

Typha...an amazing plant ... Ellinor Campbell

In Australia we call it Bullrush, or Cumbungi, an Aboriginal word. There are 15 species worldwide, and three in Australia, one of them introduced. The Australian species are Narrowleaf Cumbungi, *Typha domingensis*, and Broadleaf Cumbungi, *T. orientalis*.



It can be very difficult to distinguish species, and there may be interbreeding. It is not a reed, rush or grass, but has its own family, the Typhaceae. It is a perennial monocotyledon that grows in mud, and fresh or brackish water. It is an early wetland coloniser and regarded both as friend and enemy. It can choke waterways, and dominate or replace other native species. The pollen does not attract bees and may even be toxic to them, yet it can provide valuable habitat for a range of water birds, aquatic insects, frogs, and small fish. If grown in polluted water the rhizomes may accumulate lead or pesticides, but the plants help to purify the water. It is a significant contributor of organic matter to wetland systems, breaking down rapidly in the first year, but taking up to eight years to completely decompose.

The leaves are strap-like, from one to four metres tall, and mostly occur round the base of a jointless stem that eventually bears the flowering parts. Leaves grow from their base, so the tip is the oldest part, and the oldest leaves are on the outside. Growth is most rapid in spring, and maximum height is reached in early summer. Individual leaves live for a few months only. Once a plant flowers, its leaf production ceases.

Typha is monoecious (both male and female flowers on the one plant), sending up a tall spike, with the male flowers near the top and the female below, both encircling the stem with a brown velvety cylinder packed with tiny flowers. After fertilisation the male flowers drop off, then seeds develop in the female cylinder that eventually disintegrates into a soft fluffy sausage with up to 600,000 tiny seeds, each with its own 'parachute'.



Seeds germinate rapidly under water or in wet mud, even when oxygen levels are low, but need warm temperatures and sunlight. Buried seeds can lie dormant for long dry periods, and

plants can also regenerate from rhizomes even after burning, cutting or grazing. It is also quite resistant to flooding: the leaves, stems (even when dead), and roots contain well-developed air pathways, enabling exchange of gases between shoot and root.

Typha comes from a very ancient family. Fossil seeds have been found in Eocene/Oligocene mudstones underlying shales near

Rockhampton in Queensland. Traces of preserved typha starch grains have been found in Europe on grinding stones dating from 30,000 years ago.

Typha plants have been used in a variety of ways for millennia, such as for food, medicines, textiles, clothing, and roof insulation. It is also considered a potential biofuel due to its high starch content and productivity.

This is a précis of an article by Valda Dedman in the Geelong Naturalist July 2013. The full transcript and references can be found on the ANG AIR website.

