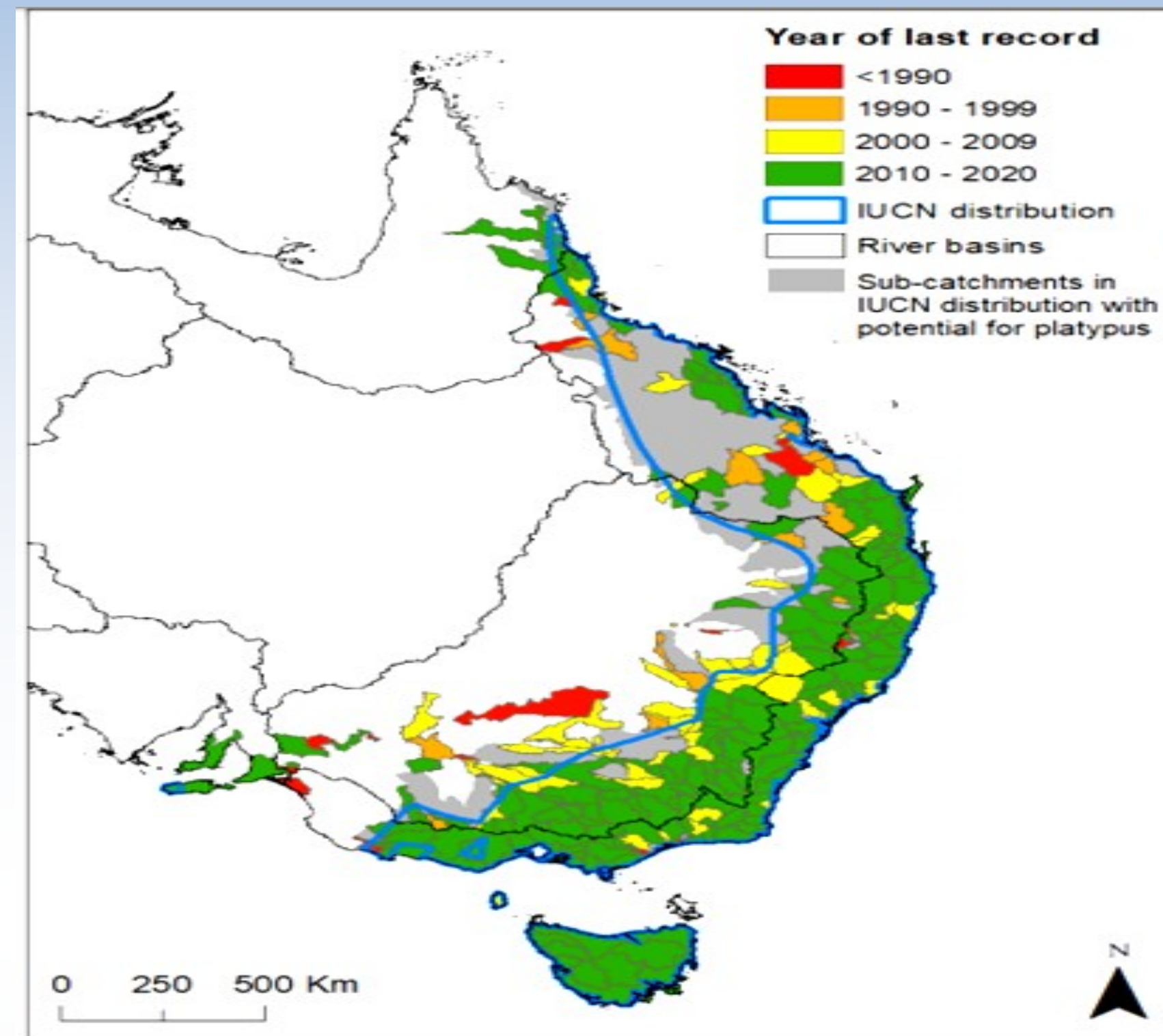




Duck-Billed Platypus

(*Ornithorhynchus anatinus*)



Distribution

Range: Eastern Australia, Tasmania, King Island, Kangaroo Island (introduced)

Habitat: Freshwater creeks, slow-moving rivers, lakes joined by rivers

Population Status: Declining



Reproduction

Gestation: 2-4 weeks **Incubation:** 6-10 days

Litters per Year: 1 **Offspring per Litter:** 1-3

Breeding Season: August-October

Child Care

Males take no part in child rearing. The females construct nursery burrows and incubate the eggs between their tail and belly until they hatch. The young then nurse by lapping milk secreted from mammary glands. Mothers care for their young for the first 3-4 months until they can swim on their own. Platypuses are full grown in 12 months and are sexually mature at 18 months.

