



NOAA Fisheries

Fish Matters

October 2001

Cooperation, our most valuable asset

Construction of the Captain Barry Fisher Building in Newport, OR, epitomizes the Northwest Fisheries Science Center's and the National Oceanic and Atmospheric Administration's commitment to collaborative research as the foundation of sound fisheries science. On Sunday, October 7, NOAA Fisheries Assistant Administrator Dr. William T. Hogarth will join the Northwest Fisheries Science Center (NWFSC) Science Director Dr. Usha Varanasi, officials from Oregon State University, Newport community members, and fishers to celebrate the groundbreaking of the new 15,000 sq. ft. building that will accommodate the groundfish program of the NWFSC.

"While this building will contain myriad examples of the latest technology, and our staff will provide the highest quality science, collaboration and cooperation are vital to its success," according to Usha Varanasi, Science Director of the NWFSC. "We celebrate cooperation among

government, educational institutions, the local community, and fishers with the groundbreaking of this building as a tribute to my good friend Barry Fisher and his colleagues."

Dr. Elizabeth Clarke, Director of the N W F S C ' s Fishery Resource and Analysis Division (FRAM), under which the groundfish program is administered, said the Barry Fisher Building "recognizes not only Barry Fisher's commitment to the pursuit of high quality fisheries research and education, but symbolizes the dedication and cooperative spirit of the region's fishers in this endeavor."

"This dedication is a real tribute to Barry," said Dr. Hogarth. "It is a tribute to his vision and will become part of his exceptional legacy. Here, NOAA Fisheries will make a substantial investment in the science of fisheries, and I think Capt. Fisher would approve."

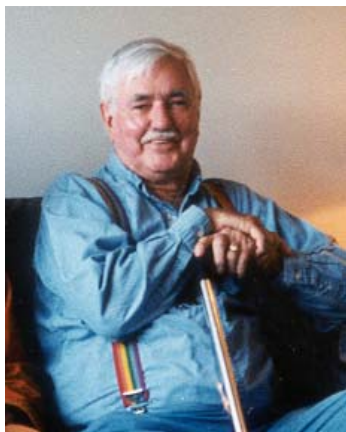
"Improved science will help us better manage and restore the west coast groundfish fishery," Hogarth continued, "And, taking a page from the Barry Fisher book of fishery management, we will include scientists, managers, and the users – our fisher-

men – in our renewed efforts to rebuild the groundfish population. Collaboration is the key to our future success."



May 2001 Rendering of the Barry Fisher Building, Newport, OR.

SPECIAL DEDICATION: Captain Barry Fisher



In the last four years, strong collaborative programs have been established at the Newport Research Station, located on the grounds of the Hatfield Marine Science Center. This summer marked completion of the 4th Annual Bottom Trawl Resource Survey, which relies on the participation of commercial trawl fishing vessels to complete its mission each year. The five-week survey collected samples of groundfish that inhabit the slope zone off the coasts of Washington, Oregon, and northern California. The goal of the surveys is to determine the relative abundance of groundfish species such as Dover sole, sablefish, shortspine and longspine thornyhead, and to determine their distribution, population dynamics and biological condition.

Cooperation, our most valuable asset (continue from front page)

The Newport facility houses the Oregon office of the west coast's first groundfish Observer Program, begun in late July. The program, a long sought-after project to improve fisheries statistics, involved the collaborative energies of more than 20 commercial fishing observers, 22 fixed gear and long-line trawlers, and several government agencies including the Pacific States Marine Fisheries Commission and the US Coast Guard, in addition to NWFSC scientists. Observers ride commercial fishing vessels to monitor and gather the first reliable and accurate fleet-wide information on total catch, bycatch and discard rates associated with different fish stocks.

Extensive collaboration produced astounding success this spring with completion of the Ocean Exploration Project's mapping of the Astoria Canyon, a large deep-water channel extending seaward from the mouth of the Columbia River. This project, which involved an interdisciplinary consortium of over 50 scientists and engineers, led by investigators from NOAA, conducted a multi-phase mission to map, explore, and document the physical, chemical, and biological systems of this westernmost portion of the Columbia River drainage system. Using sidescan and multibeam echo-sounders, scientists created new, 3-dimensional, high-resolution images that clearly depict features of Astoria Canyon that have never been observed and documented, such as walls, outcrops, rocks, faults, and slides. The research team conducted detailed surveys of the Canyon using a variety of remote sensing and sampling devices, including the sophisticated Remotely Operated Platform for Ocean Science (ROPOS), a powerful, tethered, electro-hydraulic system capable of diving to 5,000 meters for more than 24 hours at a time. It provided scientists with tools that are

critical for viewing and sampling both the seafloor and the water column. Biological specimens and geological samples that are invaluable to museums and universities were also collected. Conducting ocean exploration from the *RONALD H. BROWN* with ROPOS provided a special opportunity for teams of geologists, ichthy-

"...we celebrate cooperation among government, educational institutions, the local community, and fishers with the groundbreaking of this building as a tribute to my good friend Barry Fisher and his colleagues."

