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HANDBOOK OF
NORTH AMERICAN BIRDS

VOLUME I

Loons through Flamingos

EDITED BY RALPH S. PALMER

New Haven and London, Yale University Press, 1962

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White Pelican

Pelecanus erythrorhynchos Gmelin

American White, or Rough-billed, Pelican. Massive bird; the usual pelican pouch and bill; feathering on side of lower jaw projects forward, separating naked loreal skin from that of pouch; 24 tail feathers. Juv. is grayish; in later stages, feathering white or mostly so, with black wing tips. Fibrous plate toward distal end of upper mandible, also various plumes including sparse "mane" on upper nape, worn seasonally at least after Def. Alt. stage attained. Sexes similar in appearance, ♂ av. slightly larger. L. 50-65 in., wingspread 8-9½ ft., wt. usually 10-17 but reportedly to 30 lb. No subspecies.

Weight 15-20 lb. (Bent 1922); 10-17 lb. but some may weigh as much as 30 (Behle 1958); about 17 lb. (W. Dawson 1923); from specimen labels: a ♀ 11¾ lb., ♂ 13¼ lb.

HABITS Sociable and gregarious, found in flocks at all times; young and adults remain together, except some separation in postbreeding period. A few non-breeders may remain on wintering grounds in summer, majority return n. with breeding birds and roost with breeding colonies.

Feed actively in early morning and late evening, and in breeding season during much of the night (Low et al. 1950). In winter feed usually on rising tide, do not feed at night (Audubon 1838). Rest between feedings along beaches, sandbars or on old driftwood; never perch on trees. Often indulge in high-soaring flights. When roosting in hot sun will open beaks and pulsate pouch for cooling effect (Bartholomew et al. 1953). Roost at night along water's edge.

Are awkward on land, throwing body from side to side as they walk. Fine swimmers; have great buoyancy and float high in water. Young just able to fly swim at 3 mph. (Hall 1925). Usually fly in long lines or V's, following a leader; proceed by alternately flapping and gliding, usually low over water, higher over land. When flying in line, flap and glide in unison, usually a beat or two behind leader. Follow exactly in track of leader; when he rises suddenly and then drops back near surface, each bird in turn will rise and fall at same spot. Normal flight speed about 30 mph. (Ross 1933). Take-off from water assisted by powerful kicking with both feet in unison; when flying, head is tucked back with bill resting on breast. Spend much time soaring at great heights; flock will circle in rising air current until out of sight; soaring may precede foraging or migration flights; sometimes seemingly for pleasure. While soaring in stormy weather may indulge in aerial acrobatics with much swooping and diving (Bent 1922).

Great Blue Heron

Ardea herodias

Great Blue and Great White (see p. 383), of similar size, are our largest herons—in erect stance about 4 ft. tall (see color plate facing p. 278). Definitive stages of Great Blue characterized by: occipital plumes (usually 2) to about 9 in. long; elongated tapered feathers on lower sides of neck; scapulars pointed and considerably elongated; primaries and secondaries blackish; more or less rusty on underparts in all feathered stages. Color phases include "normal" and (almost entirely restricted to extreme s. Fla.) paler birds. (Status of Great White—whether conspecific with Great Blue, a color phase of it, or what—still a moot point. It fits the diagnosis just given except, of course, no colored feathers.) Sexes similar in appearance (♂ av. slightly larger, occipital plumes av. longer) and all feathered stages rather similar; in larger subspecies 1. to about 54 in., wingspread to 7 ft., wt. to 8 lb. About 8 subspecies—probably more recognized than warranted—5 or 6 in our area.

HABITS of the species. Usual hunting method is to stand motionless in shallow water, waiting till prey comes within striking distance. Occasionally fishes on the wing, a perched or low-flying bird sighting prey, dropping momentarily on deep water and simultaneously striking at prey. Singles, even small groups, known to alight on deep water (fresh or salt) and evidently rest comfortably there, though they soon take flight again. This bird often feeds ashore, along watercourses, in meadows and fields, even far from water. Sometimes walks overland a short distance from pool to pool.

