

Science, Service, Stewardship



NOAA Fisheries Observers An Integral Part of Observing our Oceans



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NOAA Heritage Week

February 19-20, 2010

Northeast Fisheries Science Center
166 Water Street, Woods Hole, MA 02543

www.nefsc.noaa.gov/femad/fsb/

**NOAA
FISHERIES
SERVICE**



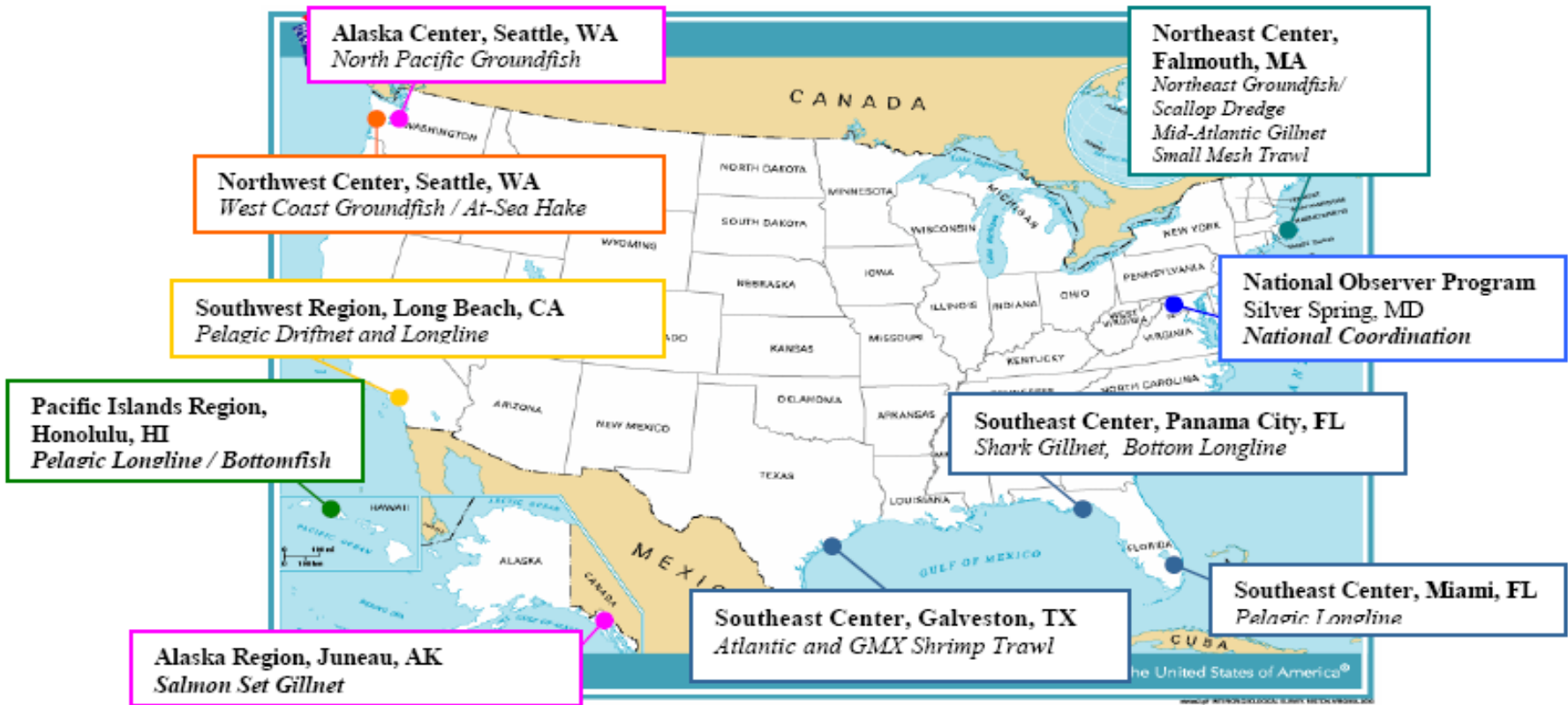
Oceans cover almost three-quarters of the Earth's surface

- Commercial fishing vessels
- Collect unbiased and uncensored data
 - Trip statistics, fishing locations, catch information, protected and prohibited species interactions, animal conditions
- Biological sampling
 - Lengths, age samples, tissue collection, tag recapture
- Fisheries management, resource assessments, and bycatch reduction methodology
- Science, management, compliance



