

# BIRDS OF THE CRANE LAKE, SASKATCHEWAN AREA, 1983-1984

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While employed as a summer field assistant for Ducks Unlimited Canada in 1983 and 1984, the author aided in research at various Ducks Unlimited projects in southern Saskatchewan and Alberta. A great deal of time was spent at Crane Lake, Saskatchewan, a large marsh which lies northeast of Piapot and just north of the Trans-Canada Highway. In the past, Crane Lake was noted for its abundance of birds, especially waterfowl.<sup>2 3 8</sup> Water levels have ranged from a permanent, large, shallow lake 1-3 m deep to being completely dry in several years, due to low levels of spring runoff and precipitation, high rates of evaporation, and irrigation from the Bear and Piapot creeks flowing into the southern side of the lake.<sup>4 8</sup>

In the recent past Crane Lake has been a shallow marsh less than 1 m deep but dry by the fall. In the fall of 1981, however, Ducks Unlimited Canada began construction on dykes to contain the remaining water in a smaller, deeper area in order to reduce evaporation and to provide high enough water levels to support emergent aquatic vegetation. A dyke of approximately 17 km in circumference ringing a central area of clay in the lake basin, with wing dykes extending along the delta of Piapot Creek, was completed in the fall of 1981. Approximately 40 artificial islands were constructed at this time. The dyke encloses a basin of 1,140 ha (Ducks Unlimited Completed Project Sheet).

The basin of Crane Lake covers much of Township 13, Range 23, West of the 3rd Meridian. It is the terminal basin for Piapot Creek and local inflow, and lies on

the southern edge of the Great Sand Hills. The vegetation surrounding the area enclosed by the dyke consists primarily of native grassland in the lake basin (including large areas of Foxtail Barley, *Hordeum jubatum*) and grassland and open shrubland in the stabilized sand dunes that surround much of the basin.

The vegetation within the dyke during 1983 and 1984 consisted primarily of two communities: one of Prairie Bulrush (*Scleria paludosa*) and another of Great Bulrush (*S. acutus*). Within each community the other species of bulrush was present as were Common Cattail (*Typha latifolia*) and Saline Bulrush (*S. nevadensis*), Spikerush (*Eleocharis palustris*). In the summer of 1984 Foxtail Barley began to invade the prairie bulrush community. The area within the dyke was almost completely overgrown with emergent vegetation in both years except for narrow ditches along the entire length of the dykes and the moats surrounding the artificial islands.

In 1983 water levels in the Prairie Bulrush community ranged from approximately 30 cm in May to 0-5 cm in August. In the Great Bulrush community water levels ranged from 70 cm in May to approximately 40 cm in August. The moats and ditches held water to a maximum depth of 1.5 m. Little snow fell on the area during the winter of 1983-84 and rainfall during the spring of 1984 was below normal. As a result, water levels in May of 1984 were virtually unchanged from the previous August. By the first week of July water remained only in the moats of the island moats.

The bird observations on some 61 species presented here were made incidentally during the course of breeding duck pair counts, duckling brood counts, vegetation transects, aerial duck counts, and nest searches of artificial islands from May to August. The marsh was visited for 15 days on average approximately every 7 days in 1983, and was visited for 25 days every 7 days in 1984 until 18 July. Most of the observations were made from a ring dyke around the marsh and from dykes along Piapot Creek leading into the south side of the marsh. As a result they do not provide a complete picture of the number of bird species and individuals that may have been within the marsh. In addition, difficult shorebird species were not always identified down to species. Except where noted, the observations were made by the author.

Terms of abundance were used in a manner similar to Belcher, but were used only for the average abundance (not density) during the observation period, for both breeding and nonbreeding species

observed.' The terms are defined as follows:

**abundant** - more than 500 individuals seen or heard in a single day.

**very common** - 101-500 in a single day

**common** - 26-100 seen in one day

**fairly common** - 6-25 seen in one day

**uncommon** - 1-5 observed in a single day, no more than 25 per season

**rare** - 1-5 in a single day, no more than 5 seen or heard per season

**very rare** - no more than 1 observed per season

**EARED GREBE** Fairly common. On 5 June 1983 a nesting colony was located in the Prairie Bulrush community near a Franklin's Gull colony. There were at least 25 Eared Grebe nests. Young were seen later in the nesting season. Egg



*Grebe young and eggs in nest*

*R.E.Gehlert*

and Waker saw an adult with young at Crane Lake in 1978.<sup>5</sup>

**AMERICAN WHITE PELICAN** Uncommon. Three pelicans were observed soaring over the marsh on 15 August 1983. One pelican was seen standing in open water a few cm deep in the center of the marsh on 26 June 1984. A group of 19 was seen on 18 July 1984 in some of the only open water, which was located at the very eastern end of the marsh in the inner ditch between the marsh and the dyke. Pelicans nested at Crane Lake in the past, although no individuals were observed by Epp and Waker in 1978.<sup>7 5</sup>

**AMERICAN BITTERN** Uncommon. Adults were flushed occasionally and heard calling in the spring. A large, downy nestling, but no nest, was found on 29 July 1983. On 15 June 1984 an adult was heard calling.

