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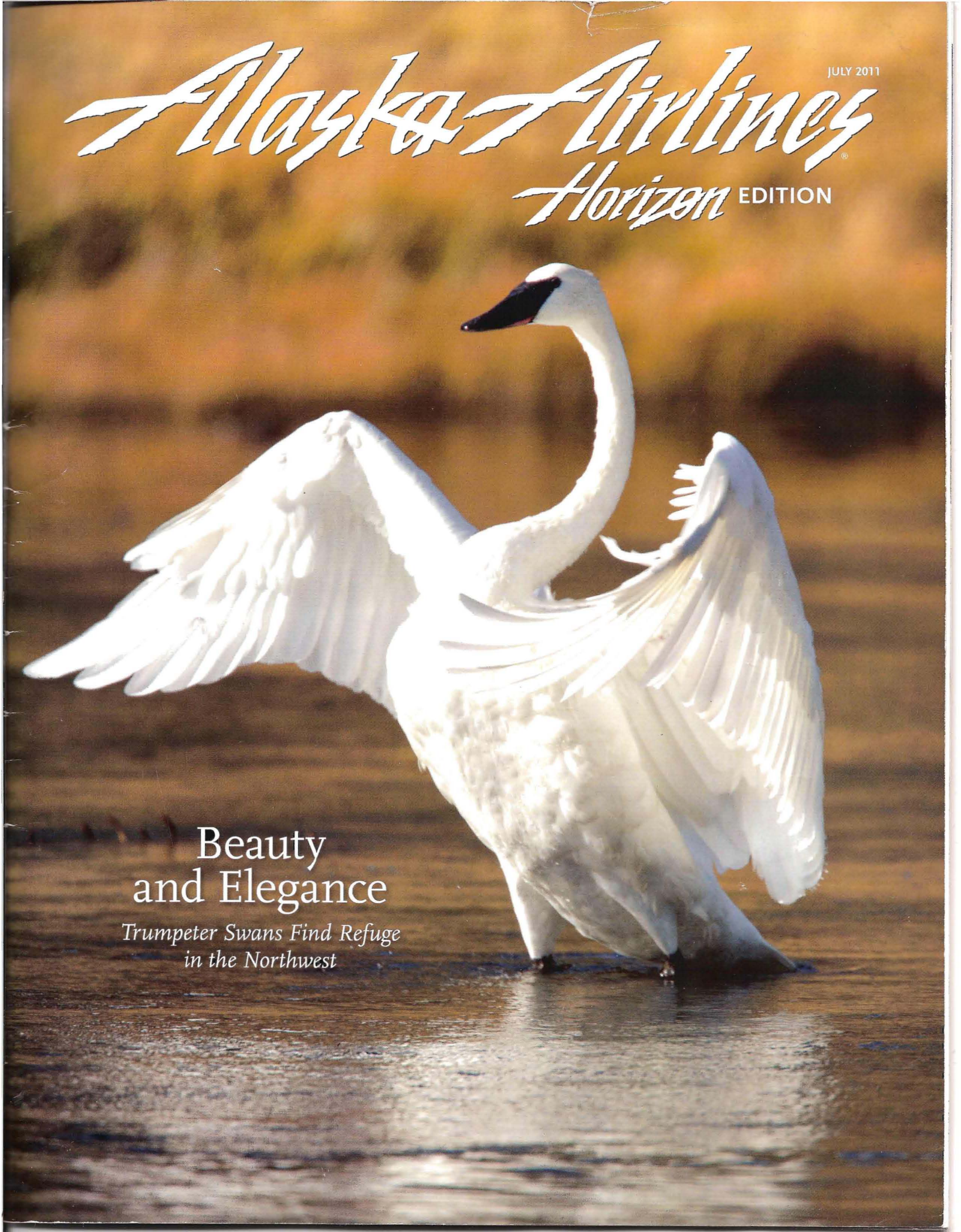

Beauty and Elegance

Trumpeter Swans Find Refuge in the Northwest

Below: Trumpeters are known not only for their calls, but also for their spectacular wings, which can span 8 feet or more. Right: Trumpeters fly at 35 to 40 mph.