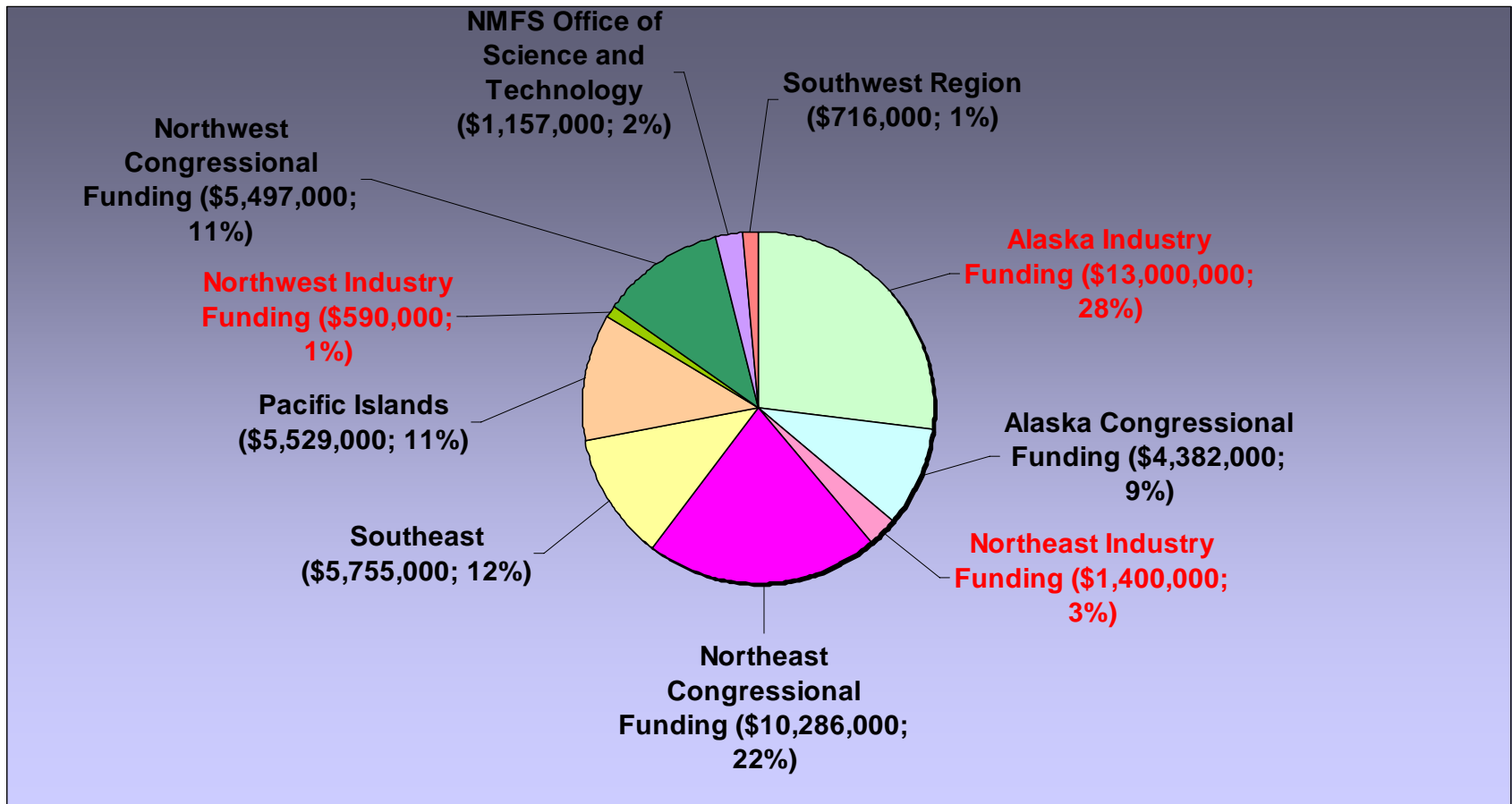


NMFS Observer Programs





Observer Program Funding Levels





Responsibilities of Observer Programs

- National Observer Program:
 - National Observer Program Advisory Team
 - National standards on observer qualifications, training, safety, etc.
 - Characterize and qualify activities and resources
- Regional Observer Programs:
 - Secure funding sources and develop contracts or legal infrastructure
 - Sampling protocols
 - Coverage levels
 - Safety
 - Observer training and refreshers
 - Observer deployment
 - Observer debriefing
 - Data management and data quality
 - Data requests and analysis
 - Outreach and education





Southeast Region

- Southeast Fisheries Science Center, Galveston, TX; Panama City, FL; Miami, FL
- South Atlantic/Gulf of Mexico shrimp trawl fishery
- Gulf of Mexico reef fish fishery (longline, handline, vertical reel)
- South Atlantic/Gulf of Mexico shark pelagic longline
- Atlantic shark gillnet and bottom longline





Alaska Region

- Alaska Fisheries Science Center, Seattle, WA
 - North Pacific Groundfish Observer Program
- Alaska Regional Office, Juneau, AK
 - Alaska Marine Mammal Observer Program





Northwest Region



- Northwest Fisheries Science Center, Seattle, WA
 - At-Sea Hake trawl
 - Shoreside Pacific hake trawl
 - Limited-entry groundfish trawl
 - Limited-entry Sablefish endorsed fixed gear
 - Limited –entry non-sablefish-endorsed fixed gear
 - California and Oregon nearshore fixed gear
 - California and Oregon pink shrimp trawl
 - California halibut trawl
 - Open access fixed gear





Southwest Region

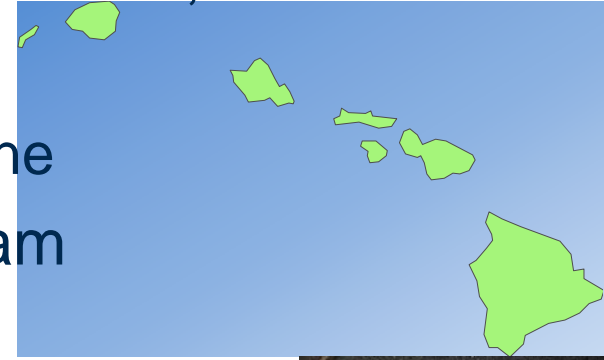
- Southwest Regional Office, Long Beach, CA
- Drift gillnet
- California deep-set pelagic longline
- Southern California set gillnet
- Coastal pelagic species purse seine





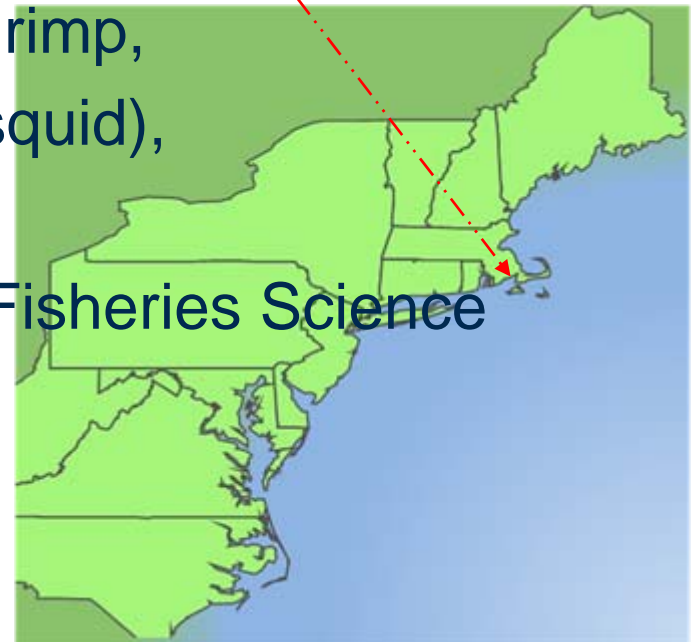
Pacific Islands Region

- Pacific Islands Regional Office, Honolulu, HI
- Pacific Islands Observer Program
 - Swordfish longline and tuna longline
- American Samoa Observer Program
 - Tuna (albacore) pelagic longline
- Support other western Pacific observer programs (Marshall Islands, Papua New Guinea, Fed. States of Micronesia, Solomon Islands, Kiribati, and Vietnam)





