# WATERFOWL OF THE WORLD



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### FULVOUS WHISTLING DUCK (Dendrocygna bicolor)

#### Description

Other than the females being slightly smaller than the males, Fulvous Whistling Ducks lack significant gender differences in their plumage. Named after their fulvous color, they are mainly orange brown in overall color, with a rufous crown, dark brown eyes, a long gray bill, a long neck with a dark streak down the back, and a brown back with rufous edging to the feathers. They have light cream-colored stripes on their flanks and a white crescent-shaped patch on their rump that contrasts with their short black tail. In flight, their wings are dark in color and lack any highlights. They have long gray legs and feet that protrude past their tail during flight.

They are 17 to 21 inches in length, with the male's weight averaging about 1.7 pounds and the female's about 1.5 pounds. They have a 34- to 38-inch wing-span. Fulvous Whistling Ducks are noisy birds, with their characteristic vocalization a high-pitched, two-syllable *kit-TEE* or *pee-CHEE* whistle, often repeated and

sometimes preceded by a series of short, high-pitched squeals. Their call is given frequently, both when on the ground and while in flight.

### Biology

Sexually mature at one year of age, they form lifelong pair bonds and generally breed based on regional availability of water. In North America, breeding activity has been observed between April and September, while in Africa it is reported as between July and March and in the neotropics it coincides with the wet season. They nest as single pairs or in loose groups. Their nest is constructed of plant material, which may or may not be lined with down, among dense vegetation and often over water on a floating platform or matted vegetation. Some tree cavity nesting occurs, but it is less frequent than ground or over-water nesting. Clutch size ranges from 6 to 16 white to buff-white eggs. Nest parasitism (multiple



females laying eggs in a single nest) has resulted in more than 20 and up to 62 eggs in one nest. Both sexes participate in incubating the eggs, taking 24-hour shifts during the 24- to 26-day period. Once hatched, both parents tend the brood until they fledge in about 60 days. The adults undergo a complete wing molt and become flightless after breeding. Their longevity record is II years in the wild.

Fulvous Whistling Ducks feed while walking, swimming, tipping up, and occasionally shallow diving. Their diet is highly vegetarian and consists mostly of the stems, seeds, and bulbs of various grasses, wild millet, smartweeds, aquatic ragweed, and sedges. Cultivated grains, particularly rice, are important food items in some areas, and at times their diet includes animal matter such as mollusks, worms, and insects, especially the females during breeding season.

### Distribution

Unlike some other species of whistling ducks, Fulvous Whistling Ducks rarely perch in trees and prefer freshwater marshes and swamps in open, flat country. Migratory in only the northern parts of their range, they are more sedentary in other regions but are subject to seasonal movements according to water and food availability. They are the most widely distributed whistling duck in the world and among the most widely distributed of all waterfowl.



Fulvous Whistling Ducks are migratory in the northern parts of their range and more sedentary in other regions but are subject to seasonal movements according to water and food availability.

The Fulvous Whistling Duck is found in disjunct populations stretching across much of the tropical and semitropical regions of four continents. They inhabit portions of the southern United States and Mexico, the West Indies, northern, central, and eastern South America south to Argentina, and across the Atlantic Ocean to much of sub-Saharan Africa, Madagascar, and the India subcontinent.

### **Conservation and Status**

Fulvous Whistling Duck numbers are considered stable, with worldwide population estimates ranging from 1.5 million to over 2 million birds. The North American population increased beginning in the late 1940s, followed by a sharp decline in the 1960s due to unintentional poisoning caused by insecticides used in rice fields. Since then the North American population has rebounded. Because of their large numbers and huge breeding range, they are classified as a species of "Least Concern" by the IUCN.









Fulvous Whistling Ducks are found in disjunct populations stretching across much of the tropical and semitropical regions of four continents.



## BAR-HEADED GOOSE (Anser indicus)

### Description

With two distinct linear black bar markings on the otherwise white head, the Barheaded Goose is perhaps one of the most easily identified geese in the world. They have a namesake barred head, pale gray overall body color, black primaries and secondaries, dark eyes, and orange bill and legs. Sexes are alike, although the male is slightly larger than the female. Juveniles lack the distinct black bar markings on the head and have a pale gray head and neck; the bill, legs, and feet are greenish yellow.

They have a wingspan of 55 to 62 inches, an overall length of 28 to 30 inches, and weigh 4 to 7 pounds. Bar-headed Geese have a low honking call that can be heard most frequently while in flight.

### Biology

Bar-headed Geese become sexually mature at two to three years old. They form long-term monogamous pairs but have been known to have harem

groups consisting of one male and several females. The spring migration takes place in March and April, and the breeding season is May and June. They generally nest in colonies (up to 1,000 pairs) but occasionally as single pairs. The nest is a shallow ground scrape lined with down near wetlands and often on islands. They sometimes nest in trees or on cliffs. Clutch size varies from 3 to 8 eggs. Only the female performs incubation, which takes 27 to 30 days. Both parents participate in tending the young. Flight is achieved at around 55 days. The fall migration takes place between September and November.

Bar-headed Geese forage primarily by grazing on land but also feed in wetlands by dabbling, tipping up, and head dipping. On the breeding grounds they consume grasses, sedges, pondweeds, berries, aquatic insects, and small crustaceans. In winter, their diet includes various grasses and sedges, with a significant reliance on cultivated crops including wheat, beans, peas, barley, and rice. Some crop depredation occurs.







With their distinctive markings, Bar-headed Geese are one of the most easily identified geese in the world.

conservation status is "Least Concern." However, their inclusion in documented cases of H5NI avian influenza (bird flu) has raised concerns. In May 2005, hundreds of Bar-headed Geese and other wild birds died from avian influenza at Qinghai Lake in China. While H5NI and others (H5N8) have spread to domestic poultry in many countries since that time, the degree to which wild birds have been involved is uncertain. After the case in 2005, it was determined that local people were raising waterfowl (including Bar-headed Geese) domestically near Qinghai Lake and that these birds were infected with bird flu. Therefore, it is possible that the wild geese were actually the victims rather than the source of the outbreak. Between 2003 and 2019, 455 people died of avian influenza worldwide, with the majority of those occurring between 2005 and 2015 in Indonesia and Egypt.

