

## NEFSC REPORT TO FISHERY MANAGEMENT COUNCILS (APRIL, 2015)



## SURVEYS AND FIELD STUDIES

**Bottom Trawl Survey:** The Spring Bottom Trawl Survey, conducted on NOAA Ship *Henry B. Bigelow*, is taking place from March -May 2015. There will be four cruise legs, which include trawl, plankton and CTD sampling. In addition, light sensors are being installed to collect data to examine the effect of light on the catchability of a variety of species.

**AMAPPS Aerial Surveys:** NEFSC scientists conduct aerial surveys of marine mammals and sea turtles in waters from the coast to about the 2000m depth contour from New Jersey to Halifax, Nova Scotia. SEFSC scientists survey waters south of New Jersey. Surveys took place recently from Feb-Apr 2014 and Dec 2014-Feb 2015. Surveys are recommencing for spring/summer 2015. A voluntary vessel speed restriction zone was established from 26 February to 10 March based on sightings of right whales by a survey team from the Center for Coastal Studies.

**Integrated Pelagic Survey / Ecosystem Monitoring Survey:** Planning has started for the May EcoMon survey which measures ocean chemistry, physics, and biology. The survey take place during the historical spawning period of mackerel in the Northeast U.S. Shelf Ecosystem. The data, which include plankton and oceanographic measurements, will contribute to NEFSC efforts to improve stock assessments.

**Observer Program (Fisheries Sampling):** Fisheries Sampling Branch (FSB) completed 4,965 seadays during October 2014 – March 2015. This comprises days from the Northeast Fisheries Observer Program (NEFOP) (2,557 seadays), At-Sea Monitoring (ASM) (1,691 seadays), and Industry funded Scallop (IFS) (697 seadays), for Fiscal Year 2015 (partial). FSB's preliminary estimates of coverage accomplishments in Groundfish Fishing Year 2014 is 7.8% NEFOP and the sector ASM is estimated at 17.3%, totaling over 2,500 observed trips (target for year was 8% NEFOP and 18% ASM, or a total of 26%). FSB participated in outreach opportunities at the Massachusetts Lobstermen's Association Annual Meeting, and the Maine Fishermen's Forum.

## STOCK ASSESSMENTS AND PEER REVIEWS

**Scallop survey methodologies.** An independent peer review of scallop survey methodologies was carried out in New Bedford, MA from March 17-19. Methodologies that were reviewed included scallop dredges, the drop camera, and HabCam. Scientists from the Virginia Institute of Marine Science (VIMS), UMass Dartmouth (SMASST), Woods Hole Oceanographic Institution (WHOI), Arnies Fisheries, and NEFSC gave presentations to the review panel (<http://www.nefsc.noaa.gov/SAW-Public/scallop-survey-meth-review-Mar-2015/>).

**Herring:** The herring stock Assessment Oversight Panel convened on Dec. 22, 2014 and February 17, 2015. The AOP considered updated information about diagnostic issues in the herring assessment and approaches for setting catch advice in the absence of a formal stock assessment. Based on the AOP meetings 1.) the 2012 assessment framework must be updated and presented at the April 8-9 peer review in Woods Hole, and 2) Recent catch could likely inform management advice if the updated assessment is not accepted for use. A range of catch options should be considered. <http://www.nefsc.noaa.gov/nefsc/saw/herring-review-2015/>.

**Scup and Bluefish.** Peer review of the scup and bluefish benchmark stock assessments will take place June 2-5, 2015 in Woods Hole. SAW/SARC60. (<http://www.nefsc.noaa.gov/nefsc/saw/>).

**Lobster.** Peer review of the lobster stock assessment, done in collaboration with ASMFC, will take place during the week of June 8, 2015.

**NEFSC Protected Species Branch (PSB).** There will be a Program Review of PSB during April 13-16, 2015 in Woods Hole ([www.nefsc.noaa.gov/program\\_review](http://www.nefsc.noaa.gov/program_review)). The meeting is public.

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#### OTHER CENTER ACTIVITIES/ACHIEVEMENTS

**National Bycatch Report** – NEFSC scientists are updating the 1st Edition of the National Bycatch Report. It includes estimates of fish, mammal, sea turtle, and sea bird bycatch through 2013.

**MRIP.** Senior NMFS leadership (E. Sobeck, S. Rauch, R. Merrick) approved the MRIP transition plan for evaluation of the effects of changes in estimation of recreational fishing effort. These changes will have important consequences for stock assessments. Under the approved plan, new estimates of recreational catch will not be used in stock assessments until calibrations are complete in 2017. P. Rago represents NEFSC on the transition team.

**Red hake.** NEFSC staff from Oceanography and Population Dynamics Branches will investigate stock structure in red hake, a research priority identified by the New England Fishery Management Council. The project will use samples and data from the Ecosystem Monitoring program. Molecular techniques will be used to identify larvae; molecular work will be conducted at the University of Guelph. Larval data will be used to map spawning areas.

