USGS
science for a changing world
May 2013 | Issue 1.3

Western Fisheries Research Center (WFRC)

# Western Fisheries Science News

WFRC Scientists Emeritus, Dr. Gary Wedemeyer, holding his commemorative plaque. Photo by Lisa Hayward.

## Wedemeyer Inducted Into Fisheries Hall Of Fame

On May 11, WFRC Scientist Emeritus, Dr. Gary A. Wedemeyer was inducted into the American Fisheries Society's Fish Culture Hall of Fame. Only 53 other biologists have been bestowed this honor since it was established in 1985 to recognize lifetime achievement. Dr. Wedemeyer's most significant contributions are those that furthered understanding of the role that hatchery rearing environment plays in the initiation of fish diseases. Over the course of his career Dr. Wedemeyer helped identify what physical, chemical and biological factors are important to the survival of hatchery fish, gaining insights that have since become important to aquaculture globally.

Dr. Wedemeyer first joined what was then the USFWS Western Fish Disease Laboratory (now WFRC) in 1965, soon after completing his Ph.D. at the University of Washington. He set up his lab and office in a warehouse left over from World War II on the Magnuson Naval base, joining about 15 other staff members at the USFWS lab. The problem that he confronted was this: the federal government recognized the devastating impacts of the public hydropower (continued on page 2)

## Honors

**WFRC Scientist Appointed to IUCN Group:** Mike Parsley was recently appointed to the International Union for Conservation of Nature (IUCN) Sturgeon Specialist Group, which focuses on conservation of the world's 28 species of sturgeons. This group provides technical guidance and support to restore sturgeons throughout the northern hemisphere. For more information contact Mike Parsley at 509 538-2299 or mparsley@usgs.gov.

## Events

**Euring Analytical Meeting:** WFRC scientist, Dave Hewitt, attended the 2013 Euring Analytical Meeting and Workshop, April 28 - May 4, in Athens, Georgia. Hewitt presented a novel method for estimating the effects of capturing and marking animals on post-release survival. Hewitt and his coauthors used the method to estimate mortality for the endangered Lost River sucker in the Upper Klamath Basin. For more information contact Eric Janney at ecjanney@usgs.gov.

**WFRC Celebrates Centennial Anniversary of Anoho Island Nationl Wildlife Refuge:** WFRC Reno spent Saturday May 4th celebrating the Centennial Anniversary of Anaho Island National Wildlife Refuge with the Pyramid Lake Paiute Tribe. Pyramid Lake is terminal lake of the Truckee River watershed located north of Reno, NV. Anaho Island is on the east side of Pyramid Lake and harbors one of the largest breeding colonies of American White Pelicans in the Western United States. For more information contact Gary Scoppettone at gary_scoppettone@usgs.gov.

(continued from pg. 1) projects of the 1930s on native salmonids. To help compensate they developed mitigation hatcheries. But rearing salmon in hatcheries was a new endeavor and managers lacked necessary technical information. Unlike trout reared successfully in hatcheries, salmon must undertake a complicated transition to a life at sea before returning to freshwater for reproduction and death. While salmon fry seemed to develop normally in the hatcheries, they were not returning successfully to spawn. Something about the hatchery environment was setting them up to fail during their transition to sea. Uncovering what that something was would become the focus of Wedemeyer's research for many years to come.

Dr. Wedemeyer identifies Rachel Carson's 1962 book, Silent Spring, as a major influence on his career. Then, as now, salmon were a precious Northwest resource that had the potential to be renewable over thousands of years. But salmon and other fish were dying by the thousands in mysterious fish kills that wiped out all the fish in a river or lake, often near areas where Forest Service had sprayed pesticides on a forest at a time when no one understood the value of a buffer zone. Under the influence of Carson, Dr. Wedemeyer made dichlorodiphenyltrichloroethane (DDT) a focus of his early studies, examining how exposure to trace amounts during development influenced the physiology of salmon and their survival at sea.

Wedemeyer was able to take advantage of the unique saltwater facilities at what is now WFRC's Marrowstone field station to conduct controlled experiments, giving him the ability to better track the influence of hatchery environment on salmon's transition to saltwater. He complemented these lab studies by tagging and tracking free living salmon exposed to the same experimental regime. Wedemeyer's early studies on DDT helped lead to a state-wide ban on the pesticide and to the eventual elimination of DDT nationally.

Over time Wedemeyer's research generated many insights that have become critical to the success of the salmon hatcheries of the Pacific Northwest, and to aquaculture globally. Additionally, Wedemeyer's career has been distinguished by his excellent teaching and collaboration with scientists from many countries. The legacy that he has established lives on through his influential publications and book chapters; those he hired and mentored; and through his ongoing contributions as scientist emeritus, a status he has held at WFRC since 1998. For more information contact Lisa Hayward at lhayward@usgs.gov

## Upcoming Events

**Independence Lake Fishing Derby:** On June 8th, WFRC Reno will assist the Nature Conservancy with a fishing derby at Independence Lake, California. The goal is to capture Lahontan cutthroat trout to PIT-tag and release. Independence Lake contains the last remaining self-reproducing population of Lahontan cutthroat trout in the Truckee River watershed. For more information contact Sean Shea at sean_shea@usgs.gov.

## In the News

**WFRC on MongaBay.com:** On April 23, WFRC science appeared in an article titled "The River of Plenty: uncovering the secrets of amazing Mekong". WFRC scientists David Hewitt and John Beeman work with FISHBIO to build technical capacity for research and conservation among institutions in the Mekong River basin. A key tool in this work is the recently released Mekong Fish Network web site: http://goo.gl/BDnCS. For more information contact David Hewitt at dhewitt@usgs.gov.

**WFRC in the New York Times:** WFRC scientist James Winton was mentioned in a May *New York Times* story on infectious salmon anemia virus in Pacific and Atlantic salmon from British Columbia, Canada: http://goo.gl/yfrmP For more information contact Jim Winton at jwinton@usgs.gov.

## New Publications

**Valley Form Influence on River Ecosystems:** WFRC's Ryan Bellmore recently published a paper in *River Research and Applications* titled "Effects of geomorphic process domains on river ecosystem: a comparison of floodplains and confined river segments". For more information, visit http://goo.gl/WbevF, or contact Ryan Bellmore jbellmore@usgs.gov.

**WFRC's History:** WFRC has led cutting-edge research on fish and aquatic environments for nearly 80 years – first in the Northwest, then nationwide and globally. WFRC's history of research and innovation is captured in "Seventy-Five Years of Science: The Story of the Western Fisheries Research Center 1935-2010." For more information, visit http://pubs.usgs.gov/gip/149/ or contact Gary Wedemeyer at gwedemeyer@usgs.gov or 206-526-6282.

**USGS Western Fisheries Research Center**
6505 N.E. 65th Street
Seattle, Washington 98115
http://wfrc.usgs.gov/ 206-526-6282
To unsubscribe email lhayward@usgs.gov