#### BAR-HEADED GOOSE

#### Distribution

Bar-headed Geese are migratory. During migration they navigate across the Himalayas. Crossing these mountains, which are often in excess of 25,000 feet, results in some of the highest flight altitudes known for any bird. Recorded observations exist up to 24,000 feet, and there are undocumented reports as high as 30,000 feet. Numerous physiological adaptations involving hyperventilation, coronary vasodilation, and increased heart rate all help to increase the oxygen absorption required to make such accomplishments possible. Their breeding habitat is on high-elevation plateaus near a variety of wetlands, often near rock outcrops. On the wintering grounds, they frequent freshwater wetlands, lakes, and rivers with significant foraging activity in agricultural areas.

Bar-headed Geese exist over a range of nearly I million square miles. On their northern breeding grounds, they are found from the Tibetan Plateau in China, Mongolia, Kazakhstan, and Russia to Kyrgyzstan, Tajikistan, northeastern Pakistan, and eastern Afghanistan. Their wintering areas are in India, central Pakistan, Myanmar, Nepal, and southern China. There are introduced self-sustaining populations in the United Kingdom and western Europe.

### **Conservation and Status**

Bar-headed Goose populations are thought to be stable to slightly increasing. Population estimates range from 97,000 to 118,000 birds and their current IUCN



Bar-headed Geese annually migrate over the Himalayas at elevations in excess of 25,000 feet, giving them the distinction of achieving the highest flight altitudes known for any bird.



### BRANT (Branta bernicla)

### Description

Brant are a small, black-and-white Northern Hemisphere goose tied to coastal habitats. In Europe they are referred to as Brent Geese. They have a black head, eyes, bill, back, upper breast, primaries, tail, and legs. They have conspicuous white striations (necklace) on the middle of the neck, which is otherwise black, and also have a white rump and undertail. The plumage is identical between the sexes, except for the necklace, which often is broader and whiter in males. Their belly color is variable among the three subspecies. The Atlantic or Pale-bellied *hrota* subspecies has a pale gray belly; the Russian or Dark-bellied *bernicla* has a black to dark gray belly, often barred with brown; while the Pacific or Black *nigricans* subspecies has a black belly. A fourth group, commonly referred to as Gray-bellied Brant, is not a recognized subspecies, and is likely an intergrade between Black and Atlantic Brant. All juvenile birds have white outer edging on their wing coverts and scapulars, and the white necklace is lacking or inconspicuous.

Brant are 20 to 24 inches in length with a 42- to 48-inch wingspan. They weigh from 2 to 4.5 pounds (average 3.3 pounds), with males about 10 percent heavier

than females. Their most characteristic vocalization is a hard, rolling *raunk, raunk* or softer *ronk*, which, when given by a flock, can be quite loud.

### Biology

Brant form lifelong pair bonds and begin breeding in their second year. They arrive on the breeding grounds in late May and June, where they nest as dispersed pairs or in colonies, some as large as 5,000 pairs or more. The nest site is in grassy vegetation, often on islands in tundra ponds, on offshore islands, river gravel bars, and near lakes. They often nest in close association with snowy owls or rough-legged hawks to deter predators. The nest is on the ground and is made of grasses, other vegetation, and down. Brant deposit large quantities of down in the nest, more than other species of geese. The 3 to 5 light buff or creamy-white eggs are incubated for 23 to 29 days by the female with the male standing guard. The goslings are cared for by both parents and fledge in 45 to 50 days. Brant molt then migrate from breeding areas to staging locations in late August and September and continue to their wintering areas in October and November.



On the wintering grounds they gather in large flocks, seldom associating with other waterfowl.

Brant feed by grazing as well as tipping up and head dipping. On the breeding grounds they consume a variety of plants including tufted hairgrass, marsh arrowgrass, marestail, alkaligrass, sedges, mosses, and saxifrage. In winter, eelgrass is the preferred food both in North America and western Europe. No other goose species relies so heavily on a single native food plant. However, declines in eelgrass abundance on the Atlantic Coast of the United States and in Europe have led to a greater dependence on grass/clover on pastures, golf courses, and sports fields. In Europe, cereal grains are also consumed during winter. The algae, ulva, is important in several staging/wintering areas.

### Distribution

All Brant populations are migratory, making one of the longest and most spectacular migrations of all waterfowl. Their breeding habitat in the low Arctic is on the upper margins of salt marshes along seacoasts or estuarine deltas. In the high Arctic, they nest from the coastline to 50 miles inland, where habitats are characterized by mossy lake margins, braided rivers, and sparse upland cover. On the wintering grounds, Brant utilize intertidal mudflats in well-protected, shallow marine waters. Most North American Brant winter in natural intertidal or subtidal habitats, although some Brant on the Atlantic Coast use cultivated grasslands. In Europe, Brant make use of intertidal areas and salt marshes but also use pastures and grain fields.

The *hrota* subpopulation breeds in the eastern Arctic in the Fox Basin of Nunavut, with colonies on Southampton and Baffin Islands. They stage in James Bay then move to the Atlantic Coast of the United States to winter—from Massachusetts to North Carolina, with concentrations in New Jersey, New York, and



All Brant populations are migratory, making one of the longest and most spectacular migrations of all waterfowl.