- Maine through North Carolina
- Scallop dredge, gillnet (groundfish, monkfish, croaker), trawl (groundfish, fluke, shrimp, menhaden, herring, mackerel, squid), bottom longline
- Based out of the NMFS, Northeast Fisheries Science Center, Fisheries Sampling Branch
- 85 observers
- >7000 seadays annually





Observer Training

- ~3 weeks at an Observer Training Center, University, or NMFS facility
- Security clearance, background check
- Pre-training assessment
- Must pass exams $\geq 85\%$
- Reading assignments, quizzes, exercises
- Safety training, conflict resolution, ethics, hygiene
- Vessel trips, port visits, fish dealers
- End users presentations, fishermen's panel
- Mentoring program
- Enforcement session
- Gear maintenance





Observer Certification *in the Northeast*

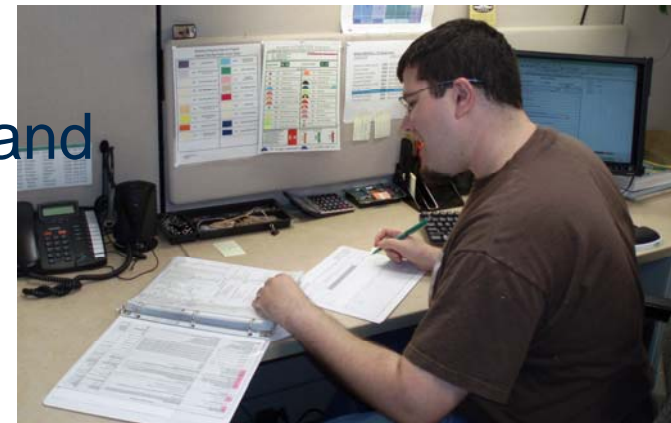
- Successful completion of the training
- One assisted training trip with trained observer
- Three solo training trips
- Each training trip is reviewed for accuracy and completeness before allowed to go on next trip
- Must do a trip at least every 12 months for all basic gear types
 - Full-time observers work 12-days per month
- Advanced training for certain gear types
- Safety training II every 18 months





Data Processing *in the Northeast*

- Editor has individual observer assignments
- Review trip for proper use of logs and completeness
- Code fields for data entry
- Rate the data quality of the trip
- Verify samples against trip logs
- Ensure that observer followed proper sampling protocols
- Debrief the Observer on performance and review outstanding questions





Quality Assurance Programs

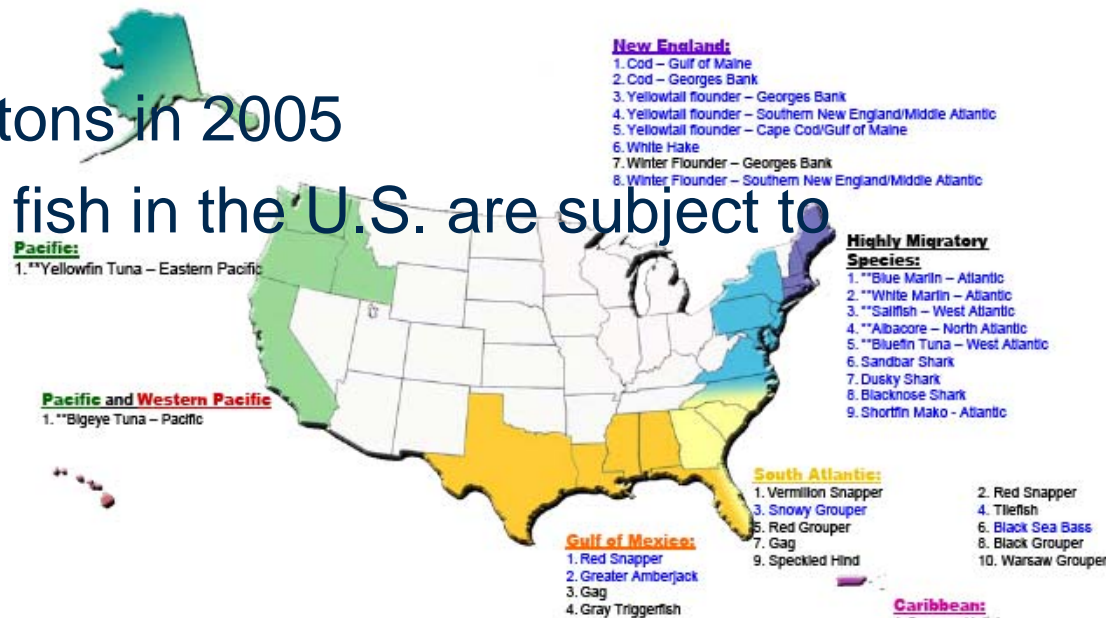
- Detailed review of trip data and advanced audits
- Regular communication with observers
 - Debriefings, refresher trainings, memos, newsletters
- Pre-briefing between observers and editors for complicated trips
- Shadow Trip Program
- Data Quality and Bonus Program
- Probation and Decertification Process
- Species Verification Program
- Captain Interviews
- Fishermen Comment Cards





