

ZOOLOGY

Platypus: Bird, Beast and Reptile

One of the strangest animals known to scientists is the duckbill platypus. A "down-under" creature from Australia, the platypus is virtually unknown outside of its native land.

By BENITA TALL

BIRD, BEAST and reptile is exactly the right answer to give if anyone asks you what a platypus is.

At least it is the best answer if you want to describe what this strange animal looks like. With its duck bill, webbed feet, tail like a beaver's and venom spurs, the platypus seems inadequately described if you simply reply "beast; it's a mammal."

Found only in eastern Australia and Tasmania, this unique animal is rarely seen outside its native land.

There the platypus lives a quiet life, sleeping most of the day in its river bank burrow. During the night it hunts for its dinner: crayfish, shrimps, insect larvae, tadpoles and earthworms. Actually, its appetite has been a handicap to would-be platypus keepers. In captivity the animal is known to eat almost its own weight in earthworms in a single night! Since the platypus is quite particular in the food it will eat—it must be alive—this can be expensive as well as inconvenient. Several hundred wriggling earthworms and dozens of grubs per platypus is quite an order.

Special Home Needed

A platypus burrow may be as long as 30 feet, with a land entrance and a water entrance. The platypus's amphibian life—it is an excellent swimmer and can stay submerged for at least five minutes—has presented another problem in maintaining the animal outside its natural environment.

A special "platypusary" is required. This consists of a long swimming tank, burrowing bank (in which, hopefully, the female will sometime build a nest) and assorted burrows for living in. Generally, the platypusary attempts to duplicate the animal's river bank home. In the summer of 1947, three platypuses came to live in the New York Zoological Park's specially constructed platypusary in the Bronx Zoo—the only one known outside the one at Healesville, about 40 miles from Melbourne, Australia. It is at these two places that most people who wanted to see the strange creature could get their first look at the platypus. Now, unfortunately, the captive animals can only be seen in Australia. The Bronx Zoo's platypuses all have died and no others are known to exist in a zoo elsewhere in the world, save Australia.

It has a short, thick trunk and powerful limbs with webbed feet that can be used for digging as well as swimming. The nose and upper jaw of the platypus resemble a duck's bill; they are covered with a smooth hairless skin, black on the sur-

face and "creamy" color underneath. Its fur is short and velvety, dark brown in color.

(Years ago thousands of the animals were slaughtered for their pelts. They are now legally protected.)

The platypus is also unique among mammals in that the male possesses a poisoning apparatus. He has a spur on the ankle of each hind foot that connects with a venom gland. A wound from this spur can cause a painful swelling. The female has no such weapon. A full-grown platypus will average about two feet in length and weigh between two and four pounds.

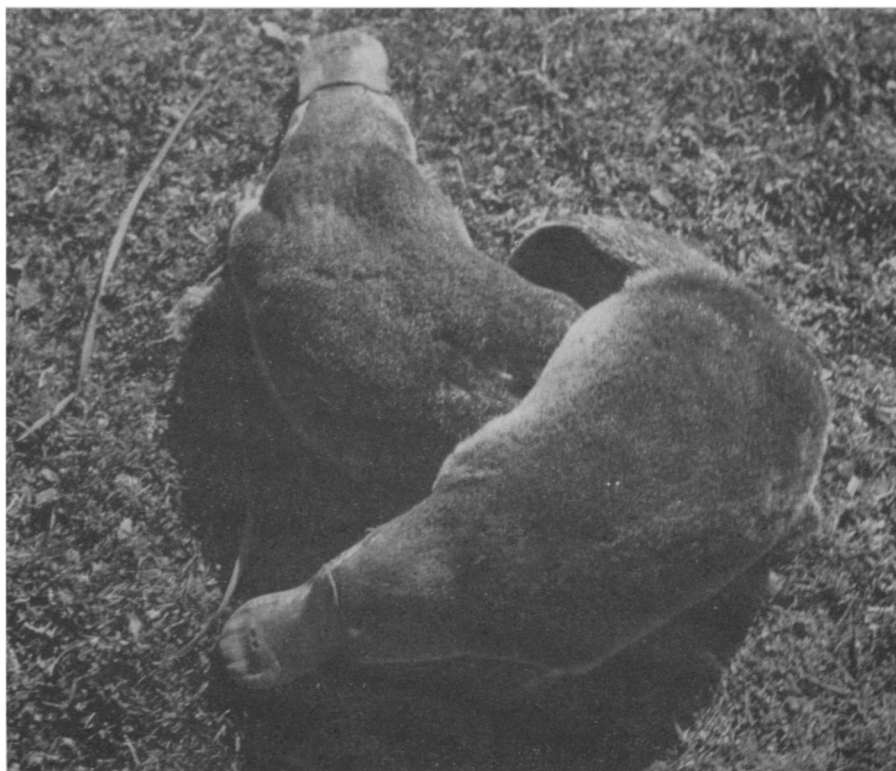
About 1800 when a platypus skin arrived at the British Museum in London, scientists were very skeptical about the creature. The skin was soaked in water, the non-believers expecting to expose stitches holding the furred skin to the ducklike feet and beak. It was years later before it was accepted that the platypus also did lay eggs and did nurse its young as a "good mammal should."