Life History

First Discovered: 1798 by English zoologist George Shaw

Size: 15in, 3lbs

Life Span: Recorded to live up to 20 years in the wild and 23 in captivity

Communication: No vocalization has been recorded in the wild, but low-pitched growling has been recorded in captivity

Socialization: Largely solitary but multiple individuals can share a body of water

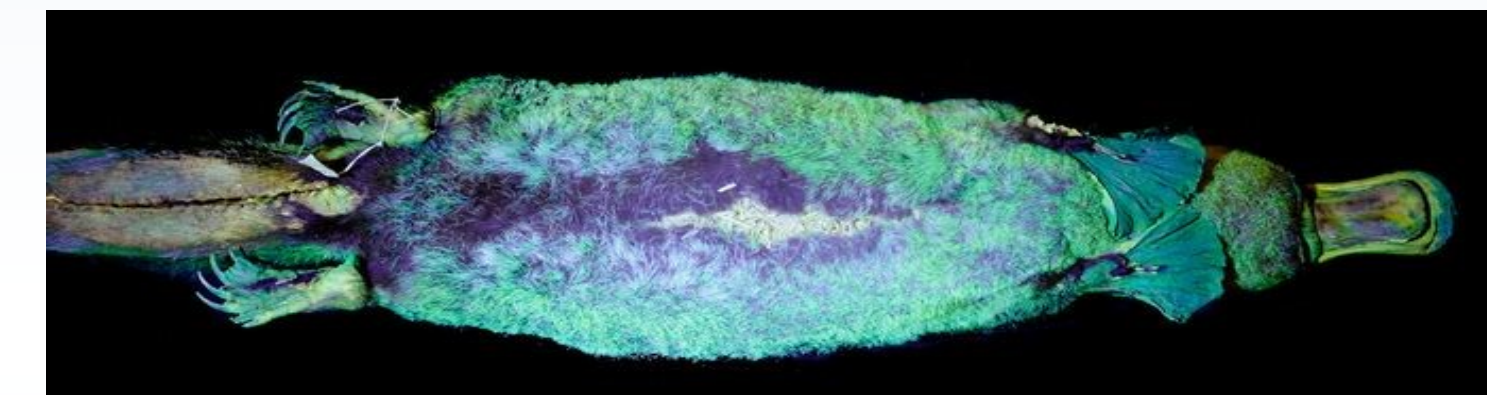
Habits: Nocturnal, active year-round

Taxonomy

Domain: Eukarya **Order:** Monotremata
Kingdom: Animalia **Family:** Ornithorhynchidae
Phylum: Chordata **Genus:** Ornithorhynchidae
Class: Mammalia **Species:** *Ornithorhynchidae anatinus*

Fun Facts!

- When first presented to English scholars in the 18th century, they thought it was a hoax due to its similarities with other known animals, namely the duck, beaver, and otter
- Platypuses are one of two species of mammals that lay eggs, the other being the echidna
- The name for a baby platypus is a puggle
- Platypuses glow a blue-green color under UV light, scientists don't currently know why



Conservation & Management

Predators

Natural predators of the platypus are snakes, water rats, and birds of prey. Introduced species of predators include the red fox, wild dogs, and feral cats.

Threats to Habitat

Urbanization: The development of land for housing, agriculture, and dams impedes on their natural habitat. Reduced plant cover on river banks is a major concern.

Water Quality: Runoff and litter from agriculture and urban areas flows into inhabited waterways. Dissolved nutrients (nitrogen and phosphorus) and toxic metals (zinc, lead, and cadmium) have harmful effects on platypus food sources like aquatic insects.

Fishing: Irresponsible fishing practices lead to platypus death in illegal traps and drowning in fishing nets.

