

NOAA Ship *Henry B. Bigelow*
First Woods Hole Port Call
September 23, 2010



Photos in this presentation were taken by NEFSC's Frank Almeida, Chuck Byrne, Shelley Dawicki, Rich McBride, Henry Milliken, Andrea Toran, and Gordon Waring. WHOI photographers Tom Kleindinst (who took this photo from Nobska Point) and Jayne Doucette also took photos for NEFSC.



Jack Moakley, Chief of NEFSC's Operations, Management and Information Division, took several photographers out to document the ship's arrival in Woods Hole. Fred Wenzel of NEFSC's Protected Species Branch assisted Jack as a deckhand. (Photo by Andrea Toran, NOAA)



Heading in. Black marks on the sides of the hull were made by supply vessels which supported the ship during its missions in the Gulf of Mexico to study the Deepwater Horizon/BP oil spill in July and August. (NOAA photo by Jayne Doucette)



Stern view. (NOAA photo by Jayne Doucette)



Posters provide background information and photos about Henry B. Bigelow the scientist (left) and the ship (right). Further information about Bigelow's long association with the Fisheries Service and the Woods Hole Laboratory appears at the end of this presentation. Bigelow later became the first director of Woods Hole Oceanographic Institution. (Photo by Andrea Toran, NOAA)



NEFSC volunteers Jennifer Mindek (left) of the Office of the Directorate, helps Laura Garner (center) and Jacqueline Riley of the Research Communications Branch prepare signs for the ship tours before the festivities begin September 23. (Photo by Andrea Toran, NOAA)



Awaiting the ship's arrival in Woods Hole are NEFSC volunteers Jarita Davis (left) of Research Communications, Pam Hastings of the Budget and Finance Branch, and Jen Mindek from the Office of the Directorate. (Photo by Andrea Toran, NOAA)



Vic Nordahl (left) and Jon Duquette (center) of the NEFSC's Ecosystems Surveys Branch and Sean Lucey (right) of the Ecosystem Assessment Program were among many waiting for the ship to arrive. (Photo by Andrea Toran, NOAA)



Posing for a photo are (from left) NEFSC Deputy Science and Research Director Frank Almeida; Rear Admiral Phillip Kenul, Director of NOAA Marine and Aviation Operations Centers; NOAA Fisheries Deputy Assistant Administrator John Oliver; and Captain Michael Devany, Commanding Officer of Marine Operations Center, Atlantic. They were among visitors and NEFSC staff who watched the ship come into port from the Woods Hole Laboratory's flagpole plaza. (Photo by Gordon Waring, NOAA)



Frank Almeida of NEFSC and NOAA Fisheries Deputy Assistant Administrator John Oliver (right) are all smiles as the *Henry B. Bigelow* arrives in Woods Hole. (Photo by Rich McBride, NOAA)



NOAA photo by Jayne Doucette



The NEFSC's Woods Hole Laboratory is visible at left. The Woods Hole Oceanographic Institution (WHOI) dock is partly visible at right. (NOAA photo by Jayne Doucette)



A fish-eye lens view of the ship's arrival, with NEFSC's Woods Hole Laboratory at left and the WHOI dock at right. (NOAA photo by Jayne Doucette)



The big picture. Guests start to assemble as the ship approaches the dock. The tent for the welcoming ceremony is visible at lower left. (NOAA photo by Tom Kleindinst)



Approaching the WHOI dock. (Photo by Henry Milliken, NOAA)



Photo by Shelley Dawicki, NOAA



A view from the cupola of WHOI's Bigelow Laboratory. (NOAA photo by Tom Kleindinst)



Scientists and technicians on the incoming leg of the ship's fall bottom survey had a great view. (Photo by Chuck Byrne, NOAA)



Dr. Henry B. Bigelow, the ship's namesake, had long ties to the Woods Hole Fisheries Laboratory and later to the Woods Hole Oceanographic Institution, where the ship docked for this port call. (NOAA photo by Tom Kleindinst)



NOAA Fisheries Deputy Assistant Administrator John Oliver (left) enjoys the day with Jack Moakley (center) and Frank Almeida of NEFSC. (NOAA photo by Tom Kleindinst)



Rear Admiral Phillip Kenul (left), Director of NOAA Marine and Aviation Operations Centers, and Captain Michael Devany, Commanding Officer of Marine Operations Center, Atlantic, catch up as the ship docks. (NOAA photo by Tom Kleindinst)



Members of the ship's crew prepare to dock. From left: Skilled Fisherman Tony Viera, Fisherman Russ Clero (center) and Lead Fisherman Charles Cartwright. (Photo by Andrea Toran, NOAA)