Virginia. Additional birds of this subspecies breed in the Canadian Arctic on Queen Elizabeth and Bathurst Islands west to Melville Island, northwest Greenland, Franz Josef Land, and Svalbard. This group stops in Greenland and Iceland on the way south and winters principally in Ireland with others in northeast England, France, and Denmark. The *bernicla* subpopulation breeds in central and western Siberia and winters in western Europe, with half the population in southern England and others from Denmark to the Netherlands. The *nigricans* group breeds in the central and western Arctic Alaska, northwestern Canada, and eastern Siberia. They stage at Izembek Lagoon on the Alaska Peninsula before migrating to winter along the Pacific Coast. Some birds (up to 45,000) remain at Izembek for the winter while the majority fly nonstop for 60 hours to winter along the coast of Baja California and the Mexican mainland. Additional Black Brant winter in Japan, Korea, and China. Brant of the Gray-bellied group breed on Melville Island, stage at Izembek Lagoon, and winter in Puget Sound, Washington.

### **Conservation and Status**

Brant are listed as a species of "Least Concern" by the IUCN, with the estimated world population at 500,000 to 630,000 birds. Based on winter inventories since 1970, the estimated number of *nigricans* in North America has ranged from 100,000 to 186,000 birds, with an additional 9,000 in Asia. The *hrota* subpopulation in North America has ranged from 41,000 birds in 1973 to 209,000 in recent years and in Europe, up to 40,000. About 211,000 of the *bernicla* subpopulation are found in Europe. In Europe, increases have led to conflicts with agricultural interests, and wintering in developed areas brings issues of disturbance from human activities. 38



Black Brant (nigricans) breed in Arctic Alaska, northwestern Canada, and eastern Siberia and winter primarily along the coast of Baja California and the Mexican mainland.



Dark-Bellied Brant (bernicla) breed in central and western Siberia and winter in western Europe, with half the population in southern England.



Atlantic Brant (*hrota*) breed in the eastern Arctic Canada, northwest Greenland, Franz Josef Land, and Svalbard. They winter along the Atlantic Coast of the United States from Massachusetts to North Carolina and in Europe, principally in Ireland.



### TUNDRA SWAN (Cygnus columbianus)

### Description

Adult Tundra Swans are large, white birds. The Tundra Swan has two subspecies that were formerly, and still sometimes are, considered two separate species—the Tundra Swan of North America and the Palearctic Bewick's Swan. Because Tundra Swans are listed as a single species on the IOC World Bird List, we are treating them as a single species here. With little difference in appearance between the sexes other than size, the females (pens) are smaller than the males (cobs). The bill of the North American *columbianus* subspecies is black with a yellow spot at the base. Adults of the subspecies *bewickii* are somewhat smaller overall with a slightly smaller bill and more extended yellow at the base. Adult Tundra Swans have brown eyes and black legs and feet. Their head, neck, and breast feathers are often stained a rusty orange due to the iron-rich nature of the habitats in which they feed.

Young birds have dull gray feathers on their head and neck, and their bill and legs are pinkish gray.

Tundra Swans are 45 to 59 inches in length, with males averaging 52 inches and females 50 inches. Their weight ranges from 10 to 20 pounds, with the average weight of males 16 pounds and 14 pounds for females. Their wingspan varies from 66 to 83 inches. Formerly named Whistling Swans, their vocalizations are described as high-pitched and consist of a 1- to 3-syllable *ou oh* and the long vowel sound of *oo*.

### Biology

Reaching sexual maturity at three to four years of age, Tundra Swans form longterm pair bonds that may last their entire adult lives. They return to their breeding



grounds in May and June, where the pair establishes a nesting territory. The nest site is near large lakes and tundra ponds in adjacent uplands, wet meadows, and on islands. The nest is a large mound of vegetation (often placed on an elevated hummock) and is constructed from nearby vegetation then lined with down. Construction is primarily by the female. Clutch size varies from 2 to 7 (average 4 to 5) creamy- or dull-white eggs that are incubated for 30 to 32 days. Incubation duties are carried out mostly by the female, but some male incubation occurs as well. When the female is on the nest, the male stands guard. The cygnets are cared for by both parents until they fledge in 60 to 75 days. The adults begin their wing molt soon after the young are hatched. The cygnets remain with their parents during their first migration, arriving on their wintering grounds (between October and December) as a family group. Their average life span in the wild is 10 years; the oldest on record was 24 years of age.

Tundra Swans dabble, tip up (reaching depths of up to 3 feet), and submerge their heads to feed on wetland plants. Among the foods consumed are pondweeds, wigeon grass, manna grass, eelgrass, duck potato, buttercup, wild rice, sedges, and grasses along with lesser amounts of animal matter including amphipods, softshell clams, and Baltic clams. During migration and in winter, agricultural crops become important and include rice, wheat, barley, and soybeans.

### Distribution

Tundra Swans are highly migratory Arctic and subarctic nesters, spending the breeding season on tundra lakes and ponds, primarily in coastal delta areas and, less frequently, inland. During the breeding season in North America, they are found from the Alaska Peninsula across Arctic Alaska and Canada to Nunavut, the coast of Hudson Bay, and Quebec. In North America there are two separate



The head, neck, and breast feathers of Tundra Swans are often stained a rusty orange due to the iron-rich nature of the habitats where they feed.

wintering populations. The western Alaska breeding birds winter along the Pacific Coast from Vancouver Island, Canada, south to the Central Valley of California. They are known for long stopovers between breeding and wintering areas and, depending on the severity of the winter, can linger throughout the western United States. The Tundra Swans breeding east of Point Hope in Alaska make the long migration to the Atlantic Coast and spend the winter principally between New Jersey and South Carolina. In the Palearctic, the *bewickii* subspecies breeds from the Kola Peninsula across the Russian Arctic to far eastern Siberia. They winter in northwestern Europe, mostly in the United Kingdom, Ireland, and the Netherlands, with smaller numbers in Germany, Denmark, and the Baltic countries, especially Estonia. Additional birds winter in Japan, Korea, and China.

