Who is conducting the research?
Scientists from the Alaska Fisheries Science Center and Tjärnö Marine Laboratory University of Gothenburg Sweden with support from the Deep Sea Coral Research and Technology Program and North Pacific Research Board.

What are the research objectives?
The goals of this project are three-fold; a) to investigate recruitment processes in the dominant deep water coral species in the Alaska region, *Primnoa pacifica* (red tree coral), utilizing Artificial Reef Monitoring Structures (ARMS) that were dropped in two locations in 2013; b) to investigate fertilization and larval kinetics in *Primnoa pacifica* collected from the populations around the ARMS; and c) to investigate a suite of other Alaskan deep sea corals and sponges for basic reproductive ecology, utilizing collections in museums and from the annual Alaska Fisheries Science Center bottom trawl groundfish surveys.

Where is the research being conducted?
Survey operations will begin from Elfin Cove, Alaska on the Alaska Department of Fish and Game research vessel R/V Solstice. Researchers will proceed to Fairweather Ground to retrieve 4 ARMS plates placed in 2013 and deploy 5 new ARMS plates.

Why is the data important? How will data be used?
The Alaska region has some of the greatest biodiversity and widespread distributions of deep-water corals and sponges in the Pacific region, yet despite their importance to benthic ecosystems ecological knowledge is poor for the majority of species. Understanding reproduction and recruitment processes of corals is vital to understanding how ecosystem engineers, and thus their associated fauna, will recover from anthropogenic impacts. The general life history characteristics of deep corals and sponges (slow growth, late maturity, infrequent reproduction and recruitment) make them particularly susceptible to damage from anthropogenic impacts such as bottom fishing.
Timetable. Proposed Operations for Coral Settlement Plate Recovery/Deployment, June 2022

Schedule for the 2022 Coral Settlement Plate Recovery / Deployment

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey preparation in Seattle</td>
<td>April 9th</td>
</tr>
<tr>
<td>Survey team travels to Juneau</td>
<td>June 9th</td>
</tr>
<tr>
<td>3-day shelter in place</td>
<td>June 9-12th</td>
</tr>
<tr>
<td>Survey team travels to Elfin Cove</td>
<td>June 12th</td>
</tr>
<tr>
<td>Gear and equipment mobilization</td>
<td>June 12th</td>
</tr>
<tr>
<td>*Survey operations begin</td>
<td>June 12th</td>
</tr>
<tr>
<td>Survey operations end</td>
<td>June 20th</td>
</tr>
<tr>
<td>Demobilization in Cordova</td>
<td>June 20th</td>
</tr>
</tbody>
</table>

*Current schedule as of May 1, 2022. Survey start date is dependent on vessel readiness and transition from previous projects.

What steps are you taking to prevent spread of COVID-19? (bulleted list, cite only high level activities from SOP)

- Reduced contact periods prior to and after travel
- Antigen test prior to travel to port of embarkation
- 3-day shelter-in-place at port of embarkation
- Antigen test prior to embarkation
- Monitoring of temperature and symptoms prior to and throughout operations
- During survey operations crew will maintain reduced contact and distancing when possible

How do you plan to communicate research results? (e.g., outreach document, webstory, radio interview, community meeting, etc.)

Results will be communicated through processed reports, scientific papers, and web stories available to the public on the Alaska Fisheries Science Center website and the Deep Sea Coral Research and Technology website.

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