

# Pacific Acorn Barnacle

*Balanus glandula*

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## Pathway

- Hull fouling
- Ballast water
- Litter

## Impacts



### Biodiversity

Known to outcompete native barnacle and mussel species, altering local biodiversity.



### Human Health

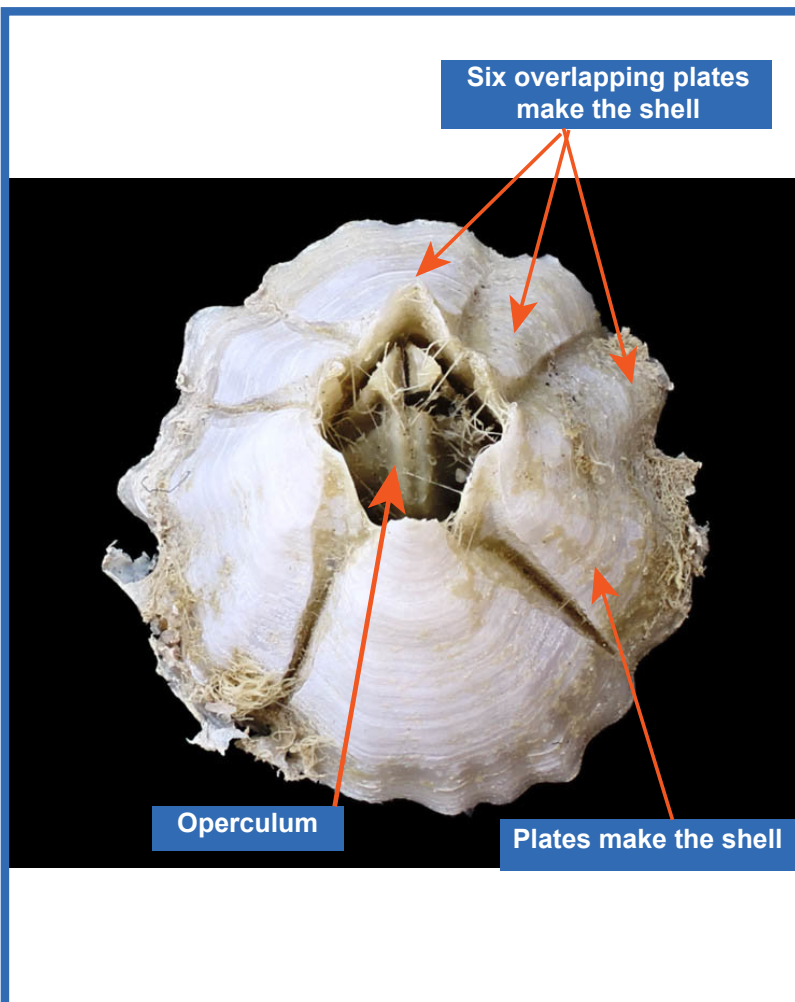
None known.



### Economy

Has the potential to clog fishing nets during bloom-like outbreaks.

## Key ID Features



## Description

Its shell is formed from calcium carbonate and consists of six overlapping plates; the operculum, which protects the animal when it is not feeding, and its base plate. The height of this barnacle is usually equal to its width. However, they can grow in very concentrated numbers which can cause them to grow tall and thin due to lack of space.

### Size

Approximately 1.5 cm in diameter, but can range from 0.8 cm – 2.2 cm.

### Colour

The shell colour ranges from white to grey. The plates of its mouth cavity (operculum) are also white but may appear darker as the inner layer of the operculum is black.

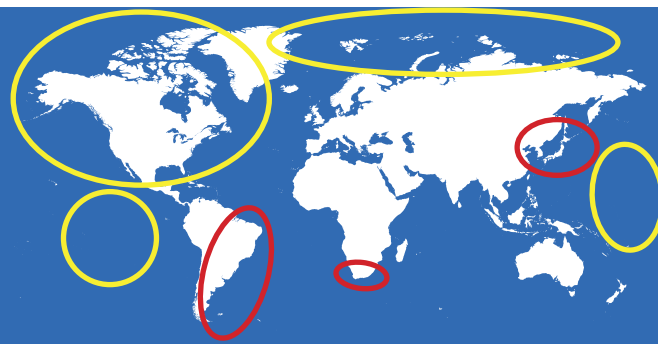
\*Note: Images not to scale



## Distribution

**Native range:** Both coasts of North America, Pacific Ocean, Arctic Ocean and Western Central Atlantic: Alaska, USA and Canada.

**Non-native range:** Argentina, south-western Atlantic, Japan, and South Africa.



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## Habitat and Ecology

**Habitat:** Commonly found on intertidal rocks in sheltered waters, on pilings and man-made floats. This species can reach densities of up to 70,000 per square metre.

**Environmental preferences:** Most abundant in salinities of 26 to 30 PSU but can be found outside of these ranges. Able to tolerate temperatures of 4.3°C to 21°C. This high temperature tolerance allows it to outcompete many native barnacle species by colonising areas that other species cannot.

**Diet:** Feeds on particulate organic matter from the water column.

**Reproduction:** Hermaphroditic broadcast spawner. Fertilisation occurs in the mantle cavity of the barnacle where the eggs are brooded before being released as larvae into the water column. The larvae remain in the water column for 4 - 8 weeks and can travel over 100 km before they attach to a suitable substrate and moult into the adult form. This species becomes sexually mature when they reach a size of 10 - 15 mm.

## Confusion with similar species

No similar species known. The characterising feature of this species is the operculum which appears darker due to the black inner layer.

## Images

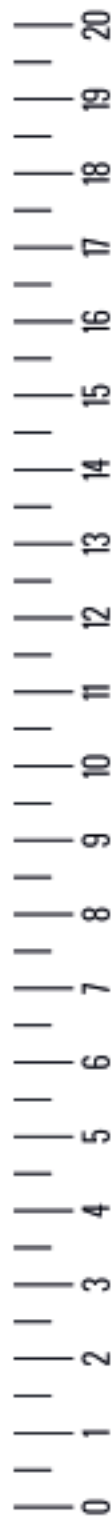
Front: © Yves Barette

If you think you have seen this species, please contact the person below who will confirm its identity.

Please also refer to the mitigation strategies guidance document, provided as part of the Marine Biosecurity Toolkit.

## Further Information

- [https://inverts.wallawalla.edu/Arthropoda/Crustacea/Maxillopoda/Cirripedia/Balanus\\_glandula.html](https://inverts.wallawalla.edu/Arthropoda/Crustacea/Maxillopoda/Cirripedia/Balanus_glandula.html)
- <https://www.invasives.org.za/legislation/item/790-pacific-barnacle-balanus-glandula>
- Barnes, H. and Barnes, M., 1956. The General Biology of *Balanus glandula* Darwin. *Pacific Science*, 10.



cm