Summer in the Harney Basin

Birds nest, fish try to stay cool and ranchers hay during the summertime

July 2021, by Lauren Brown

Summer in the Harney Basin can be an enjoyable time as folks get outside to recreate and enjoy the warmer weather. However, the summertime is also a busy one for ranchers and farmers who are busy moving cows, raising crops and cutting hay in preparation for the colder months. Wildlife rear young, birds nest and fish are simply trying to beat the heat to survive the warmer temperatures.

Keeping up with the plant cycle

By the end of June, plants that populate the wet meadows in the basin have reached peak growth. Tony Svejcar, a consultant for the Harney Basin Wetlands Collaborative and a retired rangeland scientist and research leader with the U.S. Department of Agriculture said water levels dropped early this year, which means plants reached peak growth in mid-June rather than at the end of June. “As soon as those plants start experiencing water stress, they go reproductive. They put up seed heads, they maximize their growth and then they start to go dormant,” Svejcar said.

Stomates in the leaves of the plants take in carbon dioxide to grow, but if the plants don’t get water, they can’t do that. They wilt and go dormant. “If you’re a hay producer, you want to get those plants cut and either in a rake bunch or in a bale before they all go dormant,” Svejcar said. If ranchers wait too long to cut the hay after dormancy, the forage quality of the hay degrades quickly.

In a normal water year, producers can manage the water on their lands so that one area can dry out and be hayed, while the water stays on other areas to be hayed later. Svejcar said when the water drops early, and everything dries out at once, it can be difficult to keep up with the plant cycle to cut all the necessary acres before they lose forage quality.

Esther Lev, the former executive director of The Wetlands Conservancy and a wetlands consultant for the Harney Basin Wetlands Collaborative, said the water, or lack thereof, really tells the story of what happens to the basin each season. “There is really a six-week period of time that the water’s not there and then there,” she said. “Everything is reacting to it. Then everything shuts down. It’s another chapter in that story of looking at water in the landscape and plant response to it.”

Lev and Svejcar are conducting a seasonal calendar project that has identified four sites in the basin in which drones fly over and take photos to document those sites at five different times throughout the year. Svejcar noted that the drone technology has the ability to offer them a new perspective on the basin landscape. “This technology can document the changes that we probably know happen because we see them closeup but drones provide a broader perspective,” he said.

“Because that landscape out there is so water dependent in a short period of time, this time of year you really get to see that big change,” Lev said.

Haying and cows

Mitch Baker, a Harney County rancher, says he feels the summer season for him starts in May when he turns the cows out to their summer pasture. Meadows are irrigated and fences and fields are tended to. “We transition to getting all the haying equipment ready around the middle of June, and that follows all the way through into the middle of August, putting up hay and taking care of that,” he said.

During that time, they must also move cows around to different pastures and check to make sure there is enough water for them to stay healthy.

Mitch sells his calves through a video market in mid-July. The calves stay on the summer pasture until September when they are brought back to the ranch and weaned. They are fed for another 30 days and then shipped by the first of November.

After the haying season, Mitch says they might have a week or two of down time, but that may change this year, as it has been one challenge after another. “Very little to no grass grew in our summer pastures for our cattle,” he said. “And water is short and waterholes are going dry. We didn’t have too much water to work with for putting up hay so we’re short on hay and trying to secure hay.”

He is also conducting some juniper thinning and brush pilling, but that is going to be hard to complete with the dry weather and the threat of wildfire.

Despite the hardship this year, Mitch enjoys being outside in the summertime. “We’ve got so much going on the ranch and I just like the outdoors, being out and getting to see the change in the whole landscape,” he said. “We’re out and about all over the place, so we get to see a lot of the changes throughout and try to adapt to everything we’ve got to do.”

Pictured: Idaho Fescue at the Malheur National Wildlife Refuge.

Fish seek cooler habitat

Like ranchers, the fish in the basin must adapt to the change in weather or face the consequences. Malheur National Wildlife Refuge fish biologist James Pearson said the redband trout that overwintered in Malheur Lake and then migrated upstream to spawn in the spring, are now looking for the ideal habitat to ride out the summer. This means seeking out water that is cold and clear with good overhead cover and lots of prey for them to eat.