Charles Cartwright, lead fisherman on the *Bigelow*, helps get the gangway secured. Cartwright is also a *Bigelow* plank owner, meaning he has been a member of the *Bigelow's* crew since the ship was placed in commission. (NOAA photo by Tom Kleindinst)



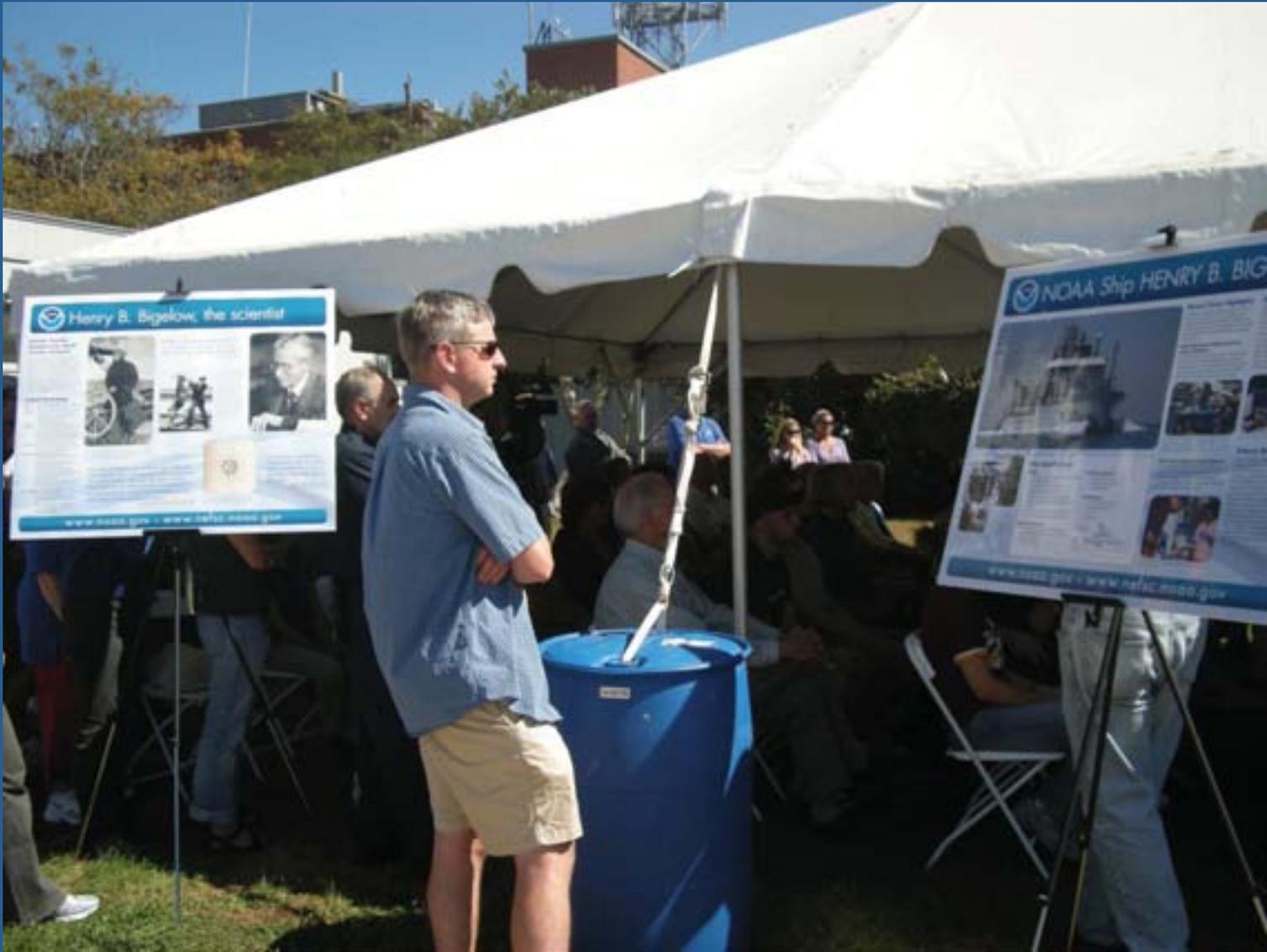
Chief Boatswain Ken Rondeau is pictured in front of WHOI's Bigelow Laboratory, also named for Henry B. Bigelow. (NOAA photo by Tom Kleindinst)



A happy day! Volunteers Nancy McHugh (left), Linda Despres (center), and Stacy Rowe from the NEFSC's Ecosystems Surveys Branch were among many who staffed displays and demonstrations aboard the ship. (Photo by Andrea Toran, NOAA)



Recent NEFSC retiree Dan O'Brien (Facility Operation and Safety Branch) and Beth Sweeney, Administrative Officer in the Operations, Management and Information Division, pose for a photo as the crowd awaits the start of the welcoming ceremony. Russ Brown, chief of the Ecosystems Surveys Branch, is at right. (Photo by Andrea Toran, NOAA)



Mark Wuenschel of NEFSC's Fishery Biology Program listens to welcoming ceremony remarks. (Photo by Andrea Toran, NOAA).



