

CRESCENT LAKE NATIONAL WILDLIFE REFUGE

SELF-GUIDED AUTO TOUR

Welcome! This auto tour will familiarize you with the habitat and wildlife resources of Crescent Lake National Wildlife Refuge as well as the management strategies for both. Refuge roads are narrow. Please observe the 35 mph speed limit and exercise extreme caution when passing oncoming traffic. **NUMBERED SIGNS ALONG THE ROUTE CORRESPOND WITH THE NARRATIVE DESCRIPTION BELOW.** (see map on back)

STOP #1: Carp and other "rough fish" can be a serious problem when managing for waterfowl. If their numbers are excessive, their bottom feeding habitats will roll up the water causing turbid water conditions. Turbidity blocks sunlight which in turn diminishes production of plant and animal life eaten by waterfowl. For this reason carp were removed from Island Lake in 2006 and game fish stocked in their place. This lake is open to fishing and you're invited to catch your limit of bass, bluegill, perch, and crappie. Ask the refuge manager about special fishing regulations.

STOP #2: A primary need of Refuges was for migrating waterfowl and other birds. Spring and fall migration can bring 15,000 - 20,000 waterfowl to Crescent Lake NWR. A few thousand of these ducks will stay to nest. Species that stay at Crescent Lake to nesting include mallard, gadwall blue-winged teal, shoveler and pintail

STOP #3: The fire tower is one of two such structures built on the refuge in the early 1940s by the Civilian Conservation Corps. Although the towers are no longer used for fire observation, they are serving wildlife. Several years ago, a barn owl gained access to this tower through a broken window, nested and produced several young. The refuge staff was inspired to make owl nesting boxes for the windmills. One of these boxes can be seen on the windmill west of the road. These boxes hatch over 50 owlets a year.

STOP #4: Crescent Lake NWR has four major habitat types, wetlands, meadows, sand uplands and choppy uplands. The sand uplands to the east is the most abundant habitat type at Crescent Lake and is home for the grasshopper sparrow. You can also see the "busy" Yucca plant. Yucca is also called soap weed, because its root was used as soap.

STOP #5: Sharp-tailed grouse have at least 45 known dancing grounds (or leks) on the refuge where males gather in mid-April to stomp about and inflate their violet throat sacs to entice their potential mates. One such lek is found to the east of here. On spring mornings, if you step out of your car you may be able to hear their low song. Or, you may make reservations to use a blind at the dancing ground to see them up close.

STOP #6: Canada geese are opportunistic in selecting nest sites. Muskrat houses, islands, dense marsh vegetation, even man-made nesting baskets are chosen as nesting places. Baskets (or tubs) filled with hay are comfortable and relatively safe from predators. The Canada goose is the first waterfowl to nest here each spring. Approximately 250 goslings will be produced on the refuge this year from 110 refuge-maintained goose tubs.

STOP #7: Refuge marshlands provide living creatures with everything needed for survival — food, water, and cover. Stems, leaves, seeds, and roots of many marsh plants are relished by ducks and other wildlife. Aquatic insects, high in proteins, furnish nesting ducks and ducklings with essential building blocks for reproduction and growth. With plentiful food and water only a bill's length away, the needs of marsh wildlife for shelter are comfortably met by heavy growths of cattail and bulrush. Muskrats play an important role in keeping such heavy vegetation from choking a marsh by creating openings for their houses and food stock piles. These structures are often used by waterfowl as nesting sites.

STOP #8: During the early part of the century, the wood duck population plummeted due to wetland drainage, timber harvesting and excessive hunting. Their numbers are being aided by the construction of man made nesting structures. These structures (such as the one seen here) replace the natural nesting cavities lost in timber harvest.

THE AREA BETWEEN STOP #8 AND STOP #12 IS GOOD FOR VIEWING DEER. THE TWO SPECIES THAT CAN BE FOUND ON THE REFUGE ARE MULE DEER AND WHITE-TAILED DEER. THERE ARE TWO EASY WAYS TO DISTINGUISH BETWEEN THE SPECIES. THE FIRST IS BY THEIR TAILS — THE MULE DEER HAS A WHITE TAIL WITH A BLACK TIP; THE WHITE-TAILED DEER'S TAIL IS WHITE ON THE UNDERSIDE AND BROWN ABOVE. THE SECOND WAY TO DISTINGUISH BETWEEN THE SPECIES IS IN THEIR RETREAT WHEN STARTLED. THE WHITE-TAILED DEER RUNS WITH ITS WHITE TAIL (FLAG) WAVING IN THE AIR, WHILE THE MULE DEER RARELY RUNS, BUT RATHER "HOPS" IN DISTINCTIVE JUMPS.

STOP #9: In the spring, a low lying fence can be seen paralleling the road. This is part of a research project being conducted to study the ecology of the yellow-mud turtle. As spring gets underway, the turtles, after spending the winter buried in the hillside, will begin migrating to Gimlet Lake. The fence will interrupt this journey just long enough for the researcher to collect data and mark the individual turtles. The turtles are then released unharmed. This research project is deriving basic life history information of the yellow-mud turtle. This information is valuable because the yellow-mud turtle is on the endangered species candidate list. The candidate list consists of species whose numbers are low enough to be considered for listing as either "threatened" or "endangered".

