



**NOAA**  
**FISHERIES**

Alaska Fisheries  
Science Center

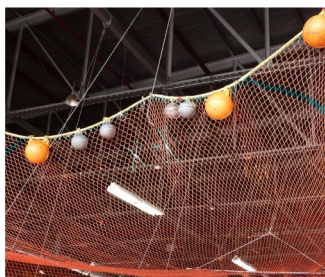
Resource  
Assessment and  
Conservation  
Engineering

# Alaska Fisheries Science Center: Research Fishing Gear Program

## What We Do

The Research Fishing Gear Program helps to manage and develop scientific fishing gear that is used in support of survey research. By designing and testing gear that meets current fishing standards and creating experimental approaches, this program hopes to increase overall fish survival and lower bycatch numbers. Some nets may be outfitted with various electronic sensors such as dataloggers that collect depth, temperature and global position information. Additionally, camera or video "sleds" may be used to observe overall trawl performance and evaluate equipment for overall success.

The Research Gear Program and Race Survey Support Teams contribute to the accomplishment of the scientific mission of the Resource Assessment and Conservation Engineering Division and the Alaska Fisheries Science Center through technical expertise and supplying survey, research, and fishing equipment.



Top: Parts of the Poly Nor'eastern Bottom Trawl.

Middle: Three nets with bails of web on trailer.

Bottom: Footrope, bobbins, discs and wing of net. Credit: NOAA Fisheries.



An example of a good net bundle.



## 2024 Accomplishments

- Supplied, serviced, packed and transported four shipping containers of equipment used to conduct the annual stock assessment surveys to and from Alaska. This included PPE, cold water survival equipment, data collection electronics, net mensuration equipment, safety and first aid equipment, and biological specimen collection equipment
- Staff oversaw the transportation and rigging of sampling gear to four contracted fishing vessels including:
  - interfacing vessel GPS units with Alaska Fisheries Science Center electronics
  - wiring in connections to net mensuration equipment
  - setting up a full wet lab with electronics for data collections
  - providing 24/7 technical support of all equipment during the survey
- Researched and reported advancements in net mensuration technologies to improve future data collections
- Played a pivotal role in the Trawl Modernization Project by researching and developing new trawl gear with specialized industry vendors, conducting workshops, and facilitating cooperative research to promote collaboration and awareness with stakeholders
- Provided construction, repair, and maintenance to more than:
  - 35 bottom trawls
  - 8 mid-water trawls
  - 450 long-line skates
- Trained vessel crew and scientists in proper rigging and net repair techniques and worked with Midwater Assessment and Conservation Engineering to develop similar resources for the NOAA vessels

## 2025 Preview

- Race Survey Support Teams: acquisitions, inspection, servicing and replacing faulty or damaged survey equipment. This included PPE, cold water survival equipment, data collection electronics, net mensuration equipment, safety and first aid equipment, and biological specimen collection equipment.
- Packing and making preparations for transporting 4 survey vessels worth of equipment and providing vessel set-up support.
- Contracting of new advanced net mensuration equipment for advanced data collections, and providing training to staff on operations.
- Trawl modernization work at flume tank, developing baseline of current survey trawls, never done before. Tested a modern trawl design for further development to meet survey requirements. Undergoing development and testing.
- Developed continued collaboration with industry and stakeholders
- Continued development of training program for NOAA Core under Midwater Assessment and Conservation Engineering.
- Packing and making preparations to transport 6 semi trailers of trawl gear to Alaska.
- Provided construction, repair, and certification to more than:
  - 35 bottom trawls
  - 8 mid-water trawls



### Vice Admiral Nancy Hann

Deputy Under Secretary for Operations  
performing the duties of Under  
Secretary of Commerce  
for Oceans and Atmosphere

### Emily Menashes

Acting Assistant Administrator  
for Fisheries

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