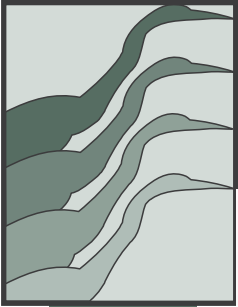


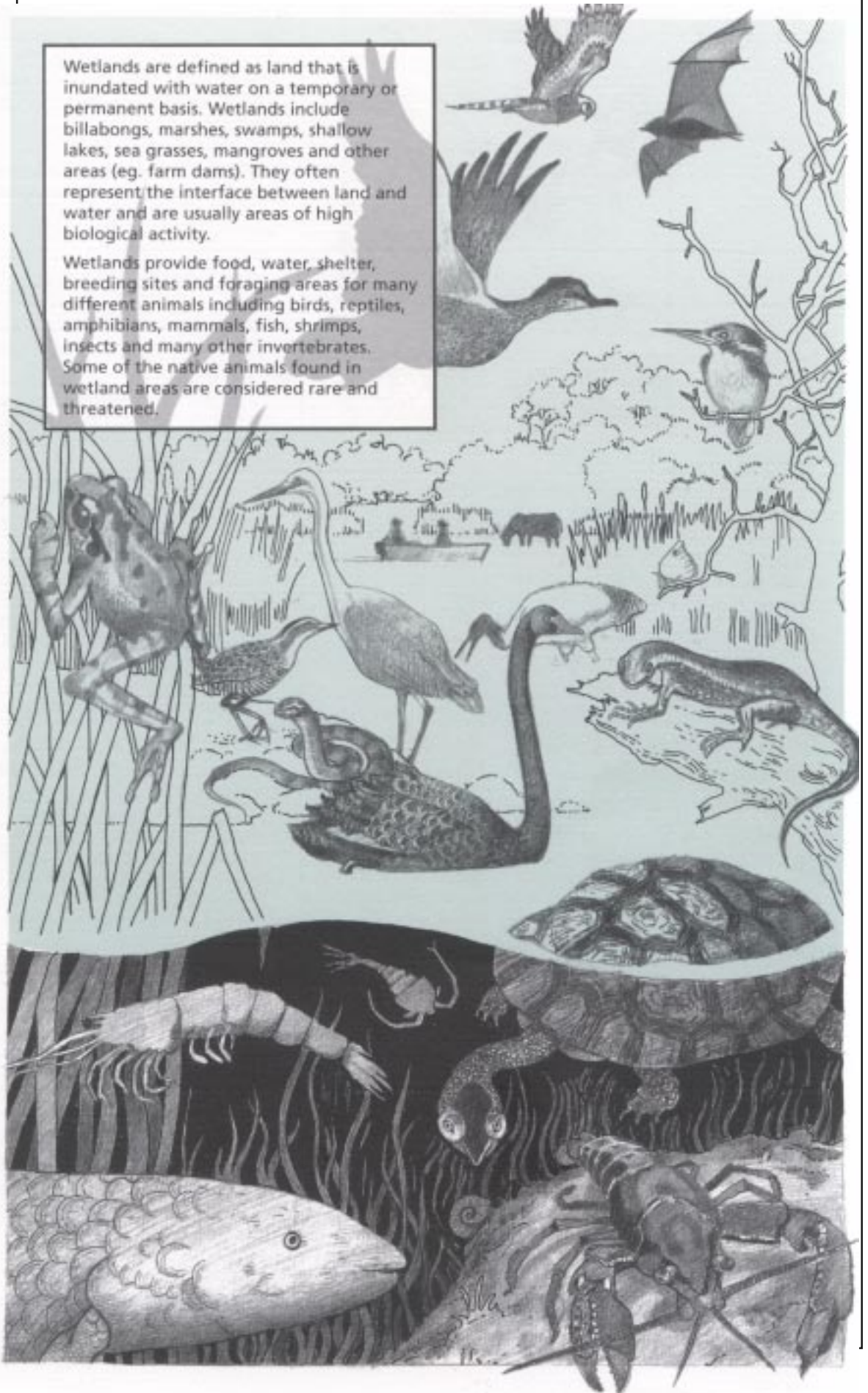
WETLAND FAUNA



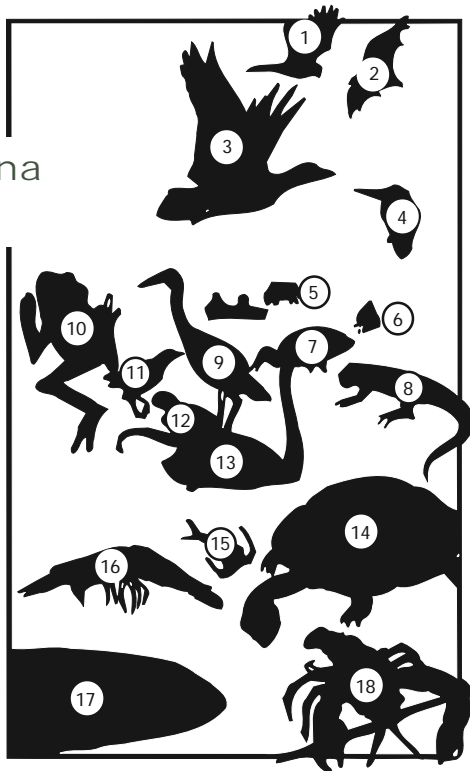
Wetland Management

Wetlands are defined as land that is inundated with water on a temporary or permanent basis. Wetlands include billabongs, marshes, swamps, shallow lakes, sea grasses, mangroves and other areas (eg. farm dams). They often represent the interface between land and water and are usually areas of high biological activity.

