

# Animal Pest Alert

## **Red-eared Slider**

The Red-eared Slider Turtle (*Trachemys scripta elegans*) is a subspecies of the Pond or Common Slider (*T. scripta*). It is not native to Australia, but has established isolated populations here as well as in other countries.

The Red-eared Slider has significant potential to spread further in Australia, so it is important to report any found in the wild.

Common Snake-necked Turtle



PHOTO: DEPARKTIMENT OF ENVIRON CONSERVATION WESTERN AUSTRAL





## Red-eared Slider



#### **Description**

The adult Red-eared Slider is a medium-sized freshwater turtle with a carapace (upper shell) length of 12.5 to 28 cm. It has a distinctive, broad red or orange stripe behind each eye, while narrow yellow stripes mark the rest of the head and legs. The carapace is dark green with yellow markings, and the plastron (under shell) is yellow with some dark rings, blotches or swirls. Some individuals have dark pigment that covers their coloured markings so that they appear nearly black in colour. The red or orange eye-stripe can also be absent or not visible in some individuals.

Male sliders are usually smaller than females, and have very long claws on the front feet. The young hatchlings are about 3 cm in length, have a green carapace and a yellow plastron dotted with numerous dark, eye-like spots.

#### Mistaken identity

Some Australian freshwater turtles can be mistaken for sliders, but there are some important differences. Slider carapaces are dome-shaped whereas those of native turtles are fairly flat. In addition, native turtles do not have the long claws typical of male Red-eared Sliders (Figure 2). When threatened, a native turtle retracts its head by folding its

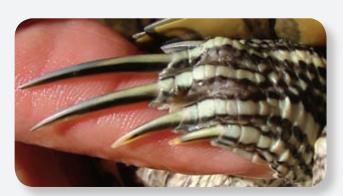


Figure 2. Male Red-eared Sliders have long claws on their front feet (photo: Department of Environment and Conservation, Western Australia).

neck sideways into the shell (Figure 3), whereas the Redeared Slider retracts its head by pulling it straight back into the shell (Figure 4).



Figure 3. Native turtles fold their necks sideways into their shells if threatened (photo: Tarnya Cox Photography).



Figure 4. Red-eared Sliders pull their heads straight back into their shells if threatened (photo: Department of Employment, Economic Development and Innovation, Queensland).

Native species that could be confused with sliders include:

- Common Snake-necked Turtle (occurs in eastern Australia from southern Queensland to South Australia)
- Oblong Turtle (occurs in south-western Western Australia)
- Saw-shelled Turtle (occurs in north-eastern Australia)
- Murray River Turtle (occurs in south-eastern Australia).

#### **Distribution**

The Red-eared Slider is native to the Mississippi Valley region of the United States of America, in the states of Illinois, Missouri, Kansas, Oklahoma, Arkansas, Tennessee, Mississippi, Louisiana and Texas (Figure 1). Introduced populations occur in other US states outside the species' natural range, and in Canada.

Introduced or feral populations occur worldwide because the slider is commonly traded as a pet or food item. Feral populations occur in Panama, Guyana, Brazil and Chile, in South Africa, as well as in Belgium, Germany, Czech Republic, Hungary, Austria, France, Spain, Italy, Cyprus, Israel and Bahrain. They are also common in many Asian countries including Japan, China, Hong Kong, Taiwan, Korea, Vietnam, Thailand, Malaysia and Indonesia. Feral populations also occur on the following islands; Marianas, Guam, Hawaii, French Polynesia, Caymans, Bahamas, Bermuda, Lesser Antilles and Mascarenes.

Other feral slider populations occur in the United Kingdom, Denmark, Sweden, Poland, Finland, Lithuania and Russia. However, these populations are not considered to be self-sustaining, because the winters are too cold for successful breeding. Released or escaped sliders are also reported in the wild in New Zealand.

In Australia, feral populations have been found in urban and semi-rural areas in Queensland, the Australian Capital Territory and New South Wales. Sliders have been found in the wild in Victoria and Western Australia.

#### **Habitat**

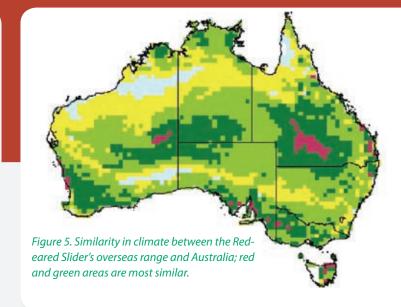
In its natural and introduced range the Red-eared Slider is highly adaptable, occupying most freshwater habitats as well as having some tolerance to brackish water. It prefers still bodies of water with muddy, soft bottoms, abundant aquatic plants and suitable sites for basking. It can be found in calm areas of slow moving rivers, streams, ponds and creeks, as well as in man-made canals, irrigation ditches, stock dams and various urban water bodies.

The slider spends a significant amount of time just floating (assisted by its inflatable throat), as well as basking on the shore and on logs or rocks close to the water's edge. It will also bask on objects floating or projecting over water and it can climb bushes to heights of a metre.

