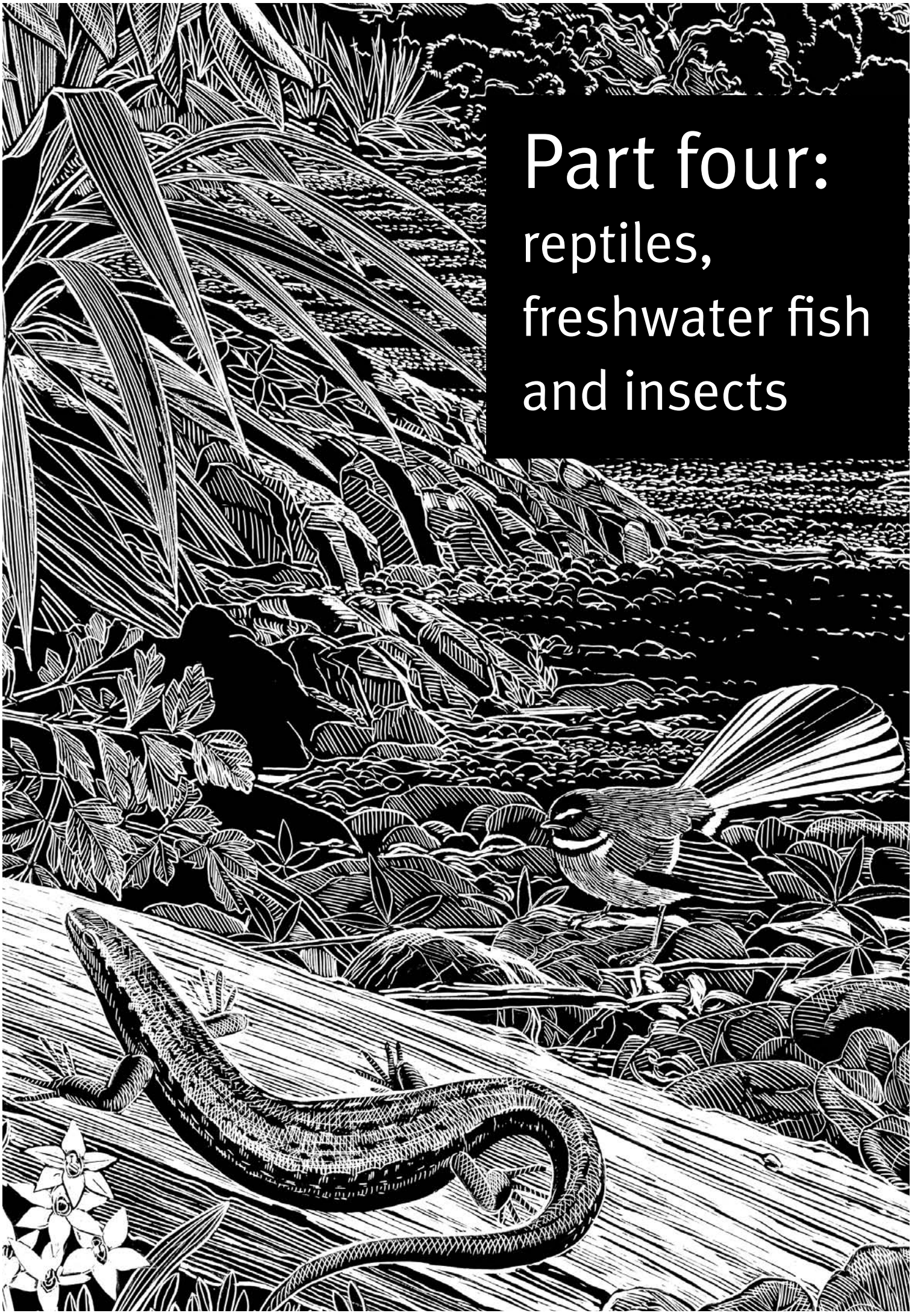
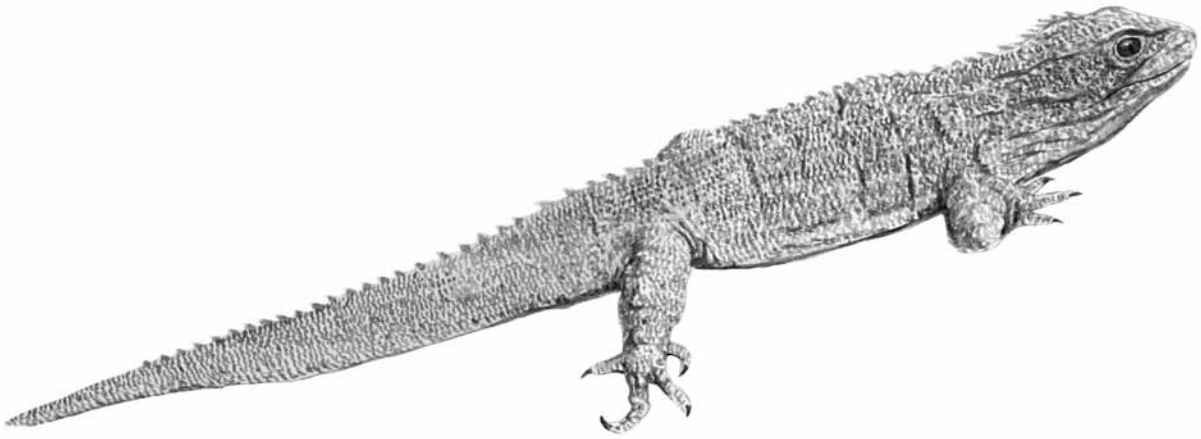