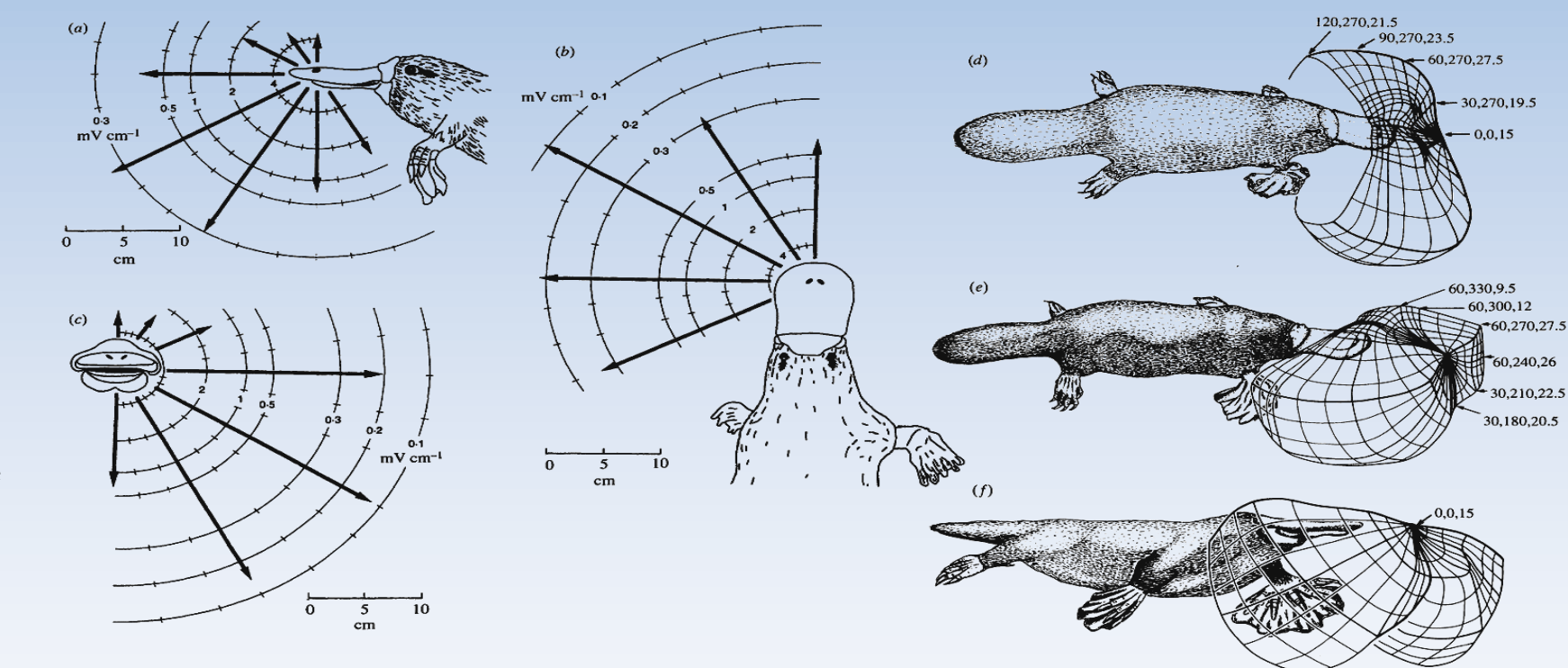
Climate Change: Floods and droughts are a major concern for platypus conservation. During droughts, individuals can die if they are unable to find sufficient amounts of food. Flooding can damage platypus habitats by eroding banks and lead to drowning, especially young offspring in burrows or learning to swim.

Conservation Status

Platypuses were labeled "Near Threatened" by the International Union for the Conservation of Nature (IUCN) in 2016. There are an estimated 300,000 individuals living in the wild.

Conservation Efforts

Several management agencies and environmental groups including The Australian Platypus Conservancy and the Platypus Conservation Initiative are working to prevent the extinction of the platypus. Their actions include mapping occurrences of sightings, improving methods of surveying and monitoring, protecting known habitats, and increasing numbers across their range.