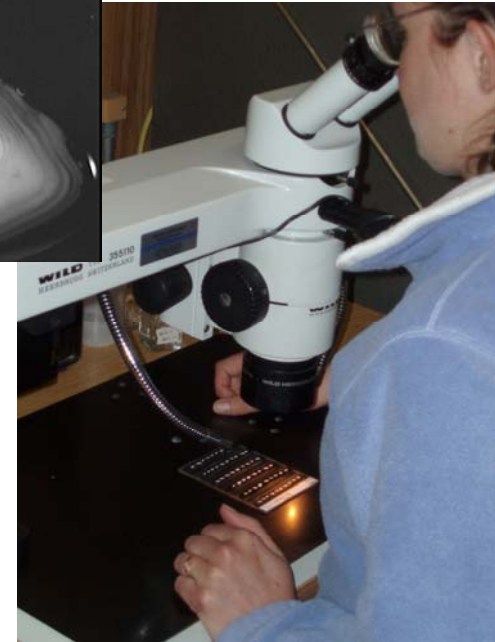
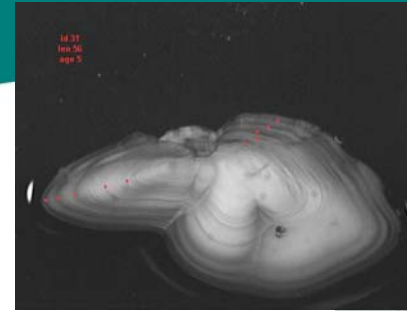
Agency Objective

- *Increase the number of fish stocks managed at sustainable levels*
- The U.S. is 5th in the world for live weight fish landings
—5,361,000 metric tons in 2005
- 38 stocks (19.5%) of fish in the U.S. are subject to overfishing (2009)





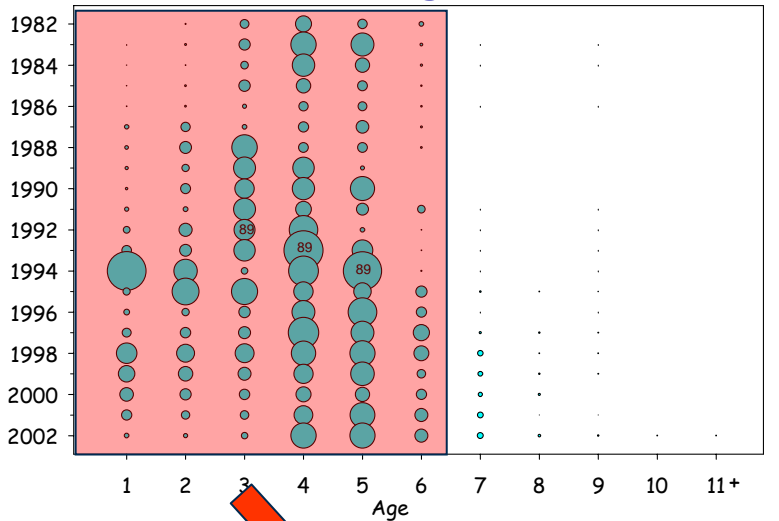
Fisheries Data



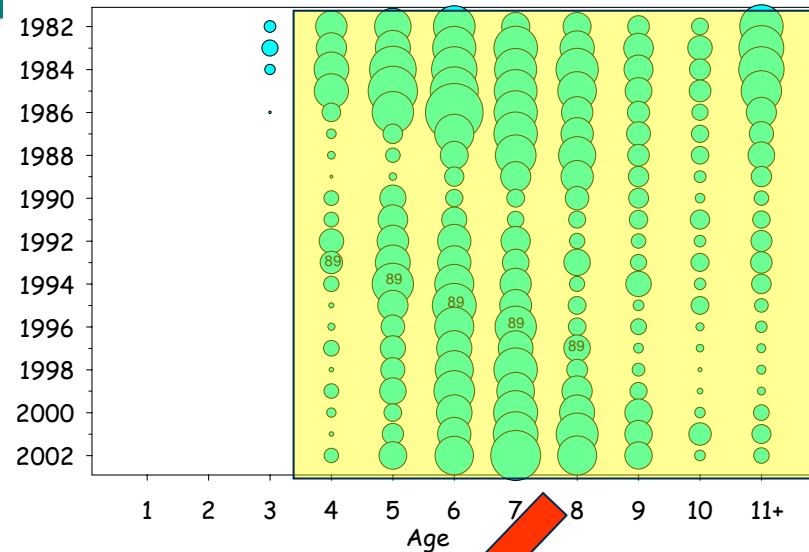
- Fisheries-dependent and –independent data
 - Vessel trip reports from captains (logbooks)
 - Dealer weighout slips from fish sales
 - Observer trips
 - Port sampling
 - Collaborative research, tagging studies
 - Surveys
- Current state of stocks and rate of exploitation
- Predict future exploitation and risks associated with harvesting
- Example of catch at age
- Example of self reports for yellowtail

