

# Observer Data: A Critical Part of Sustainable Fisheries Management

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New Council Member Training
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#### **Overview**

- National and regional observer programs
- How observer data support sustainable fisheries management
- Observer coverage rates nationwide
- Current challenges, and how Councils can help



- North Pacific
- Alaska Marine Mammal (operates in years of funding)

**U.S. Observer Programs** 



NOAA

#### **West Coast Northwest**

Seattle, WA

- West Coast Groundfish
- At-Sea Hake

#### **West Coast Southwest**

Long Beach, CA

- Deep-Set Pelagic Longline
- California Large-Mesh Drift Gillnet

American Samoa

- Deep-Set Buoy Gear

# **Pacific Islands**

Hawaii-Based Pelagic Longline • Honolulu, HI American Samoa Pelagic Longline • Pago Pago, AS

#### **Greater Atlantic**

Woods Hole, MA

- Northeast Fisheries
- At-Sea Monitoring
- Industry Funded Scallop
- Industry Funded Herring

National **Observer Program** Silver Spring, MD

#### Southeast

- ▲ Southeast Shrimp Trawl Galveston, TX
- Gulf of Mexico Reef Fish Galveston, TX
- Southeast Coastal Gillnet Panama City, FL
- Shark Bottom Longline Panama City, FL
- Atlantic Pelagic Longline Miami, FL



# **National Observer Program (Inception 1999)**

#### Responsibilities

- Advocate observer issues, including budget priorities, at the national level
- Develop policies and procedures supporting NOAA
   Fisheries observers and regional observer programs
- Enhance data quality and achieve consistency in key

areas of national importance



# The National Observer Program Advisory Team (NOPAT)

Sets policy and budgetary direction for the NOP. Members include representatives from NOAA Fisheries HQ Offices, Regions, and Science Centers, as well as a U.S. Coast Guard liaison.

NOAA Fisheries Headquarters		Office of Science and Technology		Office of Sustainable Fisheries	Office of Protected Resources	Office of Law Enforcement	
Regional Offices	Alaska	Greater Atlantic		Pacific Islands	Southeast	West Coast	
Science Centers	Alaska	Northeast	Northwest	Pacific Islands	Southeast	Southwest	
General Counsel for Fisheries	General Counsel for Enforcement and Litigation			Norkplace Violen Prevention and Response Progra	l G	U.S. Coast Guard (liaison)	



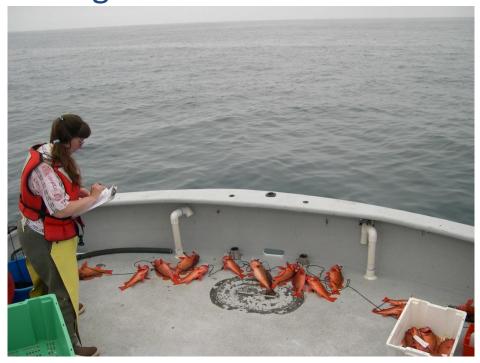
#### Fisheries Observers and At-Sea Monitors

- Typically have a bachelor's degree in natural sciences
- Require the ability to work long and irregular hours and an aptitude for maintaining professionalism and interpersonal relations in a challenging environment
- Undergo rigorous scientific, statistical, and safety training
- Gather first-hand data on what's caught and discarded by U.S. commercial fishing vessels
- Support compliance with fishing and safety regulations



# Responsibilities of Regional Observer Programs

- Sampling protocols and coverage levels
- Safety training
- Observer deployment
- Observer debriefing
- Data management
- Data analysis



2021: Deployed 779 observers / 60,350 sea days / 54 fisheries covered



# **Responsibilities of Deployed Observers**

### **Collect fishery-dependent data**

- Fishing effort, gear type and location
- Biological samples (length, sex, maturity and age structures)
- Species identification
- Proper protected species handling

### Safety compliance

- Quickly donning and swimming in an immersion suit
- Deploying and safely boarding a life raft



## **Commercial Fishing Effort Data**

#### For every observed haul/set collect:

- Date and time of fishing activity
- Latitude and longitude of gear
- Depth of catch
- Gear type and mesh measurements
- Vessel characteristics
  - ➤ Type, permit number, length
- Vessel catch estimates



