



Department of
Conservation
Te Papa Atawhai



AROWHENUA
NATIVE NURSERY & RESTORATION



Paraki/Stokell's Smelt

Have You Seen this Fish?



Stokell's smelt (*Stokellia anisodon*) is one of New Zealand's rarest freshwater fish and is found only in Canterbury. Recent surveys show the species has declined significantly and is now classified as Threatened – Nationally Critical.

WE NEED YOUR HELP to learn more about where this fish is still found so we can help support their recovery!



**THREAT
CLASSIFICATION**

**Threatened
Nationally Critical**

Short scale bars indicate 1 mm
Photo © Nicholas Dunn

Key facts about Stokell's smelt:

- » They're found only along Canterbury's east coast, between the Waiau and Waitaki rivers, making them one of New Zealand's most geographically restricted native fish species.
- » They're found in lowland freshwater habitats close to the coast, particularly hāpua, estuaries and lower river reaches.
- » They spend most of their life at sea before returning to freshwater as adults in spring/summer to spawn.
- » They often form shoals in hāpua and estuaries.
- » They lay sticky eggs on riverbed substrates.
- » They're culturally significant as a taoka/taonga and mahika/mahinga kai resource for Ngāi Tahu.
- » Their short lifespan of just 1–2 years means population declines can happen rapidly if spawning or juvenile survival is reduced.
- » Historically, Stokell's smelt formed large seasonal migrations into Canterbury river mouths and hāpua, where enormous shoals were reported by early observers. Today, only a small number of populations are known to remain.
- » Some whitebaiters call them 'silveries' because of their bright colour, or 'cucumber fish' because they smell like cucumbers.





How to Identify & Help Save Stokell's Smelt

Paraki/Stokell's smelt (*Stokellia anisodon*):

Identification in the field can be challenging, particularly in Canterbury where Stokell's smelt and common smelt (*Retropinna retropinna*) often occur together. Reliable identification may require detailed examination or genetic tools such as eDNA analysis to confirm their presence.



Distribution: Found only in Canterbury, between the Waiau and Waitaki rivers. Stokell's smelt can easily be confused with the common smelt as they look very similar.



Size: Adults usually 70–85 mm long – occasionally up to 100 mm (unlike common smelt usually larger at 90–165 mm)



Scales: Smaller and more numerous scales – around 100 (unlike common smelt with fewer, larger scales, < 70)



Colouring: Silvery and usually darker along their back



Teeth: Their teeth aren't visible when their mouth is open (unlike common smelt teeth that are often visible on close inspection)



Photo © Sjaan Bowie



Photo © Tame Heurea



What to do if you see a Stokell's smelt...

Help us protect this Canterbury treasure by sharing observations and supporting healthy hāpua, river-mouth and coastal habitats. You can help secure the future of this unique native fish for generations to come.

We are interested in getting reports of:

- » large schools of smelt in river mouths or hāpua
- » fish matching the description of Stokell's smelt
- » spawning activity
- » historical observations from whitebaiters and local communities.

What to record for your report:

- ☒ waterway name and location
- ☒ date you saw the fish
- ☒ approximate number of fish you saw
- ☒ any photographs or video
- ☒ habitat description.

Report your observations to:



Department of Conservation
Te Papa Atawhai

info@doc.govt.nz | 0800 ASK DOC

iNaturalist

www.inaturalist.org



To learn more about paraki/Stokell's smelt go to
www.doc.govt.nz/nature/native-animals/freshwater-fish/smelt

