



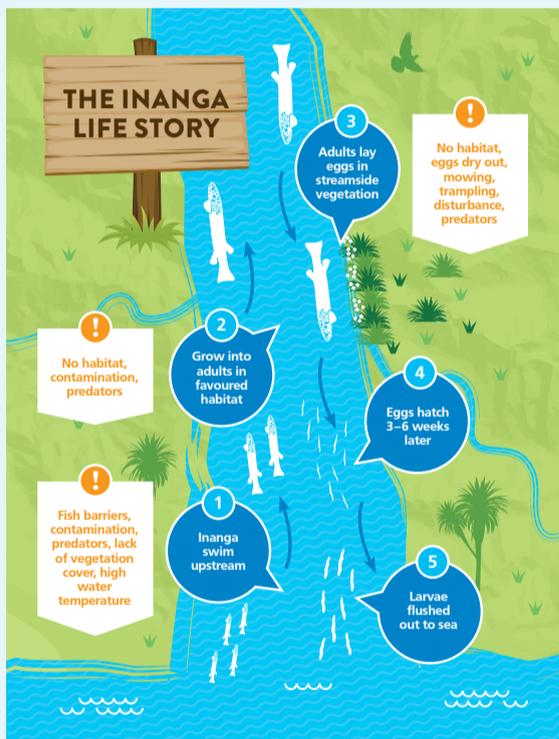
A FISHY STORY

The Maitai River, and the streams that run through our urban areas, were all once natural spawning sites for inanga, or whitebait.

Inanga begin their life at the mouths of rivers and streams where freshwater meets sea water. They deposit their eggs in long grassy areas on stream banks, where they stay hidden until a spring tide, when they hatch and are flushed out to sea. The juvenile fish stay at sea for a few months and then swim upstream, seeking suitable habitat in which to develop into adults. In autumn, the adult fish return to spawn again.

However this natural cycle is easily disrupted. Spawning sites on riverbanks are destroyed by mowing, or are subject to trampling, disturbance, rubbish dumping and predators. If there is insufficient shade the eggs will dry out.

When the young fish attempt to make their way upstream, they can meet culverts, dams and other barriers. Nelson Nature is working to improve fish passage and environmental conditions so inanga can complete their lifecycle in our rivers.



WHAT ARE WE DOING TO HELP OUR FRESHWATER FISH?

In Nelson, our urban and rural streams support some very unique native freshwater fish.

To ensure their future survival, Nelson Nature is working to restore the habitat for inanga, by removing these disruptions to their natural lifecycle.

Nelson Nature is improving fish passage in Orphanage Stream, Orchard Stream, Poorman Valley Stream, Jenkins Creek, and Arapiki Stream. Over the next 12 months, we will survey the remaining urban streams and begin work on improving fish passage in Oldham Creek.

WHICH NATIVE FISH LIVE IN OUR STREAM?

Lamprey are under threat as their spawning habitat of small, bushy-lined streams are disappearing. These unusual fish live in burrows in the silty edges of streams and rivers, and migrate out to sea for several years. They migrate back up streams to spawn and die. Lamprey have been occasionally found in our urban, and our rural streams – most recently one was spotted in the Maitai, during the removal of the Almond Ford.

Inanga, Koaro, and **Shortjaw Kokopu** are all climbing fish of the Galaxiidae species. As they begin their upstream migration from the sea, they are often caught by whitebaiters. Their numbers are declining as habitat disappears, particularly in urban areas.

The shortjaw kokopu is found only in New Zealand, (and to date in Nelson, only in Poorman Valley Stream). They feed along stream beds, scraping insects from rocks with their undercut jaw.

Koaro are strong climbers that are able to climb vertical faces, as they have special broad fins that come with a grippy texture. Koaro are found in fast flowing, cool streams, with tussock or forest alongside to keep temperatures lower.

Longfin eels make their way far inland, with young eels being able to climb water falls or dams (they can climb the 150m long spat rope up into the Maitai Dam!). Eels are very slow growing but can live to be 60 years old, breeding only once at the end of their lives. Their story is quite remarkable.

When they are ready to breed, they leave New Zealand waters and will swim 5000 kilometres up into the Pacific to spawn, most likely in the deep ocean trenches near Tonga.

Once there they lay millions of eggs which become larvae and then float back to New Zealand on drifting currents. Adult eels do not return after spawning, as it is at this time that they die.

Though still quite common, longfin eels are at risk of decline. Their numbers have been significantly reduced as a result of fishing, including commercial fishing since the 1960s, as well as habitat loss and reduced oxygen which impacts on water quality for all aquatic life.



NATIVE FISH SPECIES FOUND IN NELSON'S STREAMS AND RIVERS

	LAMPREY	LONGFIN EELS	SHORTJAW KOKOPU	KOARO	INANGA
NATIONAL STATUS	THREATENED	AT RISK	THREATENED	DECLINING	DECLINING
Roding		✓		✓	
Saxton		✓		✓	✓
Orchard		✓		✓	✓
Orphanage		✓		✓	✓
Poorman Valley	✓	✓	✓	✓	✓
Arapiki		✓			✓
Jenkins		✓		✓	✓
Maire		✓			
York		✓			
Saltwater		✓			
Little Go					
Maitai	✓	✓		✓	✓
Brook		✓		✓	✓
Sharland		✓			
Maitai S Branch		✓		✓	
Maitai N Branch		✓		✓	
Oldham		✓		✓	✓
Todd Valley		✓		✓	✓
Hillwood		✓			
Delaware Bay		✓			✓
Wakapuaka	✓	✓		✓	✓
Lud		✓			
Teal		✓		✓	
Whangamoia	✓	✓			✓

Table: Fish and Wildlife Services