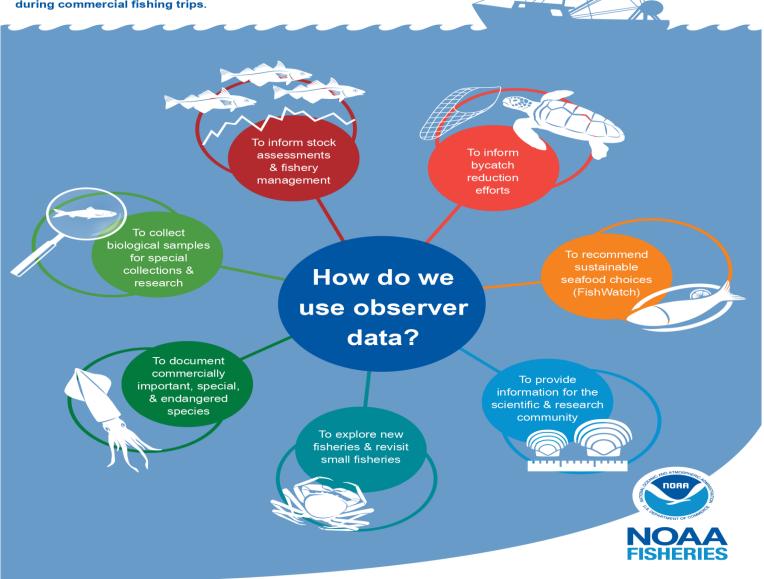
# **Biological Samples and Compliance Monitoring**

- Species composition from fish for individual hauls
- Total catch estimates
- Discarded catch data
  - Non-target species
  - Prohibited species
  - Incidentally caught marine mammals or endangered seabirds



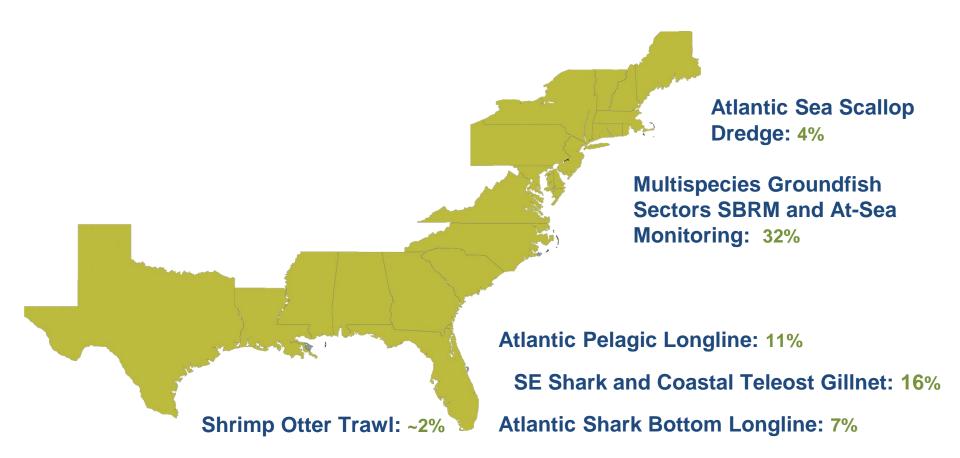


Multiple observer programs cover federal and state waters in every region of the country. These programs process and manage data and biological samples collected by observers during commercial fishing trips.





## **Atlantic Ocean and Gulf of Mexico 2021 Coverage**





Reef Fish: ~1% combined

**Shark Research Fishery (4 vessels): 100%** 

# North Pacific (Alaska) 2021 Coverage

Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish Full Coverage: 100%

Bering Sea/Aleutian Islands and Gulf of Alaska Groundfish and Pacific Partial Coverage: 12-33% for at-sea observers and shoreside samplers, 100% for EM Exempted Fishing Permit vessels



## Pacific Ocean and Western Pacific 2021 Coverage

West Coast Trawl Catch Shares: 100%

West Coast Groundfish
Non-Catch Share Fisheries: 34% for
Limited-Entry Permits, 2-18% for OpenAccess Permits



# Hawaii/American Samoa Pelagic Longline:

Hawaii deep-set tuna—18%
Hawaii shallow-set swordfish—100%
American Samoa—5%

CA Deep-Set Tuna
Pelagic Longline: 27%

Deep-Set Buoy Gear

**Exempted Fishing Permit: 25%** 

CA Large-Mesh Drift Gillnet: 23%



# **Current Challenges**

- Harassment
  - NOAA Fisheries has a zero tolerance policy for observer harassment
  - The safety and well being of fisheries observers deployed in federal fisheries, as well as the integrity of the data they collect and provide to the agency, are a top priority
- Observer recruitment and retention
- Increasing costs for observer programs along with increased agency data needs
- The need to balance electronic technologies with atsea observer capabilities



# **How Councils Can Help**

- Reinforcing to industry the importance of fisherydependent data collection
- Continuing to invite regional observer program managers, and observers and monitors themselves, to your meetings as appropriate
- Promoting safe working conditions on fishing vessels for fishermen and observers, including zero tolerance for any harassment including sexual assault and sexual harassment.