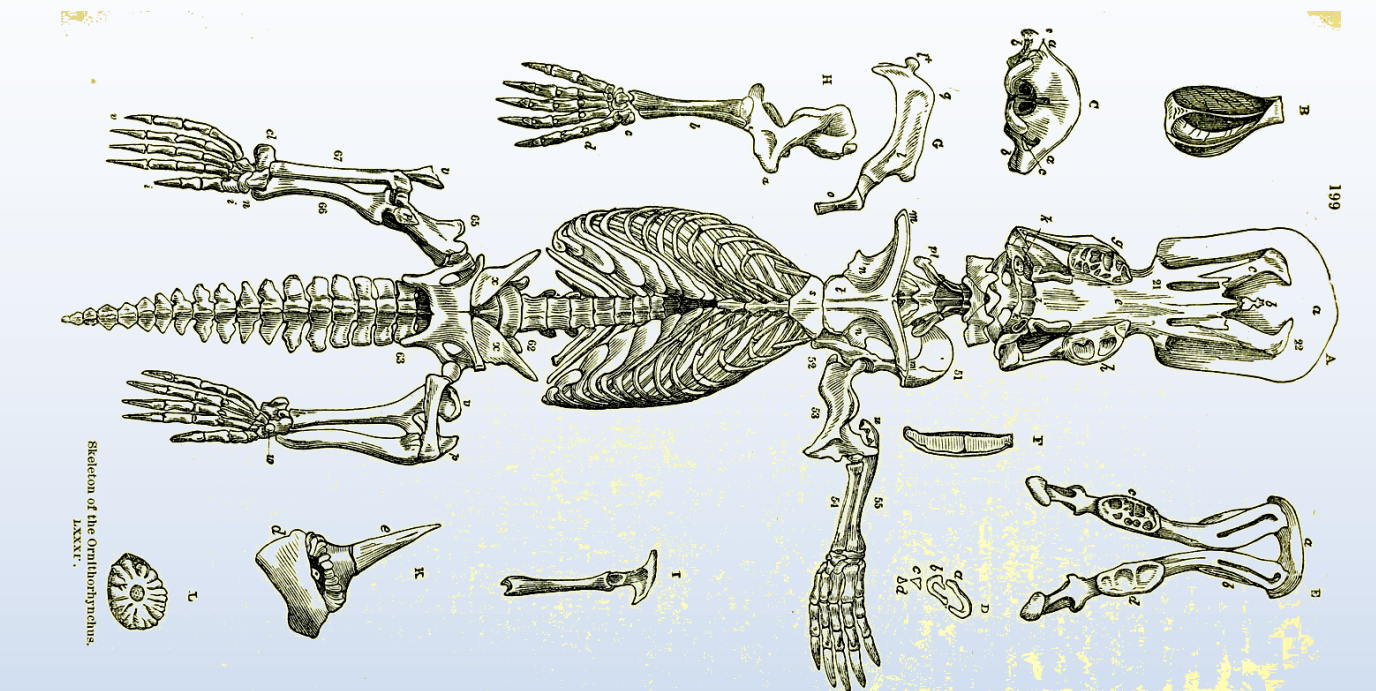
Foraging Underwater

Diet

Platypuses are carnivores. They forage along the creek bed in search of insects, crayfish, freshwater shrimps and worms, storing them in their cheek pouches until they resurface.

Electroreceptive Bill

Platypuses hunt underwater using electroreceptors in their bills to locate prey. When they dive, their eyes, nose, and ears are all closed so they cannot use sight, smell, or sound to find food. The receptors in their bill detect changes in pressure and motion of the water, as well as electric fields produced by muscle contraction in prey. Moving their head side-to-side allows the platypus to gauge distance and direction to prey.



Anatomy

Locomotion

Natatorial: Adaptations for swimming include: webbing between toes, a beaver-like tail, and waterproof fur that helps with thermoregulation.

Fossorial: Adaptations for digging include the webbing on their feet folding back to reveal shovel-like claws for digging burrows in dense soil and mud.

Eating & Digestion

Platypuses have no teeth and instead use grinding plates in the back of their mouth and gravel they scoop up from the bottom of streams to grind their food into mush. They have no stomach so the food proceeds directly from the gullet to the intestines for nutrient absorption

Venom

Male platypuses have a bur on the heel of their hind leg connected to a venom gland in their lower abdomen. While the original function of this venom is unknown, some scientists believe it to be a way of establishing dominance over other males during breeding season.