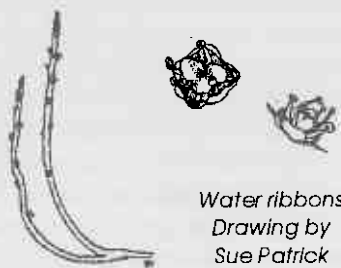


WETLAND areas support a wide variety of flora and fauna species, many of which are only found in these habitats. Because these environments are so specialised, the survival of many species depends upon the survival of the ecosystem in which they occur. Unfortunately, many of the wetlands in the agricultural areas of the State have become saline as a result of land clearing, and no longer support the diverse range of species which once occurred in them. Others have become severely degraded and weedy, or are found as small remnants in otherwise completely cleared land.

Some wetlands within the south west land division however, still support a variety of rare and unique West Australian plants. These areas provide essential habitats for the conservation of some of the State's rare and threatened plant species. Species, which are considered likely to become extinct or rare in the wild, or are in need of special protection, are gazetted as rare flora under the *Wildlife Conservation Act 1950*.

Examples of some of the plants listed on CALM's Declared Rare and Priority Flora List are provided below:

The stalked water ribbons, *Aponogeton hexatepalus*, is a perennial tuberous aquatic herb which occurs in temporary freshwater swamps between Perth and Busselton. This species has erect leaf stalks which support floating leaf blades to 20 cm long. The tiny flowers of this species appear during August to September.



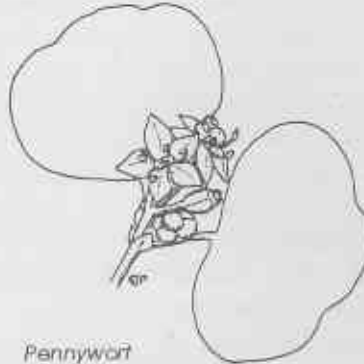
Water ribbons
Drawing by
Sue Patrick

The aquatic pennywort, *Hydrocotyle lemnooides*, is a small annual herb found in shallow fresh water pools in clay soils. Like the stalked water ribbons, the aquatic pennywort persist only as

FLORA

RARE PLANTS IN WET AREAS

by Mike O'Donoghue



Pennywort
Drawing by Sue Patrick

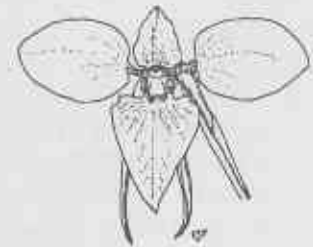
underground rootstocks until the depressions in which they occur fill with water following the onset of autumn/winter rains. The species flowers in September and October.

The floating bog-rush (*isn't this common name just the best!* - Ed.) *Schoenus natans*, is an annual aquatic which has submerged stems which are very slender and hair-like forming floating masses over 30 cm long. It occurs in small pools in seasonally wet flats or larger swamps near Gingin, south to Ludlow. This unusual species was presumed to be extinct until recently when it was rediscovered in an area of bushland near Pinjarra. Following its rediscovery CALM staff undertook specific surveys and located additional populations. This species is no longer considered to be rare, but still requires special attention as it relies on the maintenance of the temporary wetland area in which it occurs.

The granite myriophyllum, *Myriophyllum petraeum*, is an annual aquatic herb restricted to ephemeral rock pools. The species occurs on granite outcrops between Southern Cross and Cape Le Grand National Park where it grows in 10-30 cm of water. The species is vulnerable to local environmental disturbance including water

harvesting, pollution of rock pools, fertiliser runoff from aerial fertilisation, goats, and weeds.

Another, even rarer *Myriophyllum* is *M. lapidicola*. This plant was first collected in 1989 from a single rock pool near Mukinbudin. Goats were recorded in the vicinity of the population at the time of its discovery. This extremely rare aquatic herb has leaves which are confined to the upper parts of the stem. These leaves have pinkish-brown tonings and float on the surface of the water. It has very small red flowers which are located in the axils of the upper leaves. Only one other small population of this species has been located since its original discovery, despite considerable survey effort. This taxon is regarded as critically endangered.



Purdie's donkey orchid
Drawing by Sue Patrick

Other rare plants are found only in winter-wet areas.

For example, the very rare and beautiful Purdie's donkey orchid, *Diuris purdiei*, occurs in low-lying, winter-wet depressions between Kenwick and the Harvey estuary. This very small orchid grows to 25 cm and produces flowers in September to October only following summer or early autumn burns. Unfortunately, much of this orchid's preferred habitat in the Perth metropolitan area has been lost through urban and industrial development.

The Swan hydatella, *Hydatella dioica*, is a minute tufted aquatic annual to 2 cm high with partially submerged red-coloured leaves and stems. This species was first collected in 1898 at Midland, but was then not seen until its rediscovery by Greg Keighery in 1982. This small plant grows in shallow water over winter-wet

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claypans at Ellen Brook and Kenwick. Much of its habitat in the Perth metropolitan area has also been destroyed. In addition, further clearing and changes in the hydrological balance, and the potential problem of water contamination, may affect the long-term survival of this species in the wild.



Swan
hydatella

Drawing by
Donna Teddington

As a community we need to support and encourage the preservation of our remaining wetland areas if we are to ensure the survival of some of the State's rare and unique plant species. We need to protect remaining wetland areas if we are to ensure that a very important part of our natural heritage is preserved for present and future generations to enjoy.

(Since this article was written, the stalked water ribbons, aquatic pennywort, floating bog-rush and granite myriophyllum have been removed from the rare flora schedule, as they are no longer considered rare following the discovery of further populations – Ed.)

Mike O'Donoghue is the Administration Officer for Flora, at CALM in Como, and is contactable by phone on (08) 9334 0422.

If any members of Land for Wildlife are fortunate enough to find rare flora in their wetlands, CALM would be very interested to know about it.

1 = Rare plants, declared as rare flora under the Wildlife Conservation Act are protected on all lands. Such plants are considered likely to become extinct in the wild, or are considered rare and therefore in need of special protection to ensure their continued survival. Your local CALM office could advise you as to whether you may have rare plants on or near your property.