Calls of the Wild

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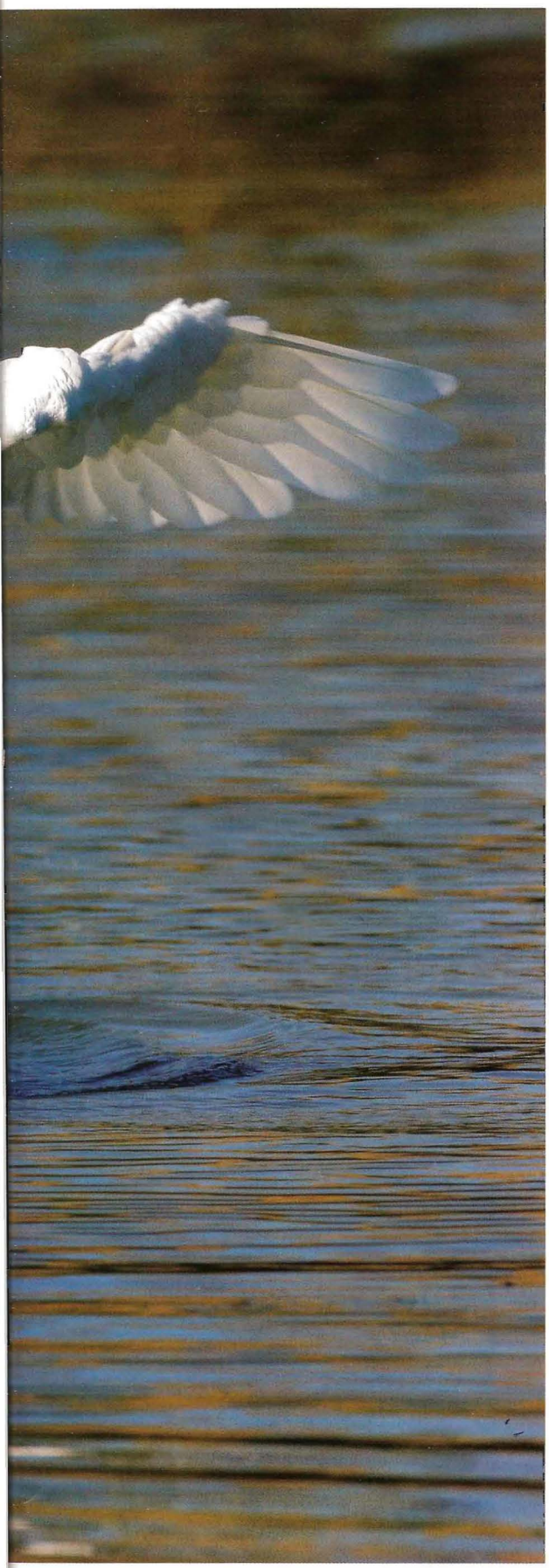

GERALD PLOWMAN

A Montana refuge plays an important role in protecting trumpeter swans

by Jean Arthur

"To form a perfect conception of the beauty and elegance of these Swans, you must observe them when they are not aware of your proximity, and as they glide over the waters of some secluded inland pond. On such occasions, the neck, which at other times is held stiffly upright, moves in graceful curves. ... With an extended scooping movement the head becomes immersed for a moment, and with a sudden effort a flood of water is thrown over the back and wings ... rolling off in sparkling globules, like so many large pearls. The bird then shakes its wings, beats the water, and as if giddy with delight shoots away, gliding over and beneath the surface of the liquid element with surprising agility and grace." —J.J. Audubon

Young swans, called cygnets, typically hatch in June. They remain for approximately a year with their parents, which mate for life.

JESS LEE

When John James Audubon was studying and painting trumpeter swans in the early 1800s, he wrote that bird-watchers who see these magnificent creatures "will feel, as I have felt, more happy and void of care than I can describe."

As I stand on the shore of Lower Red Rock Lake in southwestern Montana, I begin to understand Audubon's elation. Three white trumpeters weave through the sun-suffused sky in a V formation about 50 feet above me, their wings—spanning 8 feet—looking like wide-fringed ivory shawls draped across the birds' long bodies.

The swans stroke through the air with awe-inspiring synchronicity, glossy pinions flapping up and down in unison as the trumpeters sometimes alternate, sometimes correlate, the clarion calls for which they're named, creating a melodious symphony.

And then these aerial aerophones glide down to land, black-webbed feet stretched wide, awaiting the watery impact. They settle with a splash on the lake's greenish surface.

The landing is graceful but noisy, not surprising since this is the largest swan in the world and the largest waterfowl native to North America, which is the only continent on which they live. A trumpeter can weigh more than 30 pounds, and its length, as measured when the swan is stretched out as if in flight position, can approach 6 feet from tail tip to beak tip.

