

## Abstract

In 2012 the Asian shore crab (*Hemigrapsus sanguineus*) was spotted off the coast of Sweden for the first time. A few years later, in 2016, the brush-clawed shore crab (*Hemigrapsus takanoi*) was detected as well. These species originally come from the western part of the Pacific Ocean and both species are invasive in Europe.

The European green crab (*Carcinus maenas*) is native to Sweden and the rest of Europe. This study aims to investigate whether the invasive species will outcompete the European green crab in Sweden. Three different experiments have been performed in order to determine this. The first method was a field study intended to examine if the number of European green crabs on a certain shore was directly dependent on the number of invasive crabs on the same shore. The result showed no such connection. The other two procedures were done in aquariums. One of the experiments focused on the species' preferences in seabeds. Sand, fine gravel and stone were used as the different substrates. According to the result both the European green crab and the brush-clawed shore crab seem to be generalists as they picked a variety of substrates. The Asian shore crab on the other hand chose stone bottom in a majority of the cases which suggests that the species is a specialist. The last research explored how competitive the different species are in a fight over a piece of food. The observations show that the European green crab is generally the first to find the food, but the invasive species are tougher fighters and steal the piece later on.