

# The Story of Mysterious Tuna (Eels) and the Lost Waimātaitai Lagoon

Before roads and houses were built, Ashbury Park was known as Waimātaitai, a large 50-acre lagoon and swamp. It was a mahika kai site for Māori, a place where they gathered food, including hundreds of tuna (eels). Waimātaitai Creek once flowed from where the Highfield Golf Course is today, feeding into the lagoon.

When the time was right, the adult tuna would leave Waimātaitai on an incredible and mysterious journey. They swam over 5000 kilometers for 3-6 months, all the way to the Tonga Trench, near Tonga, to lay their eggs. Their tiny babies, just larvae drifting in the sea, would ride the Pacific currents back toward New Zealand, retracing the same path their mothers had once traveled. But when the young tuna returned, their home had vanished.

In the 1930s, people dug through the center of the wetland and installed a 1.3-kilometer-long stormwater pipe, draining the lagoon and diverting the creek underground to prevent flooding on the nearby highway. The once-thriving wetland was developed into a sports field, leaving little trace of the rich ecosystem that had supported generations of eels.

## Imagine Being a Young Tuna (Eel)

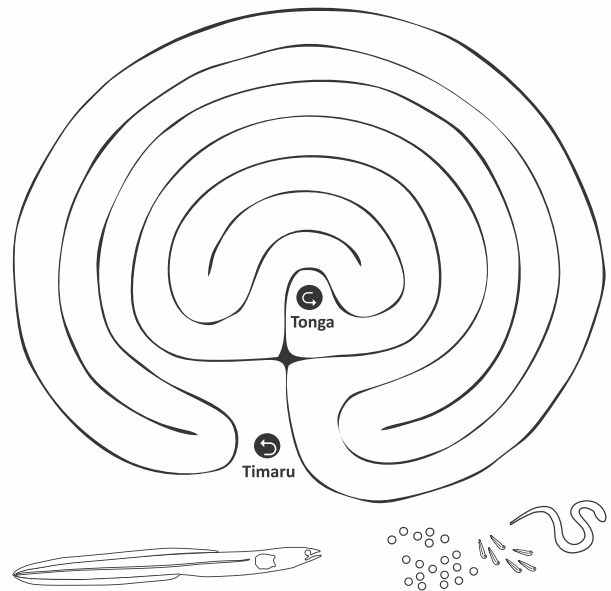
You have journeyed across the ocean, growing from a tiny larvae into a glass eel, following the ancient paths of your ancestors. As you reach the shores of Aotearoa, you expect to find Waimātaitai Lagoon, a vast, sheltered home where you can grow strong. But instead of a thriving wetland, you find Ashbury Park. The lagoon is gone. The creek that once fed the lagoon is now trapped in a dark, underground drain.

You wriggle through the storm drain, navigating the small creek that remains. You find shelter in tree roots, hiding from predators like birds and fish. You grow into an elver, then a powerful, adult longfin eel, spending the next 95 years in here. It was a miserable place to life at first, until humans work hard to remove rubbish and plant trees. You are fit and strong and now it is your time to leave.

You follow your instincts and begin the long swim back to Tonga to lay your eggs. But as you slip into the sea, you wonder: What home will your babies return to? While the wetland is gone, the eels still return, following the ancient pathways written into their DNA.

Some people are now working to restore waterways, creating fish-friendly stormwater systems and planting native vegetation to provide shelter. If these efforts continue, what will it be like for the next generation of tuna when they return.