“An ideal habitat for them would be right around the Frenchglen and Page Springs area up into the Steens Mountain Wilderness,” Pearson said. “The water coming out of springs is extremely cold. You have cold water, which is good for them and clear water, which is really beneficial for them because they are visual hunters, and the macroinvertebrate drift will be flowing downstream to them. They’ve already done their spawning, and now it’s time to hunker down for the summer to feed and get bigger.”

The carp that populate Malheur Lake have also spawned and are actively looking for food. Pearson said the carp use a suction feeding technique in which they suck in sediment from the lakebed and retain the macroinvertebrates while expelling the sediment back into the water column. As a result, they are seeking out the soft substrate usually found in the lower gradient, lower elevation areas of Malheur Lake and the lower stretches of the Blitzen and Silvies rivers.

In a good water year, the carp would stay to feed in the lake. “However, in years such as this, the water quality is getting very poor in the lake because the lake is contracting so much. It’s heating up and the carp densities are increasing as the lake decreases,” Pearson said. “There’s a lot of carp but not a lot of food down there.” When the habitat degrades, the carp will seek out better habitat in the Blitzen and Silvies rivers.

Pearson said this is behavior that refuge personnel can exploit as they look for ways to reduce the numbers of invasive carp from the lake. As carp swim up the river to look for better habitat, refuge personnel install traps in which to catch the carp and remove them from the system. “In years like this, where there are many fish running the river, we are able to remove hundreds of carp a day,” Pearson said.

Preliminary data from a radio telemetry study the refuge is conducting this summer has shown precisely what Pearson and his colleagues predicted the carp would do this summer in a low water year. Out of 36 tagged carp, about 80 percent of them have moved into the Blitzen River and are no longer using Malheur Lake. “We believe that the carp that are left in Malheur Lake are potentially cut off from entering the Blitzen River, so it’s likely that they will die if they cannot survive the poor water quality and low water conditions of Malheur Lake,” he said.

Nesting birds

On the bird front, while many folks associate the Harney Basin with the spring migration and the variety of birds that come through at that time, summer is also an interesting time to go birding in the basin.

Teresa Wicks, the Eastern Oregon Coordinator for the Portland Audubon Society, said that the birds that breed here stay for the summer. This includes prairie falcons, golden eagles and many different raptors. Ferruginous hawks and Swainson’s hawks both overwinter in Argentina but breed in the Harney Basin.

“Bobolinks come here to breed and when their young are fledging in late June or early July, you’ll start seeing pretty big flocks of them on the refuge. Then they will get ready to leave in late summer or early fall,” Wicks said.

Nighthawks also come to the basin to nest. “They are what we call a crepuscular species, so they’re out mostly around dawn and dusk, foraging for insects that come out around then,” Wicks said. “When you see them in the air, they move almost like bats. It’s not a predictable flight pattern and part of that is because they’re chasing insects.”

In fact, Wicks noted, many birds that are seed eaters will actually feed their young insects because the insects are so rich in protein. “One of the coolest things about nesting season is watching these birds that are mostly not insect eaters, shift their diet to mostly insects to be able to feed their young. Right now, I see a lot of birds carrying caterpillars. Caterpillars are a super important part of a lot of baby birds’ diets,” she said. Moths and grasshoppers are also plentiful.

Something Wicks enjoys in the summer season is watching the adult birds interact with their young. “I was watching an adult robin feed its young a grasshopper that was still alive. The young didn’t eat it fast enough, so the grasshopper actually jumped out of its mouth and the adult ran and chased it down again and brought it back to the baby. Watching those adult bird and young bird interactions is probably my favorite thing,” she said.

Wicks said that even though the spring migration puts the Harney Basin on the map in terms of birding, the summer months can be just as rewarding for birders. “The basin is a really, really important place for a lot of nesting birds, especially birds that need willows and wetlands,” Wicks said. “I regularly try to tell people that the Harney Basin is still a great place to bird in the summer, and we still have a good diversity of birds, you just have to know where to find them.”

This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney Basin Wetlands Collaborative.

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