### **Conservation and Status**

The North American Tundra Swan population, as estimated during recent midwinter inventories, has ranged from 190,000 to 250,000 birds. The population estimate for the Palearctic group is 92,000 to 132,000 swans. Tundra Swans are susceptible to lead poisoning due to the ingestion of spent lead shot. Nontoxic shot is now required for all waterfowl hunting in the United States and Canada. Tundra Swans are listed as a species of "Least Concern" by the IUCN.









Adults of the *bewickii* subspecies (referred to as Bewick's Swan) are somewhat smaller overall with a slightly smaller bill and more extended yellow at the base.



In North America, Tundra Swans have two wintering populations—one in the western states and the other on the Atlantic Coast.



### UPLAND GOOSE (Chloephaga picta)

### Description

Also known as the Magellan Goose, the Upland Goose is a medium-sized sheldgoose. Unlike most other sheldgoose species, the sexes exhibit strong sexual dimorphism. There are two subspecies—Greater, *leucoptera*, found in the Falkland Islands, and Lesser, *picta*, found on the South American mainland. There are two color phases as well—the white morph and the barred morph. The adult male white phase has a white head, neck, breast, and belly. Their back is gray with black-and-white bars, their flanks are barred black and white, and their rump and uppertail coverts are blackish. Their wings are a combination of gray and white, with an iridescent greenish-bronze speculum. They have a rather short black bill and dark brown eyes, and their legs and feet are black. The barred morph adult male is similar but more heavily barred black on the lower neck, breast, belly, and flanks. Contrastingly, the females of both color phases have a chestnut-colored head, neck, breast, back, and flanks with black barring, and a black tail. Their wings are dark, with white shoulder patches. Their bill is black, eyes are dark brown, and legs and feet are yellow. Female *picta* appear blacker on the underparts and have more distinct barring than *leucoptera*. Juvenile males have dusky-brown feathers on the head and finer/paler barring, while juvenile females have dull, pale barring. Females resemble Ashy-headed Geese (*Chloephaga poliocephala*) and Ruddy-headed Geese (*Chloephaga rubidiceps*), but the former has a gray head, chestnut breast, and whitish belly, while the latter is smaller, with a narrow white eye ring.

Upland Geese are 23 to 29 inches long with a 52- to 56-inch wingspan. The *leucoptera* subspecies is the largest, with males weighing from 7.6 to 9.8 pounds and females 6.5 to 7.6 pounds. The *picta* subspecies is smaller—males weigh from 5.8 to 7.8 pounds and females 5.5 to 6.7 pounds. The male has a whistled *wheep* vocalization and the female a low, rattling *a-rrr*.

### Biology

Reaching sexual maturity in two to three years and forming long-term pair bonds, Upland Geese breed from October to December in southern South America



and September to November on the Falkland Islands. The nest is on the ground in dense vegetation, generally near water. They nest as single pairs and in loose groups. The nest is lined with abundant down where 5 to 8 creamy-white to buff-colored eggs are laid. The eggs are incubated by the female alone for about 30 days. The nest and nearby vicinity are aggressively defended by the male. Both parents tend to the goslings, which fledge in 63 to 70 days.

Upland Geese are almost exclusively vegetarian and feed primarily by grazing along with some dabbling and tipping up. They feed during the day, with up to 89 percent of the daylight hours in winter spent foraging. Their diet consists of grasses including annual bluegrass, meadow grass, alkaligrass, and velvet grass, along with white clover, sedges, and the leaves, stems, and seeds of aquatic plants such as spikerush, sandwort, and pondweeds. They also consume the fruits of red crowberry, heath barberry, and prickly heather. In some regions, they utilize agricultural areas and feed heavily on waste grain including wheat, sunflower, corn, and sorghum.

### Distribution

The Upland Geese on the South American mainland are migratory, flying north during the winter, while the Falkland Island geese are resident. The birds in Tierra del Fuego depart in late April and early May, moving north along the eastern edge of the Andes or the east coast of Argentina, with the return migration in late August and September. On the wintering grounds, the barred morph tends to be more coastal in distribution than the white morph. Falkland Island birds rarely



There are two color phases of Upland Geese—the white morph (top) and the barred morph (bottom).

move more than a few miles, although movements of up to 50 miles have been noted. Their habitat is mainly Patagonian steppe, especially grassy pastures and plains, rivers and streams, and agricultural lands. In the Falkland Islands, they are especially common on greens and near settlements, and around ponds and coastal streams. They are found from sea level to approximately 5,000 feet.

The Greater subspecies, *leucoptera*, is resident in the Falkland Islands, while the Lesser subspecies, *picta*, inhabits the South American mainland. They breed in southern Argentina, including Tierra del Fuego, north to central Chile. In winter, they are found in central Chile east to central and southeastern Argentina.

### **Conservation and Status**

Widely distributed and abundant, the estimated population is 200,000 birds in the Falkland Islands and 100,000 to 1 million on the continent. Upland Geese are often treated as pests and intensely persecuted (shot and poisoned) by farmers and cattle/sheep ranchers, as they damage crops and are thought to compete for forage with sheep and cattle. In 2011, the hunting of all species of geese was banned in Argentina, mainly in response to declining populations of Ruddy-headed Geese. The Upland Goose is listed as a species of "Least Concern" by the IUCN.



The Upland Geese on the South American mainland are migratory, flying north during the winter, while the Falkland Island geese are resident.



The Upland Goose is a medium-sized sheldgoose, and unlike most other sheldgeese, the sexes exhibit strong sexual dimorphism.



### COMMON SHELDUCK (Tadorna tadorna)

### Description

Resembling a small goose in size and shape, the Common Shelduck is a striking duck with contrasting plumage that exhibits minor sexual dimorphism. Both sexes have a dark green head and neck, dark eyes, and a pinkish-red bill. The male has a knob above the base of the bill that is most prominent during the breeding season. The knob is lacking in the female, and there are white spots at the base of the female's bill. Their body is primarily white, with a large chestnut band that encircles the top of the back, flanks, and breast. The lower belly is black. The scapular feathers are black, and their wings display white shoulder patches and black primaries with green and chestnut-colored secondaries. The underwings are almost totally white, the tail is white, and their legs and feet are pink in color. Juveniles are similar to females but duller in coloration, and lack the chestnut band that encircles the body.