## Can you help our eel find it's way to the Tongan Trench? And help its babies find their way home?

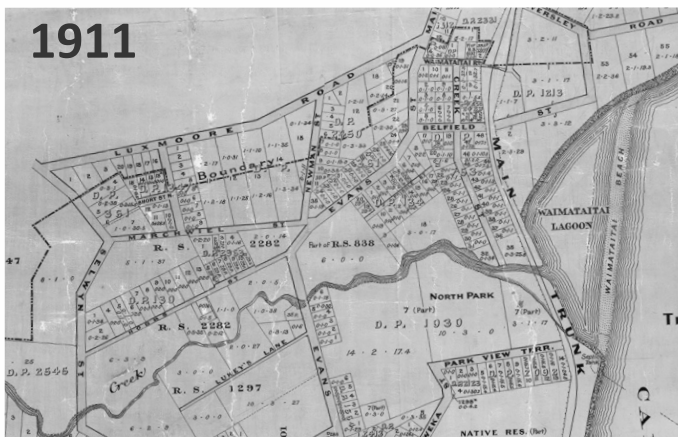


## How to Help Tuna (Eels)

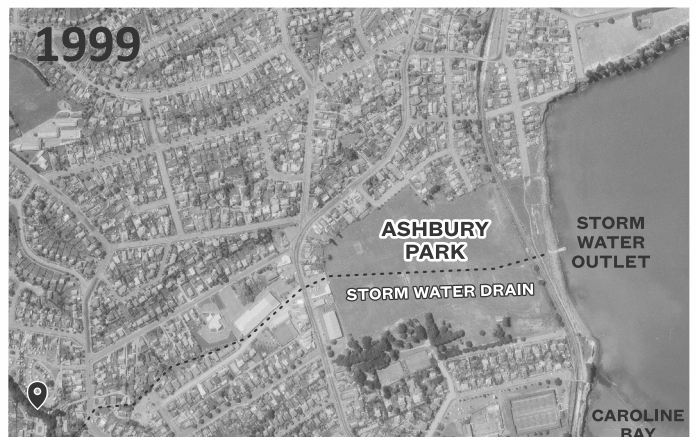
- Plant natives along waterways for shade and food for eels.
- Remove rubbish and pollution and restore lost habitats.
- Keep our drains clean. Only rainwater should go in drains. Keep paints, oils, out of stormwater drains. Avoiding washing cars on driveways, and use bio degradable detergents.
- Control rats, mice, and other pests that harm eels.
- Spread awareness about eels and how we can help them.

## Create a fun adventure at CPlay

- Pretend you are on a migration journey from Caroline Bay to the Tongan Trench. Can you find Tuna (Eel) eggs, a mother and its elvers?

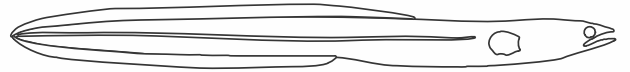


Borough of Timaru. NZ Heritage Maps Platform, accessed 15/12/2024, <https://maps.recollect.co.nz/nodes/view/336>



Timaru Top 10 Holiday Park

# Treasured & Mysterious Eels (Tuna)



Eels (Tuna) are seen by Māori as taonga (treasures) and ancestors, reminding us of our connection to nature and the importance of caring for it. "Tuna" is the general Māori name for eels. There are three types of eels in Aotearoa New Zealand (NZ): longfin, shortfin, and Australian longfin.

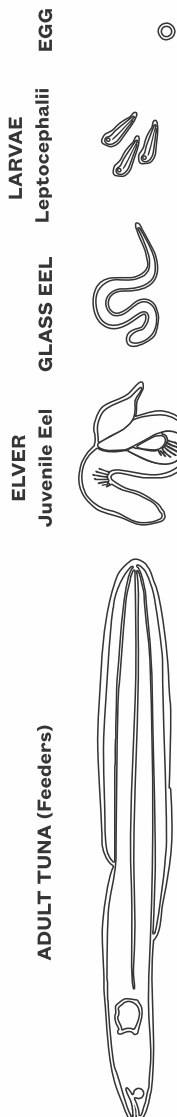
## Incredible Adaptations

- Eels are often called "living fossils" because their body structure has remained largely unchanged for millions of years. We still don't fully understand their evolution.
- Longfin eels are unique to NZ, and are among the largest eel species in the world!
- Eels are born without a gender. They grow faster in areas with fewer eels and become females, while those in crowded, competitive environments grow slower and become males.
- Eels are carnivores and use their teeth to eat insects, worms, fish, small birds, and even mice.
- Although they rarely bite humans, if they do, it can result in a painful graze.

