

Sea critters hitchhiked across the Pacific on tsunami debris

By **SETH BORENSTEIN**
AP Science Writer

WASHINGTON — Nearly 300 species of fish, mussels and other sea critters hitchhiked across the Pacific Ocean on debris from the 2011 Japanese tsunami, washing ashore alive in the United States, researchers reported Thursday.

It is the largest and longest marine migration ever documented, outside experts and the researchers said. The scientists and colleagues combed the beaches of Washington, Oregon, California, British Columbia, Alaska and Hawaii and tracked the species to their Japanese origins. Their arrival could be a problem if the critters take root, pushing out native species, the study authors said in Thursday’s journal Science.

“It’s a bit of what we call ecological roulette,” said lead author James Carlton, a marine sciences professor at Williams College, in Williamstown, Massachusetts.

It will be years before scientists know if the 289 Japanese species thrive in their new home and crowd out natives. The researchers roughly estimated that a million creatures traveled 4,800 miles across the Pacific Ocean to reach the West Coast, including hundreds of thousands of mussels.

Invasive species is a major problem worldwide with plants and animals thriving in areas where they don’t naturally live. Marine invasions in the past have hurt native farmed shellfish, eroded the local ecosystem, caused economic losses and spread disease-carrying species, said Bella Galil, a marine biologist with the Steinhardt Museum of Natural History in Tel Aviv, Israel, who wasn’t part of the study.

A magnitude 9 earthquake off the coast of Japan triggered a tsunami on March 11, 2011, that swept boats, docks, buoys and other man-made materials into the Pacific. The debris drifted east with an armada of living creatures, some that gave birth to new generations while at sea.

“The diversity was somewhat jaw-dropping,” Carlton said. “Mollusks, sea anemones, corals, crabs, just a wide variety of species, really a cross-section of Japanese fauna.”



This April 2015 photo provided by John W. Chapman shows marine sea slugs from a derelict vessel from Iwate Prefecture, Japan, which washed ashore in Oregon. On Thursday researchers reported nearly 300 species of fish, mussels and other sea creatures hitchhiked across the Pacific Ocean on debris from the 2011 Japanese tsunami, washing ashore alive in the United States.

The researchers collected and analyzed the debris that reached the West Coast and Hawaii over the last five years, with new pieces arriving Wednesday in Washington. The debris flowed across the North Pacific current, as other objects do

from time to time, before it moved north with the Alaska current or south with the California current. Most hit Oregon and Washington.

Last year, a small boat from Japan reached Oregon with 20 good-sized fish inside, a kind of

yellowtail jack native to the western Pacific, Carlton said. Some of the



This 2015 photo provided by the Oregon Department of Fish and Wildlife shows a yellowtail jack fish that was captured from Japanese tsunami wreckage in Oregon.



This June 2012 photo provided by John W. Chapman shows Japanese sea stars (Asterias amurensis) on a Misawa, Japan, fisheries dock that washed ashore near Newport.

Imperiled Idaho sockeye salmon run falters with poor return

By **KEITH RIDLER**
Associated Press

BOISE, Idaho — The number of imperiled Snake River sockeye salmon that made it back to central Idaho this year is the second worst in the last decade, officials said, but enough hatchery-raised fish exist to keep a state and federal recovery program going.

The Idaho Department of Fish and Game said Tuesday that 159 of the federally protected fish arrived at the Sawtooth Basin near Stanley as of Monday after traveling 900 miles from the Pacific Ocean.

That’s below the 10-year average of 690 but not bad considering biologists estimated only about 400 started the journey at Bonneville Dam, the first of eight dams the fish must pass on the Columbia and Snake rivers before reaching the Salmon River.

Sockeye salmon are a prized sport fish and the Idaho run is culturally important to the Shoshone-Bannock Tribes, which have worked to restore habitat. An estimated 150,000 sockeye at one time returned annually to central Idaho, and Redfish Lake was named for the abundant red-colored salmon that spawned there.

Federal officials say the run declined starting in the early 1900s due to over-fishing, irrigation diversions, dams and poisoning, eventually teetering on the brink of extinction in the early 1990s.

The fish have been the focus of an intense recovery program centered at Fish and Game’s Eagle Fish Hatchery in southwestern Idaho after being listed as endangered under the Endangered Species Act in 1991.

Warm ocean conditions are believed to have caused many salmon and steel-head runs to falter this year.

For fisheries managers trying to bolster the Idaho sockeye run, that means relying on fish raised in the hatchery to produce the next generation.

“When we get years like this, we’re able to meet our production goals with the captive brood stock alone,” said Dan Baker, manager of Idaho Fish and Game’s Eagle Fish Hatchery near Boise.

In years that enough sockeye return, some are allowed to spawn naturally in Redfish Lake. But not this year. All 159 are being held at the Eagle facility for artificial spawning in October. Each fish has been genetically tested to determine the best matches to



This photo provided by Idaho Fish and Game shows Snake River sockeye salmon that returned from the Pacific Ocean to Idaho over the summer swimming in a holding tank on Tuesday at the Eagle Fish Hatchery in southwestern Idaho. The number of the endangered fish that made it back this year is the second worst in the last decade, but there are enough hatchery-raised fish to make up for the bad return.

produce the next generation.

