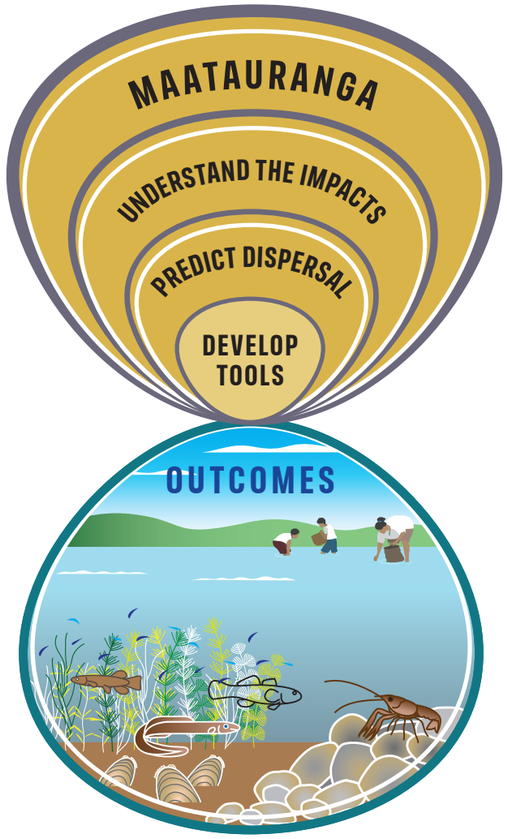
Stopping the gold clam: *it is now or never!*



An Earth Sciences NZ-led programme to develop effective, and culturally-attuned strategies for managing the freshwater gold clam.

Stopping the spread of the freshwater gold clam (*Corbicula fluminea*) is of critical importance for preserving native biodiversity, protecting infrastructure, and maintaining the cultural and recreational value of Aotearoa-New Zealand's waters.

This MBIE-funded Endeavour research programme will:

- Understand the impacts of the gold clam (ecological, economic, and cultural)
- Predict dispersal and future establishment enabling the prioritisation of locations for monitoring and early intervention
- Develop a suite of effective interventions (tools) to reduce the risk of transfer and to manage the gold clam at different scales.

Key collaborators include Earth Sciences NZ, Ngaati Koroki Kahukura, Waikato Tainui, Raukawa, Te Arawa Lakes Trust, MPI, DOC, University of Waikato, and international experts.

To find out more or sign up for the project e-newsletter visit **niwa.co.nz/Stopping-the-gold-clam-invasion**

Why is the invasive gold clam a problem in Aotearoa New Zealand?

Aquatic ecology

Gold clam reproduces rapidly and in large numbers and can outcompete native species for food and habitat resources. It has a high tolerance for a wide range of environmental conditions, allowing it to spread rapidly and establish populations in diverse habitats. They alter ecosystem dynamics including nutrient cycling and sediment composition which in turn affects water quality.

The "invisibility" to the naked eye of the tiny juvenile phase makes it difficult to determine their presence.

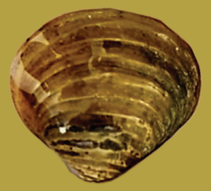
Economy

Gold clam can also have large economic impacts e.g. clogging water intake pipes and machinery leading to increased maintenance costs. They could also impact recreational activities such as swimming and boating.

Controlling gold clam populations can be challenging and costly.

Social and cultural

Sandy lake beaches can become covered in clam shells, altering the way our lake shores' look and feel (to our feet) and the way we interact with our freshwater.



Gold clam (*Corbicula fluminea*) is native to eastern Asia and is widely established in North and South America and Europe.

They were first discovered in the Waikato River in May 2023 at Bob's Landing, within Lake Karāpiro. Since then, populations have been discovered from Lake Maraetai all the way downstream to Tuakau Bridge. Gold clams have been given the legal status of an Unwanted Organism under the Biosecurity Act.

This means that people must not knowingly move them or water that may contain them. To do so would be an offence under the Biosecurity Act. People can still use the Waikato River for recreation, including boating and fishing, or gathering of kai (food) if they follow the requirements of the controlled area notices, and clam specific 'Check Clean Dry' procedures, before moving their equipment or craft.