Seeing these swans is all the more meaningful because trumpeters—once abundant across the northern United States and much of Canada—were believed to be close to extinction by the early 20th century. The resplendent *Cygnus buccinator* experienced increasing loss of habitat as human development and activities expanded west across North America, encroaching on the lakes and streams that contained an adequate food supply of aquatic plants and that did not completely freeze over in the winter. In addition, the swan was hunted by settlers and fur traders from the early 1600s to the early 1900s as a source of food; feathers for quills, hats and gowns; and even skins for use as powder puffs. In the early 1900s, an acre of land in Montana sold for around a dollar, while an adult trumpeter was worth as much as $50.

Despite passage of the Migratory Bird Treaty Act of 1918, which largely prohibited hunting of the swans in North America, illegal hunting continued, and by the mid-1930s, only about 200 trumpeters were known to exist. Approximately half of these trumpeters lived year-round in a remote, roughly 11 million–acre region that encompasses the area where Montana, Idaho and Wyoming converge, known as the Greater Yellowstone Ecosystem. The other remaining trumpeters nested in the Grande Prairie area, about 300 miles northwest of Edmonton, Alberta, and migrated south to the Greater Yellowstone Ecosystem each winter.

In a determined effort to save the last known trumpeters from illegal shooting, the U.S. govern-

ment in 1935 created the 50,000-acre Red Rock Lakes National Wildlife Refuge in the northwestern part of the Greater Yellowstone Ecosystem. Selected because many of the trumpeters congregated at the wetlands there, and named for the red sandstone cliffs north of the refuge, it was the first major step in a restoration effort that has since expanded to include nearly 20 federally administered refuges that are managed to help protect trumpeter swans. As the Red Rock Lakes population increased, some of its swans were transferred to other suitable refuges and habitats.

Optimism about the species' survival was further boosted by the discovery of various flocks, totaling around 1,000 swans, in Alaska in the 1950s. Several additional far-northern groups, in Alaska, western Yukon and northwestern British Columbia, were subsequently identified, and it was determined that many of these swans in what is now called the "Pacific Coast Population" were migrating south to winter along the western coast, from Southeast Alaska to Washington state and sometimes even farther.

Today, there are an estimated 35,000 trumpeter swans in North America, yet they are still one of the rarest native birds on the continent, according to The Trumpeter Swan Society. Especially when migrating to and from the milder climates where they find food and shelter during the winter, the swans are subject to the hazards of power lines, poaching and being mistaken for legally hunted waterfowl. Trumpeters also continue to face perils such as lead poisoning, which occurs when they ingest, while feeding, spent lead ammunition from legal hunts for other animals. Organizations such as The Trumpeter Swan Society and the American Bird Conservancy have been advocating laws that require the use of nontoxic ammunition.

Approximately 500 trumpeter swans currently live year-round in the Greater Yellowstone Ecosystem, with most of them using scattered wetlands from the Red Rock Lakes refuge to southeastern Idaho/western Wyoming. The year-round swans are joined each winter by about 4,000 migrating swans, from Alberta, and also from the Northwest Territories, central/eastern Yukon and central/eastern British Columbia, where trumpeters have expanded over the past 40 years. Most of the Canadian trumpeters migrating to the Greater Yellowstone Ecosystem are believed to be descendants of that last small flock that survived in the Grande Prairie area in the 1930s.

It was a swan family migrating from Alberta to the Red Rock Lakes refuge that E.B. White featured in his classic 1970 children's book, *The Trumpet of the Swan*, about a young male swan that is born mute but overcomes this disability with the help of his parents and a young Montana boy.

More than 16,000 acres of the refuge consist of wetlands—such as Upper Red Rock Lake and Lower Red Rock Lake—where trumpeters make music in the shimmering waters. The rugged, 10,000-foot-elevation Centennial Mountains on the refuge's southern border, between Idaho and Montana, capture winter snows that replenish these scenic aspen-, willow- and conifer-lined wetlands, and the mountains are also a stunning backdrop to the refuge's meadows, sand dunes and sagebrush uplands.

Managed to retain its wilderness character, and known for its solitude and serenity, Red Rock Lakes has been called one of the most beautiful refuges in the country. In addition to the trumpeters, more than 230 other species of birds live or spend time here, including peregrine falcons, golden eagles, ospreys, cinnamon teals, American

Details

There are no entrance fees for the Red Rock Lakes National Wildlife Refuge.

