

Being highly sensitive to environmental changes, frogs are a wonderful barometer of the health of our waterways, forests and other habitats.

Recent studies show that four frog species are extinct and, of the 210 species found in Australia, seven are critically endangered, eight are endangered and 12 are vulnerable.

Frogs are found in almost every habitat, particularly in coastal regions of the east, far south-east and across the north.

About 30 frog species are native to Victoria

Frogs eat small live insects. Tadpoles can be vegetarian, eating weeds and algae, or carnivorous, a diet that includes smaller siblings.

Loss and general degradation of habitat, such as the draining of swamps, and pollution from general run-off and industrial chemicals, has put many species at risk. Chytrid fungus is a threat, as are predators, both native and introduced, such as carp and mosquito fish.



▼ Southern corroboree frog (*Pseudophryne corroboree*): Australia's most threatened species of frog. A national recovery plan is under way, involving the NSW National Parks and Wildlife Service (NPWS), the University of Canberra (UCAN) and the Amphibian Research Centre (ARC).

▲ Spotted tree frog (*Litoria spencen*): endangered because of habitat declines and the impact of introduced fish such as trout. It is found in the far north-east of Victoria, NSW and the ACT in cold, fast-flowing rivers.



Green tree frog (*Litoria caerulea*): best-known frog across the country, often found in showers and toilets in rural areas of the north. A placid frog that adjusts well to captivity.

FASCINATING FROGS



▲ Growling grass frog (*Litoria raniformis*) listed as endangered and restricted to a handful of sites around Melbourne, including Werribee Open Range Zoo. Distinctive crawark, crok" call.

▼ Stuttering frog (*Mixophyes balbus*): this ground-dwelling frog has not been seen in Victoria for 30 years, and populations in southern NSW are declining. Listed as vulnerable. Melbourne Zoo is working with NSW agencies to help the species.



▲ Pobblebonk (*Limnodynastes dumerilii*): a common frog throughout Victoria, but usually only seen when old buildings or fences are being removed, disturbing the frogs' underground resting sites. Delightful "bonk, bonk, bonk" call.



Melbourne Zoo has the only dedicated public amphibian exhibit in Australia. Visit www.zoo.org.au. The Amphibian Research Centre has information on how to build frog-friendly gardens. Visit frogs.org.au/arc/

Entries for the Alcoa Frog Watch Garden of the Year 2003 close on December 26. For details visit frogs.org.au/frogwatch/

Herald Sun

Sources: Melbourne Zoo, Amphibian Research Centre, 1997 Action Plan for Australian Frogs, by Michael J. Tyler, and Declines and Disappearances of Australian Frogs, 1999 Conference, Canberra.



▶ Peron's tree frog (*Litoria peronii*): has a harsh call. Found throughout much of south-east Australia. Generally soft grey in colour, with small green speckles



▶ Southern brown tree frog (*Litoria ewingi*): common across much of southern Victoria. High "cree, cree, cree" call, often from grass stems at night



▶ Southern toadlet (*Pseudophryne semimarmorata*): has bright orange patches on its thighs, which are displayed when the frog is disturbed. Bright colours warn of toxic chemicals in the skin. Threatened because of habitat loss.

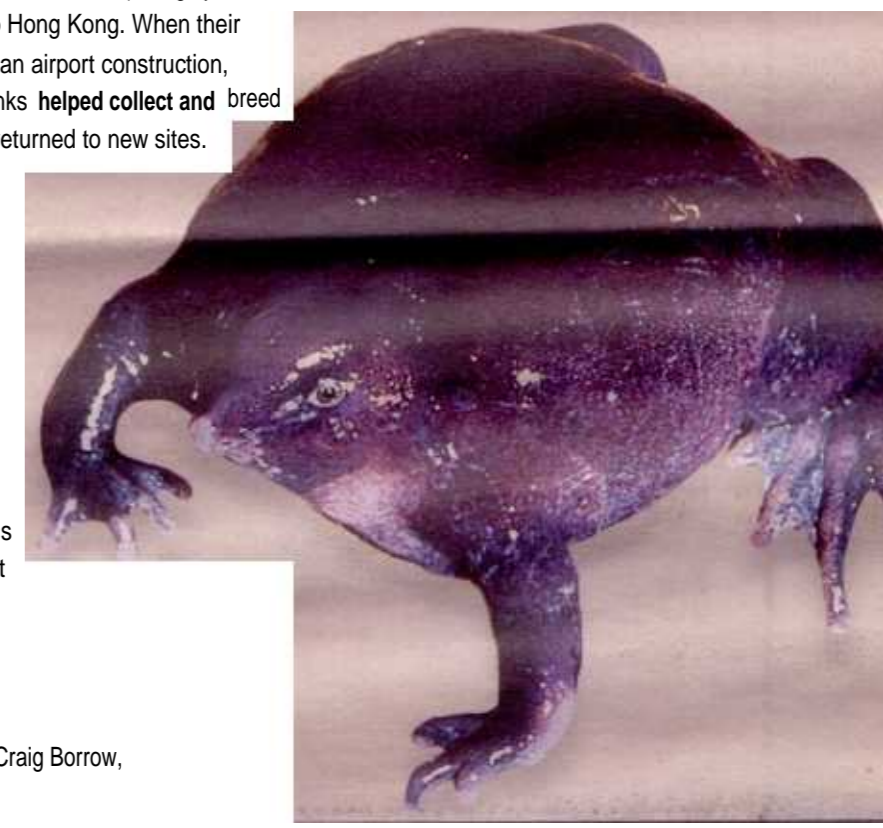


▶ Cane toad (*Bufo marinus*): introduced to Australia in the 1930s in a failed attempt to control the sugar-cane weevil. Is widespread across north-east Australia. Scientists are concerned about its impact in the Kakadu region.

▶ Romer's tree frog (*Philautus romeri*): highly endangered frogs native to Hong Kong. When their habitat was threatened by an airport construction, Melbourne Zoo's Chris Banks helped collect and breed the frogs. Hundreds were returned to new sites.



▶ Purple frog (*Nasikabatrachus sahyadrensis*): recently found in India's Western Ghats mountains, it belongs to a family of frogs thought to have disappeared millions of years ago.



PICTURES: National Institute of Health, Craig Borrow, Mike Swan, Mark Smith, AP