Earth Sciences NZ invasive gold clam field guide, January 2026

Earth Sciences New Zealand

Invasive gold clam field guide

Your waterside guide to identifying the invasive clam.

Help stop spread – Check-Clean-Dry

If you move from parts of the Waikato River where the gold clam has been detected to another area where it has not, or any other freshwater environment such as another lake or river, or any brackish water such as an estuary, you must:

1.CHECK
for what is visible

Remove any visible matter, including any clams you can see, along with plant material or mud. Drain all river or lake water.

2.CLEAN
for what is not visible

Washdown your gear, vehicle, watercraft, and trailer that has been in contact with river or lake water with tap-water onto grass, beside the waterway or at home and not into a stormwater drain system.

For absorbent surfaces and materials that have been in contact with river or lake water (including carpet on trailers and lifejackets) use an appropriate treatment in the treatment options table.

Treat residual water that always occurs when on-board ballast bladders or tanks have been pumped.

3.DRY
to be sure

Gear:
Allow gear to dry to touch, inside and out, then leave it to dry for at least 48 hours (2 days) before using again.

Watercraft
Dry areas inside the watercraft where water has pooled, for example with an old towel, and then leave the craft to dry for at least 48 hours (2 days). The hull of a watercraft will dry when towed.

Note: these steps will also prevent the spread of other freshwater pest species.

Treatment options for gear made of absorbent material

Hot water – soak in hot tapwater (55°C) for at least 5 minutes

Diluted bleach – soak in household bleach in a 5% (500mls diluted to 10 litres of water) ratio for 1 hour.

Freezing – until solid (that is, freeze overnight).

Note: Refer to manufacturers' instructions for any treatments on gear.

Stay up-to-date for the latest treatment options and biosecurity response advice at:

biosecurity.govt.nz/clam

Earth Sciences New Zealand

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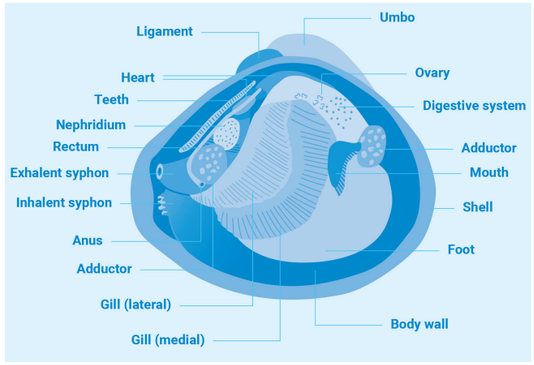
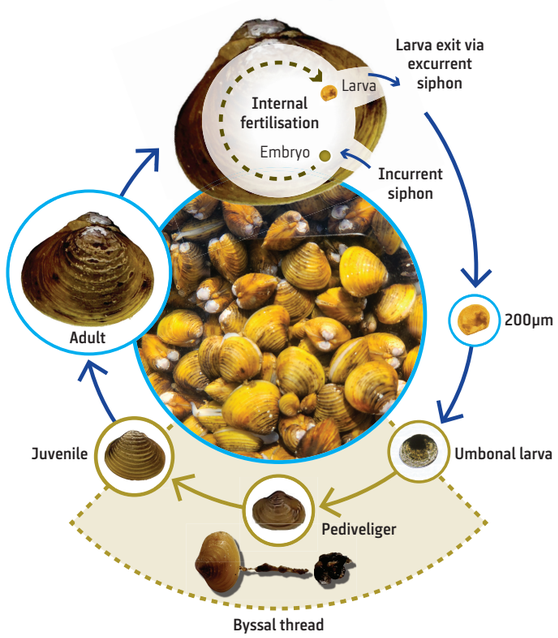
Your waterside guide to identifying the invasive clam

Gold clam anatomy



For more visit **niwa.co.nz/gold-clam-anatomy**

Gold clam lifecycle



For more visit **niwa.co.nz/gold-clam-lifecycle**

What should we do?

Keep a look out for anything new in your lake or waterway and report it to MPI.