**GREAT BLUE HERON** Uncommon. In 1983 adults were seen regularly in the ditches in July and August. On 28 July 1984 two groups of two were seen in the outer ditches.

**SNOWY EGRET** Very rare. On 15 June 1984 an individual in flight crossed the dyke near the mouth of Piapot Creek. The neck was held in a tight curve and the bird was approximately the size of a nearby Black-crowned Night-Heron. The black legs and contrasting yellow feet were clearly visible through the grass. This may be the same bird as that seen on 23 and 24 June 1984 at Old Wives Bay by other observers.<sup>6</sup>

**BLACK-CROWNED NIGHT-HERON** Fairly common. In 1983 many were seen in May. On 5 June 1984 a nesting colony with an estimated maximum of 20 nests was found with



*American Bittern at nest*

R.E. G

Franklin's Gull colony in the Great Bulrush community. Nests were constructed of Great Bulrush stems and anchored to the bulrushes at the water line. Young were photographed in the nest on 5 July 1983 by Thomaszankowsky. Many fledged juveniles were seen later in the summer. Small numbers of adults were noted on 7 May and 18 May 1984; on 26 June 1984 large young were found in nests in the colony.

**WATER SWAN** Rare from May to August. One bird was seen on 5 and 6 May 1983 in the deeper water at the west end of the marsh. Thomaszankowsky observed a flock of approximately 120 on 13 October 1983.

**WOOD GOOSE** Uncommon. Six were seen on 7 May 1984.

**WOOD DUCK** Common. Many were seen on flax bales placed in the marsh on the artificial islands; many broods were seen in both years.

**BLUE-WINGED TEAL** This species is fairly common in the breeding season but groups of summering males were seen on 19 June 1983. They were also common in the flocks of breeding ducks seen in July and August of 1983. A few broods were observed.

**MALLARD** Very common throughout observation period. Many broods were seen. Large postbreeding flocks were seen in the outer ditches in July and August of 1983.

**NORTHERN PINTAIL** Very common throughout the period. Many broods were seen. Large postbreeding flocks were seen in July and August of 1983, especially on 12 August when several large flocks consisting of hundreds of birds were observed.

**BLUE-WINGED TEAL** Very common. Many broods were observed. Seen in flocks in July 1983.

**CINNAMON TEAL** Uncommon. Two pairs were seen on 22 May 1983 in the ditch next to the dyke. On 4 June 1983 two males were seen in the ditch. One pair and one male were seen in the outer ditch west of the mouth of Piapot Creek on 19 May 1984. On 5 June 1984 one male was seen in the ditch and on 18 June 1984 one pair was seen in the north-central portion of the marsh. Apparent Blue-winged Teal broods were not examined closely to determine whether any of the hens were Cinnamon Teals. Bent saw one on 17 June 1905 at Crane Lake.<sup>2</sup>

**NORTHERN SHOVELER** Very common. One of the most numerous ducks in the ditches during the breeding season. Many broods were observed. On 18 May 1984 an albino shoveler flushed up with a male from the northeast part of the marsh. The male stayed close to the albino as if it were its mate. On 20 May 1984 the pair was flushed from the same spot and again the male stayed close to the albino. Based on these observations I concluded the albino was a female.

**GADWALL** Very common. Large numbers of paired birds were counted in late May and early June. Many broods were observed.

**AMERICAN WIGEON** Very common. Almost as common as the Mallard. Many broods were observed and flocks of postbreeding birds were seen on 12 August 1983.

**CANVASBACK** Fairly common. A few broods were seen.

**REDHEAD** Very common. The most numerous duck within the vegetated

basin enclosed by the dyke. Several broods were seen.

**RING-NECKED DUCK** Very rare. One male was seen on 19 May 1984.

**LESSER SCAUP** Common. The most numerous diver in the ditches (which contained much of the deeper water in the marsh). Many broods were seen.