Common Shelducks are 20 to 24 inches in length. The male is slightly larger than the female, with weight varying from 1.8 to 3.3 pounds for the male and 1.2 to 2.8 pounds for the female. Their wingspan ranges from 40 to 52 inches. Their calls are best described as sharp whistling sounds and low, loud honks.

### Biology

Common Shelducks become sexually mature at two years of age and form strong, long-lasting pair bonds. Most pair formation is in January and February. Courtship behavior often results in males fighting, often with vicious attacks to determine dominance. Most birds reach the breeding areas in March, with nesting activity taking place between April and June. They nest as single pairs or with other pairs where several nests are in close proximity with no definitive territory around the nest site. They frequently nest in ground burrows excavated by rabbits and other mammals



as well as tree cavities and occasionally on the ground. Females lay 8 to 10 creamywhite eggs that are incubated for 29 to 31 days, with the male remaining nearby. After hatching, the young are led to water and often join other broods, forming a crèche that can consist of up to 100 ducklings guarded by one or two adults. Adults often depart for the molting areas when their broods are only a few weeks old, leaving them completely independent but well short of fledging, which takes place at about 50 days. Small numbers of adults remain with the crèches after others migrate to molt. Molting occurs after breeding, with adults moving to several traditional sites. The size of molting flocks can be quite large, with up to 100,000 Common Shelducks observed in the Helgoland Bight in Germany. They have been known to live up to 20 years of age.

The diet of Common Shelducks is primarily animal matter, especially in winter. They feed by tipping up, dabbling, and wading the mudflats in search of saltwater snails, copepods, ostracods, small fish, midge fly larvae, and worms along with green algae. They are also known to feed on the seeds and vegetative parts of aquatic plants, grasses, and cereal crops.

### Distribution

Common Shelducks are widespread and common in Europe and Asia. They favor coastal bays, estuaries, and tidal mudflats, as well as wetlands, rivers, and lakes,



The male Common Shelduck is a striking bird with contrasting plumage that exhibits minor sexual dimorphism.

sometimes in semidesert and steppe areas. They have been observed from sea level to 7,200 feet.

During the breeding season, Common Shelducks are found from northwestern Europe and Scandinavia, across eastern Europe to the Black and Caspian Seas and Kazakhstan to northern Mongolia, eastern Russia, and northeastern China. In northwestern Europe, the United Kingdom, and some Mediterranean sites they are resident. The migratory population spends the winter at various Mediterranean locations, particularly in Spain, France, and Turkey. Other wintering areas are in North Africa, the Middle East, Pakistan, northern India, Bangladesh, and southeastern China.

### **Conservation and Status**

Widespread and abundant, especially in the western Palearctic, Common Shelduck numbers have increased and their range has expanded during the last four decades. The overall population is estimated at 625,000 to 750,000 individuals and could be larger. They are listed as a species of "Least Concern" by the IUCN. Habitat loss could occur if tidal power plants (tidal barrage) are developed. They are susceptible to avian influenza and could be affected by future outbreaks, and large molting flocks may be further vulnerable to disturbance and natural disasters.



Common Shelducks are widespread and common in Europe and Asia with some populations resident while others are highly migratory.



### MOTTLED DUCK (Anas fulvigula)

### Description

Mottled Ducks are medium-sized North American dabbling ducks closely related to American Black Ducks (*Anas rupripes*) and Mallards (*Anas platyrhynchos*). There are two subspecies: the Florida *fulvigula* and the Gulf Coast *maculosa*. They display minimal sexual dimorphism. Both the male and female have a dark brown body, pale cheeks and neck, and a head with fine brown streaking and a brown eye line. The speculum of their wings is greenish blue to purple in color, but generally lacks the white borders found in Mallards. The speculum sometimes has a narrow white trailing edge. They have brown eyes, and their legs and feet are orange (slightly duller in females). Among the features that distinguish the sexes, the bill of the male is olive to bright yellow with a black nail while the female's is a combination of mostly orange and some brown. Females have wider, buffybrown feather edges than males, yielding a subtle but noticeably lighter overall appearance. Juveniles resemble females. The *maculosa* race has somewhat darker, more heavily marked plumage. Mottled Ducks vary in length from 19 to 23 inches, and their weight ranges from 1.5 to 3 pounds with most adult birds tipping the scales at 2.3 to 2.5 pounds. Their wingspan is 31 to 34 inches. Their vocalizations are similar to that of a Mallard. The male's call is described as a low, raspy, drawn-out *raeb*, while the female has a loud, raspy series of 6 to 8 quacks that descend in intensity and pitch.

### Biology

Mottled Ducks reach breeding age at one year old and are monogamous. They form pair bonds for a single breeding season, but there is speculation that some birds may renew the pair bond with the same mate in subsequent years. Courtship activity and formation of pair bonds begins as early as August, much earlier than other ducks, and by November, 80 percent of the birds are paired. They nest as single pairs, and the breeding season begins in early January and may continue to July, peaking in March and April. Nest sites vary greatly but are usually on the ground in heavy vegetation, often with overhanging plant material,



and near water. The nest is bowl-shaped and consists of grass and down feathers where 8 to 12 pale white to olive-colored eggs are deposited then incubated by the female for 25 to 26 days. Unlike some other *Anas* species, the male may stay in close association well into the incubation period and is occasionally observed with the female and brood, but is associating with the hen and does not share brood care responsibility. Brood rearing is conducted by the female alone, with the ducklings capable of sustained flight 60 to 70 days after hatching. Based on banding data, the oldest Mottled Duck was 13 years old.

