

NEW ZEALAND NATIVE REPTILES AND AMPHIBIANS

New Zealand is home to relatively few groups of reptiles and amphibians. We have our native Frogs (*Leiopelma* group), two species of Tuatara – *Sphenodon punctatus* and *Sphenodon guntheri*, and two groups of lizards – the Geckos and Skinks.

There are some 20 species of Geckos and some 30 species of Skinks. These figures are deliberately general as new species are still being discovered, and some long recognized species are being split into separate species following DNA tests and other genetic methods of profiling.

Please note that all New Zealand native reptiles and amphibians, and this includes all geckos and skinks, are protected by law, and can **NOT** be collected from the wild without written authorization from the New Zealand Department of Conservation (DOC). (N.B. there are three introduced frogs in New Zealand – all *Litoria* species from Australia and one introduced egg-laying skink – the Rainbow skink (*Lampropholis delicata*) also from Australia, and these can be collected from the wild without restriction)

Geckos have thin soft velvety skin and a flattened body that is covered by small granular scales. On the head, and especially at the edges of the mouth, these scales are often larger. As the gecko grows it periodically sheds its skin in whole or in large pieces. Geckos have a definite head and neck, which easily differentiates them from our native skinks, which have shiny over-lapping scales and are much more streamlined, as well as being much quicker in their movements than geckos.

Apart from the Egg-laying Skink (*Oligosoma suteri*), all New Zealand geckos and skinks give birth to live young. This method of reproduction is called ovoviviparous, and is a little unusual as the great majority of geckos throughout the world, and more than half of the worlds skinks all lay eggs.

Geckos usually have twins, while skinks can have between two to eight babies depending on the species. Generally, the larger the species, the more young are born. Babies are born in summer or early autumn (January to May) but different species give birth at different times of the year especially under captive conditions.

Young reach maturity at approximate three years of age, but size appears to be the main determining factor in ability to mate. Some geckos in captivity that have been well fed since birth have been known to mate when only two years old and produce viable progeny, although many first births are single babies rather than the usual twins.

Little is known about the age to which geckos and skinks will live to in the wild, but the New Zealand Herpetological Society has longevity records of animals in captivity, with an Otago skink reaching 40 years, a *maculatus* gecko at 37 years, a Duvaucels gecko at 32 years, and various Forest geckos and *Elegans elegans* geckos at 25 years. Predation

and the pressures of living in the wild may make 10 to 15 years a more realistic figure in that area.

Caging and care in captivity – anyone interested in keeping New Zealand lizards must obtain a permit from their nearest branch of the Department of Conservation, and it is usual for their caging arrangement to be inspected by a Department officer before a permit will be issued. As it is forbidden to collect any animals from the wild, contact will need to be made with someone who already holds geckos and/or skinks, and who has some spare ones to give away. Like all protected NZ native species, geckos and skinks cannot be bought or sold. It is recommended that any potential keeper of lizards should contact and join the NZHS where they will be able to obtain advice on building suitable caging and contacting other lizard keepers.

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Food requirements – both geckos and skinks are omnivores and tend to be opportunistic feeders with ground dwelling animals foraging on the forest floor or amongst vegetation for a wide variety of insects and invertebrates, while the tree dwelling animals tend to search amongst the canopy for flying insects. Preferences for food items tend to vary from species to species, and variations will also differ according to physical size of the individual animal. Moths appear to be a favourite food item for nearly all lizards, with flies, grubs, crickets, grasshoppers, caterpillars, small spiders, earwigs, small wetas, slaters, and invertebrates such as hoppers finding favour with various species. Many animals will also eat soft berries, nectar from flowers, and honeydew on a seasonal basis. Some skinks are known to eat carrion and varieties that live near colonies of sea birds have been seen to eat remains of partially digested fish, and lap up regurgitated stomach oil from the birds.

The great majority of New Zealand geckos and skinks now live in relatively small pockets of suitable environment, as habitat destruction and modification has restricted their previous ranges of activity. These little “islands” of existence are often vulnerable to further habitat destruction, and this allied with predators such as rats, feral cats, and stoats, means the future existence of many of these beautiful lizards is questionable, especially on mainland New Zealand.

Captive populations and captive breeding programmes may be one way to help support the wild populations, but when we consider that only 20% of available species are kept in captivity, and that the total numbers in captivity of many of these species is quite small, such a restricted gene pool limits the effectiveness of any such programme. It would require a radical re-think by the Department of Conservation to change present policy, and without such fundamental changes, the future for many species is bleak indeed.