

# Fauna of Australia



# Introduction

- The fauna of Australia consists of a huge variety of animals; some 83% of mammals, 89% of reptiles, 90% of fish and insects and 93% of amphibians that inhabit the continent are endemic to Australia. This high level of endemism can be attributed to the continent's long geographic isolation, tectonic stability, and the effects of an unusual pattern of climate change on the soil and flora over geological time. A unique feature of Australia's fauna is the relative scarcity of native placental mammals. Consequently, the marsupials – a group of mammals that raise their young in a pouch, including the macropods, possums and dasyuromorphs – occupy many of the ecological niches placental animals occupy elsewhere in the world.
- Australia is home to two of the five known extant species of monotremes and has numerous venomous species, which include the , spiders, scorpions, octopus, jellyfish, molluscs, stonefish, and stingrays. Uniquely, Australia has more venomous than non-venomous species of snakes.

After the Miocene, fauna of Asian origin were able to establish themselves in Australia. The Wallace Line—the hypothetical line separating the zoogeographical regions of Asia and Australasia—marks the tectonic boundary between the Eurasian and Indo-Australian plates. This continental boundary prevented the formation of land bridges and resulted in a distinct zoological distribution, with limited overlap, of most Asian and Australian fauna, with the exception of birds.



Following the emergence of the circumpolar current in the mid-Oligocene era (some 15 MYA), the Australian climate became increasingly arid, giving rise to a diverse group of arid-specialised organisms, just as the wet tropical and seasonally wet areas gave rise to their own uniquely adapted species.

# MAMMALS

## Monotremes and marsupials



Two of the five living species of monotreme occur in Australia: the platypus and the short-beaked echidna. The monotremes differ from other mammals in their methods of reproduction; in particular, they lay eggs instead of giving birth to live young.[17] The platypus—a venomous, egg-laying, duck-billed amphibious mammal—is considered to be one of the strangest creatures in the animal kingdom. When it was first presented by Joseph Banks to English naturalists it was thought to be so strange that it was a cleverly created hoax. The short-beaked echidna is similarly strange, covered in hairy spikes with a tubular snout in the place of a mouth, and a tongue that can move in and out of the snout about 100 times a minute to capture termites

# Marsupials

- Australia has the world's largest and most diverse range of marsupials. Marsupials are characterised by the presence of a pouch in which they rear their young. The carnivorous marsupials—order *Dasyuromorphia*—are represented by two surviving families: the *Dasyuridae* with 51 members, and the *Myrmecobiidae* with the numbat as its sole surviving member. The Tasmanian tiger was the largest *Dasyuromorphia* and the last living specimen of the family *Thylacinidae* died in captivity in 1936. The world's largest surviving carnivorous marsupial is the Tasmanian devil; it is the size of a small dog and can hunt, although it is mainly a scavenger. It became extinct on the mainland some 600 years ago, and is now found only in Tasmania.
- There are four species of quoll, or "native cat", all of which are threatened species. The Eastern quoll for example is believed to have been extinct on the mainland since the 1960s, though conservation efforts are under way to reintroduce the secretive species to the mainland. The remainder of the *Dasyuridae* are referred to as "marsupial mice"; most weigh less than 100 g. There are two species of marsupial mole—order *Notoryctemorphia*—that inhabit the deserts of Western Australia. These rare, blind and earless carnivorous creatures spend most of their time underground; little is known about them.



The Tasmanian devil (*Sarcophilus harrisii*) - carnivorous marsupial of the family Dasyuridae.

Quolls (genus *Dasyurus*) are carnivorous marsupials



Marsupial moles are highly specialized marsupial mammals



The Tasmanian tiger has been officially recognized as extinct since 1936

Herbivorous marsupials are classified in the order **Diprotodontia**, and further into the suborders **Vombatiformes** and **Phalangerida**.

The Vombatiformes include the koala and the three species of wombat. One of Australia's best-known marsupials, the koala is an arboreal species that feeds on the leaves of various species of eucalyptus.

Wombats, on the other hand, live on the ground and feed on grasses, sedges and roots







The Phalangerida includes six families and 26 species of possum and three families with 53 species of macropod. The possums are a diverse group of arboreal marsupials and vary in size from the little pygmy possum, weighing just 7 g, to the cat-sized common ringtail and brushtail possums.