Mottled Ducks feed by dabbling, tipping up, and sometimes grazing. Their diet consists of seeds and shoots of aquatic plants such as wild millet, smartweeds, spikerush, bulrush, and cultivated crops, particularly rice. They also consume invertebrates including snails, beetles, midge fly larvae, amphipods, and crayfish along with small fish.

### Distribution

Mottled Ducks are considered nonmigratory, but movements up to 260 miles have been recorded, likely in response to changing habitat conditions and food availability.



Mottled Ducks are considered nonmigratory, but movements up to 260 miles have been recorded, likely in response to changing habitat conditions and food availability.

They are found in freshwater wetlands inland, brackish waters in coastal areas, rice fields and other agricultural areas, and frequently in urban/suburban wetlands.

There are two distinct populations—the Florida *fulvigula* subpopulation occurs throughout most of the state but is absent from the northwestern panhandle. They are also found along the coast of Georgia and portions of South Carolina, and in these areas, they are descendants of birds introduced in 1975 and 1982. The Gulf Coast *maculosa* subpopulation inhabits areas from Alabama and Mississippi to Louisiana and Texas and south to Veracruz, Mexico. The highest densities occur in coastal Louisiana and southeast Texas.

### **Conservation and Status**

Mottled Ducks are fairly common within their restricted range, with total breeding population estimates ranging from 250,000 to 680,000 birds. The Florida population is the smallest with an estimated 44,000 to 50,000 individuals, with the remainder found along the Gulf Coast. They are listed as a species of "Least Concern" by the IUCN; however, wetland destruction and widespread hybridization with Mallards pose threats.



Mottled Ducks are found in freshwater wetlands inland, brackish waters in coastal areas, rice fields and other agricultural areas, and frequently in urban/suburban wetlands.





There are two distinct populations of Mottled Ducks—the *fulvigula* subpopulation is found throughout Florida, except for the northwestern panhandle, while the Gulf Coast *maculosa* inhabits areas from Alabama and Mississippi to Louisiana and Texas and south into Mexico.



### NORTHERN PINTAIL (Anas acuta)

### Description

The Northern Pintail is a large dabbling duck with wide geographic distribution. Their plumage is sexually dimorphic. Named for the males' long pointed tail, in breeding plumage, males have a chocolate-brown head, neck, and throat, contrasting with white stripes on the sides of the head. Their neck, breast, and underparts are white, and their upperparts/flanks are vermiculated gray. Their wings are grayish brown, and they have a metallic green to bronze speculum with a buff leading edge and a white trailing edge. They have gray scapulars, gray tertials with black central stripes, and two slender, black, elongated (up to six inches) central tail feathers. Their eyes are dark brown, their bill is blue gray with a black central stripe, and their legs and feet are bluish gray. The eclipse plumage of males is like adult females, but with darker markings on the head, elongated gray tertials, and a larger speculum. Adult females have a grayish-brown, finely flecked and mottled head and neck, paler and mottled underparts, and brownish flanks with darker markings. They have brownish-gray upperparts with a scalloped effect, and a bronze-brown speculum with a buff leading edge and white posterior edge. Their eyes are dark brown, their legs and feet are bluish gray, and their bill is blue gray, mottled black. Juveniles have a darker crown and more spotted underparts.

Northern Pintails are 21 to 26 inches long and have a 32- to 37-inch wingspan. Males weigh from 1.8 to 2.3 pounds and females 1.6 to 2 pounds. The calls of males include a wheezy, train-whistle-like whee, and a high-pitched ee hee or geeegee. Females give a short, low ke or kuk, singly or in series.

### Biology

Northern Pintails become sexually mature at one year old and form seasonally monogamous pair bonds, although forced copulations often occur. Most pair bonds are formed in the fall and early winter and are maintained until early incubation, when the males depart for molting areas. Northern Pintails are known for their spectacular courtship flights. The breeding season is variable and ranges from early March (California) to early June (Alaska). They nest as single pairs on the ground,



usually in grain stubble fields or residual cover of short grasses and other vegetation, often far from water (up to 1.8 miles). The nest is a shallow depression lined with dry vegetation and down where 3 to 12 (average 8) greenish-buff to grayish-buff eggs are laid. Incubation is by the female alone for 21 to 25 days. The female cares for the ducklings, which fledge in 40 to 50 days. Northern Pintails are early fall and early spring migrants. They often form large flocks in the fall and winter. The oldest known Northern Pintail was a 22-year-old male.

Northern Pintails obtain their food by dabbling, head dipping, tipping up, and grazing. They feed during the day and at night. In the fall and winter, they often forage all night and return to roosting areas at dawn. During the breeding season, animal foods comprise up to 77 percent of their diet and include midge fly, caddisfly, and crane fly larvae, snails, earthworms, clams, water boatmen, and fairy shrimp. Important vegetable foods are wild millet, pondweeds, sedges, water starwort, and cereal grains. In winter, the seeds and vegetative parts of swamp timothy, wild millet, smartweeds, sea purslane, brass buttons, wigeon grass, shoalgrass, mare's tail, rice, corn, wheat, and barley are important foods. Winter animal matter consists of midge fly larvae, amphipods, beetle larvae, mollusks, and aquatic snails.

### Distribution

Northern Pintails have a circumpolar distribution, and most populations are migratory. They typically nest in upland areas with shallow, seasonal, or intermittent wetlands and low vegetation. In winter, they utilize shallow freshwater and brackish inland habitats, mangrove areas, reservoirs, and nearby agricultural habitats. They are found from sea level to 12,000 feet.

Their Palearctic breeding range extends from Greenland, Iceland, Spitsbergen, and Scandinavia east across Russia to the Kamchatka Peninsula and the



Named for the males' long pointed tail, Northern Pintails in breeding plumage have two slender, black, elongated (up to six inches) central tail feathers.