Not too much is known about platypus

young. The female usually lays two eggs, sometimes three, about three-quarters of an inch long and a little more than one-half inch wide. They are not hard-shelled, but have a parchment-like covering similar to that of tortoise eggs. The nest is made of weeds, leaves and grass. The female apparently has all responsibility for the young: she digs the breeding burrow, makes the nest and incubates them without help from the male. Incubation takes about two to three weeks. When the young hatch they are dependent on the mother for several months. She holds them to her abdomen with her tail where the young obtain milk secreted in mammary glands by licking the fluid that exudes from the mother's pores.

These primitive egg-laying mammals have been bred in captivity only once. Towards the end of 1943 zoological history was made when Australia's David Fleay, known as the world's leading authority on the animals, announced a platypus had at last been bred at the Sanctuary in Healesville. This doubly unique animal was a female.

Ten years later, in 1953, the Bronx Zoo's platypuses Penelope and Cecil seemed about to become parents. In early July, Penelope developed a ravenous appetite. Eucalyptus leaves placed in her pool disappeared and this was taken as a good



PLATYPUSES TWO—The beaver-like tail and duck bill of the platypus makes this mammal one of the most extraordinary animals in the world today. The platypus, whose scientific name is *Ornithorhynchus anatinus*, is believed to be a possible link with mammals, birds, fishes and reptiles.

sign since the platypus is known to use these leaves to line its nest. The platypusary where Cecil and Penelope were exhibited before the public was closed. Months later, Penelope was exposed as a fraud. Disappointed zoo officials found, after digging for six hours into her burrow, that no eggs had been laid. Penelope had enjoyed four months of extra delicacies, attention and undisturbed sleep.

Penelope was again the subject of much attention in 1957, only this time there was an unhappier ending. In July she disappeared, touching off the most extensive hunt in the Zoo's history. She never was found. Less than two months later, Cecil died. Romantics claimed it was because of a "broken heart," but Zoo officials believe it was probably of old age.

In June, 1958, two females and a male were flown in and the U. S. once more had platypuses at a cost of about \$7,000 to the New York Zoological Society. Despite the best care and attention, however, one female, Patty, died that November. The other two, Paul and Pamela, seemed healthy and strong. Zoo experts hoped the couple would break the Zoo's platypus record of ten years in captivity.

Altogether they have had seven platypuses since the first one seen outside Australia was exhibited in the summer of 1922. It lived only 49 days. Betty, Penelope and Cecil arrived next in 1947. Betty succumbed after exactly one year, four months and eleven days of living in the Bronx.

Despite the years of care and millions of earthworms showered on one of the world's strangest creatures, Bronx zookeepers have been unrewarded.

Paul died on Dec. 20, 1958, and Pamela lasted until March 25, 1959, when she was found dead in her sleeping burrow. Loneliness was discounted as a cause of Pamela's death. Zookeepers attributed it to old age.

As the world's foremost authority on platypuses, David Fleay has been investigating why these strange creatures are indigenous only to Australia. As yet no one has been able to explain this phenomenon. These studies are made with platypuses in captivity at the scientist's beautiful Fauna Reserve located at West Burleigh in Queensland, Australia.

Where attempts will be made again to keep platypuses in captivity outside of Australia is anyone's guess.

Science News Letter, October 3, 1959

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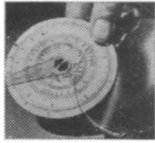
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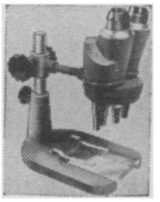
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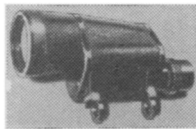
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