*Dr. Usha Varanasi
NWFSC Science Director*

ologists, invertebrate zoologists, physical oceanographers and fisheries biologists to view the seafloor and overlying water column in a real-time interactive setting.

After exploring Astoria Canyon, the expedition ventured south along the Oregon coast to map and supplement ongoing National Marine Fisheries Service groundfish monitoring efforts at Heceta Bank, an important commercial fishing ground. Researchers are trying to compare various habitats and fish and invertebrate populations at specific locations along the west coast. Exploration of Heceta Bank revealed numerous cold water seep habitats. These unique habitats are formed when methane or hydrogen sulfide gas seeps up through sediments. Chemosynthetic bacteria are able to convert these chemicals into energy. The bacteria fuel a diverse habitat comprised of tube worms, clams, crabs and fish.

One discovery made during the Heceta Bank phase of the exploration underlined the interdisciplinary value of the Ocean Exploration Program by revealing a potential ancient shoreline exposed during the last glacial

period, ca. 17,000 years ago. High-resolution multibeam maps showed that the outer edge of Heceta Bank had a distinct change in bottom character, suggesting the trace of such an ancient shoreline. In one place, there was a sudden rise projecting to the west that looked much like a rocky headland found along the present Oregon coast. In approaching this ancient headland during one ROPOS geological reconnaissance dive, it became apparent that there was abundant shell material in the sand next to the cliff. Fortunately, the scientific team had in their science party Dr. Ángel Valdés, a specialist in Malacology (mollusks) from the Los Angeles County Museum of Natural History. Dr. Valdés recognized some of these shells as shallow water

and intertidal, so that they knew the area was worth further investigation. Numerous shells were found in the sands of this potential ancient beach. A perfectly intact mussel shell was collected and this specimen has been sent out for radiocarbon dating. The water depth of the hypothesized ancient shoreline is 140 meters, but we know from numerous studies that the absolute sea level change at this time was only about 120 meters. This discovery and the questions that it has raised will likely fuel further exploration of this portion of the Oregon margin.

Organizations participating in these two cruises included the Northwest & Southwest Fisheries Science Centers, the OAR Pacific Marine Environmental Laboratory, Oregon Dept. Fish & Wildlife, Pacific Marine Conservation Council, NOS Olympic Coast National Marine Sanctuary, Oregon State University, Washington State University (Vancouver), Department of Fisheries and Oceans (Canada), Monterey Peninsula College (Monterey, CA), Lake Oswego High School (OR), the Oregon Sea Grant Hatfield Marine Science Center, and commercial fishermen from Astoria, OR.

BARRY FISHER: Dauntless leadership

It's hard to write about Barry Fisher's life, because even a casual glance at his résumé suggests that Fate shoe-horned into one man's skin the energy, intelligence, creativity, courage and goodwill of half a dozen ordinary people. It's easy to get lost in the maze of his activities and achievements—but what an awe-inspiring landscape to be lost in.

Barry Fisher was a Gloucesterman. Add the name "Fisher" to a birthplace like that and it would be hard indeed not to go to sea. Barry did it as young as possible—after "lumping around the wharves from age 11"—by joining the U.S. Merchant Marine. This was in 1943: by war's end, still in his early teens, he had seen North Africa and the Mediterranean, witnessed the Allied re-invasion of France, been on the infamous Murmansk convoy in the Russian Arctic, and had his ship torpedoed from under him by a German U-boat.

After the war, he was granted just a few short years of peace in which to roam the east coast fisheries, from North Carolina's Cape Hatteras to Newfoundland's Grand Banks. Then came Korea, and during two tours of combat duty in the U.S. Army he collected a shoulder-load of medals, including two Bronze Stars, the Combat Infantry badge, three Purple Hearts, the Army Commendation medal, the U.S. Presidential and Korean Presidential Distinguished Unit citation, and four Battle Stars on his Korean Service medal.