NOAA photo by Tom Kleindinst



Frank Almeida, NEFSC Deputy Science and Research Director, and Director of the Woods Hole Laboratory, welcomed the NOAA Ship *Henry B. Bigelow* to Woods Hole and spoke about the 20-year effort to get the vessel here. He also introduced other welcoming ceremony speakers: Susan Avery, President and Director of WHOI; John Oliver, Deputy Assistant Administrator of NOAA Fisheries Service; and Rear Admiral Phillip Kenul, Director of NOAA's Marine and Aviation Operations Centers. (NOAA photo by Tom Kleindinst)



Executive Officer Don Pratt (left) and Commanding Officer Anne Lynch (center back) of the *Henry B. Bigelow* listen to welcoming ceremony remarks. Capt. Mike Devany, Commanding Officer of Marine Operations Center, Atlantic, is seated in the middle. Pratt served on the *Albatross IV* and recently was assigned to the *Bigelow*. (NOAA photo by Tom Kleindinst)



Frederick "Tuck" Bigelow and his wife Doranne pose with John Oliver shortly after the ship docked in Woods Hole. Tuck is Henry B. Bigelow's grandson. (NOAA photo by Tom Kleindinst)



Rear Admiral Richard Gurnon, President of Massachusetts Maritime Academy (right), chats with Capt. Mike Devany of NOAA's Office of Marine and Aviation Operations (OMAO). The ship docked at MMA in August 2007 shortly after it was commissioned. (NOAA photo by Tom Kleindinst)



Signs like this one, posted on the old Woods Hole Firehouse, directed visitors on Water Street to the ship tours.
(Photo by Andrea Toran, NOAA)



Visitors from the Woods Hole scientific institutions line up for the start of ship tours on Thursday afternoon, Sept. 23. Tours for the general public were held Friday afternoon. Hundreds toured the ship each day. (Photo by Andrea Toran, NOAA)



NOAA photo by Tom Kleindinst



Photo by Andrea Toran, NOAA



Tamara Holzworth-Davis (right) of NEFSC's Oceanography Branch explains CTD operations at the start of the tour. CTD (for conductivity, temperature, depth) is an instrument package that takes measurements of the ocean at various depths and collects water samples. Posters feature some of the ship's recent Deepwater Horizon/BP oil spill research in the Gulf of Mexico in July and August. (NOAA photo by Tom Kleindinst)



Chuck Byrne explained the design features that make the ship one of the most “acoustically quiet” research vessels in the world. Byrne was the NEFSC’s liaison for the ship’s construction. (NOAA photo by Tom Kleindinst)



Survey Technician Nick Mitchell explains an acoustic image showing subsurface layers in the vicinity of the Deepwater Horizon MC252 wellhead during the ship's Gulf of Mexico oil spill response cruise in August 2010. (NOAA photo by Tom Kleindinst)



Visitors learn about the vessel's marine mammal observation capabilities from NEFSC's Mike Simpkins (right), Deb Palka (center) and Gordon (far left) of the Protected Species Branch (all in royal blue polo shirts). Susan Avery, WHOI President and Director, is at front center looking at images as Tuck Bigelow and Mike Simpkins look on. WHOI's Bigelow Laboratory with cupola is visible in the background. (NOAA photo by Tom Kleindinst)



WHOI Vice President for Academic Programs and Dean Jim Yoder looks through the “big eyes”, high powered binoculars used to observe marine mammals, on the *Bigelow* during a tour. (NOAA photo by Tom Kleindinst)



First Officer Greg Schweitzer (far left) explains the ship's navigation and other features of the bridge to special guests Jim Yoder (second from left), Doranne Bigelow and Susan Avery (right). Matt Barton is taking video at far right. (NOAA photo by Tom Kleindinst)



Various charts of Woods Hole Harbor attracted interest on the bridge, including this one. NEFSC's Frank Almeida points to the location of the \$2.3 million outer harbor dredging project, funded by NOAA and completed in December 2008, to allow the deep-drafted *Bigelow* to safely enter the harbor. The sand from that project was donated to the Town of Falmouth and used to nourish Menauhant Beach. (NOAA photo by Tom Kleindinst)



