

The introduced European green crab, *Carcinus maenas*, poses a potential risk to the restoration of the native Olympia oyster, *Ostrea lurida*, in Tomales Bay, California. The green crab is a voracious predator and has negatively impacted shellfish in both its native and invaded environments. The Olympia oyster population in Tomales Bay is depleted due to pollution, predation, and past overharvesting. A collaborative restoration project began in 1999 to re-establish the Olympia oyster population to Tomales Bay by placing artificial reefs at several locations in the Bay. I investigated the potential impacts of the European green crab on the Olympia oyster during July and August 2003. At four field sites in Tomales Bay, I trapped green crabs at both potential and established oyster reef restoration areas. I conducted laboratory feeding experiments of *C. maenas* on *O. lurida* to examine whether or not the crabs would consume the oyster and whether different sizes of crabs showed a preference for varying sizes of oyster. Initial trapping results suggest higher green crab population numbers at rocky habitats as opposed to mud flats. In addition, the trapping data suggest it may be possible to trap out the green crabs from the reef areas. The feeding experiments indicate that the green crabs do consume the Olympia oysters, and that the number of oysters consumed decreased as oyster size increased.