Visitors can enjoy camping at two primitive campgrounds (fees apply); fishing (state fees and regulations apply) for cutthroat trout, rainbow trout, brook trout, mountain whitefish and arctic grayling on designated waters; and hiking on two marked trails or in the backcountry. If you plan to do wilderness hiking, make sure you obtain a good refuge map, are part of a group and are well-prepared for backcountry experiences. Whether you're hiking, fishing or boating, avoid getting too close to swans and other wildlife—instead carry good binoculars and a spotting scope. In addition, make plenty of noise in areas that may be frequented by bears.

The Upper Lake Campground has wheelchair-accessible toilets, potable spring water, fire rings and picnic tables, and is close to mountain hiking and aspen-area wildlife viewing. The Lower Lake Campground is in open grassland, has fire rings and nonwheelchair-accessible toilets, and is the best campground at which to see waterbirds.

Visitors can get to the refuge from the gateway cities of Helena or Bozeman, Montana. From Helena, it's about 180 miles to the refuge headquarters in the town of Lakeview, which is located at approximately the midpoint of 65-mile, east-west, gravel/dirt Montana Highway 509/South Valley Road between Monida and Henry's Lake. Henry's Lake is about 20 miles southwest of West Yellowstone. From Bozeman, it's approximately 130 miles to the refuge headquarters. Be sure to fill up your gas tank in Lima if coming from the west, and in West Yellowstone or Henry's Lake if coming from the east. (Check gas station hours in advance.)

Or, you can make arrangements with Centennial Outfitters (www.centennialoutfitters.net), based in Lima, to have one of their guides transport you from Lima to the refuge for a fishing, horseback-riding or bird-watching day trip, or an overnight pack trip. A Centennial Outfitters guide can also pick you up near Henry's Lake for day or overnight trips in the refuge. J Bar L Ranch (www.jbarl.com) can arrange for guided trips in the Centennial Valley that leave from the ranch.

If you're doing your own driving, be sure to contact the refuge in advance for information on road conditions, and keep in mind that South Valley Road may close periodically from the time the first snow falls (sometimes in late August) to mid-May or later, and the road is always closed east of the headquarters during the winter. You might want to have four-wheel drive if you plan to venture off South Valley Road to explore the refuge's dirt side roads, including the ones that lead to the campgrounds. As in many wonderful wild places that have wetlands, there are mosquitoes; be sure to bring repellent.

For more information, go to www.fws.gov/redrocks. —*J.A.*

avocets, sandhill cranes, western meadowlarks, western tanagers, short-eared owls and Lincoln's sparrows. The refuge, whose altitude varies from 6,600 feet to 9,600-foot Sheep Mountain, is also home to moose, pronghorn, black bears, grizzly bears, wolverines, badgers and wolves.

In 1976, the National Park Service designated the refuge a National Natural Landmark, noting: "Red Rock Lakes National Wildlife Refuge contains a series of relatively undisturbed, high-altitude ecosystem types representative of pre-European settlement conditions. The site represents an outstanding waterfowl production area, provides habitat for several uncommon species, and is instrumental in the survival of the trumpeter swan."

I'm viewing the swans from Lower Red Rock Lake's southern shore, off Idlewild Road, northwest of the refuge's headquarters in Lakeview, a town of fewer than 10 full-time residents located along gravel Montana Highway 509/South Valley Road. I drove to the shore, but visitors are welcome to hike Idlewild Road a mile to the lake, and there are also two marked trails in the refuge. In addition, visitors with the proper know-how, equipment and safety in numbers can hike in the backcountry. Bicyclists enjoy the refuge's low-vehicle-traffic roads, and boaters canoe and kayak in designated waters when nesting birds won't be disturbed.

But one of the appeals of the refuge is its lack of crowds. Even though the area is just 40 miles or so west of Yellowstone National Park, and I'm visiting in August, I'm alone on the lakeshore. The refuge seems to be a hidden gem. Only about 12,000 people visit each year, and at this site, at this time, it's just me ... and the swans ... and I cherish this escape from civilization.

The trio of swans that came in for a landing have joined a group of about 20 trumpeters, and the birds quietly gurgle, softly chatter and loudly honk in between doing headstands in the water to nibble at below-surface plants. Many of the swans' heads have a red tinge, caused by naturally occurring iron in the mud disturbed when the trumpeters feed.

