

# Inanga spawning sites beside Whanganui River

Results of a 2019 survey: 16 sites found from Kowhai Park to Kaiwhaiki

## Site features

12 sites were beside main river, 4 on tributaries near their confluence.

Eggs were at the base of long grass and other weeds at open sites that were unshaded by large trees.

Bank shape and slope determined the number of eggs laid at a site – gently sloping banks had the most.

Largest number of eggs found at Aramoho (1 million estimated) along 50 m of riverbank.

Sites were from 8–24 km upstream of river mouth.

## Inanga are threatened

Inanga are one of 6 species of native fish that are caught as whitebait.

Galaxiid that grows to 11 cm (*Galaxias maculatus*)

Threat status is At-risk – Declining

Threats include: loss of spawning habitat, wetland draining, poor water quality, lack of passage up and downstream, changed water flows, introduced fish, whitebaiting.

Knowledge about the species, quantity taken by fishers and impact of fishing is limited.



Inanga spawning sites in lower Whanganui River



Department of  
Conservation  
*Te Papa Atawhai*

## About inanga spawning

- Adult fish lay eggs in autumn in a tidal part of the river, often at the base of long grass high up on the bank.
- Larvae hatch about a month later during the next spring tide, and are carried downstream to the sea.
- Essential for the eggs to stay damp and undisturbed during this time.
- Eggs are also vulnerable to trampling by stock, floods, mud and being eaten by birds.
- Larvae grow into young inanga at sea during the winter.
- The following spring inanga migrate up-river: some are caught as whitebait and others grow into adult fish.



Spawning on 20 April: 500–1000 fish observed and the quantity of sperm turned the water milky.



Adult inanga



Patch of eggs at Upokongaro marked with stakes



Inanga eggs on vegetation

## Matarawa Stream



Matarawa Stream spawning area shown (site 13)

41,000 eggs found in March, 163,000 found in April and May.

Threats: unstable bank, weeds, whitebaiting.

Could be enhanced by planting, weed and tree control, bank recontouring and signage.

## Aramoho



Aramoho spawning area shown (site 1)

1 million+ eggs found in April and May on 50 m of riverbank.

Largest spawning site on Whanganui River.

Threats: rubbish, pedestrians (including dogs), boat wakes, willow and alder invasion.

Could be enhanced by native planting and signage.

## Kowhai Park



Kowhai Park north: spawning areas shown (site 8)

Patches of eggs found on a series of benched grassy areas: 153,000 found in April and May.

Threats: high public use (including dogs), boat wakes, willow and alder growth nearby.

Could be enhanced by native planting and signage.

## Papaiti – Waireka Road



Spawning occurs in patches over this area (site 4)

111,000 eggs found in March, 7000 in April (reduction probably due to flooding).

Threats: steep bank and undercuts can collapse, weeds, ducks (guano, trampling) and possibly rats.

Could be enhanced by bank recontouring, weed control.

## Mateongaonga Stream



Mateongaonga Stream about 80 m upstream of bridge (site 14)

1 million eggs found on 90 m of bank in March only – very productive site.

Threats: weeds, trees, whitebaiting.

## Downstream of Mateongaonga Stream mouth



Site is 280 m downstream of Mateongaonga Stream mouth (site 9)

Small patches of eggs (47,000–34,000) found in March, April and May.

Threats: grass grazing and site trampling by stock, and possibly whitebaiting.

Could be enhanced by managing grazing, weed and tree control

## Egg productivity estimates by month

Site		Sampling period		
Site no.	Site name	March	April	May (general observations)
1	Aramoho rowing buildings reach	3,812	1,049,988	Similar levels to April
2	Top 10 Holiday Park boat ramp	88,301	42,910	Similar levels to April
3	Opposite Aramoho Cemetery	29,457	No eggs	No eggs
4	Papaiti Road-Waireka Road reach	111,468	6,645 (flood impacts)	Lower levels than April
5	Opposite Upokongaro reach	4,055	7,763	Lower levels than April
6	Papaiti Road – Middle	No eggs	243	Similar levels to April
7	Poutama Road	na	na	22,066 *
8	Kowhai Park north reach	No eggs	152,774	Similar levels to April
9	Reach downstream of Mateongaonga Stream mouth	46,502	34,403	Similar levels to April
10	Kaiwhaiki Road – Lower	No eggs	5,182	No eggs
11	Kaiwhaiki Road – Middle	No eggs	575 (sampled 1 May)	Similar levels to April
12	Kaiwhaiki Road – Upper	na	na	92,639*
13	Matarawa Stream	41,053	163,438	Similar levels to April
14	Mateongaonga Stream	104,9686	No eggs	No eggs
15	Un-named stream near 221 Papaiti Rd	1,510	No eggs	Similar levels to March
16	Tauraroa Stream	598	788	Similar levels to April
	<b>Total eggs or estimated number</b>	<b>1,376,442</b>	<b>1,464709</b>	<b>1.4 M estimated for May and 1 M for June</b>

\*One-off productivity estimates for two upper river sites on 21 May