

## Eels in your community

Wild eels can be hard to spot, so many wildlife parks and zoos have 'tame' eels you can get up close to and sometimes even feed. It's a great way to educate the whole family about how special and unique New Zealand's freshwater eels are.



Photo: Joe Potangaroa

**Ensuring that the New Zealand longfin is still around in the future would be a great gift to offer the next generation.**

These tame longfins live in a stream that runs through a cafe in Motueka, where they have been fed for many years.



Photo: Alton Perrie



Photo: Philippe Gerbeaux

### Did you know . . .

New Zealand freshwater eels can live up to 100 years and breed only once at the end of their lives. In order to breed, they undergo mass spawning migrations, leaving the familiarity of lakes and rivers to swim all the way up to the subtropical Pacific Ocean, where they spawn en masse in very deep water.



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# Freshwater eels

IN NEW ZEALAND

*At first glance, all New Zealand freshwater eels look the same. But you might be surprised to learn there are **three** species, each unique in its own way.*



*With a little bit of knowledge and a keen eye, these fascinating creatures are easy to tell apart.*



## What's the difference?

The two main species of freshwater eel found in New Zealand are the **longfin eel** (*Anguilla dieffenbachii*) and the **shortfin eel** (*Anguilla australis*).

On a longfin eel, the dorsal (top) fin extends a lot further forward than the anal (bottom) fin. The dorsal fin of a shortfin eel only extends a little further forward than the anal fin.

A third species, the **spotted eel** (*Anguilla reinhardtii*) is an occasional visitor from Australia.

Photo: Alton Perrie



## A species in decline

The longfin eel is ranked as 'At Risk—Declining' in the New Zealand Threat Classification System listings (2014). It is only found in New Zealand. The shortfin eel is 'Not Threatened' and is found in New Zealand, Australia and some Pacific Islands.

Longfin eels, as well as being rare, are less able to cope with changes to their environment than their shorter-finned relative. They are heavily affected by human activities, such as pollution, the building of dams, loss of vegetation where they live, and overfishing.

## Give the longfin a helping hand

- Avoid catching them, and if you do, return them to the water unharmed.
- Fence stream banks to keep stock out.
- Plant trees along stream banks to create shade (certain trees also provide a food source).
- Don't let pollutants enter waterways.

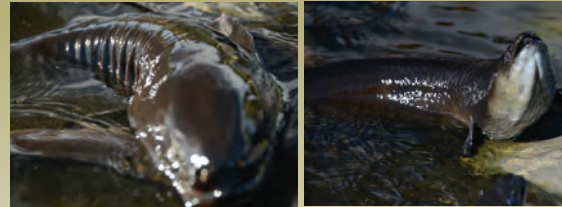
## What to look for

Anyone who has handled an eel out of water knows that they will not usually stay still long enough to allow you to measure their fins! So some 'rules of thumb' can be used to identify them.

### An eel is *probably* a longfin if it's:

- very dark in colour
- more than a metre long
- living in a high-country river or lake, or a clear, cold, spring-fed stream at any altitude

Photos: Nicola Atkinson



If in doubt, there is a very reliable way to tell the difference: a longfin's skin forms big, loose, obvious wrinkles when bent (left), whereas a shortfin's skin wrinkles are much smaller (right).

## Summary of differences

Shortfin eel	Longfin eel
Found in New Zealand, eastern Australia and some Pacific Islands	Found only in New Zealand
Range of colours, often light brown, olive	Usually dark brown/black
Usually don't grow longer than 1 m and weigh up to 3.5 kg	Often more than 1 m long and can grow up to 2 m long, and can weigh up to 20 kg, sometimes more (although this is now very rare)
Small wrinkles on the skin when bent	Big, loose wrinkles on the skin when bent
Lives mostly in lowland areas	Lives at a wide range of altitudes, including very high elevations
Relatively pollution tolerant	Relatively intolerant of pollution
Lives for an average of 18–23 years and up to around 60 years	Lives for an average of 35–52 years and up to 100 years, sometimes more

Photo: Mike Joy



### If you're really lucky . . .

. . . you might spot a rare 'golden' longfin. This change in colouration is caused by a loss of dark pigments, allowing yellow pigments to become clearly visible.