Drought conditions affect Oregon lakes

By Helen Schmidling Correspondent

Gov. Kate Brown has declared a drought emergency in five counties -Crook, Harney and Klamath Counties, Lake, and Malheur - and others may not be far behind. The five are the driest in a state that's facing record dry conditions, having experienced the warmest winter since 1895, low snowpack, and lack of rain.

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"As you know, we cannot talk about prosperity and economic recovery without acknowledging the crucial role water plays in our quality of life and our livelihoods," the governor said in her State of the State message last week. "This may sound strange coming from the governor of a state best known for its high rainfall and lush, green landscapes. But the threats to our water supply are all too real," said the governor.

The high lakes and rivers that serve the vast ranches and wildlife in these five southeastern counties are threatened, and none more than the hypersaline Lake Abert. Water management at and around Lake Abert is but one topic under discussion at the educational symposium taking place Saturday, April 25 at Black Butte Ranch.

The drought has already affected aquatic and avian species. Susan Haig, senior scientist with the USGS Forest and Rangeland Ecosystem Science Center and professor of wildlife ecology at Oregon State University, is one of the speakers at the upcoming Lake Abert seminar.

"Terrestrial and aquatic species that depend on wetlands (like Lake Abert) are likely to experience significant shifts in range, phrenology (periodic plant and animal life cycles) and population, particularly in arid and semi-arid regions that are already limited in water quantity and quality," she said.

Species are suffering from the combination of long- and short-term effects of climate change.

Lewis W. Oring, professor of wildlife resources from the University of Nevada, another speaker at the symposium, has focused on the migratory study of American avocets, eared grebes, and Wilson's phalaropes. In his research, Oring "found radio-tagged

American avocets would fly 100-300 km after they had finished breeding, to stage at hypersaline Lake Abert." This staging consisted of feeding on the once-rich alkali flies and brine shrimp of the lake. Since the lake level has dropped significantly, no one knows where these birds are staging.

Scientists are asking questions, but answers are hard to come by. Some have turned to the law – and Oregon's public trust doctrine will be one more topic under discussion. Michael C. Blumm, professor of law at Lewis and Clark College, will discuss Oregon's public trust doctrine, and how it may pertain to the diversion of water resources from Lake Abert. Back in the 1980s, a decision led to lake and stream restoration at Mono Lake in California. Even so, Mono Lake is now suffering from some of the same conditions affecting Abert. Both are terminal, saline lakes.

The April 25 seminar on Lake Abert is open to the public, from 8:30 a.m. to 5 p.m. in the Administration Building conference rooms at Black Butte Ranch. Tickets are \$5, thanks to underwriting by the following sponsors: High Lakes Aquatic Alliance Foundation (HLAAF), Sisters School District, Lake Creek Resort and Lodge, Black Butte Ranch, Salem Audubon Society, Metolius Culinary Club, Ray's Food Place, North American Lake



Management Society and Portland Audubon Society. Tickets are available at the door or by contacting Dr. Frank Conte, founder and president of HLAAF, at spfclrecon@peak.org or 541-595-0107.

The High Lakes Aquatic Alliance Foundation is a volunteer organization that works to sustain the health of lakes and tributaries in Central and Eastern Oregon. Most of these high lakes are formed by fresh water derived from atmospheric water vapor, originating in the ocean but deposited as snow, ice and glacial moraines, and flowing as small rivers. When



Susan Haig will speak at the upcoming Lake Abert seminar.

runoff from melting snow is decreased, the lakes can eventually turn into dry lakebeds or become a desert-type playa.

The seminar is primarily geared toward raising awareness, which according to Conte, may some day lead to restorative efforts.

EDUCATIONAL SYMPOSIUM OREGON'S SALINE LAKE ECOSYSTEM – LAKE ABERT Saturday, April 25, 2015 | 8:30 AM to 5:00 PM Black Butte Ranch | Administration Conference Rooms

8:30 Opening Remarks: Dr. Frank P. Conte, Professor of Zoology (emeritus), Oregon State University, Corvallis, Oregon

8:45 The Importance Of Great Basin Wetlands To Waterbird Connectivity Throughout The Annual Cycle: Dr. Lewis W. Oring, Professor of Natural Resources (emeritus), University of Nevada, Reno, Nevada.

9:30 Waterbird Responses To Great Basin Wetlands Altered As A Result Of Changing Climates: Dr. Susan Haig, Senior Scientist, U.S. Geological Survey, Forest and Rangeland Ecosystem, Science Center, Corvallis, Oregon.

10:15 Coffee Break

10:30 Comparative Biology Of Aquatic Grebes While Living In Various Saline Lakes: Dr. Annette Henry, Biologist, National Oceanographic and Atmospheric Administration.

11:15 Comparative Biology Of Algal Species, Brine Shrimp, Brine Flies And Their Lime Gland Organs: Dr. Greg Yanega, Biologist, Salton Sea institute, University of California, Irvine. 12:00 Lunch

1:00 Lake Abert Origin, Basin Topography, Geology And Morphology In Historical, Current And Future Scenarios: Dr. Ronald Larson, Wildlife Biologist (emeritus), U.S. Fish and Wildlife Service.

1:45 Climatology Of The Lower Chewaucan Basin And Lake Abert: Dr. Stephen Bieda, Meterologist, National Oceanographic and Atmospheric Administration, Pendleton, Oregon.

2:30 Coffee Break

2:45 Oregon's Public Trust Doctrine: Public Rights In Waters, Wildlife & Beaches. What Is Its Potential In Saving Lake Abert? Dr. Michael Blumm, Jeffery Bain Faculty Scholar, Professor of Law, Lewis and Clark Law School, Portland, Oregon.

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3:30 Historical Populations Of Brine Shrimp And Financial State Support And Loss Due To Climatic Drought: Dr. Conte, Keith Kruez, Owner of Oregon Frozen Brine Shrimp on Lake Abert.

4:00 Evidence for Prehistoric Human Use of Lake Abert and its Ecosystem Implications: Dr. Richard Pettigrew, President and Executive Director, Archaeological Legacy Institute.

4:30 Open Discussion for Public Questions and Speakers Comments: Moderator of Discussion by Dr. Frank P. Conte

5:00 Adjourn

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