I remember that Assistant Refuge Manager Suzanne Beauchaine—whom I met in the small visitor center at refuge headquarters before I headed to the lower lake—explained that trumpeters eat plants such as waterweed and duck potato, consuming up to 20 pounds of water plants a day. She added that young swans, called cygnets, eat insects for the first month after hatching in June.

Trumpeter swans, which can live up to

30 years in the wild, mate for life, at age 3 or 4. The newlyweds apparently get better acquainted for a year or more before the female lays her first eggs—usually three to nine—when she's 4 to 6 years old. The female, called a pen, handles the approximately five weeks of incubation, while the male cob protects the nest.

When the peeping, sooty-gray cygnets are 4 to 6 weeks old, they start to molt, with gray feathers replacing down over the course of two to three months. A molt that transforms the birds to the pure white formalwear of adults takes place during the cygnets' second summer of life.

One parent starts its annual month-long molt, to replace flight feathers, about the same time the cygnets start to lose their down. The other parent molts after the first parent's molt is complete, so that one adult always remains capable of flying to defend the young. The cygnets start learning to fly at about 4 months of age, eventually achieving adult speeds of 35 to 40 mph. It's also at about 4 months that the youngsters develop the hallmark sonorous sound, but they remain with their parents until around age 1.

I drive back to the refuge headquarters and then approximately five miles east to the short spur road leading to the Upper Lake Campground. From here I can see, between the willows, about two-dozen trumpeters floating in shallow waters. When they decide to paddle along the shore, they seem to move effortlessly, only looking less than dignified when they strive to lift their substantial bulks in flight from a galloping start on the watery runway.

I take another side road near the refuge headquarters to access the Odell Creek Trailhead. A light breeze keeps mosquitoes at bay, and it's a refreshing, approximately two-mile meander to the creek. From here the trail goes south through state and BLM lands to the Continental Divide Trail, in a six-mile climb with an elevation gain of approximately 3,000 feet. The route includes a mile-long section along a stream below the craggy walls of Odell Canyon before providing expansive views of the Centennial Valley and the Teton Mountains. Hikers may occasionally encounter shepherds, sheep and highly protective Komondor sheepdogs, so if you're hiking with your own dog, be alert for that possibility, and be sure to give the sheep and sheepdogs the right-of-way.

As I reach the top of the trail, the view is so panoramic, I can even see a few large ranches around the refuge's northern

boundary. Some of the ranches lease grazing rights on the refuge, and after this hike I'll be overnighting at one, the J Bar L, a working cattle ranch founded by homesteaders in the early 1900s, and now also a guest ranch. Its spacious 100-year-old cabins have been renovated to include modern amenities such as DVD players, telephones, kitchens and laundry facilities.

It shares a 5.5-mile property line with the refuge, and the ranch's 750 head of Red Angus and Black Angus graze on refuge grass. Having the cattle graze stimulates wild-grass growth, akin to what heavy-grazing bison did for the land 150 years ago, according to refuge managers.

Ranch manager Bryan Ulring says the ranch's range management includes pasture rotation, and is planned with the trumpeter swans and their nesting needs in mind. "We see trumpeters all the time," he says. "In fact, I saw some very curious yearling calves that went over to the water to check out the cygnets. The parent trumpeters chased off hundreds of yearlings!"

I'm also intrigued to learn from Ulring that between 1898 and 1917, South Valley Road was an east-west stagecoach route that transported visitors about 65 miles from the town of Monida to West Yellowstone.

In the morning, I relish a horseback ride in which we move cattle to another section of refuge land, then I hike across ranchland to Red Rock River, where I see a brilliant yellow warbler at the water's edge, and find a trumpeter swan feather. I wonder if a coyote and a swan battled in this riparian area. As I examine the snowy-white, 18-inch-long feather, I can see why it would appeal to ladies seeking elegant adornment. I'm glad that the trumpeter swans' beauty wasn't ultimately the cause of their demise.

My last experience with the swans comes as I'm heading home. About a half mile before the refuge's eastern boundary, I detour north up Elk Lake Road and drive approximately three miles to Widgeon Pond. About 30 swans are gathered here, flying, preening and foraging for food. Their resonant honking echoes across the valley. To me it's a joyful sound—trumpeting their survival. ■

Jean Arthur lives in Bozeman, Montana.

Alaska Airlines (alaskaair.com, 800-ALASKAAIR) serves the gateway cities of Bozeman and Helena daily via Horizon Air. For more information on trumpeter swans, go to trumpeterswansociety.org. For more information on activities and attractions in Montana, go to visitmt.com.