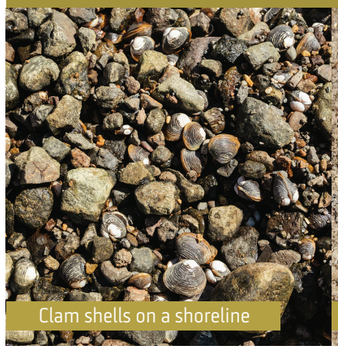
Make sure your gear is clean and dry, free of any 'hitch-hikers' before you use it in another location.

Find out more about the invasive gold clam and Earth Science NZ research programme at:
niwa.co.nz/Stop-the-gold-clam-invasion

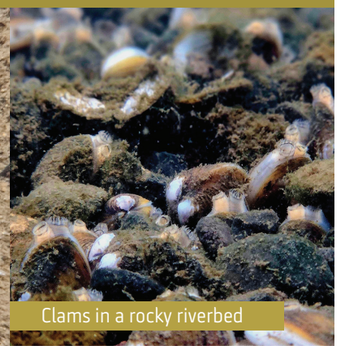
What habitats can gold clam live in?

Gold clam are found in freshwater in highest abundance around the edges of lakes and rivers. They can survive a wide range of temperatures and can live in:

- lakes, and rivers down to where saltwater and freshwater mix
- on top of, or buried in, a variety of substrates (for example gravel, sand, mud)
- they require high oxygen waters.


Clam shells on a shoreline


Clam syphons in sediment


Clams in a rocky riverbed

How to detect the invasive gold clam

Early detection allows a quick response and keeps open the possibility of local eradication of these newly detected, not well-established populations.

1. Before you go into the water

Check the shoreline for shells

2. In the water

Look for shells and syphons, see opposite photo

Take scoop of the river or lake bed to see if there are clams in the sediment.

3. Back on shore

Check – Clean – Dry! *(See other side for process)*

If you find freshwater gold clam:

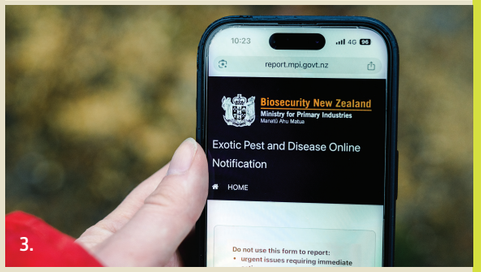
- Note the location. Take a photo if possible of the clams and the area around them
- **DO NOT MOVE THEM FROM WHERE FOUND**
- Contact Biosecurity New Zealand on 0800 80 99 66 or complete the online reporting form at **https://report.mpi.govt.nz/**

Do not eat freshwater gold clam

These small shellfish filter-feed and eat deposits from the river or lake bed. Because of this, they can accumulate toxins in their gut.


1.


2.



3.

Know your gold clams from your native pea clams and kākahi/kāeo


Echyridella aucklandica


Echyridella menziesii

Adult kākahi/kāeo are large and black/brown

Adult gold clams have distinctive ridges on the shell and may have an eroded area at shell tip.

Smaller kākahi/kāeo may be golden or have a green tinge (no defined ridges on shell)

Sphaeriidae (native pea-clam) have no ridges on the shell

Juvenile kākahi/kāeo

Juvenile gold clams are gold/yellow or beige when less than 10mm

LOOK ... show us your true colours!

Kākahi – freshwater mussel
Adults are black, brown, green
Juveniles are pearly white

Native pea clam
(Sphaeriidae)
Pale white/creamy coloured

Invasive golden clam
(*Corbicula fluminea*)
Adults are gold/yellow, brown and white
Juveniles are gold/yellow or beige when less than 10mm

FEEL

If you run your fingernail down the shell you'll feel ...

Kākahi – freshwater mussel
Irregular growth rings but no distinct ridges

Native pea clam
Smooth with no ribbed texture

Invasive golden clam
Heavily ribbed texture you will feel and ***'hear'*** the ridges

SIZE ... it matters in the clam world

Kākahi – freshwater mussel
Adults are up to 10cm, roughly the size of a lime

Native pea clam
Adults are around 6mm which is smaller than a pea

Invasive golden clam
Juveniles start off sand grain sized while ***adults*** are 2-3cm, but could grow to 5cm, the size of a large strawberry

SHAPE ... they're all different

Kākahi – freshwater mussel
Oval

Native pea clam
Round

Invasive golden clam
Resembles a rounded triangle