**Transmission of oceanographic data.** NEFSC staff from the Oceanography Branch (Jim Manning) and Cooperative Research Program (J. Hoey) are investigating automatic transmission of oceanographic data from commercial vessels. The project is in collaboration with scientists from the AFSC and engineers from AssetLink Global. Phase 1 will transmit bottom temperature from fishing vessels to servers, where the data will be available near-real time for analysis.

**River herring.** Oceanography Branch (S. Turner) is investigating how to identify river herring natal origin and habitat use based on species habitat models and oceanographic model forecasts from the University of Massachusetts Northeast Coastal Ocean Forecast System.

**Maine Fishermen's Forum, Rockland, ME, March 5-7.** Several NEFSC staff members attended and participated. J. Manning gave presentations related to eMOLT and drifters. G. Goulette met with Maine Lobstermen's Association members and distributed telemetry receivers for deployment on lobster gear. M. Palmer participated in a panel discussion on Gulf of Maine cod.

**National Scientific and Statistical Committee Workshop – Feb 2015.** T. Noji, J. Manderson, and J. Hare gave presentations, which focused on reducing uncertainty in stock assessments and incorporating ecological, environmental, and climate variability in stock assessment and ecosystem based fishery management.

**Outreach.** Center staff participated in GMRI sponsored "Fish Tank" workshops in Portland, Portsmouth and Gloucester in February and March to discuss fishermen concerns about stock assessments.

**Salmon.** NEFSC (T. Sheehan) and GARFO (D. Morris) staff attended NASCO's West Greenland Commission meeting in Nuuk, Greenland to assess whether Greenland can modify management of its Atlantic salmon fishery to enhance cooperation with other countries.

**Mackerel.** NEFSC staff (K. Curti and D. Richardson, K. Marancik) will investigate the development of an egg index from EcoMon data and collaborate with Canadian scientists at DFO to develop a North American perspective of Atlantic Mackerel spawning and distribution.

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## PUBLICATONS

**A multi-phylum study of grazer-induced paralytic shellfish toxin production in the dinoflagellate *Alexandrium fundyense*: a new perspective on control of algal toxicity.**

Christina D. Senft-Batoh, Hans G. Dam, Sandra E. Shumway, Gary H. Wikfors. Accepted by: Harmful Algae

**Postrelease mortality in istiophorid billfish.** Michael K. Musyl, Christopher D. Moyes, Richard W. Brill, Bruno L. Mourato, Andrew West, Lianne M. McNaughton, Wei-Chuan Chiang, and Chi-Lu Sun 2015. Canadian J. Fisheries Aquatic Science 72: 1–19.

**Genetic diversity of white sharks, *Carcharodon carcharias* in the Northwest Atlantic and southern Africa.** Shannon J. O'Leary, Kevin A. Feldheim, Andrew T. Fields, Lisa J. Natanson, Sabine Wintner, Nigel Hussey, Mahmood S. Shivji and Demian D. Chapman. J. Heredity 2015; doi: 10.1093/jhered/esv001

**CetSound Special Issue on Biologically Important Areas for Cetaceans** - Van Parijs guest editor of this issue. Cholewiak (NEFSC) and many NMFS authors.  
[http://www.aquaticmammalsjournal.org/index.php?option=com\\_content&view=category&id=58&Itemid=157](http://www.aquaticmammalsjournal.org/index.php?option=com_content&view=category&id=58&Itemid=157)

**New insights on essential fatty acid assimilation and synthesis in larvae of the bivalve**

*Crassostrea gigas*. Fiz da Costa, René Robert, Claudie Quéré, Gary H. Wikfors, Philippe Soudant forthcoming. Accepted by: Lipids

**Quantifying alosines in the diets of marine piscivores in the Gulf of Maine.** McDermott SP, N

Bransome, SE Sutton, BE Smith, JS Link, TJ Miller. (in press) J. Fish Biology

**Phylogeography study on the chub mackerel (*Scomber japonicus*) in the Northwestern Pacific indicates the late Pleistocene population isolation.** Yan, S., Catanese, G., Brown, C.L.,

Wang, M., Yang, C. and Yang, T.-B. (2015). Marine Ecology

**A Field-based Nursery for "Head Starting" Lobsters to Improve Post-release Survival for**

**Potential Stock Enhancement in Long Island Sound, Connecticut.** Renee Mercaldo-Allen, Ronald Goldberg, Catherine A. Kuropat, Paul Clark, Robert Alix, Werner Schreiner, and John Roy, Accepted in: North American Journal of Aquaculture

**Genetic population structure of Hogfish (Labridae: *Lachnolaimus maximus*) in the**

**southeastern United States.** Seyoum, S., A. B. Collins, C. Puchulutegue, R. S. McBride, and M. D. Tringali. Genetic population structure of Hogfish (Labridae: *Lachnolaimus maximus*) in the southeastern United States. Accepted in: Fishery Bulletin