Those medals were hard-won. The citation for the first of his two Bronze Stars reads, in part:

Sgt. Fisher was leading a reconnaissance patrol on the Central

Northeastern Korean Front on the 13th of April, 1952.... The patrol came under intense weapons fire from a large enemy patrol.... Realizing the seriousness of the situation, and with total disregard for his own safety, Sgt. Fisher boldly dashed some 45 to



Photo: Barry Fisher with Dr. Usha Varanasi
Born: Gloucester, Massachusetts,
September 9, 1929
Died: Newport, Oregon,
March 17, 2001

50 yards through heavy enemy fire to reach the enemy. He hurled several grenades, and kept firing his own personal weapon as he charged.... Stunned by this one-man assault, the remaining enemy forces rapidly became disorganized.... The enemy withdrew.... As a result of his dauntless leadership, Sgt. Fisher and his men inflicted great damage and many casualties on a numerically superior enemy.

In a subsequent engagement, this "dauntless leadership" left him recovering from serious wounds in an Army hospital. But relaxation wasn't Barry's style; he used the time to get a GED, and the GED took him to Harvard, where he earned a B.A. in History.

Harvard was important to him for more than just books, however. While there, he met and married Carol Lee Smith. In 1955 and 1957, his sons Christopher and Frederick were born. After a period on a timber cruiser in South America, he came back to Harvard for a Master's in Education, and then came the first of several periods of teaching.

In 1964, Barry bought a 65-foot dragger and returned to fishing out of New Bedford. But the boat burned and sank, and in 1968 he accepted a post as Associate Professor of Fisheries at Oregon State.

Soon after he started teaching at Oregon State, in 1969, Barry met Joe Easley, who is now Administrator of the Oregon Trawl Commission. Easley describes Barry as "very bright, well-educated, a good writer and a good speaker"—and also "well, you know, a bit

profane at times. But above all he was tremendously generous with both his time and his resources: a man who put his own money where his mouth is."

He was at OSU until 1974, when the sea called once again, and between 1974 and 1995 he captained and owned a succession of vessels on the west coast, was actively involved in the development of gear and other technology, and introduced midwater trawl fishing to the west coast.

People with long memories of Barry will recall him skippering the fifty-foot *Mi Toi*. Then came *Excalibur*, which he built at Coos Bay in 1977. *Excalibur* is still jointly owned by Carol Fisher and Barry's close friend Mike Retherford, who has been fishing Oregon waters since he was 18. Retherford—speaking by 'phone from the

BARRY FISHER: Dauntless leadership (continued)

deck of the *Excalibur*—described Barry in glowing terms. “He was a good businessman but also a giver, always willing to help someone. He put his heart into what he felt was right, and always felt he should be doing more. The kind of person you meet once in a lifetime.”

During the 1970s he also fought through substantial opposition to pioneer an innovative and immensely successful joint venture with Soviet fisher processors—by far the biggest commercial link between Russia and American companies during the 1980s. Barry noted, with a mixture of amusement and pride, that he was “the only foreigner ever carried on the active duty rolls of the Soviet State Fishing Company, as a Master Mariner, and Senior Master Mariner and Navigator.”

From the late 1970s on, Barry devoted great energy and generosity to fisheries education. He contributed heavily to marine fisheries programs at Oregon State University’s Hatfield Marine Science Center. He also supported the Oregon Coast Aquarium, the Conservation Law Foundation, and other organizations too numerous to list. From 1983, he was president of Midwater Trawlers Cooperative, and was an effective spokesman for fisheries interests at the highest levels of regulation and government. In 1985, he was reappointed to the OSU faculty as a Professor of Fisheries.

Stewart Toshach of the Northwest Fisheries Science Center describes him as inventive, tenacious, and disciplined. “He was warm, charming, a good listener—and you always knew

where you stood. Barry was a guy who told you loud and clear what you wanted to hear, and what you didn’t want to hear—and he always knew which was which.”

Nothing could be more appropriate than a research facility at Newport bearing his name. As Senator Ron Wyden said, in a letter to Carol Fisher, “one of Barry’s greatest gifts



Barry Fisher’s RV *Excalibur*

to us all was his insistence on better, more accurate research about ocean fisheries. We must carry on his important work.”

Alexander Popov, President of Russia’s Binom fisheries company, has spoken of the man’s great personal impact: “Every nation has its heroes. I’m not speaking about presidents or politicians. I’m talking about simple people who have the gift for making simple people happy. Barry Fisher had that gift. Not only in the United States but also in Russia, he became a legend.”