NOAA

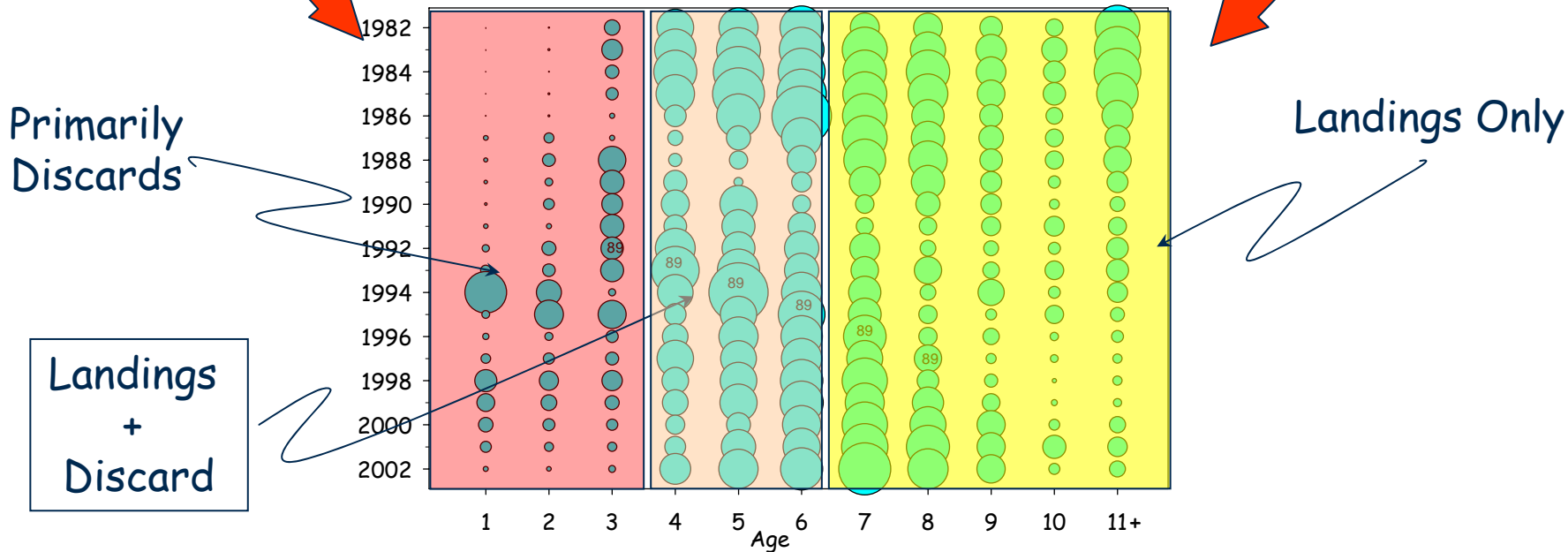
Discards at age



Landings at age



Catch at age

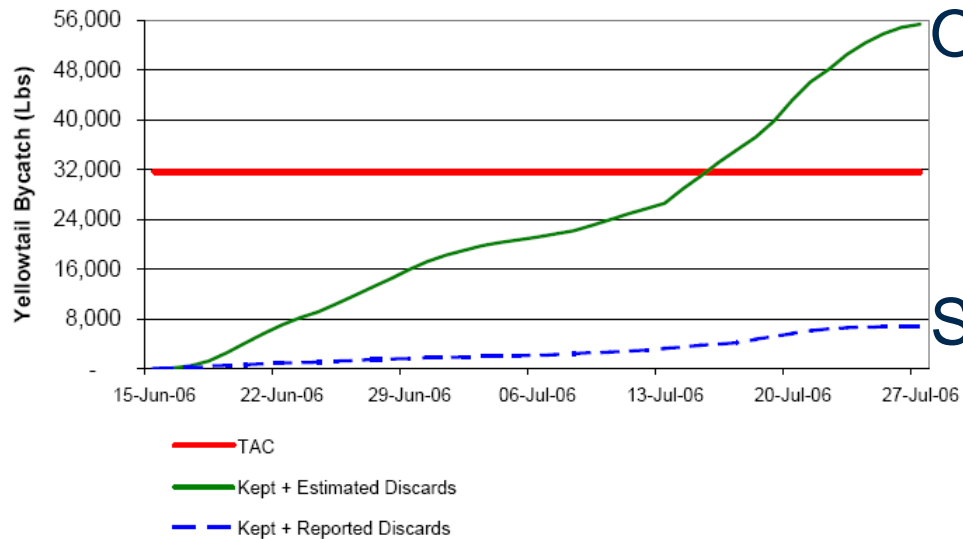




Nantucket Lightship Closed Area (NLCA)

Recorded on Week Ended	Declared to Nantucket Lightship Closed Area					Total				
	Kept (lbs)		Discarded (lbs)		Caught (lbs)		Cumulative Caught To Date			
	(1)	Estimated ¹	Reported	Estimated	Reported	With Estimated Discards	With Reported Discards	With Estimated Discards	With Reported Discards	
		(2)	(3)	(4)=(1)+(2)	(5)=(1)+(3)	(lbs)	(lbs)	% of Quota (31,544 lbs)	% of Quota (31,544 lbs)	
6/22/2006	0	6,938	811	6,938	811	6,938	811	22%	3%	
6/29/2006	18	8,942	799	8,960	817	15,898	1,628	50%	5%	
7/6/2006	9	5,223	503	5,232	512	21,130	2,140	67%	7%	
7/13/2006	8	5,432	1,074	5,440	1,082	26,570	3,222	84%	10%	
7/20/2006	7	16,610	2,377	16,617	2,384	43,187	5,606	137%	18%	
7/27/2006	8	12,263	1,221	12,271	1,229	55,458	6,835	176%	22%	
Total	50	55,408	6,785	55,458	6,835					

No new trips to NLCA were permitted after July 20, 2006.



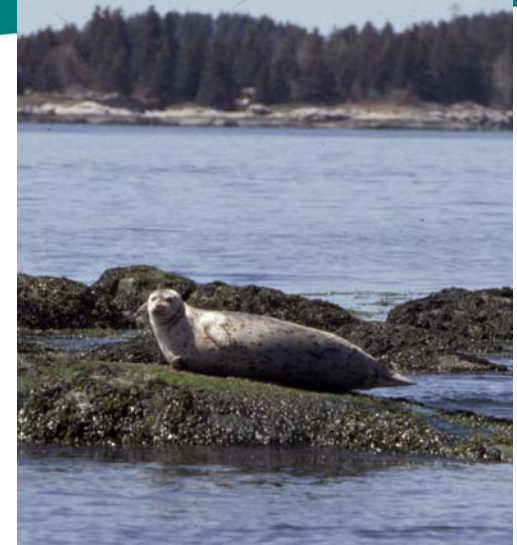
*Note these data are the best available to NMFS when this report was compiled and are preliminary.