NEFSC's Ecosystems Surveys personnel Richard Raynes (far left) and Phil Politis (left, both in royal blue shirts) describe at-sea operations on the back deck. (NOAA photo by Tom Kleindinst)



Phil Politis (right) and Richard Raynes (partly hidden at left) of NEFSC's Ecosystems Surveys Branch stand by the net to explain fishing gear on the back deck. The port call in Woods Hole was held between legs of the fall bottom trawl survey. (NOAA photo by Tom Kleindinst)



Linda Despres of NEFSC's Ecosystems Surveys Branch explains how fish are processed in the wet lab off the back deck. Various species from the Northeast region collected on the incoming cruise were on display. (NOAA photo by Tom Kleindinst)



Some of the species caught in the recent bottom trawl survey. (NOAA photo by Tom Kleindinst)



The conveyor system on the *Henry B. Bigelow* served as a perfect display space during the ship tours. Linda Despres of the NEFSC's Ecosystems Surveys Branch (left) answers visitor questions. (NOAA photo by Tom Kleindinst)



Brian Smith of NEFSC's Food Web Dynamics Program explains the ship's automated fish processing stations and the types of data that can be collected and displayed. (NOAA photo by Tom Kleindinst)



Brian Smith shows Larry Madin, Executive Vice President and Director of Research at WHOI, how the automated system works. (NOAA photo by Tom Kleindinst)



Heather Haas (left) of explains a collaborative sea turtle tagging and tracking project to Susan Avery (front right) and Dorianne Bigelow (partly hidden). Other NEFSC Protected Species Branch projects and capabilities were presented nearby. (NOAA photo by Tom Kleindinst)



Photo by Shelley Dawicki, NOAA



The port call ended Monday, September 27, when the *Bigelow* departed Woods Hole to resume the NEFSC's annual fall bottom trawl survey. (Photo by Frank Almeida, NOAA)

More than 500 people visited the ship during public tours Thursday and Friday afternoons. While Thursday's weather was perfect, the heavy fog on Friday didn't dampen enthusiasm or the size of the crowd, which were constant both days. Guests were staff members from the Woods Hole scientific institutions, local and Cape Cod residents, but also came from states as far away as California and other countries.

Special thanks to the Steering Committee, to the ship's officers and crew, and to all the volunteers who helped make this first Woods Hole port call of the NOAA Ship *Henry B. Bigelow* a great success!

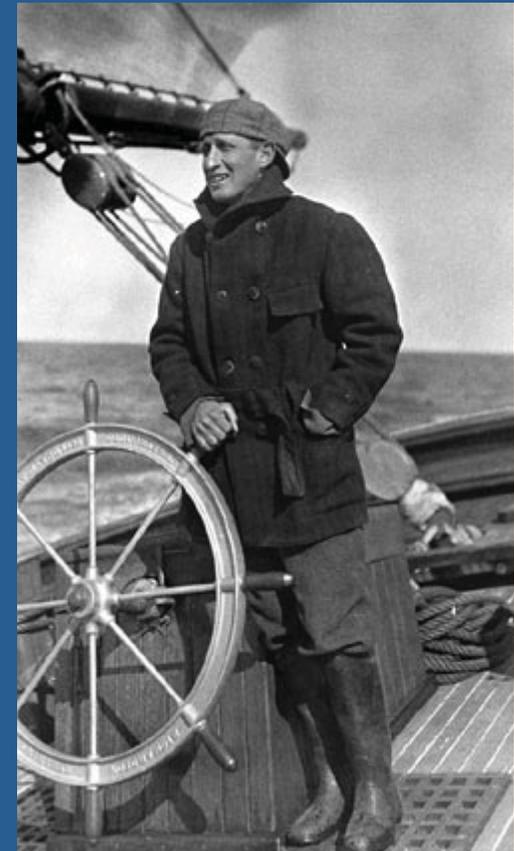
Henry B. Bigelow – the Scientist

Born: October 3, 1879 in Cambridge, Mass. Died: December 11, 1967 at home in Concord, Mass.

Henry Bryant Bigelow was a Harvard-educated zoologist whose pioneering work helped lay the scholarly foundation for oceanography as a scientific discipline. A world renowned expert on coelenterates (jellyfish, corals, sea anemones) and elasmobranchs (sharks, skates and rays), he transformed the Gulf of Maine from a scientific unknown to one of the most thoroughly studied large bodies of water in the world. In doing so, he developed the interdisciplinary, ecosystem-oriented approach that characterizes modern oceanography.

