

FROGS OF THE PERTH REGION

Frog Diversity and Distribution

At least 17 different species of frogs have been recorded from the Perth Region. However, most of these species are only found in specific habitats or areas. In most districts you can expect to find between 4 - 6 different species of frogs.

The Darling Scarp, to the east of Perth, forms a barrier between the habitats of the Swan Coastal Plain and those of the Darling Range and Plateau above the scarp. These areas support two, almost entirely distinct frog faunas. However, some mixing of the faunas occurs along the major valley systems such as the Avon and Serpentine. This mixing results in especially rich frog faunas in suburbs such as Kelmscott, Guildford and West Swan.



Western Spotted Frog
Heleioporus albopunctatus

Frog Types and Characteristics

There are two families of frogs that are found in the Perth Region, the tree frogs (Hylidae) and ground frogs (Myobatrachidae). The tree frogs or climbers eg. Motorbike Frog *Litoria moorei* (left) have long legs and expanded discs on each digit. These discs allow the frogs to grip onto smooth surfaces.



The ground frogs include the burrowers (eg. Moaning Frog and Western Spotted Frog) and the ground living frogs (Crinia species). The burrowers have short strong legs that are used as shovels for digging. They do not have finger and toe pads. The ground living frogs are generally small with short limbs and fingers and toes that are long and unwebbed.

Frog Habitats

Frogs can be found in most natural waterway habitats around Perth, including the major rivers, the permanent and winter-full lakes, and other low lying, seasonally waterlogged areas. They can also be present in artificial 'wetland' habitats such as roadside ditches, drainage canals and garden ponds/bogs.

Most of our local frogs seek water to breed. However, at other times of the year, they will move long distances from water in search of food, usually burrowing during the day to conserve valuable moisture. During these times, frogs can be found in home gardens far from any waterway.

One species found around Perth, the incredible Turtle Frog *Myobatrachus gouldi* (right), spends its entire life away from water bodies. This most 'unfroglike' frog feeds mainly on termites and produces offspring through 'direct development' – the frogs emerge direct from the large eggs having missed the free-swimming tadpole stage entirely!



Frog Breeding

Perth Region frogs can be divided into two groups – ‘winter breeders’ and ‘spring/summer breeders’.

J. Robert



The winter breeders begin their breeding after the first heavy rains in late autumn, when many streams begin to flow again and the coastal lake systems start to fill. The majority of our local frog species breed at this time of the year. Many winter breeders use temporary ponds and streams, thus they usually show a fairly rapid development from egg through tadpole stage, emerging as juvenile frogs in the spring or early summer.

The various species of ‘moaning’ and ‘whooping’ frogs *Heleioporus* (above) are among the more noticeable of Perth’s winter breeders.

Some local frog species need the warmer conditions of spring and early summer to breed. These species generally only use the larger, longer-lasting ponds and lakes, and the permanent flowing watercourses. The Motorbike Frog *Litoria moorei* (right), is the best known of Perth’s summer breeders.

M. O’Neill



Threats and Conservation Status

Since European settlement approximately 90% of Perth’s original wetland habitats have been drained and built over or modified by other land use. These degraded areas can no longer support populations of frogs.

Luckily, this dramatic reduction in frog habitats does not appear to have caused any species to have disappeared entirely from the Perth region, although some frogs are now fairly restricted in their distribution.

M. O’Neill



Today, many of Perth’s major rivers and lakes are valued as conservation and recreation areas and are no longer threatened by direct development. However, many smaller wetland areas and swamps are lost to housing development each year, while aggressive, introduced water weeds such as *Hydrocotyle* continue to degrade both large and small rivers and swamps. Introduced fish including the now abundant Mosquito Fish *Gambusia holbrooki* (above) and Goldfish *Carassius auratus* may also pose a threat to frogs through direct predation on the eggs and tadpoles of at least some species.

D. Morgan



Another major concern is the threat posed by the increasing use of environmental chemicals such as herbicides and pesticides. These substances are known to affect both adult frogs and tadpoles under laboratory conditions, but little is yet known about their transport into or impact on natural waterway systems. Similarly unknown is the impact on frogs of changes to waterway ecology through widespread fertiliser application in both semi-rural and suburban areas.