¹Discard estimated based on Observer Contract (OBSCON) reporting. Discard values may change due to OBSCON updates



Agency Objective

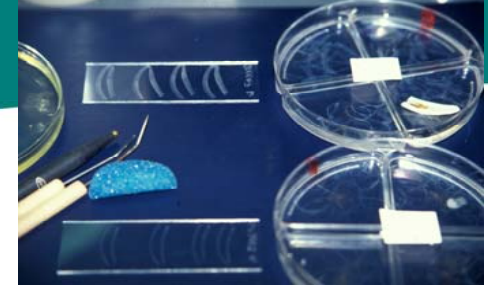
- *Increase the number of protected species with stable or increasing populations*
- Monitoring under the Marine Mammal Protection Act
 - Provide information on fishery interactions, human impacts, and sightings for stock assessments and List of Fisheries
 - Used in development and monitoring of Take Reduction Plans



Gulf of Maine Harbor Porpoise

Pre-plan: 1,550 caught in gillnets annually; Post-plan: 310 mortalities per year

Compliance with the plan dwindled and takes were on the rise



Protected Species Research

- Provide information to the National Marine Mammal Lab and other research organizations
 - Stock and species identification
 - Aging and life history studies
 - Genetic studies
 - Distribution and behavior
 - Contaminant levels
 - Food habits
 - Types of injuries





Agency Objective

- ***Provide tools, technologies, and information services that are effectively used by NOAA partners and customers to improve ecosystem-based management***

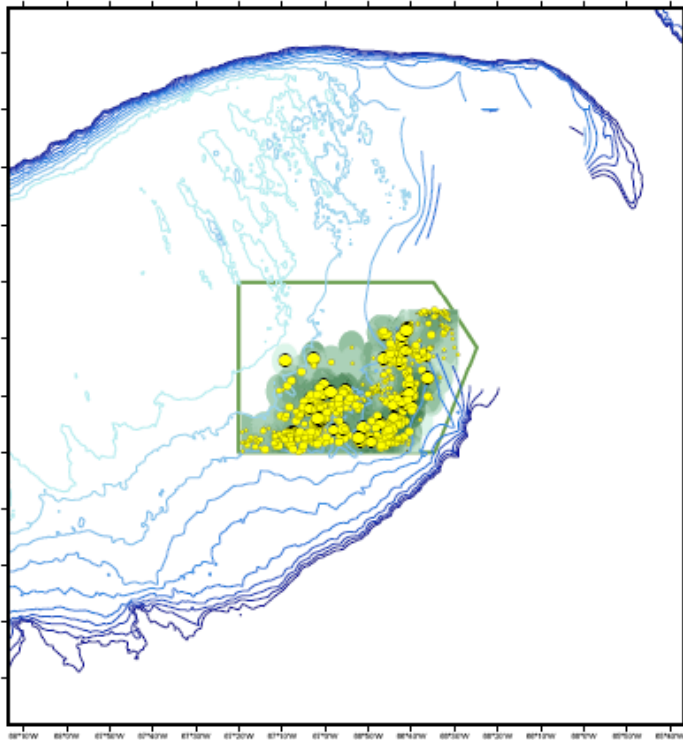


Yellowtail flounder bycatch in the Atlantic scallop fishery



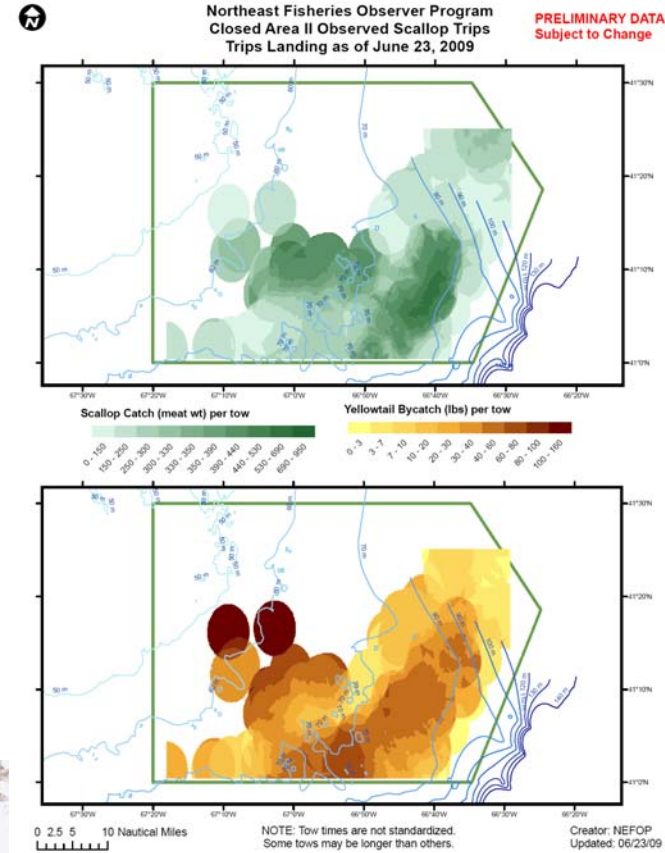
er Program
Closed Area II Observed Scallop Trips
Trips Landing as of June 25, 2009

PRELIMINARY DATA
Subject to Change



NOTE: Tow times are not standardized. Some tows may be longer than others.

