Jorgen" could swim well and would stay submerged for long periods in a wash basin, though the lizard was found a hundred yards from water.

Two more specimens of *Lanthonotus* have been caught in the last two months. It has always been this way—an animal is rare until we know where and how to look for it. As more individuals are found, it will be possible to make more observations on their behavior and to study their anatomy more thoroughly. Whether these studies will actually help us unravel the ancestry of snakes cannot be foretold. At the very least we should have a better understanding of the evolution of lizards.