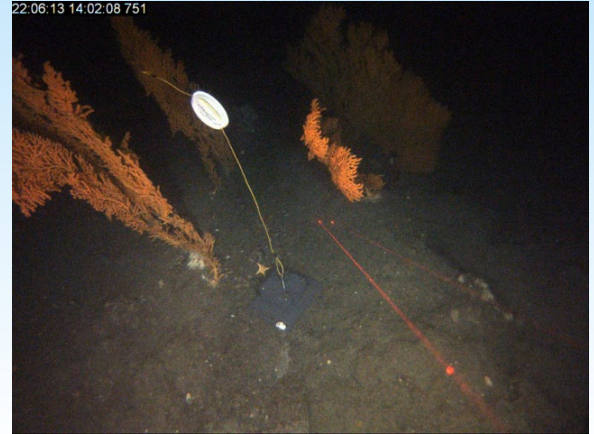




## Gulf of Alaska Coral Settlement Plate Recovery and Deployment

August 3 – 6, 2024



### 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?

This is the third field excursion for this project and includes two objectives; 1) to continue investigating recruitment processes of a dominant deep water coral species in the Alaska region, *Primnoa pacifica* (red tree coral), utilizing Artificial Reef Monitoring Structures (ARMS); 2) to investigate fertilization and larval ecology in *Primnoa pacifica* specimens collected in the field. Once back in the laboratory, the specimens will be divided into three groups: a) one group will be kept for general observation, b) a second group will be strip-spawned and examined for motile sperm, count concentrations, and fertilization, c) a third group will be preserved for histology to confirm reproductive phases.

### Where is the research being conducted?

This study was originally planned in coordination with Alaska Department of Fish and Game (ADFG) rockfish surveys off SE Alaska.

Due to vessel scheduling conflicts at ADFG, the survey was moved to grounds closer to Homer, Alaska. Work in 2024 will take place between Homer and Cordova, Alaska aboard the ADFG research vessel R/V *Solstice*. Three new ARMS plates will be deployed, to be retrieved at a later date, as a continuation of the reproductive study. In addition, approximately 30 samples of *Primnoa pacifica* will be collected for the laboratory studies previously described.

### Why are the data important? How will the 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.

## Schedule for the 2024 Coral Settlement Plate Recovery/Deployment and laboratory specimen collection

Survey preparation in Seattle	May/June
Survey team travels to Juneau	July
Laboratory preparations	July
Survey team travels to Homer	August 2
Gear and equipment mobilization	August 2-3
Survey operations begin	August 3
Survey operations end	August 6
Demobilization in Cordova	August 6
Laboratory Team in Juneau	August 6-20

### 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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