

Where there is water there is life. The wetlands of Playford provide habitat for a wide range of plants and animals. These plants and animals form a food web that starts with the tiniest aquatic organisms and plants which provide food to progressively larger creatures until you reach the top of the food chain – the birds that eat fish and reptiles.

Aquatic plants provide food and shelter for a variety of aquatic fauna, and are an important part of the food chain. Floating and emergent plants also shade and cool the water preventing undesirable microalgal blooms.

The aquatic plants in the Playford wetlands fall into four groups:

- **Microalgae:** microscopic plankton that live in the water column or coat underwater plants and surfaces
- **Submergent macrophytes:** underwater forests of larger plants that occur in the deepest ponds of the wetland. These may be algae such as the common 'green guts' or flowering plants including milfoils and water ribbons
- **Emergent macrophytes:** tall flowering plants such as reeds and rushes rooted in the sediment that come up through the water into the air above
- **Floating macrophytes:** flowering plants like duckweed and water fern that float on the surface of the water

Macro-invertebrates (water critters) play a very important role in the wetland food chain. Wetlands host a diverse range of macro-invertebrates, from tiny crustaceans, insects, snails, and bivalves, to the larger animals such as shrimps and yabbies. Some are aquatic for their whole lifetime, while others are water-bound for only a portion of their life. Many terrestrial insects, such as dragonflies, have an aquatic larval or nymph stage.



Feeding methods can vary with the smallest macro-invertebrates, such as water fleas, filtering out plankton from the water. Some caddis larvae are vegetarian, shredding or grazing the larger macrophytes.

Dragonfly larvae are predators, feeding on smaller macro-invertebrates and the final group, which includes yabbies, gather and filter the debris found in the bottom of the wetlands. By eating the organic matter and algae, macro-invertebrates remove nutrients from the water column.

They help to suppress high-volume plant growth, such as algal blooms, and they remove debris from the water. The benthic macro-invertebrates also help to gently aerate the sediment in a way that does not stir up sediment.

Macro-invertebrates are responsible for transferring energy up the food chain in the wetland by changing plant matter into animal tissue, which can then be consumed by vertebrates, such as fish, frogs and turtles. Small fish may be vegetarian (eating pond plants) or they may eat macroinvertebrates, before they in turn are eaten by the fishing birds.



Insects, as they emerge from the pond after changing from their larval forms, graze on the sedges nearby and are greatly sought after by lizards and frogs, which in turn are eaten by large herons and falcons. These larger birds and the slow moving turtles form the top-tier of the wetland food chain.

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