

Wonderful whitebait

Whitebait are the babies of five New Zealand freshwater fish species

These are inanga, kōaro, banded kōkopu, shortjaw kōkopu and giant kōkopu. They are all *native* to New Zealand – this means they have not been introduced. Three of them (banded kōkopu, shortjaw kōkopu and giant kōkopu) are *endemic* – they are found nowhere else in the world! Whitebait all look alike, but the adults look different– and swim and live in different places too.

Whitebait must move between habitats to grow. They live at sea as babies, but as adults they live in rivers, where they lay eggs on riverbanks during autumn floods. A few weeks later when the river next floods the eggs; the tiny young whitebait (called *larvae*) hatch and get washed out to sea. They spend the next 4–6 months getting bigger, then return to our rivers to find a home to grow into adults. This movement between the ocean and rivers is called *migration*.

But it's not easy finding a good home. We humans use culverts, dams and floodgates to help us cross or control rivers. These structures can stop fish migrating to up- and downstream habitats.

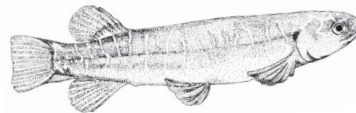


Kōaro



Inanga

Adult whitebait



Banded kōkopu



Shortjaw kōkopu



Giant kōkopu

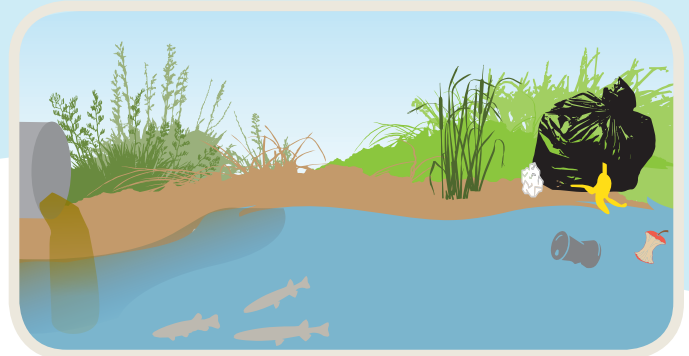
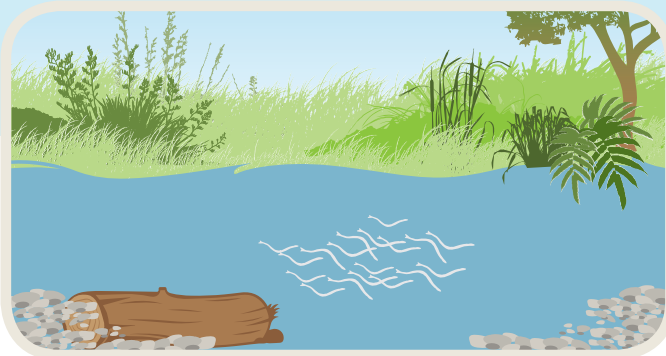
Finish drawing me,
then colour me in

DRAW YOUR OWN
**BABY
WHITEBAIT**



SPOT THE DIFFERENCE

Can you spot the five differences between the two pictures? Which stream would whitebait like?



Department of
Conservation
Te Papa Atawhai

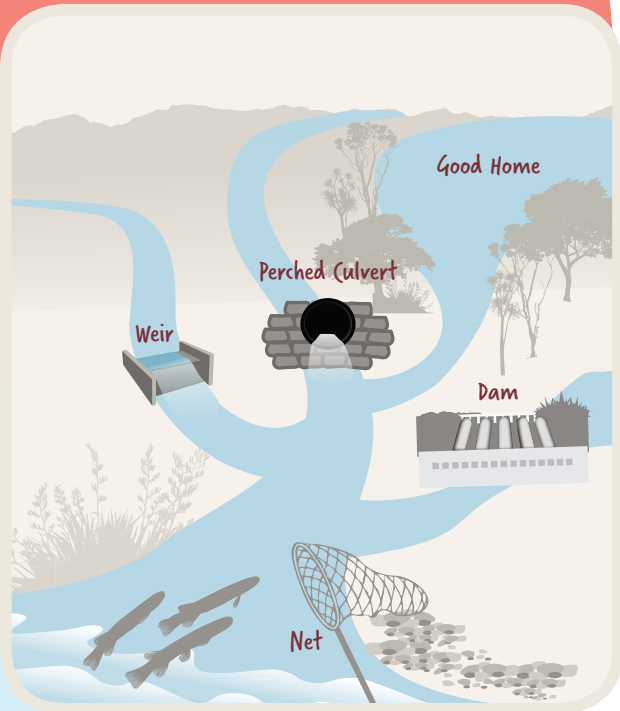


New Zealand
**Fish Passage
Advisory Group**



MIGRATION MAZE

Follow the rivers to get these whitebait to their homes



We can help whitebait survive

We can help whitebait by building our structures so whitebait can swim through them without barriers in their way. We can also put fish ladders or fish passes on structures, to help fish swim over or through them.

We should also make sure we don't catch all of them during whitebait season, so some can escape upstream to grow new families.

QUICK QUIZ

1. Name something that could stop whitebait swimming upstream from the sea.
2. Which whitebait species are found only in New Zealand?
3. Where do adult whitebait lay their eggs?

LONGEST RIVER IN NEW ZEALAND

Tell us the name of the longest river in New Zealand using the number/letter code below.

1	2	3	4	5	6	7	8	9
A	E	I	W	K	R	O	V	T

4	1	3	5	1	9	7	6	3	8	2	6
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WORDFIND

Can you find the 14 words hidden below?

NATIVE, FISH, WHITEBAIT, DAM, CULVERT, WEIR, FISHING, SWIMMING, PASSAGE, INANGA, RIVER, FRESHWATER, SEA, KŌARO

The words go up, down, across, backwards and at an angle. Use the remaining letters to tell us how to explain what 'fish passage' is.

F	W	H	I	T	E	B	A	I	T
H	R	E	V	I	T	A	N	F	R
C	S	E	I	N	A	N	G	A	I
V	G	I	S	E	A	I	S	H	V
L	P	N	F	H	M	I	G	R	E
V	A	A	I	T	W	I	N	G	R
E	W	I	S	M	O	A	T	H	D
R	I	N	W	S	M	R	T	A	A
T	T	E	R	W	A	I	A	E	M
F	I	S	H	I	N	G	W	O	R
A	Y	W	E	I	R	S	E	S	K

FACT:

Inanga like to live near the sea in lowland streams and wetlands, and are not very good swimmers. But kōaro like to swim far up into the rivers – they can even climb big waterfalls!

Spot the difference answers: Whitebait would like the left stream more! The five differences are: 1) rubbish has been added; 2) the culvert is fewer whitebait compared to good stream; 3) grass/plants are missing from the bank that give shade, food and a place to lay eggs; 4) fewer whitebait within waterways. **Quick quiz answers:** 1) Barrier to fish passage – perched culvert, dam, weir, or a whitebait net. 2) Banded kōkopu, giant kōkopu, shortjaw kōkopu. 3) On the banks of a river during a flood.