

Discovering Diversity

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Part Three

Some specimens in the invertebrate collection represent the many non-native species that have arrived on our shores during the past century. These creatures link us to places beyond our borders. Perhaps the most cherished specimens are those that are most familiar, connecting us to our home. The Giant Pacific Octopus, Gumboot Chiton, Giant Acorn Barnacle and Sunflower Star – all remind us that our ocean is astonishingly unique.

British Columbia is home to several superlatives, including the largest species of seastar in the world. The Sunflower Star is also widely recognized as a *keystone species*. Keystone species have significant effects on the distribution and abundance of other marine organisms in the Northeast Pacific.

The European Green Crab is one of the most notorious, non-native species recently introduced to the BC coast. This crab has a reputation for being a voracious predator, decimating shellfish populations and having dramatic impacts on native ecosystems. In spite of its name, this species is not always green in colour, but can be distinguished by its five prominent spines along each side of the carapace.



Sunflower Star, (*Pycnopodia helianthoides*)
Credit: RBCM, 975-00275-008

Unfortunately the Sunflower Star has been afflicted with the Seastar Wasting Syndrome that recently spread throughout the region. The disease, which first appears as lesions but rapidly progresses to complete tissue decay, can be devastating to seastar populations, and ultimately may have cascading effects on the entire marine community.



European Green Crab (*Carcinus maenas*) Credit: RBCM

Originally from Europe, the Green Crab was introduced to the Pacific Coast in San Francisco Bay in the 1980s, likely via ballast water. By 1998, this “mean-green-eating-machine” had extended its range northward to the west coast of Vancouver Island. The Green Crab has since spread, and now can also be found in the Strait of Juan de Fuca and the Central Coast.