Commander Islands in Siberia, and south to the British Isles (where they are rare), central Europe, and the Caspian Sea. In North America, they breed on Victoria and Southampton Islands, south to Quebec, and west across much of Canada to the Yukon. In the United States, they breed from Alaska south to California, Nevada, Utah, and New Mexico, east across Montana and the Dakotas to western Minnesota. Major North American breeding areas are the prairie pothole region of south-central Canada and the north-central United States, and in Alaska.

In the fall and winter, Palearctic breeders move to the British Isles, central and southern Europe, the Black and Caspian Seas, and northwestern, central, and eastern Africa as far south as Tanzania. They also winter in the Middle East, India, and across southern Asia to China and Japan, reaching as far south as the Philippines and Malaysia. In North America, they winter across the central and southern interior of the United States and from southeast Alaska south through California and Mexico to Central America and Colombia. Major winter concentrations are in the Central Valley of California, the Gulf Coast of Texas and Louisiana, and the west and east coasts of Mexico. They are also found in the West Indies and occasionally the Hawaiian Islands.

### **Conservation and Status**

Northern Pintails are widespread and abundant; however, breeding populations in both the Palearctic and North America have declined. The reduction in their numbers is the most dramatic among all North American ducks. The 2019 North American breeding ground estimate was 2.3 million, which is 42 percent below the long-term average of 3.9 million. The estimated global population of Northern Pintails is 6 to 7 million birds. They are an IUCN species of "Least Concern." Drainage of wetlands and agricultural alterations of the prairie landscapes in Canada and the United States are ongoing problems. Due to their habit of nesting in grain stubble fields and the subsequent cultivation of these areas, many nests are destroyed. This may be among the reasons their populations have not recovered, even though recent breeding-ground hydrological conditions have been favorable.











Northern Pintails have a circumpolar distribution, and most populations are migratory. They typically nest in upland areas with shallow, seasonal, or intermittent wetlands and low vegetation. In winter, they utilize shallow freshwater and brackish wetlands, mangrove areas, reservoirs, and nearby agricultural habitats.



### TORRENT DUCK (Merganetta armata)

### Description

The Torrent Duck is one of the five species of waterfowl in the world, including the African Black Duck (*Anas sparsa*), Blue Duck (*Hymenolaimus malacorhynchos*), Salvadori's Teal (*Salvadorina waigiuensis*), and Harlequin Duck (*Histrionicus histrionicus*), that have adapted to cold, fast-flowing mountain streams. Found only in South America and the only member of the genus *Merganetta*, the relatively small, slim, and elongated Torrent Duck is highly sexually dimorphic. Unlike many species of waterfowl, the female is just as colorful as the male, if not more so. The most remarkable feature of the male is its striking white-and-black striped pattern on the head and neck, contrasted with a red bill. The plumage of the male's body varies regionally and among the six subspecies, from dark with stripes on the belly in the southern portion of its range to light with abundant stripes throughout the breast/belly in the north. The subspecies from north to south are *colombiana*, *leucogenis*, *turneri*, *garleppi*, *berlepschi*, and *armada*. The female has a gray crown and nape, a reddish-orange throat, and a yellowish bill.

body is a bright reddish-rusty orange, which is consistent throughout its range. The wings of both sexes display a green speculum in flight, bordered by white on the leading edge, and have a spur at the bend in the wing. They have long and stiff tail feathers and long claws, both adaptations to living in swift water environments. Their eyes are dark brown, their bill is reddish with black on the upper mandible, and their legs and feet are mostly a combination of reddish orange and black.

Torrent Ducks are 17 to 18 inches in length with a wingspan of 23 to 27 inches. Weight ranges from 14 ounces to 1.1 pounds for the male and 11 to 14 ounces for the female. Their call is described as a whistle, the male's having a shriller tone, while the female's is throatier.

### Biology

Torrent Ducks are strongly territorial, defending from a quarter mile to more than one mile of a watercourse. They form long-term pair bonds at one year old and usually occur in singles, pairs, or family groups. They are very strong swimmers



and divers and are able to cling to slippery rocks using their stiff tail and sharp toenails. While agile in swift water, Torrent Ducks are reluctant fliers, generally taking wing for only short distances. Their breeding season may be year-round in areas close to the equator. Elsewhere it is variously reported as between February and October. The nest is generally elevated (10 to 60 feet) in waterside caves and crevices, among tree roots, in heavy vegetation, and in other sheltered areas including abandoned kingfisher nest burrows. Nests are constructed of dried grass and lined with abundant down. The 3 to 5 dull buff eggs are incubated by the female alone for 40 to 44 days (the longest incubation period of any waterfowl). The long incubation period is believed essential to ensure adequate development of the ducklings in order to swim and survive in the harsh and turbulent waters of their riverine environments. During the incubation period, the male stands guard nearby, often in the watercourse below the nest site. After hatching, both parents participate in the rearing process. No data is available on fledging, but it may be longer than other duck species.

Torrent Ducks feed by head dipping, tipping up, and diving among the rocks for insect larvae including blackflies, mayflies, caddisflies, and stoneflies along with small fish, snails, and incidental plant material and seeds.





Found only in South America, the relatively small, slim, and elongated Torrent Duck is highly sexually dimorphic with the reddish-rusty orange female just as colorful as the male.

### Distribution

Torrent Ducks are found from near sea level in Chile to above 12,000 feet in the High Andes. They are found in a wide diversity of riparian zones from dense montane forest in the northern regions to barren grasslands in Patagonia. Adult Torrent Ducks are usually sedentary but can be displaced to lower elevations by severe winter weather. Young birds may wander widely within their range to establish their own territories. Torrent Ducks inhabit fast-flowing streams and rivers in the Andes from western Venezuela, through Colombia and Ecuador south to Peru, Bolivia, Chile, and Argentina.