Part four:
reptiles, freshwater fish and insects

Translocated reptiles



Tuatara

Sphenodon punctatus punctatus

Northern tuatara

The tuatara is endemic to New Zealand.

Sixty northern tuatara were introduced to Tiritiri Matangi in October 2003 from Middle Island in the Mercury group.

Tuatara are the sole survivors of the beak-heads, the most ancient and primitive of all living reptiles, even older than the dinosaurs. In fact they have survived for 225 million years.

Tuatara grow slowly and can live more than 100 years. Males can grow to 620 millimetres in length and weigh up to 1.3 kilograms.

They are not in immediate danger of becoming extinct as long as suitable habitat is preserved. Captive breeding programmes, such as 'Head Start', make sure that there are sufficient populations established on predator-free islands.

What do they look like?

Tuatara look like lizards but although they are reptiles they are not lizards. They have a wedge-shaped head and are olive-green or slate-grey, and finely speckled. The male is much bigger than the female.

With their big mouth and strong jaws they can bite really hard. Their teeth are part of their jawbone.

Tuatara don't have an ear hole, yet they seem to hear well; it is thought that bones at the sides of their heads conduct sound.

Tuatara have a third eye. It is on top of the brain between its other eyes. The skin covering it becomes opaque when the tuatara is a few months old. The space occupying it may be seen when looking at a skeleton.

When it is cold, adult tuatara can slow their heartbeat down to one beat per minute.

What do they sound like?

Tuatara can make croaking noises but are generally silent. They use body language to communicate their feelings. At night on Tiritiri Matangi you can sometimes find one by listening for a rustling sound as they move through dry leaves on the forest floor.

What do they eat?

Tuatara are carnivores. They eat insects such as weta, moths and beetles. Sometimes they eat small lizards and even the eggs and chicks of petrels. In fact, they will eat anything tasty that moves within range. Soon after their release on Tiritiri Matangi, one was seen devouring a saddleback!

When they are drinking water they suck it, not lap it, like lizards do. Tuatara also like to sit in water.

Breeding

Tuatara mate in January and lay eggs from October to December.

The female lays 8 – 15 eggs in a shallow hole or tunnel in the ground. Sometimes they share burrows with nesting seabirds.

The eggs are not cared for in any way by the parents and it takes 12 – 15 months for the young (hatchlings) to hatch, using their egg tooth. For two weeks after they hatch, the babies can live off the yolk from their egg. The female may only lay eggs every few years, so this slow breeding rate adds to the problem of building up the numbers to a safe level.

If tuatara eggs develop at a temperature of 20 degrees or below, the babies mostly will hatch out as females, and if the temperature is 21 degrees or above, most of the hatchlings will be male. This knowledge is helping the breeding programme as male/female numbers can be controlled.

Babies are protectively coloured for five to six years and, unlike their nocturnal parents, tuatara babies are diurnal (active in the daytime). This makes sense, as adults would eat them if they were to venture out at night! Tuatara hatchlings can move very fast, too.

NOTE: *Sphenodon means 'wedge toothed'*.

Punctatus means 'spotted'.

However, on Tiritiri Matangi, adult tuatara are also occasionally seen by visitors to the island during the daytime, basking in sunny spots because sunshine is important for their development.

Where else can they be found?

Tuatara were once found all over New Zealand but now they only survive on offshore islands, having become extinct from the mainland last century. They are on islands such as the Hen and Chickens, Mercury, Poor Knights, Stephens and Brothers. Total estimated numbers are 100,000, and about half of those are on Stephens Island.

Did you know?

There are two species of tuatara.

***Sphenodon punctatus punctatus* are the northern tuatara (the ones we have on Tiritiri Matangi). The subspecies of *Sphenodon punctatus* live on islands in the Cook Strait and Marlborough Sounds area. This is where Stephens Island is.**

***Sphenodon guntheri* are the tuatara on Brothers Island and are the rarest, with only about 400 in existence. They are named after Albert Gunther, keeper of reptiles at the British Museum who recognised that tuatara belonged to an order all of their own.**

The majority of tuatara populations are at risk due to small numbers and/or presence of kiore (Pacific rat), which eat eggs and juveniles, as well as competing for food and reducing ground vegetation and seedlings.

