

**DEFENDING
PUGET SOUND
AGAINST
INVASIVE
EUROPEAN
GREEN CRAB**



Washington Sea Grant Crab Team

Aggressive, adaptable and highly invasive, the European green crab has disturbed and diminished coastal ecosystems worldwide. But it hadn't appeared in Puget Sound...until this year. In August 2016, a single green crab was captured on San Juan Island, at the northwestern edge of this region's vulnerable waters. Four additional crabs were found a few weeks later at the Padilla Bay National Estuarine Research Reserve.

Fortunately, this incursion was detected early thanks to careful monitoring already underway by the **Washington Sea Grant Crab Team**. Washington Sea Grant (WSG) worked with the Washington Department of Fish and Wildlife (WDFW) and other agencies to organize and train a network of volunteer monitors. WSG first deployed their Crab Team in summer 2015, with the program kicking into high gear in 2016, just in time to intercept the invader.

The Crab Team collaboration is a model for a successful early detection effort and sparked intense public and media attention. Through regional media, including *The Seattle Times*, KUOW radio and KING 5 TV, an estimated 300,000 boaters, fishermen and residents have been alerted to watch for green crab and report sightings to the Crab Team.

While this sort of early detection offers real hope for controlling invasive species, there's one problem – the *Crab Team's funding expires at the end of 2016*.

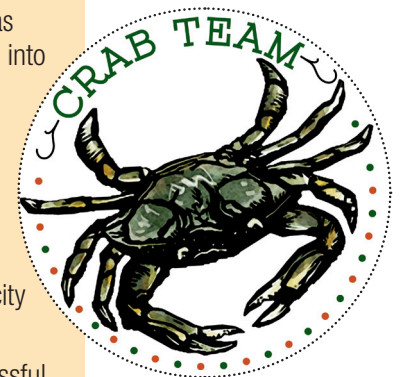
**There's concern
about how it's
going to change
the habitat...
and the whole
ecosystem.**

Padilla Bay Reserve
Research Coordinator,
Jude Apple, *Skagit
Valley Herald*, Oct. 3,
2016

THE CRAB TEAM

Through effective outreach and a tested citizen-science protocol, the Crab Team program has proven its capacity to rigorously monitor, identify and assess European green crab intrusions into Puget Sound.

- The program offers a transferable model for volunteer-based efforts to address similar threats in other locales.
- Nearly 100 volunteers regularly monitor 26 sites around the Puget Sound region, filling critical WDFW data collection needs.
- State managers rely on WSG and the Crab Team to provide essential expertise and capacity for scientific analysis and rapid response activities.
- The small number of crabs found during the 2016 monitoring effort bodes well for successful near-term control, but continued monitoring is critical to crafting a longer-term response.



EUROPEAN GREEN CRAB THREAT

The ecosystem services provided by Washington's salt marshes, eelgrass beds and marine and estuarine waters have been valued at billions of dollars annually. They support the nation's top production of farmed clams, oysters and mussels, as well as fisheries worth more than \$330 million annually. Environmental damage by green crab threatens Puget Sound economic and cultural resources upon which the region's coastal tribes and communities rely.

- European green crab is one of the world's most feared invasive species, classified as injurious by the U.S. Fish and Wildlife Service and as a Level 1 (highest risk) prohibited species in Washington State.
- Unchecked, green crab can deplete local shellfish species, destroy eelgrass beds and destabilize saltwater marshes that are critical habitats for native Dungeness crab, juvenile salmon, forage fishes and waterfowl.
- Nearly 200 sites in Puget Sound offer particularly favorable habitat for green crab, and all 2,500 miles of the Sound's shoreline are potentially vulnerable to this adaptable invader.



REQUEST

To ensure that current and new volunteers are ready to resume monitoring in 2017 and that the state can meet this critical challenge, the Crab Team needs:

- short-term funding of \$75,000 to pay for supplies, cover program costs and continue monitoring through June 2017; and
- an additional \$105,000 to \$155,000 per year for an expanded program that will monitor more sites, coordinate with other groups interested in monitoring, and help WDFW provide critical rapid response and assessment.

	Short-term Funding (January – June 2017)	Long-term Funding (Annual)
Total Crab Team Budget	\$95,000	\$180,000
WDFW Contribution	\$0	\$50,000*
WSG Contribution	\$20,000	\$25,000
NEED	\$75,000	\$105,000

*Pending approval of state budget request

MORE INFORMATION

wsg.washington.edu/crabteam

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