Shortly after graduating from Harvard University in 1901, he joined Professor Alexander Agassiz of Harvard's Museum of Comparative Zoology for an expedition to the Maldiv Islands in the Indian Ocean, charged with capturing and preserving the medusae collected on the trip. He joined Agassiz on another expedition in 1904, this time aboard the federal fisheries research vessel *Albatross*, based in Woods Hole, in the eastern tropical Pacific. Many of Bigelow's scientific publications on jellyfish, corals and fishes, often illustrated with his own drawings and photographs, were based on his experiences on these early voyages.

Photo: Henry B. Bigelow at the wheel of the fisheries schooner *Grampus*, circa 1912. Bigelow wrote of the experience: "Few living zoologists have been as fortunately placed as were we on setting sail on the *Grampus* from Gloucester on our first oceanographic cruise in the Gulf of Maine on July 9, 1912, for a veritable *mare incognitum* lay before us."



“Nothing in the sea falls haphazard; if we cannot predict, it is because we do not know the cause, or how the cause works.”

Henry B. Bigelow, 1929

Henry B. Bigelow became an internationally known expert on the Gulf of Maine and its sea life. His expeditions in the region, many of them made aboard the federal fisheries service research vessels *Albatross*, *Grampus*, and *Halcyon* between 1912 and 1924, made the Gulf of Maine one of the most thoroughly studied bodies of water, for its size, in the world. His focus on the connections between biology, chemistry and physical sciences in studying the ocean led to three book-length monographs on the fishes, plankton and physical oceanography of the Gulf of Maine which are widely cited today. His long term collaboration with William C. Schroeder of the U.S. Bureau of Fisheries began in the 1920s and led to more than 40 publications in ichthyology, mainly on sharks and sawfishes, skates, and rays, including “Fishes of the Gulf of Maine” (1925) and volumes of the classic work “Fishes of the Western North Atlantic.”

Photo: Henry Bigelow with Buck the goat, mascot for the Woods Hole-based U.S. Bureau of Fisheries research vessel *Albatross*, in March 1904 off California. The 234-foot steamer *Albatross* (1882-1921) was the first research vessel in the world constructed exclusively for marine research. Henry Bigelow made numerous cruises aboard this vessel in the Atlantic and Pacific Oceans between 1904 and 1920, serving as chief scientist on the ship’s final research voyage in the Gulf of Maine in 1920. The NOAA Ship *Henry B. Bigelow* replaced the *Albatross IV* when it was retired after 46 years of service in November 2008.



Scientist, Teacher, Outdoorsman, World Traveler, Humanist



Photo: Henry B. Bigelow (left) with Charles J. Fish of the Woods Hole fisheries laboratory, aboard the schooner *Grampus* in 1923. (NEFSC Historic Photo Archive)

Fish and his future wife, Marie Poland, who also worked at the Woods Hole Fisheries lab, later founded the Narragansett Marine Laboratory, precursor to URI's Graduate School of Oceanography.

Henry B. Bigelow attended Milton Academy and Harvard College, where he earned an A.B. degree in 1901 and a Ph.D. in zoology in 1906. He married Elizabeth Perkins Shattuck in 1906. Together, and with their children, they traveled extensively during their lifetimes and enjoyed many outdoor activities - camping, hunting and fishing, and skiing. Bigelow joined the staff of Harvard's Museum of Comparative Zoology (MCZ) in 1905 and served on the Harvard University faculty for 62 years, holding positions as researcher, instructor and professor of zoology with the University and with MCZ.

During his career he published more than 100 scientific papers (many of them seminal works), and he received numerous international honors and awards. The NOAA ship *Henry B. Bigelow* is named in honor of Bigelow's decades-long association with the federal fisheries service (today known as NOAA's National Marine Fisheries Service), which supported and published much of the research that established Bigelow's scientific reputation. The ship's name also recognizes his many contributions to fisheries science and to oceanography, especially in the Gulf of Maine and western North Atlantic where the NOAA Ship *Henry B. Bigelow* typically works. Henry Bigelow's methods of interdisciplinary study and his vision of understanding the ocean as a whole continue to stimulate our contemporary ecosystems-based approach to marine science.

"When one picks up a fish, one may be said, allegorically, to hold one of the knots in an endless web of netting of which the countless other knots represent other facts, whether of marine chemistry, physics or geology, or other animals or plants. And just as one can not make a fish-net until one has tied all the knots in their proper positions, so one can not hope to comprehend this web until one can see its internodes in their true relationship. This is today the conscious aim of oceanographers."

Henry B. Bigelow, 1930