Creator: NEFOP
Updated: 06/25/09





Agency Objective

- ***Improve public understanding and stewardship so that ecosystem and sustainable development principles are incorporated into planning, management, and use of coastal and marine resources***





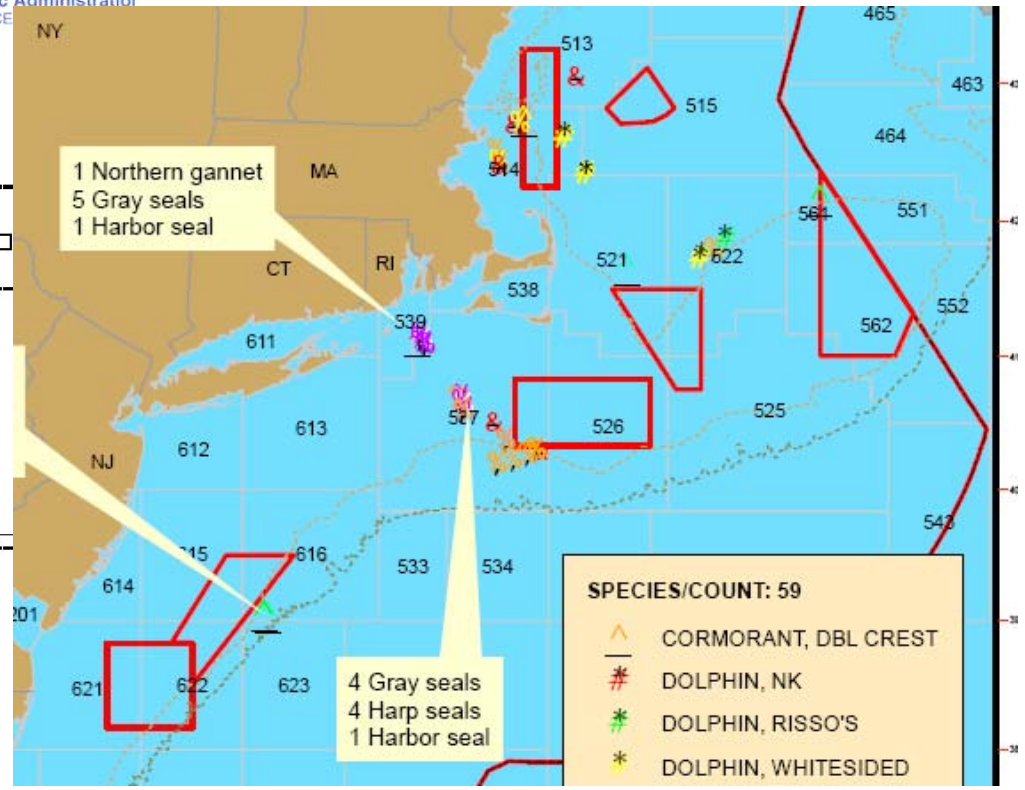
UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543-1026

**FISHERIES SAMPLING BRANCH
DATA REQUESTS**

Section I
Date of Request: _____ Received By: _____ Method of Request:
Phone: Letter: Email:
Walk-In: Fax:

Section II
Requestor's Name: _____
Telephone: _____ Fax: _____
Address: _____
Email: _____
Signature of Requestor: _____ Date: _____

Section III
Purpose of Request: _____
Month & Year of Data: _____
Fisheries: _____
Area: _____
Format of Output:
Disk: Maps:
Email: Excel:
Network: ASCII:



Requested Variab: **Northeast Fisheries Observer Program** **Observed Incidental Takes for March 2009** **04/09/09**

GEAR/TRIP TYPE	HAUL TARGET SPECIES	COMMON SPECIES NAME	SCIENTIFIC NAME	DISPOSITION	NUMBER
Anchored Sink Gillnet	Atlantic Croaker	SCOTER, SURF	<i>Melanitta perspicillata</i>	Dead, fresh	1
Anchored Sink Gillnet	Kingfish, nk	LOON, RED-THROATED	<i>Gavia stellata</i>	Dead, fresh	1
Bottom Otter Trawl, Fish	Witch Flounder	DOLPHIN, WHITESIDED	<i>Legionorhynchus aculeus</i>	Dead, fresh	1
Bottom Otter Trawl, Fish	Atlantic Cod	DOLPHIN, WHITESIDED	<i>Legionorhynchus aculeus</i>	Dead, fresh	2
Anchored Sink Gillnet	Monkfish	SEAL, GRAY	<i>Halichoerus grypus</i>	Dead, fresh	10
Bottom Otter Trawl, Fish	Pollock	DOLPHIN, COMMON	<i>Delphinus delphis</i>	Dead, fresh	1
Scallop Dredge	Sea Scallops	GULL, NK	<i>Larus</i>	Dead, fresh	1
Anchored Sink Gillnet	Groundfish, nk	SEAL, HARP	<i>Phoca groenlandica</i>	Dead, fresh	2
Anchored Sink Gillnet	Groundfish, nk	PORPOISE, HARBOR	<i>Phocoena phocoena</i>	Dead, fresh	2
Bottom Otter Trawl, Fish	Atlantic Longfin Squid	DOLPHIN, WHITESIDED	<i>Legionorhynchus aculeus</i>	Dead, fresh	1
Bottom Otter Trawl, Fish	Groundfish, nk	DOLPHIN, WHITESIDED	<i>Legionorhynchus aculeus</i>	Dead, fresh	1

Safety Requirements



Vessel name: _____

Trip ID: _____

Hull number: _____

Date landed (MM/DD/YYYY): _____

Y N NR

Vessel walk through: note general condition of vessel. *See back of sheet for

Current USCG Commercial Fishing Vessel Safety Examination Decal
*Required for all vessels
Safety Decal Number: _____ Exo _____

Emergency Position Indicating Radio Beacon (EPIRB)
*Required for all vessels operating beyond 3 miles
Hydrostatic release service expiration: _____ (MM/YY)
Battery expiration: _____ (MM/YY)

Life raft(s)
Hydrostatic release service expiration: _____ (MM/YY)
Raft service expiration: _____ (MM/YY)

*Required to be sufficient for everyone on board, including observer.
*Not required for vessels within 12 mi. of coast, ≤ 3 people and length < 30'

Immersion suits and personal flotation devices
*PFDs are required to be worn by the observer while out on deck
Are there enough for everyone on board? Keep yours easily accessible.