STOP #10: Because trees are scarce in the sandhills, the groves that have been planted on the refuge attract many small passerine birds, especially during the migration. Some common visitors include the western and eastern kingbirds, yellow-rumped warbler, robin and white-crowned sparrow. Another species which you may encounter is the loggerhead shrike. The shrike is another species which is on the candidate species list. Shrikes are perching birds, but are tenacious hunters, much like raptors. "Butcher-bird" is a commonly used nickname of the shrike because of its unusual practice of impaling its prey (insects, small birds and small mammals) on thorns and barbed-wire.

STOP #11: The two islands in Goose Lake were made in the winters of 2005-2006. American avocets immediately started using them for nesting. In 2007 over fifty avocet nests were found. Three pairs of the endangered piping plover also nested, with one successful nest on the smaller island.

STOP #12: Marshes are home to a lot of species and this results in competition. Three birds compete for nesting spots here. Yellow-headed blackbirds being the largest get the best nesting spots in the cattails over deeper water. This leaves redwing blackbirds and marsh wrens to compete for the shallow water habitat. These species will destroy each others eggs, so the marsh wren developed an egg shaped nest with a small hole at the top to protect its eggs from redwings and predators. You may also see the hawk like Northern harrier hovering over the marshes and meadows. Its hovering glide and white rump patch are good identifiers of the harrier.

STOP #13: The grass covered dunes of the Nebraska Sandhills are characterized by low rolling hills and steep sided "choppies". The choppy habitat is characterized by steep hills with lots of bare-ground and sparse vegetation. lark sparrows, kangaroo rats and woadhouse's toad chose this habitat as there home. Sandhill soils are extremely susceptible to wind erosion, overgrazing and vehicle abuse. Any of these actions which disturb the fragile grass cover can quickly result in "blow outs". Blow outs, such as the one to the north, do serve some good. They are the home of the only endangered plant on the refuge — the Blowout Penstemon.

STOP #14: Grazing is used as tool to manipulate habitats by refuge managers. Removing vegetation invigorates plants, increases wildflowers and provides areas of short vegetation. Long-billed curlews and willets are two shorebirds that rear there young in meadows with short vegetation. Spring grazing, is the most common grazing at Crescent Lake. Spring grazing is used to graze down "cool" season grasses to favor the growth of "warm season grasses which are taller and sturdier and provide better

cover for nesting birds. Summer grazing is used to provide plant diversity and fall grazing in "choppies" exposes the sand to the wind to keep blowouts moving for the blowout penstemon.

STOP #15 Warning Please Stop in the Pullout Near To Marker Post 15 So That Your Vehicle Will Be Visible To Other Traffic: The large purple flowered plant found in these borrow areas are blowout penstemon which was once thought to be extinct. It pioneers into sand dunes but cannot compete with other plants. It was once very common in the sandhills, but as they become more stabilized, the penstemon disappears. It is well worthwhile for us to try to preserve this plant however, because the first plants that will grow in the inhospitable habitat of a sand dune help to stabilize it so that other less tough plants can become established. If the Nebraska sandhills are becoming stabilized, there are many other areas in the world where blowing sand is the nature of the landscape.

STOP #16: Blue-winged teal are the most common upland nesting duck at Crescent Lake NWR, followed by mallards, gadwalls, shovelers, and pintails. As we found out earlier, nesting habitat loss, in part, caused a decline in duck numbers. A primary task on the refuge is to develop and maintain dense, tall grassy habitat — the kind of nesting cover usually preferred by ducks. Secure places where an incubating female duck or pheasant can sit on her clutch of eggs in relative safety from predators. Techniques used to improve nesting cover include grazing, haying, prescribed burning, and reseeding of native grasses.

STOP #17: The Moore Valley, which extends from Martin Lake (north) through Lower Harrison (south) provides a unique opportunity for managers, because it is a natural drainage system. By installing a system of earthen dikes and ditches, managers are able to control water levels. You've learned about plant succession and the need for privacy by nesting pairs. By lowering water levels, burning the vegetation, and then flooding it again, plant succession can be slowed down. This allows for small openings to remain in the cattails and rushes. These openings provide the same privacy that the small ponds provide.

STOP #18: Smith Lake is home to the black-crowned night heron, great blue heron and the white-faced ibis. These are three of the five colony nesters found on the refuge. Eared grebes, and double-crested cormorants are the other three. Two theories suggest the reason for nesting in colonies. Detection of predators is the first. The second is the "information-center" hypothesis. It is believed that by following successful mothers foraging for food, inexperienced females can locate good hunting areas. Forester's and black terns also nest at Smith Lake

STOP #19: Border Lake is a good place to view shorebirds. Two species common to the lake are the American avocet and Wilson's phalarope. The avocet can be distinguished by the pale orange and black markings on its white body. Avocets feed by moving their bills through the water surface to strain out food. The phalarope is a smaller shorebird which feeds by sitting on the water, spinning in circles to kick up its food. It can then pick the food items up from the water surface.

As you come to the end of the tour, recall the Indians, trappers, pioneers and early duck hunters who sought abundant game here. We are indeed fortunate that many bird and animal species so familiar to those early Americans still thrive here today. This has not happened by accident, but by the foresight of those who established the refuge and by the care given to managing wildlife today. Truly, an American heritage has been passed on.



Crescent Lake National Wildlife Refuge AUTO TOUR ROUTE