Wetlands provide food, water, shelter, breeding sites and foraging areas for many different animals including birds, reptiles, amphibians, mammals, fish, shrimps, insects and many other invertebrates. Some of the native animals found in wetland areas are considered rare and threatened.



Key to Fauna on Page 1



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|------------------------------|--|
| 1. Swamp Harrier, 580mm | 11. Banded Landrail, 300mm |
| 2. Flying Fox, 250mm | 12. Eastern Tiger Snake, 1.2m |
| 3. Freckled Duck, 530mm | 13. Black Swan, 910mm |
| 4. Azure Kingfisher, 150mm | 14. Long-necked Tortoise, 250mm shell length |
| 5. Cow | 15. Copepod, less than 4mm |
| 6. Albatross Butterfly, 50mm | 16. Shrimp, 60mm |
| 7. White Ibis, 710mm | 17. Lungfish, 1.5m |
| 8. Eastern Water Skink, 80mm | 18. Yabby, 200mm |
| 9. White Necked Heron, 760mm | |
| 10. Stuttering Frog, 25mm | |

Why wetlands are important for native fauna

Most wetlands undergo cycles of wetting and drying, and many wetland animals are adapted to this. The drying and subsequent re-flooding of a wetland may be the most important impulse for the growth and reproduction of wetland plants and animals.

Wetlands that retain water in times of drought may provide valuable wildlife refuge. The drying phase is equally important, however, for the decomposition of plants and their associated release of nutrients. Many water plants also set seed during this dry period.

The re-flooding of a dry wetland triggers prolific growth and breeding of insects as well as the germination of native wetland plants. These insects and plants provide food for native fish, waterbirds and other animals.

This abundant food source allows many wetlands to support large numbers of different kinds of birds that may be resident or migratory. These birds can reside on one wetland or move between Australian wetlands as they dry in one area and flood in another. Many of the birds that visit Australian wetlands migrate from other parts of the world such as Japan, Siberia and China for the Australian summer.

Apart from native fauna, wetlands are used for grazing cattle and sheep and may also support pest species such as pigs, goats, cats, deer, rabbits, foxes and European carp.

Conserving and protecting wetland fauna

- **Maintain native vegetation.** As an example, reeds and rushes around the edges of wetlands to encourage frogs, birds and other wildlife to shelter, nest and breed. This vegetation also provides food for a variety of native animals.
- **Leave logs, dead and old trees with hollows, islands and sand banks in and around wetlands.** This provides a variety of habitats for different kinds of animals. Gently sloping edges around a wetland allow a range of wetland plants to establish in shallow water. Maintaining these also increases habitat for animals.
- **Allow wetlands to fill and dry naturally.** This will safeguard their biological and chemical cycles. These cycles support the variety of wildlife that has evolved alongside a fluctuating water regime.
- **If possible, fence off wetlands as wildlife refuges.** This allows for controlled cattle and sheep grazing. Stock could be provided with water from one section of the wetland, with the remainder fenced off to reduce the impacts of grazing, trampling and nutrient enrichment of wetlands. Alternatively, water could be pumped from the wetland, a river or a bore to troughs.
- **Impacts from livestock grazing may be the greatest:**
 - ◆ under high stocking rates,
 - ◆ when plants (annuals) are in their reproductive phase,
 - ◆ where heavy grazing opens up the vegetation cover and allows weeds to establish,
 - ◆ when wildlife breed on the ground or in low vegetation, or
 - ◆ when the soil is wet, or when plant health and vigour is low from disease, drought, fire etc.*
- **Pest species in and around wetlands need careful management** as wetlands are particularly sensitive to disturbances. Grazing can sometimes be used as a management control for weeds. Contact your local Department of Land and Water Conservation office, NSW Agriculture or local Rural Lands Protection Board for more information.
- **Try to reduce nutrient enrichment of the wetland catchment.** Excess nutrients from some agricultural activities (e.g. fertiliser, stockyards and dairies) can lead to an increase in algae and weeds that reduce the habitat value of a natural wetland. Designing buffer strips or other structures to intercept the nutrients will help improve the habitat and overall health of the catchment.
- **Contact your local Department of Land and Water Conservation office or National Parks and Wildlife Service** for more information on wetland animals in the catchment.

*(adapted from: *DRNE Manual of Wetlands Management*, Victoria, 1996)