The sugar and squirrel gliders are common species of gliding possum, found in the eucalypt forests of eastern Australia, while the feathertail glider is the smallest glider species. The gliding possums have membranes called "patagia" that extend from the fifth finger of their forelimb back to the first toe of their hind foot. These membranes, when outstretched, allow them to glide between trees.





The macropods are divided into three families: the Hypsiprymnodontidae, with the musky rat-kangaroo as its only member; the Potoroidae, with 11 species; and the Macropodidae, with 45 species. Macropods are found in all Australian environments except alpine areas. The Potoroidae include the bettongs, potaroos and rat-kangaroos, small species that make nests and carry plant material with their tails. The Macropodidae include kangaroos, wallabies and associated species; size varies widely within this family. Most macropods have large hind legs and long, narrow hind feet, with a distinctive arrangement of four toes, and powerfully muscled tails, which they use to hop around.



# Placental mammals

- Australia has indigenous placental mammals from two orders: the bats—order Chiroptera—represented by six families; and the mice and rats — order Rodentia, family Muridae. There are only two endemic genera of bats, although 7% of the world's bat species live in Australia. Rodents first arrived in Australia 5–10 MYA, undergoing a wide radiation to produce the species collectively known as the "old endemic" rodents.

The first placental mammal introduced to Australia was the dingo. Fossil evidence suggests that people from the north brought the dingo to Australia about 5000 years ago. When Europeans settled Australia they intentionally released many species into the wild including the red fox, brown hare, and the European rabbit.



- Other domestic species have escaped and over time have produced wild populations including the banteng, cat, fallow deer, red deer, sambar deer, rusa deer, chital, hog deer, horse, donkey, pig, goat, water buffalo, and the camel.
- Only three species of non-native placental mammal were not deliberately introduced to Australia: the house mouse, black rat and the brown rat.

- Forty-six marine mammals from the order Cetacea are found in Australian coastal waters.

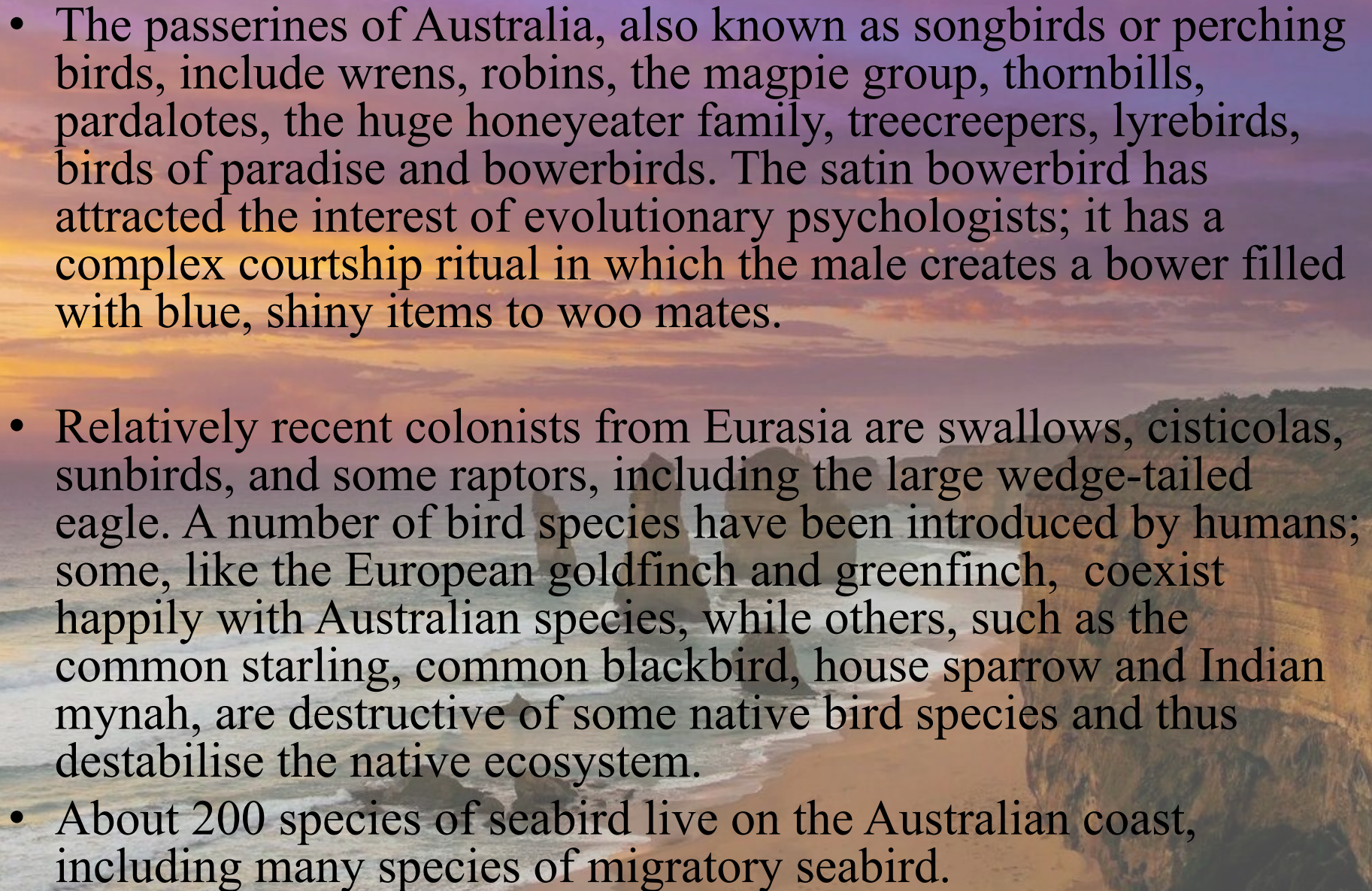
The dugong is an endangered species; the largest remaining population is found in Australian waters.