Radio(s)

Fire extinguishers
Vessels < 26' with outboard motor(s) and portable fuel tanks = not required

Emergency signaling flares: *Check expiration dates
>3mi. = night light and smoke or 3 day/night flares; >3mi. = 3 parachute, 8

First aid material

Life rings
Vessels < 26' = cushion, >26' = 1 life ring buoy, >86' = 3 life ring buoy.

Commercial Fishing Vessel Safety EXAMINATION

ISSUED 2003 2004 2005 2006 2007

Documented Undocumented

LOCATION Inside Boundary Line Beyond Boundary Line

THIS VESSEL MEETS ALL USCG COMMERCIAL FISHING INDUSTRY VESSEL REGULATIONS

NO. 137268

EXAMINATION

ISSUED 2003 2004 2005 2006 2007

Documented Undocumented

LOCATION Inside Boundary Line Beyond Boundary Line

THIS VESSEL MEETS ALL USCG COMMERCIAL FISHING INDUSTRY VESSEL REGULATIONS

NO. 138909



Observer Traits

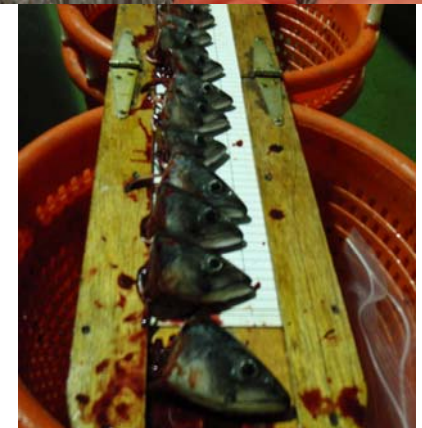
- Enthusiastic
- Adventurous
- Dedicated
- Trustworthy
- Detail-oriented
- Thick-skinned
- Respectful
- Well-prepared





Challenges for Observer Programs

- Unfunded mandates and needs
- Overtasking
- Changing objectives
- Lack of respect of the position
- Pressure for faster turn around
- High costs
 - Economic, physical, emotional



- ***If you hit the target every time, the target's too close.***

- Louis Pasteur



WARNING

HARASSMENT OF AN OBSERVER WILL NOT BE TOLERATED.

VIOLATORS WILL BE PROSECUTED !

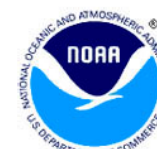
Violators are subject to Civil and/or Criminal Penalties up to \$130,000 and 6 months imprisonment under the Magnuson Act and \$20,000 and 1 year imprisonment under the Marine Mammal Protection Act .

It is unlawful to:

- (1) Intimidate, resist, oppose, impede, sexually harass, bribe, or interfere with an observer.
- (2) Interfere with or bias the sampling procedure employed by an observer.
- (3) Tamper with, destroy, or discard an observer's collected samples, equipment, records, photos, papers, or personal effects.
- (4) Prohibit or bar by command, impediment, threat, coercion, or by refusal of reasonable assistance, an observer from performing duties.
- (5) Harass an observer by conduct that has sexual connotations, or otherwise creates an intimidating, hostile, or offensive environment.
- (6) Require, pressure, coerce, or threaten an observer to perform crew member duties.



To report a
violation contact the
NOAA Enforcement Hot Line
800-853-1964





Biggest Rewards

- Part of responsible use of marine resources
- Great view
- Outdoor lifestyle
- Remarkable people
- Fascinating business





What do observers become?

- Scientists (Federal, state, private sector)
- Entrepreneurs
- Teachers and professors
- Writers, TV show hosts
- Fishery management council
- Agency fisheries management
- Law enforcement
- National guard, humanitarian relief
- Career observers





6th INTERNATIONAL FISHERIES OBSERVER & MONITORING CONFERENCE



Portland, Maine, USA

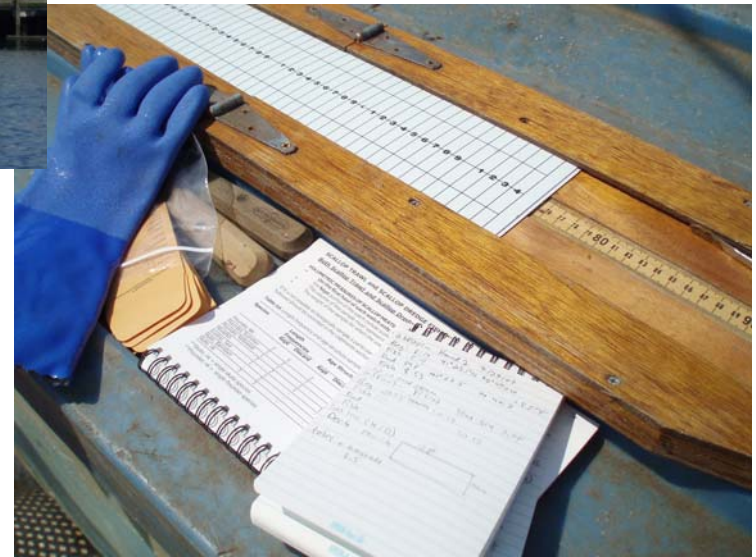
July 20 - 24, 2009

- International Fisheries Observing and Monitoring Conference
- International forum for fisheries monitoring and observing
- Mission: To improve fishery monitoring programs worldwide through sharing of practices and development of new methods of data collection and analysis. To provide a forum for dialog between those responsible for monitoring fisheries and those who rely upon the data they collect
- Attracts >300 delegates from >40 countries
- Presented papers, panel discussion sessions, poster session, trade show, and social events
- Conference information: www.ifomc.com

Points not to forget...



- Safety
- Data quality
- Data sharing
- Outreach and education



- *Healthy and productive coastal and marine ecosystems that benefit society*
- *A well-informed public that acts as a steward of coastal and marine ecosystems*