Sometimes known to swallow larger prey than it can comfortably manage—even so large as to choke the captor. One was seen holding, shaking, trying to swallow, then flying off with live Clapper Rail that may have been wounded before the heron captured it (Arnett 1951). One captured and killed a Wilson's Phalarope, pulled off the wings, and immersed the body in water before swallowing it (F. Packard 1943). Audubon (1835) claimed to have seen this bird flying after a fish-carrying Osprey, which released the fish and the heron presumably located the fallen prey.

Recorded air speed of cruising birds is in the range 19–29 mph., and 30 when pressed; wingbeats/sec. reported as 2.1, while numerous data of C. H. Blake in Fla. yield $2.3 \pm .03$. Sometimes soars in circles to immense heights—perhaps more often than generally realized. Various aerial evolutions, the bird sometimes calling, reported mainly during and soon after breeding cycle.

HANDBOOK OF
NORTH AMERICAN BIRDS

VOLUME 2

Waterfowl (first part)

WHISTLING DUCKS

SWANS

GEESE

SHELD-DUCKS

DABBLING DUCKS

EDITED BY RALPH S. PALMER

New Haven and London, Yale University Press, 1976

Canada Goose

Branta canadensis

Head and neck black with large white area on cheeks, usually continuous across chin, but sometimes partly or entirely interrupted by a black chin stripe; body coloration gray-brown to variably brown, the light feather borders arranged to form bars on dorsum in all Basic Plumages. Neck feathering smooth (not furrowed); white "crescent" on lower rump; usually all white from vent to tail and extending up on flanks; tail blackish. Iris dark brownish; bill, legs, and feet black. Overall coloring varies, depending on population and individual, from medium or lighter to a very dark shade. Size varies from largest of true geese (length 34–43 in., rarely longer; wingspread to 6 ft., rarely longer; wt. rarely to over 20 lbs.) through intermediate sizes down to smallest (length 23–25 in., wingspread to 43, wt. of mature ♀ occasionally only 2 lb.). For discussion of tracheal anatomy, see Humphrey (1956a) and Würdinger (1970). Sexes similar or nearly so in appearance (♂ said to av. more uniformly colored and with paler underparts in some of the largest Canadas); ♂ av. larger. The species is treated below under 8 trinomials, 4 less than in Delacour (1951, 1954).

For intermountain birds there is no adequately documented series of any size. For "Western Canada Goose" Kortright (1942) gave: ♂ 7 lb. 5 oz. to 12 lb. 8 oz., av. (of 6) 10 lb. 4 oz.; and ♀ 6 lb. 10 oz. to 9 lb. 8 oz., av. (of 5) 7 lb. 13 oz. These are very close to the data on 9 ♂ and 6 ♀ given by A. L. Nelson and Martin (1953). Two birds taken in Cal. weighed 19 lb. each (J. Aldrich). Moffitt (1931), who listed no specific records, stated many trustworthy hunters had reported birds weighing 16 and 18 lb., even a claim of up to 21 lb. H. C. Hanson (1965) mentioned reports of geese taken in Cal. (local birds or migrants?) that weighed 19, 22, and 24 lb., thus matching even the very exceptional records from the prairies.

MIGRATION As a result of rapid adaptation to newly created refuges and feeding grounds the Canada Goose, more than any other waterfowl species, has "radically altered" its migration routes. Because of the narrowness of routes traveled (and by some other waterfowl also), they are more aptly designated "corridors" than routes. The Canada Goose is in the process of evolving new ones, so that any summation of existing ones probably would be outmoded in a few years. (From Bellrose 1968, which see for many details.) Particular routes (or corridors) and schedules have been mentioned under some subspecific headings earlier in this account, also under activities of pre-breeders, etc. The following is general information.

Canadas fly silently or in loud-calling flocks, these being an aggregate of families, in diagonal lines or chevrons containing up to several score birds, seldom hundreds. Usually they fly at a few hundred ft. altitude, much lower in severe weather. Also above range of unaided human vision in fine weather (Trautman 1940). Various mt. ranges are no barrier. For example, the Wasatch Mts. in Utah reach nearly 10,000 ft. and the geese readily migrate over them. (C.S. Williams). Migrants fly at any hour and may arrive on a tail wind. When caught in storm or fog, they have been known to circle many times over city lights or to land on rooftops and wet pavements (F. L. B. 1891, Mershon 1928), and have been struck down in flight by lightning (Cartwright and Lloyd 1933). Reverse migration may occur when migrants overtake a storm (L. Jones 1906).

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