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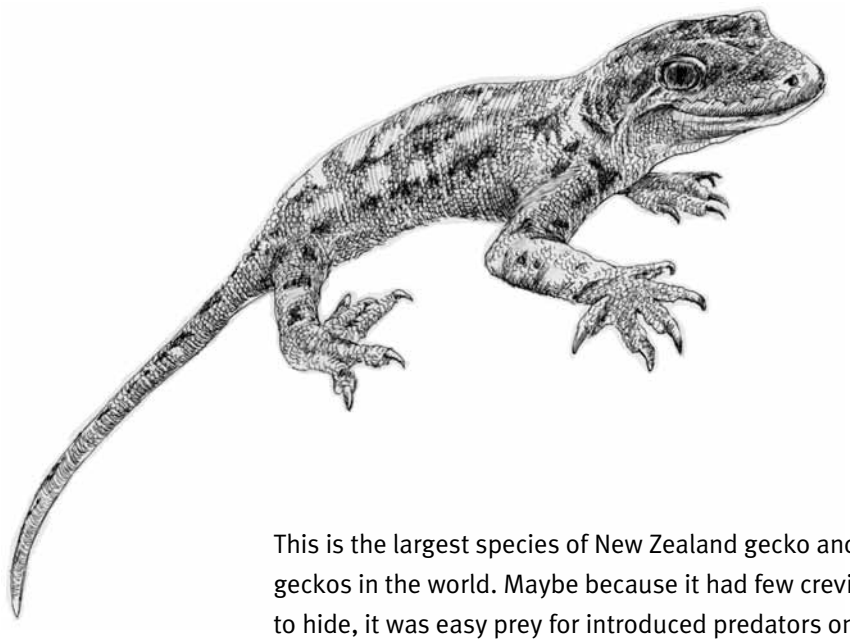
Duvaucel's gecko

Hoplodactylus duvaucelii



This is the largest species of New Zealand gecko and is one of the largest geckos in the world. Maybe because it had few crevices available in which to hide, it was easy prey for introduced predators on the mainland.

The first Duvaucel's gecko were translocated to Tiritiri Matangi Island in December 2006.

What are their habits?

Although they are nocturnal, they will also bask in the sun during the day.

They mostly live in the fringe areas of bush, but in some places they have been seen searching for food among boulders along the shoreline. They can be very aggressive, and have a very strong bite.

During the day they usually hide under logs, stones or bark, or in tree hollows or petrel burrows. Being quite skittish, they will scuttle away very fast if a shadow passes over them.

What do they look like?

They are solidly built, olive-brown or grey geckos, with olive-green and black sideways streaks and flecks. This colouring allows them to blend in with their usual habitat (leaf mould, bark and so on). They have large feet, with very rounded pads on their toes. Their head is large for the size of their body. They can weigh up to 120 grams and their total length, counting the tail, can be up to 320 millimetres, though most are 220 to 250 millimetres. (That's just short of the length of a school ruler!)

What do they sound like?

Duvaucel's gecko are usually silent, although they will croak or squeak, usually if handled or otherwise annoyed.

What do they eat?

They eat moths, flies, grubs, small wetas and other insects. They will also eat small fruits and lap up nectar and water. They mostly forage on the forest floor at night, but will also climb up high into trees to find insects, nectar and berries.

Breeding

Young gecko are born between February and May, and two or more age groups can often be found together. Some other gecko species don't allow this. It is believed that adults stay together in pairs for much of the time.

Where else can they be found?

Fossil remains show that they were once widespread throughout New Zealand. They are now found mostly on predator-free islands off the North Island coast and Cook Strait.

Did you know?

When they use their tongues to lap or to lick their eyes and face, the usually pink tongue turns bright red.

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Shore skink

Oligosoma smithi

Thirty shore skinks were released onto Tiritiri Matangi Island in December 2006. Shore skinks are the most widely distributed members of the Oligosoma group in the northern North Island.

What are their habits?

Shore skinks are strongly diurnal, and prefer open areas such as short grass near the shore or around driftwood at the high tide mark. They do not stray far from the shoreline, and often bask in the open. However, shore skinks will hide in low vegetation or underneath logs or stones if they are disturbed. They hunt for food on the beach at low tide.

What do they look like?

Shore skinks grow up to 80 millimetres, and have a very pointed snout. Their backs are usually grey, brown or even greenish, with speckles, but some are completely black. Underneath, they may be grey, creamy, reddish or black. They vary in both colour and size according to their location and habitat.

What do they eat?

Shore skinks eat a wide range of insect life, carron and broken eggs of seabirds, as well as kawakawa and tapata fruit.

Breeding

The young of the shore skink are born between January and March, and they have between two and three babies.

Where else can they be found?

Shore skinks are found in northern New Zealand, from Three Kings Island to Gisborne. There are anecdotal reports of their population declining around areas of development such as the Coromandel resorts.

There are at least 79 island populations of shore skinks and at least 50 mainland populations.

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