# Birds

- Australia and its territories are home to around 800 species of bird; 45% of these are endemic to Australia.
- Australian parrots comprise a sixth of the world's parrots, including many **cockatoos** and galahs. The **kookaburra** is the largest species of the kingfisher family, known for its call, which sounds uncannily like loud, echoing human laughter



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- The passerines of Australia, also known as songbirds or perching birds, include wrens, robins, the magpie group, thornbills, pardalotes, the huge honeyeater family, treecreepers, lyrebirds, birds of paradise and bowerbirds. The satin bowerbird has attracted the interest of evolutionary psychologists; it has a complex courtship ritual in which the male creates a bower filled with blue, shiny items to woo mates.
  - Relatively recent colonists from Eurasia are swallows, cisticolas, sunbirds, and some raptors, including the large wedge-tailed eagle. A number of bird species have been introduced by humans; some, like the European goldfinch and greenfinch, coexist happily with Australian species, while others, such as the common starling, common blackbird, house sparrow and Indian mynah, are destructive of some native bird species and thus destabilise the native ecosystem.
  - About 200 species of seabird live on the Australian coast, including many species of migratory seabird.

# Amphibians and reptiles

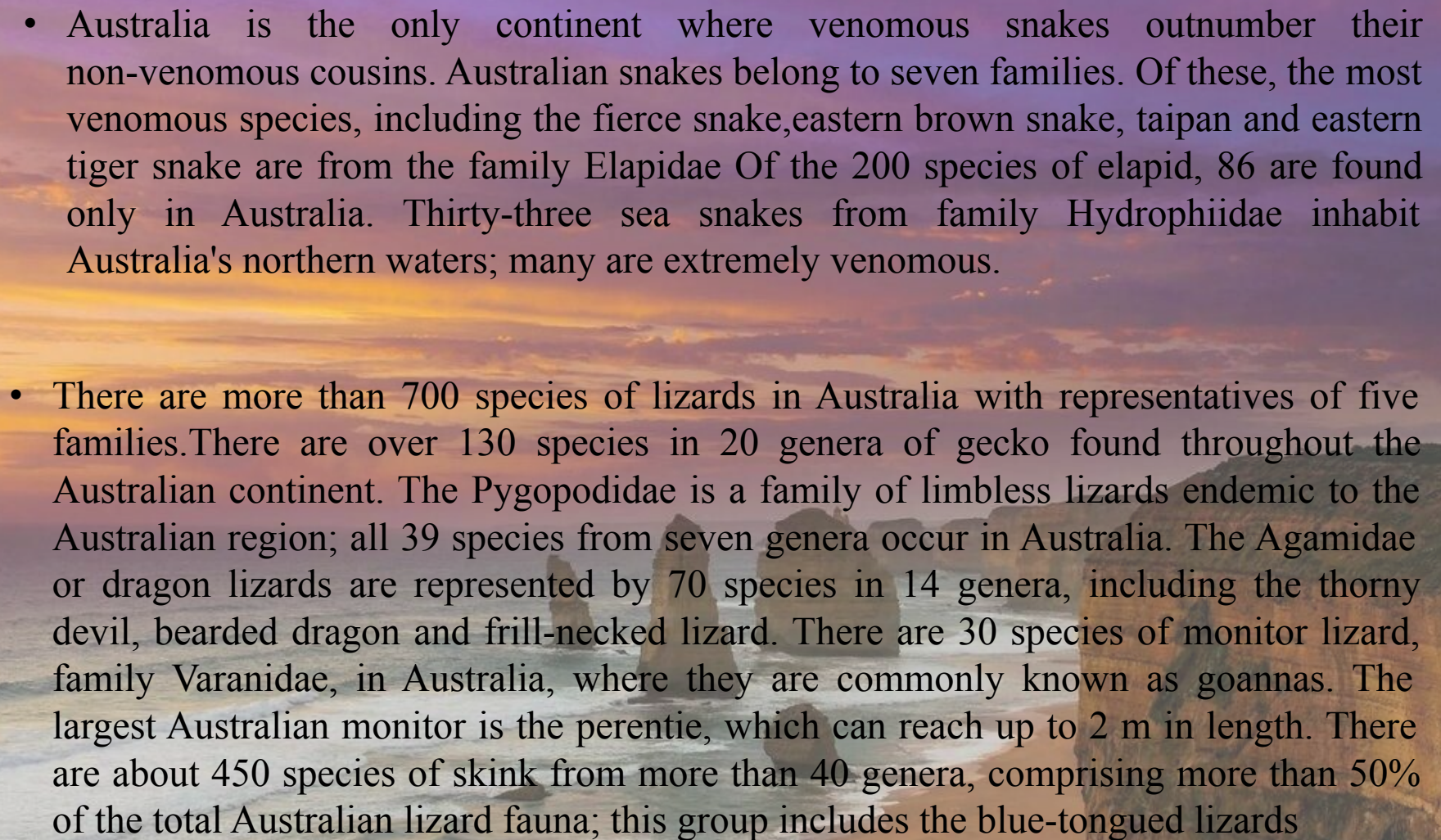
- Australia has two species of crocodile. The saltwater crocodile, known colloquially as the "salty".
