Malheur Lake spring 2023 conditions. Two years of drought followed by a wet cold spring make for some happy migratory birds.

by Dominic Bachman, Aquatic Biologist with Malheur National Wildlife Refuge April 2023



As we slowly drift into spring, with winter dragging its heavy feet, migratory birds of the Pacific Flyway are feeling the Zugunruhe that drives them north from their southern wintering grounds. Southern Oregon and Northeastern California, collectively known as the SONEC wetland region, is a favorite spring staging ground of many migratory birds. Malheur Lake plays a critical role in providing habitat this spring, as much of the SONEC is very dry due a couple years of consistent drought. One of the largest staging areas in SONEC, the Klamath Basin, is virtually nonexistent; with much of the Lower Klamath and Tule Lake National

Wildlife Refuges are predicted to receive no delivered water this spring. Malheur Lake will be very important to spring staging birds as one of the few places with food and water available.

In the last several years Malheur Lake water levels have been very low during spring and summer, creating moist soil conditions for annual plants to grow on the lake bottom. This lake is large and flat, and when it reaches these low water conditions, especially during a drought, several thousand acres are often less than an inch deep of water depth. Winds blow this shallow pool back and forth across the lake bottom, effectively irrigating annual plants and some emergent vegetation on the lakebed. Around late summer into fall of 2022, young shoots of cattails and hard stem bullrush have been an attractive food source for migrating geese. In some areas we even saw hundreds of young willows sprouting up in the lake bottom.

Thawing conditions this March have created a situation where the lake is slowly flooding up over annual plants, loaded with seeds, and becomes an incredible foraging habitat for spring staging waterbirds. Birds follow the newly flooded lake edge as it pushes out into dry areas creating new feeding areas with a high density of food every day. The bottom of Malheur Lake in higher water years is often devoid of vegetation however, with two years of low water there is a massive amount of annual plant seeds that have built up on the lakebed.

Invasive Common Carp numbers are predicted to be very low this year due to natural population reduction from drought, as well as the effects from the massive carp removal effort last fall, removing over 40 tons of carp from the lower Donnor und Blitzen River. Carp populations are likely the lowest they have been since 1992 and this should have implications for less turbid water this spring and summer on the lake.

Starting in mid-March, thousands of Northern pintails, American Green-winged Teal, Snow geese, Ross geese, Tundra swans and Sandhill Cranes began to utilize the expanding Malheur Lake. Although refuge staff didn't do an official survey this month there are an impressive number of birds on the lake right now. With temperatures being as cold as they have been this spring, by the afternoons the shallow edges of the lake thaw out, creating an area for feeding birds. On warm days when the river flows increase, pairs of mallards have been seen using the lower Donnor und Blitzen River as it floods into the emergent vegetation. Shallow water is also utilized by shorebirds and gulls. Although large numbers of these guilds have not been seen yet, staff have seen some avocets and ring-billed gulls beginning to stage on the lake.

For the month of March, snow has kept much of the Silvies Basin, near the town of Burns, frozen and under snow. Everything north of Wright's Point has basically been inaccessible to foraging birds with only a handful of geese and cranes picking at areas where cattle are feeding. Effectively, Malheur Lake is at the edge of the snowline and birds are reluctant to push past it. Timing couldn't be better with the lake flooding up in perfect concert with the arrival of hungry migratory birds. Unfortunately, for birders most of these birds are currently in a location that is not viewable by the public. With that said, open water ponds near the south end of the refuge, such as the Buena Vista Ponds, Benson Pond and West Knox Pond have provided habitat for these migratory birds and are in areas where the public can enjoy them.

With the Harney County Migratory Bird Festival coming up we are hopeful for conditions to warm up just in time for the birds to spread across the landscape and be more accessible to the birders that will be arriving in large numbers in April. As the temperatures increase and the refuge begins irrigating wet meadows on the southern part of the refuge and the Silvies Valley thaws out, birds should be spreading out soon. Fingers crossed mother nature will give us a few warm days.