A remarkable storyteller, Barry spoke fluent Spanish, and could get by in several other languages, including Russian and Portuguese. Of dory

fishing out of Gloucester, at aged 17, he said dryly: “I never enjoyed a fishery ever again as much as I enjoyed dory fishing.... I never thought much about money. What I had, I spent, and then it was back to George’s Bank for another withdrawal.”

Bob Schoning, a colleague and friend of many years, who read the eulogy at Barry’s memorial service, said that you could sum up Barry Fisher just by placing the word “good” in front of the nouns Husband, Father, Grandfather, Friend, Patriot, Soldier, Fisherman, Team Player, Leader, Philanthropist, Writer, Thinker, Speaker, Champion, Pioneer.

Barry fished in four seas and five oceans, from the equator to the Arctic, and his friendship and generosity left their mark on thousands of people. He succumbed to cancer, passing away on March 17, and rests now in Willamette National Cemetery. He was 72; to

many of his friends, paradoxically, it seemed both incredible that he was not younger, and incredible that he could have packed so much into just one life.

Rod Moore, of the West Coast Seafood Processors Association, remembers how “even when his active fishing days were over, and he became a “shore captain,” Barry never turned aside from his support of the fishing community.... As age and disease took their inevitable tolls, Barry refused to slow down.... It is an example of his concern that he asked that donations be sent to a fund to help economically strapped fishing families.... We all know Barry as one-of-a-kind who will not be replaced.”

EFCL deployment in Northwest Groundfish Observer Program

The Electronic Fish Catch Logbook (EFCL) has now been deployed for the use of observers in the west coast groundfish observer program. After beta testing of the prototype system was successfully completed in June 2001, the NWFSC EFCL development team and Scientific Fisheries, Inc., of Anchorage, Alaska, started customizing the system to

consisted of minor changes to the system, in particular to conform with the deck forms created especially for the observer program. Two deployments were made, the first for observers on long-liners and the second for observers in the trawl groundfish fishery. As observers complete their trips, they connect their laptops and download their catch and sample

new technology, the EFCL has its first official *customers* and is working well. The project went from prototype to deployment in just 3 months.

The EFCL enterprise and development teams, comprised of Carol Murray and Stewart Toshach, from NWFSC, Kelly Luna from Paladin Data Systems, Marcy Ferguson from Scientific Fisheries and Dr. Richard Methot from the FRAM Division. The project would not have succeeded without valuable input from Jonathan