### **Conservation and Status**

The overall population of Torrent Ducks is estimated at 20,000 to 35,000 birds, and while considered slowly declining, especially in the northern portion of their range, they are listed as a species of "Least Concern" by the IUCN. Reasons for the decline include competition for their invertebrate food by introduced trout, erosion and siltation caused by deforestation, and pollution from mining operations.





Torrent Ducks are strong swimmers and divers and are able to cling to slippery rocks using their stiff tail and sharp toenails.







Above: The nest site is generally elevated in waterside caves and crevices, among tree roots, in heavy vegetation, and other sheltered locations.

Left: Males from the southern portion of their range have a dark breast/belly like this bird from Chile.

Right: Males from the northern portion of their range have a light breast/belly like this bird from Colombia.





### COMMON POCHARD (Aythya ferina)

### Description

Common Pochards are widespread, medium-sized diving ducks with highly sexually dimorphic plumage. Adult males have a rufous-chestnut head, a gray body with vermiculations, a black breast, and a gray tail. The upperwing coverts are dark gray, becoming more silver gray on the flight feathers, with darker tips. The bill is dark gray at the base with a large, pale gray subterminal band and a broad black tip. Their legs and feet are bluish gray, and they have bright orange-red eyes. Females have a dull brown head with a pale gray eye stripe, a whitish throat and cheeks (pattern variable), and a grayish-brown body. Their bill is dull gray to blackish, with a broad black tip and a wide, pale gray subterminal band. Their eyes are brown and they have bluish-gray feet and legs. Males have a female-like eclipse plumage, but with a grayer body and more contrasting dark breast. Juveniles resemble adult females but have more mottled underparts, a duller head lacking an eye stripe, and a dark gray mantle, breast, and flanks. Common Pochards are 15 to 19 inches long with a wingspan of 25 to 29 inches. Their average weight is about 2 pounds and ranges from 1.2 to 2.5 pounds. Males are slightly larger than females. Males are generally silent, but utter wheezy *wiwierr* whistles during courtship and a louder single-, double-, or triple-noted *kil-kil-kil* that descends in pitch. Females give a soft growl when flushed and various other mainly monosyllabic, raspy calls.

#### Biology

Common Pochards become sexually mature at one year old. They are seasonally monogamous, with pair bonds usually forming in winter, although others not until spring. Their breeding season is late April to late June, and is variable by region. They nest in single pairs or loose groups, sometimes in association with gulls, which apparently offer some measure of protection against predators. The most common nest site is over water on matted vegetation, with fewer nests on the



ground (usually less than 30 feet from water) concealed in thick vegetation. The nest is a shallow depression made of grass or emergent vegetation that is lined with down. The clutch size is 8 to 10 greenish-gray eggs (range 3 to 22), with nests containing more than 15 eggs a result of nest parasitism. Both intraspecific and interspecific parasitism are common. Incubation is by the female for 24 to 28 days. The males depart for molting areas during the first or second week of incubation. The female cares for the young, which fledge in 50 to 55 days. At the onset of the female's wing molt, she leaves the brood to fend for themselves. Brood amalgamation is relatively common. They often gather in large flocks, especially during the post-breeding molt, when groups of up to 50,000 males have been observed. The longevity record for a wild Common Pochard is 22 years.

Common Pochards feed mostly by diving but also by tipping up and dabbling. There are some differences in foraging techniques between males and females, with males apparently diving deeper. They forage in a crepuscular pattern but may also feed throughout the night, especially in winter. Their diet includes the seeds, roots, and green parts of grasses, sedges, and aquatic plants, especially pondweeds, watermilfoil, knotweed, coontail, and the algae chara. They also consume aquatic insects such as midge fly and caddisfly larvae, mollusks, crustaceans, worms, and small fish.



Common Pochards are widespread, medium-sized Eurasian diving ducks with highly sexually dimorphic plumage.

### Distribution

Common Pochards are generally migratory, both long and short distances, although some western European populations are relatively sedentary. They breed on well-vegetated wetlands, lakes, and slow-flowing rivers with areas of open water and abundant emergent vegetation. They also breed on saline, brackish, and soda lakes, and occasionally in sheltered coastal bays. In winter, they frequent large lakes, reservoirs, fishponds, sewage ponds, brackish coastal lagoons, and tidal estuaries. They have been recorded from sea level to 8,000 feet (Ethiopia) in winter.

Their breeding range is south of the tundra and northern taiga across the Palearctic from Iceland (rare) to the United Kingdom, portions of Scandinavia, across eastern Europe and Russia, Kazakhstan, and Mongolia to northwestern China. They winter west and south of their breeding range throughout Europe, North and East Africa, the Mediterranean and Black and Caspian Seas, and the Indian subcontinent through southern Asia to southern China, Korea, and Japan. The Common Pochards that breed in Denmark, Scandinavia, northern Germany, Poland, the Baltic states, and western Russia migrate to western Europe and to northwest Africa, while those wintering in the eastern Mediterranean and Black Sea regions originate from central and eastern Russia and Mongolia. Vagrants have been recorded in the Pacific Islands, North America, and central Africa.

### **Conservation and Status**

Relatively recent (2019) Common Pochard estimates suggested a global population of between 1.2 and 1.3 million individuals, a substantial decline compared to previous estimates of 1.9 to 2.4 million birds. As a result of rapid range-wide population declines of 30 to 40 percent during the past two decades, their IUCN status was upgraded from "Least Concern" to "Vulnerable." It appears the loss and changes in management of fishponds in eastern Europe and western Russia have contributed to declines there, as have the eutrophication of already nutrient-rich lakes throughout their range. A decrease in the survival rate of juveniles has triggered a reduction in their population size and an increase in the proportion of males. Frequent drought has also impacted wetland extent and quality in the steppe zone of continental Eurasia.









A decrease in the survival rate of juvenile Common Pochards has triggered a reduction in their population size and an increase in the proportion of males.



Common Pochards are generally migratory, both long and short distances, although some western European populations are relatively sedentary.