It can survive cold winters by hibernating, including severe winters with extended periods of temperatures down to -10°C.

#### Reproduction, food and behaviour

Courtship and mating occur during spring and autumn. The female slider digs nests in friable or sandy soil using her back



feet, usually in the late afternoon or early evening. Two to 25 white, oval-shaped eggs are laid (more than 1 clutch per year is possible), and hatchlings emerge 60 to 75 days later.

The Red-eared Slider eats a wide range of plant and animal food. Foods eaten include snails and other molluscs, insect larvae and pupae, small fish, tadpoles, crustaceans and a range of aquatic plants. Carrion is also eaten. The slider is active during the day, foraging for food in shallow water usually less than 3 m deep.

Individuals will pile up several deep at prime basking sites during the day. At night, sliders rest on the bottom beneath the water or float at the surface. They can travel (at least 5 km) between water bodies to feed, find a mate, lay eggs, or search for a better site. However, the majority of movements are short, and most sliders lay their eggs within 500 m of the home water body.

In the wild, the Red-eared Slider can live for about 30 years, but in captivity it can live for 40 years, and possibly up to 75 years.

#### Damage by the Red-eared Slider

The Red-eared Slider is listed by the IUCN (World Conservation Union) as one of 100 of the world's worst invasive alien species, alongside the Common Myna, Red Fox and the Cane Toad.

It is considered an environmental pest outside its natural range because it competes with native turtles for food, nesting areas and basking sites. In England, introduced sliders damage the nests of water birds when using them as basking sites. Water bird eggs and hatchlings are often destroyed and small live hatchlings eaten.

Some countries have placed bans on the importation of this species because of concern about the negative effects of released pet sliders on native aquatic turtles. Many sliders are obtained as pets when they are very small and look attractive. However, these sliders grow rapidly into large, biting adults, resulting in many being dumped or released into the wild.

Released pet sliders carry diseases and parasites that may spread in the environment and have a negative impact on native turtles. Recent evidence suggests that this has occurred in Australia,

with a malaria-like blood parasite transmitted to two species of native turtles in the Lane Cove River, Sydney.

#### Potential to be a pest in Australia

The Red-eared Slider is rated as highly likely to establish further populations in Australia and become a pest.

A scientific risk assessment conducted by the Department of Agriculture and Food in Western Australia and endorsed by the national Vertebrate Pests Committee indicates that the Red-eared Slider poses an extreme establishment risk (the highest of four establishment risk ranks) to Australia. Part of the assessment showed that the climates of the slider's overseas range and Australia are very similar (Figure 5).

Red-eared Sliders could compete aggressively with native turtles for food and favoured basking sites. They could also affect the breeding success of native turtles by competing for nesting sites and eating hatchlings. In addition, pet sliders carry diseases that can infect native turtles.

Therefore, it is important that the Red-eared Slider does not establish further populations in the wild in Australia as many native turtles, small fish and frogs are potentially at risk.

#### Sliders in the wild

In Australia, it is illegal for members of the public to import, keep, trade or release Red-eared Sliders. However, illegal keeping and the subsequent irresponsible release of unwanted animals, as well as the species' robustness, adaptability and longevity, have led to the establishment in the wild of isolated populations in various parts of Australia.

Breeding populations have established in Queensland in the Mango Hill and Burpengary areas of the Moreton Bay Regional Council. These populations are the focus of ongoing control and removal operations.

In New South Wales, Red-eared Sliders have been found in waterways around Sydney, including the Georges River catchment and in Yeramba Lagoon. A single animal was also found at Wolli Creek Reserve. Survey work found evidence of breeding and individuals of various ages in the Georges River catchment as well as egg-bearing females in other catchments. Sliders have also been reported in the Hawkesbury–Nepean and several other rivers in New South Wales, as well as in dams near the Murrumbidgee River, Australian Capital Territory.

Figure 6. Surveillance activities are carried out in some areas to locate sliders in the wild. Angus the sniffer dog has been trained to locate sliders and their buried eggs (photo: Department of Employment, Economic Development and Innovation, Queensland).

In Victoria, Red-eared Sliders have been found in Melbourne at Blackburn Lake Sanctuary, Ruffey Lake Park, and at Elsternwick Park. Three other sites are also under investigation for the presence of sliders.

Single animals have been found in Tomato Lake and Hyde Park, Perth, Western Australia.

In some jurisdictions surveillance activities and awareness-raising campaigns are underway (Figure 6).

While it is illegal to keep any non-native turtle (including sliders) in Australia as pets, illegally-held sliders have been seized in all Australian jurisdictions except the Northern Territory. In Tasmania it is illegal to keep any turtles or tortoises as pets, even Australian native species, and any seen in the wild there will be escaped or released animals.

#### **Risk management**

To help prevent the Red-eared Slider from becoming more widespread in the wild and becoming a pest in Australia, it is important to report all sightings to the nearest relevant government department or wildlife authority so that appropriate action can be taken.

Pet sliders should be surrendered to the authorities or a responsible organisation, not released into the wild.

### **Acknowledgments**

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#### **Important Disclaimer**

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