



"Botrylloides violaceus" credit: Dann Blackwood (USGS)



"Carcinus maenas" Credit: © Hans Hillewaert



"Didemnum vexillum" credit: Dann Blackwood (USGS)

## A Marine Invasive Species Risk Assessment for the Bering Sea

*A partnership among UAA's Alaska Center for Conservation Science, The Aleutian and Bering Sea Islands LCC, Alaska Sea Grant and U.S. Fish and Wildlife Service Alaska Maritime Refuge.*

### Project Overview

Introductions of marine invasive species to the Bering Sea have historically been relatively low, most likely due to geographic isolation and limited human activity; however, with changing global shipping patterns and warming ocean temperatures, introductions are likely to increase. More than 70 marine invasive species have been identified as either occurring, or having the potential to occur in Alaska waters based on proximity of species in neighboring regions, presence of suitable habitat in Alaska, and active vectors that could lead to unintentional introductions (Alaska Invasive Species Working Group 2010). Our goal is to perform a marine invasive species risk assessment that will provide the most up-to-date information for the Bering Sea and investigate risk factors associated with commercial shipping and fishing traffic.

We plan to produce a quantitative invasiveness ranking system to assess the level of risk for those species most likely to impact commercial fishing and subsistence practices vital to the region's communities. This ranking system will enable managers, industry, and communities to prioritize species for prevention, early detection and response efforts. In addition, it establishes a method for managers elsewhere in the state to evaluate risk, and raises awareness of the threat from marine invasive species to Alaskans.

### Project Objectives

1. **Compile a list of invasive marine species** that are present, or have the potential to establish in the Bering Sea
2. **Develop a Marine Invasiveness Ranking System** for the Bering Sea that can be adapted for use elsewhere in Alaska
3. **Rank the invasive marine species** advanced by expert opinion, using this newly-developed ranking system
4. **Conduct a formal review** of the ranking process and associated data products by subject-matter experts
5. **Develop an outreach program** on marine invasive species targeting residents and maritime industries