## Mysterious Migration

- Before starting their long journey to the ocean to spawn, eels undergo dramatic body changes. Their heads flatten, and their eyes enlarge.
- Eels don't rely on sight; instead, they follow invisible paths using environmental cues such as the Earth's magnetic field, temperature, and salinity.
- During their journey, they cannot feed and rely solely on stored body fat for energy.
- Eels swim for 3–6 months from New Zealand to the deep ocean trenches west of Tonga to spawn—an epic journey of 5,000–6,000 km!
- No one has ever seen eels reproduce in the wild. Scientists believe instinct guides longfin eels to the Tongan Trench and shortfin eels to waters near Samoa and Fiji.
- They pass through the deep Kermadec and Tongan Trenches, where the Pacific Plate is sliding under the Australian Plate, creating the ideal deep-sea conditions for reproduction.

## Fascinating Cycle



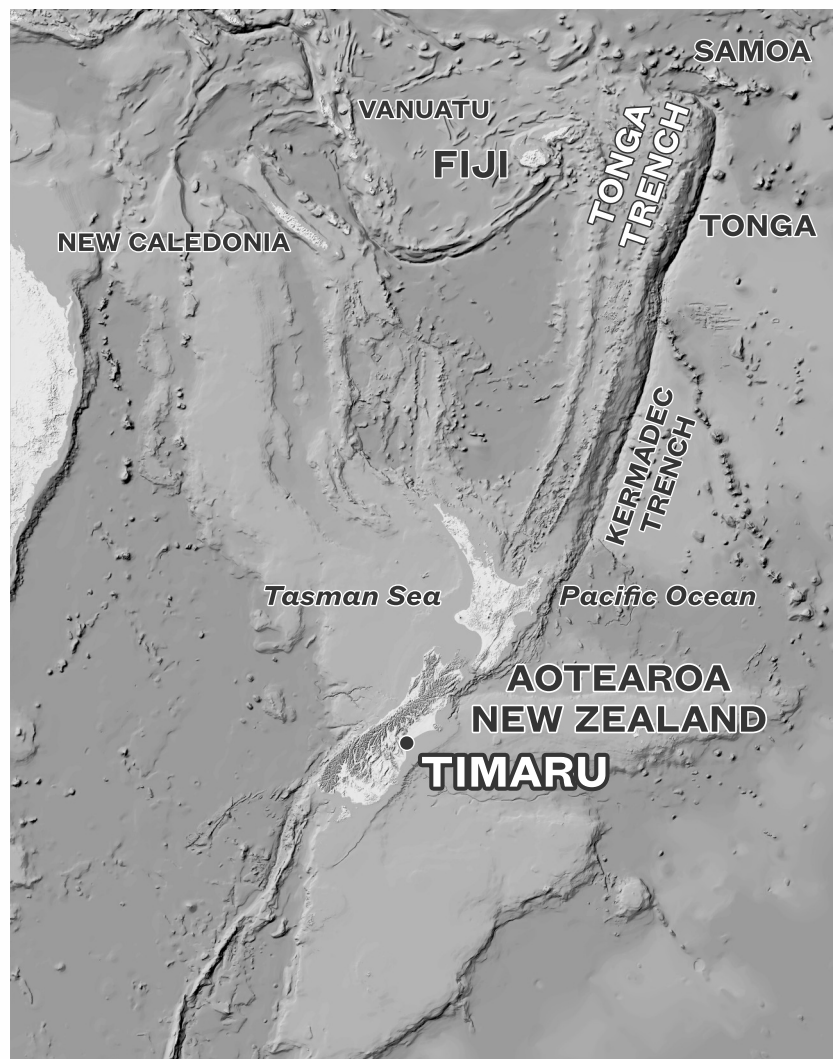
At the end of their lives, eels leave NZ to spawn near Tonga, Samoa, and Fiji.

Their fertilised eggs grow into larvae, which drift thousands of kilometres on ocean currents, eventually becoming 6–8 cm glass eels.

Near the shore, these glass eels grow into 10–15 cm elvers and move into streams, wetlands, and rivers, often returning to the very places where their mothers lived.

Eels can grow up to 1-2 metres long and live for over 100 years!

They then return to the sea as migrant Tuna Heke to begin the life cycle again.



Zealandia Te Riu-a-Māui is a mostly submerged continent in the southwest Pacific, with 94% of its landmass underwater. Its visible land includes New Zealand and New Caledonia. To the north are the Kermadec and Tonga Trenches, where the Pacific Plate subducts beneath the Australian Plate, forming deep ocean trenches. Nearby, Tonga and Fiji are volcanic islands located on the Pacific Plate.