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A single clear note, as from a French horn, travels across MacDonald Pond, followed by another note, and yet another. Into view flies a family of trumpeter swans, the parents are snowy white, their young cygnets a sooty grey. They settle on the frozen pond amidst others of their species and proceed to visit back and forth with honks, soft hisses, gurgles, trumpeting and much nodding and dipping of their heads.

A very shy bird by nature, the trumpeter swan is the subject of intense study in an attempt to learn how to ensure their survival. Rescued from near extinction, trumpeters breeding in the Greater Yellowstone Ecosystem, including Red Rock Lakes, have grown in number from a low of only 69 birds in 1932, to a success of more than 500 in recent years. These birds are joined each winter by an additional 2000 trumpeters from Canada to form the Rocky Mountain Population of trumpeter swans.

Both parents are somewhat protective of their nesting area and will usually drive off invaders. They conclude a successful defense with loud trumpeting, head bobbing, and raised-wing quivering, with the cob (male) especially defensive and demonstrative. Trumpeter swans require a large, undisturbed territory for successful nesting, and if their chosen area is infringed upon repeatedly, they will generally abandon their nest and eggs completely.

These largest of all North American waterfowl measure up to 4 feet, weigh between 20-30 pounds, and have a wingspan of up to 8 feet. The swans must remain near open water to obtain their preferred diet of aquatic plants. Their staple diet includes: waterweed, pondweed, water milfoil and duck potato. A mature adult will consume up to 20 pounds of wet herbage each day! They also feed occasionally on grain, seeds, freshwater invertebrates, snails and worms.

urge them on day after day until all of the cygnets attain flight. At about this time, the cygnets begin to trumpet. With upstretched neck, the head held horizontal and the bill partly open, they utter the trumpeting call.

Whole families now fly closely together and as autumn progresses, the northern migratory flocks begin descending to their wintering areas. The pen and cob relax their vigilance somewhat, and the sociable interaction of winter begins once again. By their second year, young trumpeters have full adult plumage and coloring, with brown eyes, black legs and feet, and a black bill accented with a thin red streak.

The continued existence of trumpeter swans in the Yellowstone region depends in a large part upon the willingness of people to forgo development in important swan habitat. Trumpeter swans are extremely sensitive to many human activities and development in or near their habitats. Only a limited amount of suitable habitat exists in the region that is used regularly by trumpeters for breeding and wintering activities. When these areas are disturbed by inappropriate recreational activities, summer home development, or through improper logging or road building practices, the birds will abandon these habitats. Since most of the suitable swan habitat in the region is already occupied, the displaced birds have great difficulty finding new areas.

Winter habitat is especially critical and limiting. To survive the severe winters of the Yellowstone region, the swans choose lakes and streams which contain a suitable food supply of aquatic plants, and more importantly, do not freeze over no matter how far below zero the temperature drops. It is in these limited areas the trumpeters survive the fierce winters.

Few water areas in the region supply this type of habitat and once lost, cannot be replaced. Disturbance by winter recreationists which forces birds off of these areas or man-caused changes in the lakes and streams which allows them to freeze over, places the trumpeters in danger of starvation. These aquatic habitats must be protected for the use of the swans during this critical time of the year. Only through the diligent efforts of the public at large, interested groups and conservation agencies to protect their habitats, can these magnificent birds be assured an enduring place in the mountains and forests of the region.

RESTORATION - In recent years, managers have been capturing trumpeters and moving them to more southerly areas in neighboring states that are capable of supporting both breeding and wintering swans, in an effort to restore them to their former range.
Winter is a sociable time for trumpeter swans, but in late winter the swan families drift apart. The subadult birds form loose flocks, the migrant birds leave for their summer nesting grounds in Canada, and other pairs return to their nearby nesting territories. The 2-3 year olds select their lifelong mates, wooing with a ritualized display of slow synchronized swimming, bill-dipping and blowing in the water.

After spring mating, the pair builds a nest. They may select a new site or refurbish their old one. Favorite sites are on muskrat houses or in broad beds of marsh plants. The swans uproot plants in a large ring and build in the center, leaving plenty of open water all around for good visibility. The nests measure about 6-7 feet in diameter at the base and rise 1½ feet above the waterline. Pairs lay their first eggs when they are 4-6 years of age. In early May, the pen, or female swan, lays from 3-9 dull white eggs which measure 4½ inches in length and weigh about 12 ounces. Considerable trumpeting and display by both parents usually accompanies the laying of eggs. The pen incubates them for approximately 5 weeks. She covers the eggs with grasses when leaving the nest for several short periods of foraging each day.

Cygnets generally hatch in mid-June and are paddling on the water within a day or two. They feast on insects, crustaceans and aquatic beetles for their first month, staying close to the parents' puddling (rapid paddling) which stirs up the bottom morsels. Playful and energetic, the cygnets frequently dash about and dive under the water, uttering their breathy little peeps all the while. Nights are spent on the nest with the parents for the first month of life. Between 4-6 weeks of age they molt and begin to get a mottled black pattern on their flesh-colored bills. At this time, they begin feeding primarily on herbage. One parent also molts during this time, rendering it flightless for about a month. The other partner often molts later so that one adult is always capable of flight while rearing cygnets.

Between September and October, at about age 4 months, the cygnets begin flying lessons. Weighing over 15 pounds, they flap and run over the water, bouncing and struggling. They must be capable of flight before the waterways freeze over, and the parent swans

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For a perfect compliment of their beauty and dignity, no scene becomes more poetic when the swans take flight, as they suddenly commence their majestic flight. A strong sense of untold strength and grace does the swans exhibit as they gracefully propel themselves above the water. A soft, wistful music accompanies the surreal moment. Their majestic form, coupled with the subtlest of movement, creates a scene that resembles a natural ballet. A moment that nature seems to have captured a moment from the past and preserved, while the surrounding beauty is only a backdrop for their serene majesty. The swans, their elegant flight, leaves the water, as if words were floating, ethereal songs, gliding over and beneath the surface of the water with regal beauty and grace. Moments like these are what one should never take for granted. I have seen them many times, and yet, each time, they bring me joy more than I can describe."