Validation of Coral & Sponge Distribution Modeling in the Gulf of Alaska
June 10 – July 15, 2022

Who is conducting the research?
Scientists from the Alaska Fisheries Science Center with support from the Deep Sea Coral Research Technology Program.

What is the research objective?
The primary objective of this research expedition is to validate coral and sponge predictive models for the Gulf of Alaska with visual observations. To accomplish this goal we will collect density and size estimates for deep-sea coral and sponge at randomly selected sites and document species associations with fish and other invertebrates.

Where is the research being conducted?
Survey operations are based out of Homer, Alaska aboard the research vessel R/V Woldstad. Researchers will visit approximately 300 stations in the waters of the Gulf of Alaska, from Unimak Pass to Southeast Alaska. Stations will be selected from locations (see map) based on predetermined priority status.

Why is the data important? How will data be used?
Ecosystem-Based Fisheries Management is a holistic approach for maintaining healthy, productive, and resilient ecosystems including coral and sponge habitats. To effectively manage deep-sea coral and sponge ecosystems in Alaska, data that characterizes their presence/absence, diversity and abundance are necessary. Since not all locations can be explored given the immensity of Alaska, predictive models must be developed to best determine where sponges and corals are likely to be found. However, predictive models need to be ground truthed with visual observations from the field to confirm their validity.

Data collected from this project will be used to refine species distribution models and maps for the Gulf of Alaska and inform management of regions of high coral and sponge density and diversity.

See timetable and station map on back
**Timetable.** Proposed Operations for the Gulf of Alaska Model Validation Survey, June - July 2022

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>COVID screening test for travel</td>
<td>June 9th</td>
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<tr>
<td>Survey team travels to Homer, AK</td>
<td>June 10th</td>
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<tr>
<td>3-day Shelter in Place</td>
<td>June 10th</td>
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<tr>
<td>Gear and equipment mobilization</td>
<td>June 13th</td>
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<tr>
<td>COVID screening test prior to embarkation</td>
<td>June 14th</td>
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<tr>
<td>R/V Woldstad departs</td>
<td>June 14th</td>
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<tr>
<td>Survey operations begin</td>
<td>June 14th</td>
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<tr>
<td>Crew swap in Yakutat, AK (Shelter in Place and testing)</td>
<td>July 1st</td>
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<tr>
<td>Survey operations end</td>
<td>July 14th</td>
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<tr>
<td>Demobilization in Homer, AK</td>
<td>July 15th</td>
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</tbody>
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**What steps are you taking to prevent spread of COVID-19?**

- 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?**

During the survey we will be communicating progress through web blogs. After the survey, images will be annotated and data submitted to National Centers for Environmental Information (NCEI). Results will be communicated through processed reports, scientific papers and web stories available to the public on the Alaska Fisheries Science Center website.

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