EFCL Logical System Architecture

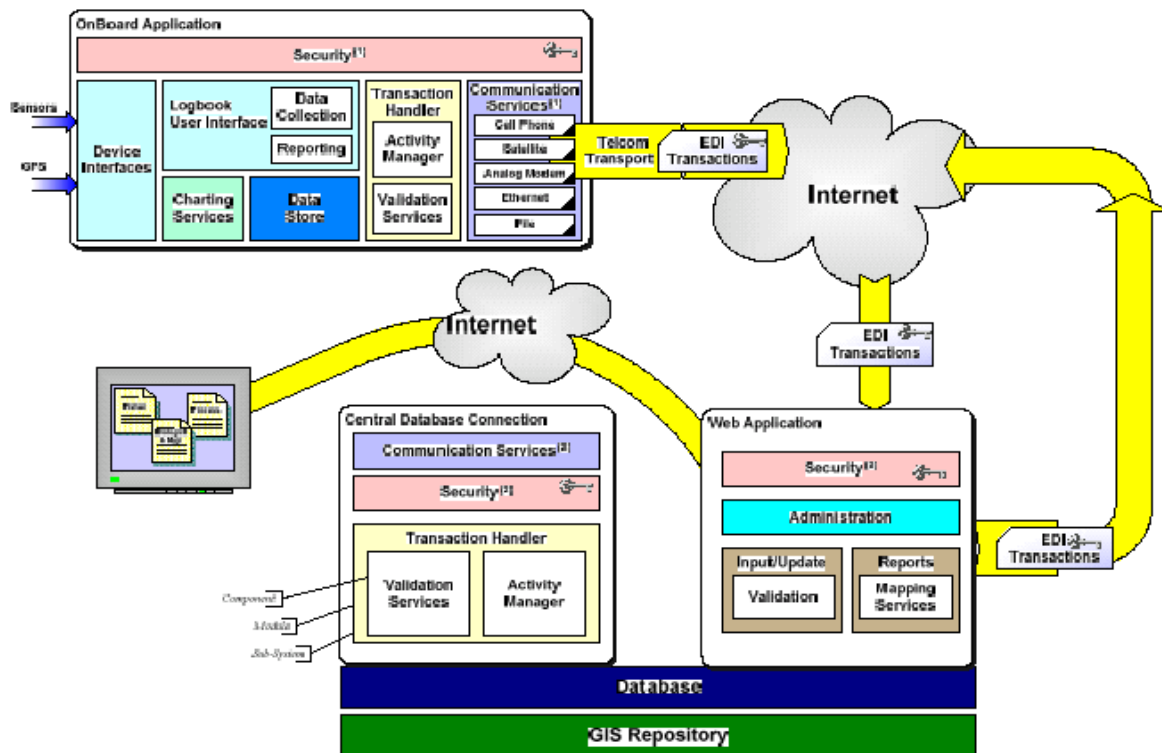


Figure 3: Logical System Architecture

meet the specific needs of the groundfish observers on the west coast.

Fortunately, most of what the observers needed had already been built into the EFCL, so the development

data via the web into the database in Seattle.

It has been a steep learning curve for everyone, and while there have been minor glitches and other challenges typically associated with deploying

Cusick, John LaFargue, Janell Majewski and Jim Benante from the Observer Program, and from many others at the NWFSC who stepped in to make it happen.

NOAA's work in Newport

NOAA presently owns two buildings at the Hatfield Marine Science Center (HMSC) in Newport, Oregon, the Newport Aquaculture Laboratory (NAL) and the Research Support Facility (RSF). Together they constitute the Newport Research Station (NRS). The NAL was constructed in 1978-79 to support fish disease and marine aquaculture research, and has 26,000 sq. ft. of office and laboratory space. The RSF was constructed two years later and has 30,000 sq. ft. of offices and laboratories. Initially, researchers from Oregon State University and a small group from the Northwest and Alaska Fisheries Science Center used the facilities. In the late 1980s, the VENTS program from NOAA's Pacific Marine Environmental Laboratory, began a program in the RSF. Beginning in 1995, the Northwest Fisheries Science Center (NWFSC) started a number of programs throughout the Newport Research Station, including a groundfish assessment and monitoring program, and two programs concerned with coastal salmon ecology and habitat requirements. Currently, approximately 100 researchers, graduate students, and support staff use the

NRS. Many of the research programs contained within the buildings, especially those with the NWFSC have grown markedly since 1995, and the buildings at the NRS have become quite crowded. In some cases, Oregon State University (OSU) researchers were displaced by NWFSC researchers. In response to this overcrowding, OSU contacted Senator Mark Hatfield's office in 1996 to request funds to expand facilities at the HMSC. Funding for the Newport construction project was derived from two Congressional appropriations to NOAA: \$500,000 in FY 1996 for architectural and engineering services and \$3,500,000 in FY 1997 for the NRS renovation and expansion.

These funds were awarded through NOAA, which started the process with a facility requirements study. The study was conducted in 1997

and concluded that a new research facility was needed and that this facility should be 15,000 sq. ft. and con-



Thornyhead rockfish hides under rock covered with brittle stars. Photo from the Ocean Exploration expedition.

sist primarily of offices and warehouse space. Following the study, the process leading to construction was initiated, including an environmental assessment, independent reviews by representatives of other Federal agencies, and building design. The early phases of construction began in August 2001.

Northwest Fisheries Science Center



National Oceanic and Atmospheric Administration
U.S. Department of Commerce
2725 Montlake Boulevard East
Seattle, Washington 98112

Phone: 206-860-3200
Fax: 206-860-3217
<http://www.nwfsc.noaa.gov>



Building description

When completed in August 2002, the 15,000 sq. ft. Captain Barry Fisher Building will be home to the expanded groundfish program of the Northwest Fisheries Science Center. Our best hope for restoring productive fisheries on the west coast is better scientific understanding – and the new facility is dedicated to exactly that purpose.

The building will honor Captain Fisher's vision for increased collaboration among scientists and the fishing community by providing a staging area for enhanced cooperative sur-

vey efforts. It will also house the expanded habitat research team, and the new acoustics research program which will be the nucleus for the NWFSC's efforts to improve stock assessments by the use of advanced technologies. Meeting and seminar venues will provide a focal point for collaborative work with the local community. The building has an exceptionally energy efficient design. It will feature native plant landscaping, plus displays highlighting their role in the local ecosystem.