**BUFFLEHEAD** Uncommon. One pair was seen 5 May 1983. Three pairs and two males were seen on 22 May 1983. One male and a separate female were seen 4 June 1983. One pair was seen 19 June 1983 and on 6 July 1983 a first year male was seen. Six adults were seen on 16 June 1984.

**RED-BREASTED MERGANSER** Rare. One pair was seen in the ditch west of the mouth of Piapot Creek on 8 May 1984.

**RUDDY DUCK** A common breeder. Many broods were observed.

**NORTHERN HARRIER** Fairly common. Seen frequently throughout the period.

**SWAINSON'S HAWK** Uncommon. Seen frequently in the area around the marsh. On 11 August 1983 one was flushed from the dyke with an American Coot in its talons. On 8 May 1984 one was observed south of the marsh near the Trans-Canada Highway diving at a Ferruginous Hawk which was on the ground. These observations were made in passing; subsequent behaviour was not observed.

One was flushed from the dyke on 19 May 1984 carrying a coot. On 19 June 1984 two were observed diving at a flying Ferruginous Hawk which had flown near the pair's nest located in a tree about 1 km south of the marsh.

**RED-TAILED HAWK** Very rare. One was seen flying over a stand of Trembling Aspen about 1 km north of the marsh on 15 July 1983.



*Ring-necked Duck*

Fred La...

**BRUGINOUS HAWK** Uncommon. Single birds were seen south of the marsh on 22 May, 15 July, and 15 August 1983 and 7, 8, and 19 May and June 1984. Interactions with Swainson's Hawks were observed (see Swainson's Hawk).

**BLIN** Very rare. A female or immature was seen on a fence about 1 km south of the marsh on 15 August 1983.

**PERGRINE FALCON** Very rare. On 7 May 1984 a Peregrine was seen in the morning about 0.5 km south of the marsh along Piapot Creek. It flew to a perch on the dyke along the south side of the marsh, east of the mouth of Piapot Creek. In mid-afternoon, it was seen flying rapidly southwards at an altitude of 1-2 m over the ditch along the dyke bordering the east side of Piapot Creek. Shorebirds and ducks were flushing as the falcon flew along until it made a sudden stoop and struck a female teal which had fluttered up the side of the dyke. The falcon executed a near vertical loop of about 2 m in diameter, and struck the duck again while it was still on the dyke, causing the duck to flutter down the dyke almost to the water line. The falcon gained some altitude, struck the duck again, hovered momentarily, and landed on it. By this time the truck containing the author and Thomaszankowsky had been stopped and the falcon was observed from a distance of 100 m with binoculars and a 25X spotting scope. The falcon plucked the duck and fed on it for 10 minutes. We then drove closer to try to determine the species of prey but the falcon flew 50 m south down the dyke carrying the duck. When the falcon was approached again, it flew 50 m eastward, perpendicular to the path of the truck along the dyke. Observations were terminated at this time.

**PIE FALCON** Rare. On 14 August 1983, one was seen chasing a duck but

when the duck hit the water, the falcon broke off the chase. Later the same day a Prairie Falcon was flushed from the dyke with a coot in its talons (possibly the same bird). One was seen the next day south of the marsh. On 21 May 1984 one was seen at the east end of the marsh.

**SHARP-TAILED GROUSE** Fairly common. A group was flushed from a dancing ground in the sandhills south of the marsh on 4 May 1983. Individuals were seen later in this area. On 10 June 1984, three were flushed from the same location.

**AMERICAN COOT** A very common breeder. Many nests were found and later, many young were seen.

**BLACK-BELLIED PLOVER** Uncommon. Three were seen in one spot in the outer ditch around the marsh dyke on 4 June 1983. On 19 May 1984, two small groups were seen.

**KILLDEER** Common along the dyke around the marsh. This species likely nested on the dyke.

**AMERICAN AVOCET** Common along the dyke, on which it likely nested. On 7 May 1984 a group of 15 was seen feeding together.

**YELLOWLEGS Spp.** Fairly common. In 1983 both species were seen at the marsh from mid-July onwards. On 7 May 1984 unidentified yellowlegs were noted. Small flocks of Greater Yellowlegs were seen around the marsh on 26 June 1984.

**WILLET** Common along the dyke where it likely nested.

**UPLAND SANDPIPER** Uncommon. Two were seen near the Trans-Canada Highway about 7 km south of the marsh on 13 May 1984. One was seen on 19

May 1984 along the dyke bordering the south side of the marsh. Four were seen on 4 June 1984 on the dyke on the northern side of the marsh.