- Freshwater crocodiles, found only in northern Australia, are not considered dangerous to humans.





- The Australian coast is visited by six species of sea turtle: flatback, green sea, hawksbill, olive ridley, loggerhead and the leatherback sea turtles; all are protected in Australian waters.



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- Australia is the only continent where venomous snakes outnumber their non-venomous cousins. Australian snakes belong to seven families. Of these, the most venomous species, including the fierce snake, eastern brown snake, taipan and eastern tiger snake are from the family Elapidae. Of the 200 species of elapid, 86 are found only in Australia. Thirty-three sea snakes from family Hydrophiidae inhabit Australia's northern waters; many are extremely venomous.
  - There are more than 700 species of lizards in Australia with representatives of five families. There are over 130 species in 20 genera of gecko found throughout the Australian continent. The Pygopodidae is a family of limbless lizards endemic to the Australian region; all 39 species from seven genera occur in Australia. The Agamidae or dragon lizards are represented by 70 species in 14 genera, including the thorny devil, bearded dragon and frill-necked lizard. There are 30 species of monitor lizard, family Varanidae, in Australia, where they are commonly known as goannas. The largest Australian monitor is the perentie, which can reach up to 2 m in length. There are about 450 species of skink from more than 40 genera, comprising more than 50% of the total Australian lizard fauna; this group includes the blue-tongued lizards

Thank you for  
attention!!!