Meanwhile, 1,170 adult fish raised in the Eagle Fish Hatchery and the federally operated Burley Creek Hatchery in Washington state were released earlier this month into Redfish Lake in central Idaho to spawn. Workers released another 100 into nearby Pettit Lake.

Sockeye salmon produced naturally in the lakes are supplemented with young hatchery salmon, called smolts. Baker said that about 735,000 smolts were released last spring into the Salmon River, and 750,000 will be released next spring. The goal is to release 1 million smolts with the hope that up to 5,000 of them could survive the ocean odyssey to return annually as adults.

Producing more young fish means increasing the number of adult brood stock to 1,500 at both the Eagle and Burley Creek hatcheries. Burley Creek is operated by National Marine Fisheries Service as a backup in case of a catastrophic failure occur at the Idaho hatchery.

That looked possible in March. Officials evacuated about 4,000 sockeye used for brood stock at the Eagle facility due to flooding threats from the Boise River.

Workers transported the fish to the state-run Springfield Fish Hatchery in

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— Russ Kiefer,

Idaho Fish and Game biologist

eastern Idaho. They returned the fish to the Eagle hatchery at the end of July when the danger passed.

The Springfield hatchery was completed in 2013 as part of the sockeye recovery plan. Salmon eggs from the Eagle and Burley Creek facilities are transported to Springfield where they are raised until they are ready for release as smolts into the Salmon River.

Russ Kiefer, an Idaho Fish and Game fisheries biologist, said this year’s low return of adult sockeye is not ideal but could have been worse.

He said the melting of a big snow-pack this year kept rivers cool and made for good upstream migration for anadromous fish — fish that live in the ocean before returning to freshwater rivers to spawn.

“Obviously, we would prefer more anadromous adult returns,” he said. “It’s a slight setback as far as our long-term goals to move toward more anadromous fish, but it’s not a dramatic setback for the program.”

BRIEFLY

Fall prescribed burning to begin on Wallowa-Whitman Forest

Fire managers on the Wallowa-Whitman National Forest plan to burn approximately 12,000 acres this fall as part of the forest’s prescribed burning program.

Prescribed burning is done to reduce dead and down fuels, selectively thin small trees in dense forested stands, stimulate fire-tolerant species and reduce the overall risk of large, destructive wildfires. Historically, fire was a dominant natural process in the Blue Mountains, maintaining a more open and park-like condition at lower to mid-elevation forests which kept fires at low intensity.

Fire managers work closely with the Oregon State Smoke Forecast Center when conducting prescribed burns. Projects may be rescheduled if they will produce smoke that significantly affects neighboring communities. The Wallowa-Whitman forest has been doing prescribed burns for 20 years, including 20,000 acres last year.

The forest plans to burn 5,000 acres within the Whitman Ranger District, 5,000 acres within the Wallowa Fire Zone and 2,500 acres within the Grande Ronde Fire Zone. For more information about specific projects, contact Steve Hawkins at 541-523-1262 or visit www.fs.usda.gov/wallowa-whitman.

Redwoods burned by wildfire in southwest Oregon

SALEM (AP) — One of the last groves of Oregon redwoods was burned by the large wildfire that struck the Wheeler Creek Natural Area near Brookings.

The Statesman Journal reports there are only a few groves of naturally occurring redwoods remaining within

Oregon, located mostly in small patches just north of the California state line.

The Wheeler Creek redwoods are located in a 600-acre preserve in Rogue River-Siskiyou National Forest.

The U.S. Forest Service said last week that the wildfire torched 25 percent of the area’s old-growth redwoods. The fire burned only lightly through the understory of the other 75 percent of the natural area.

Warrenton nearing ownership of marina

WARRENTON (AP) — When boat traffic was at its peak this summer in the Hammond Marina, some fishermen found themselves nearly trapped at the docks at low tide with only 7 to 10 inches of water under their boats.

After decades of hoping, negotiating and keeping a close eye on bills flying off to Congress, Warrenton is on its way to full ownership of the marina and boat basin. The city expects a transfer of ownership from the U.S. Army Corps of Engineers next year, but one thing is already clear: Dredging needs to be priority No. 1.

In fact, members of the newly re-formed Hammond Marina Task Force and city officials are already looking to put dredging plans in motion — even before the transfer is final. At their first meeting this summer, the task force members concluded there was “no sense” in even talking about improvements or other development plans until the marina is dredged.

Local fishing guide Kelly Short used a drone to take overhead photos of the marina for Warrenton Harbormaster Jane Sweet during the summer fishing season. In one photo, trucks and boat trailers are everywhere, metal glinting in the sunlight. Another photo, taken at low tide, shows boats tied up along a stretch of dock.