**LONG-BILLED CURLEW** Very rare. One was seen on the dyke on the north side of the marsh on 4 June 1984.

**MARBLED GODWIT** Common on the dyke, where it likely nested.

**PEEPS (*CALIDRIS*) Spp.** Very common in migration. In August of 1983 peeps were noted at the marsh. On 18 May 1984 many were seen around the marsh.

**DOWITCHER Spp.** Common in migration. On 7 and 8 May 1984 a flock was noted in the outer ditch. On 19 May 1984 two small groups were seen and on 11 July 1984 several small flocks were seen around the marsh.

**COMMON SNIBE** Rare. On 5 June 1984 one was seen in courtship flight ("winnowing"). On 15 June 1984 one was heard winnowing.

**WILSON'S PHALAROPE** Common around the marsh. On 2 June 1983 peeps were observed copulating. This species is also likely nested here, based on the occurrence of distraction displays given by adult males.

**FRANKLIN'S GULL** Abundant. On 2 June 1983 a colony estimated to include approximately 400 pairs was counted in dense stands of *Cyperus* Bulrush in the east-central portion of the marsh. The nests contained eggs and young. Later in the summer large numbers of nestlings were found and fledged young were seen. On 19 May 1984 nests were found with none to two eggs and on 2 June 1984 large nestlings were noted. Bent found three small colonies at Crane Lake in 1906.<sup>1</sup>

**RING-BILLED GULL** Fairly common. This species was seen regularly around the marsh but no nests were found.

**HERRING GULL** Very rare. On 13 October 1983 Thomasz Sankowsky saw one at the marsh.



*Long-billed Curlew*

Wayne

ORSTER'S TERN Rare. On 21 May 1984, two were seen and heard flying low over the center of the marsh.

ACK TERN Fairly common at the marsh. Several nests with eggs were found.

EAT HORNED OWL Very rare. One was seen on the dyke on 8 September 1983 by Thomasz Sankowsky.

RROWING OWL Very rare. On 5 May 1983 one was seen between the marsh and the sand hills, about 5 km south of the marsh.

ORT-EARED OWL Very rare. On evening of 10 June 1984 one was seen about 1 km south of the marsh diving for a while at two coyotes which were about 15 m apart.

SH WREN Fairly common. In the spring of 1983 this species was heard singing frequently in Great Bulrush lands. A few unoccupied ("dummy"?) nests were found. On 19 May 1984 singing birds were noted.

GUE'S PIPIT Fairly common. This species was often heard singing south of the marsh.

MON YELLOWTHROAT Very common. On 5 June 1984 one was singing south of the marsh.

ER SPARROW Fairly common. This species was heard singing frequently south of the marsh.

BUNTING Rare. Four were seen south of the marsh at the edge of the sand hills on 2 June 1983. On 4 June 1984, one was seen in the same area.

NNAH SPARROW Fairly common. This species was often heard singing south of the marsh.

YELLOW-HEADED BLACKBIRD Very common. Many nests of this species with eggs and young were found in both years. Small groups were often seen feeding on the dyke.

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<sup>1</sup> BELCHER, M. 1980. Birds of Regina, revised ed. Special Publ. No. 12, Sask. Natural History Society, Regina.

<sup>2</sup> BENT, A.C. 1907. Summer birds of southwestern Saskatchewan. *Auk* 24:407-430.

<sup>3</sup> BENT, A.C. 1908. Summer birds of southwestern Saskatchewan. *Auk* 25:25-35.

<sup>4</sup> ENVIRONMENTAL MANAGEMENT ASSOCIATES 1981. Environmental impact statement, Crane Lake development, Saskatchewan. Prepared for Ducks Unlimited (Canada) by Environmental Management Associates, Calgary.

<sup>5</sup> EPP, H.T. and B.D. WAKER 1980. Terrestrial vertebrate fauna of the Great Sand Hills: pp. 75-89 in: H.T. EPP and L. TOWNLEY-SMITH (Eds.). The Great Sand Hills of Saskatchewan. Sask. Dept. of the Environment: Policy, Planning And Research Dept. 156 pp.

<sup>6</sup> GOLLOP, J.B. 1984. Prairie Provinces region, nesting season: June 1-July 31, 1984. *Am. Birds* 38(6):1031-1033.

<sup>7</sup> HOUSTON, C.S. 1962. Hazards faced by colonial birds. *Blue Jay* 20:74-77.

<sup>8</sup> HOUSTON, C.S. 1983. Birds and birders at Crane Lake, Saskatchewan. *Blue Jay* 41:194-199.