# POMARINE JAEGER - STERCORARIUS POMARINUS

Taxonomy: Kingdom: Animalia Phylum: Chordata Class: Aves Order: Charadriiformes Family: Stercorariidae Genus:

Stercorarius Species: S. pomarinus

# Habitat:

Biomes: Pomarine Jaegers breed in areas of the high Arctic that feature lemmings and extensive tundra. They may elect not to breed and may move around considerably in summers when lemming numbers are low. Outside the breeding season they spend their time out at sea, with large numbers in the Caribbean.

# Distribution:

In US: Erratic breeding, coinciding with peaks in lemming populations. CHECK DISTRIBUTION MAPS, it breeds at the Russian North, Northern Alaska and Northern Canada. Winters near the coast between the Cancer Tropic and Ecuador, and around Australia. In Mexico it has been reported offshore the west coast of the country and offshore in Quintana Roo; may be regular offshore in Yucatan and the rest of the continental shelf of eastern Mexico.

### AND BETTER DESCRIP.

Circumpolar species found in the Arctic tundra. Breeds in the high northern areas of Alaska and Canada. Winters mostly offshore in the Atlantic and Gulf of Mexico, near the West Indies; in the Pacific, from California south; also off coasts of Africa, southeast Australia, and Central and South America; sometimes found near Hawai.

In Other Countries: Greenland, Spitsbergen, Europe, Africa Coasts, White Sea, Persian Gulf, Gulf of Oman, and Gulf of Aden

Holistic Description: This is the biggest and burliest of the three jaeger species, which are fast, agile relatives of gulls known for harrying and stealing from other seabirds. Pomarine Jaegers are formidable predators: they survive almost entirely on lemmings in the breeding season. They spend the rest of the year on the open ocean, where they attack smaller seabirds, at times taking them for food or forcing them to give up their catch. Immature jaegers can be very difficult to identify to species. **Species Richness**: NO SUBSPECIES

Population Dynamic: The population is suspected to be stable in the absence of evidence for any declines or substantial

# **Evolution and Systematics:**

**Evolution**: NONE

Systematics: The family Stercorariidae has traditionally included two genera, Stercorarius with the three jaegers and Catharacta with the large skuas. Recent evidence, however, suggests that Pomarine Jaeger is more closely related to the large skuas than to the two smaller jaegers. This evidence includes distinctive behavioral similarities between Pomarine Jaeger and large skuas.

Number of Species: NO SUBSPECIES **Number of Genera**: NO SUBSPECIES

# **Physical Characteristics:**

Size and Length: Length: 16.5-24.0 in (42-61 cm) Weight: 18.4-30.1 oz (521-852 g)

*Wingspan*: 45.3-52.0 in (115-132 cm)

Coloration: Note blackish-brown upperparts, messy black cap that extends below the bill, and extensive white flash on upper and underside of outer wing. Rare dark morph adult is entirely blackish-brown but still has white wing flashes. Immature birds are variable, but in general they are barred with brown above and have bold black-and-white bars on the underwing and undertail coverts. Typically shows white shafts on 6 to 8 outer wing feathers (more than other jaegers) and more obvious white flash on underwing.

General Body Features: Bulky gull-like seabird; the largest and most barrel chested of the three jaegers. At all ages, note broad wings. Breeding adults are unique with elongated spoon-shaped central tail feathers. Bill is also thicker than other jaegers.

Special Features of the Body: The plumage is particularly dense to limit heat loss, and the heavily armored legs and feet are thought to serve a similar purpose.

Special Features of the Head and Sensory Organs: Their bills are highly adapted tools for finding food. Some species will probe for invertebrates in mud or water, poking their bills up and down in rapid succession like a sewing machine until they feel something to eat. Others have bills perfectly adapted to swishing through the water to filter food from the water column.

Dentition: BEAK/LAMELLAE/GIZZARD

Special Features of the Limbs and Digits: Strong bills and claws aid the predatory lifestyle, as to short wings and powerful musculature for piracy.

<u>Any Special Internal Anatomy</u>: Not only used for finding food, bills are used for preening as well. A special oil gland located at the base of their tails helps to keep their feathers dry. The birds spread the oil from this gland with their bills or the backs of their heads when preening themselves. The oil repels water from the feathers, keeping them warm and dry.

<u>Sexual Dimorphisms</u>: There is great variation in size as a result of individual variation and sexual dimorphism (females average about 10–15% larger in mass). Otherwise sexes do not differ in appearance. MALES - 650g and FEMALES 750g <u>Differences Between Juvenile Stage and Adult</u>: Young are heavily barred with brown or whitish, especially on uppertail- and undertail-coverts and underwing coverts. Pale bars on the upperparts often have a cinnamon (orangish brown) hue.

# Behavior:

#### <u>Diurnal, Nocturnal, or Crepuscular</u>: DIURNAL

Activity: Although all jaegers are fast, agile fliers, the Pomarine Jaeger is less adept than the smaller Parasitic and Long-tailed. When attacking seabirds to steal their food, Pomarine Jaegers tend to use more brute-force approaches than the acrobatic pursuits of the two smaller species. They can be fairly social at sea, gathering in groups of up to 15 and sometimes sitting on the surface with other seabird species. On breeding territories, Pomarine Jaegers threaten intruders by calling and flying toward them with slow wingbeats, or sometimes stand on the ground and raise their wings, displaying the white flashes in the primaries (outer wings). They also use this wing-raising display when courting mates. Pomarine Jaegers form pair bonds during the breeding season, and both sexes help raise the young.

<u>Locomotion</u>: Larger in size than smaller jaegers and consequently less agile in flight. Parasitic Jaeger can easily outmaneuver Pomarine Jaeger in flight and drive the larger species away. Nevertheless, like other jaegers, Pomarine is capable of astonishing maneuvers; can execute a backward somersault in order to pounce on feeding shearwaters. Observers disagree on whether or not Pomarine Jaeger can dive from flight or the surface and swim under water. Swims on surface.

<u>Communication and Perception</u>: The most common call is a series of up to 15 simple, gull-like notes given over about 5 seconds. Pomarine Jaegers also give a couple of varieties of alarm calls and, when feeding at sea, a sharp, 2-noted which-yew.

<u>Home Range</u>: Establishment of territories occurs quickly when conditions are right. In years with dense lemmings, birds leave roosting flocks, become localized on the tundra, and begin to defend territories as soon as snow cover and inclement weather permit. Defends large all-purpose territories from which all conspecifics are excluded. Nests usually located near center of defended area. Breeders normally confine foraging to their territories.

<u>Degree of Sociality</u>: No indications of loose coloniality, unlike some populations of Parasitic Jaeger. During nonbreeding season, often in groups.

<u>Level of Aggression</u>: Intruders into a territory usually evoke Long Call in Oblique Posture with Wing-raising Display by the resident bird. In Oblique Posture, foreparts are raised to a variable degree, breast feathers fluffed, and bill pointed toward the intruder. Wing-raising Display varies from barely lifting the wings to extending them fully almost straight upward; often the wings are raised above horizontal and partly extended so the tips point backward. The neck is either bent forward so the bill points downward or pulled backward so the bill points upward. Upright Posture with bill held below horizontal alternates with Long Call in Oblique Posture. Birds often quickly take flight to pursue intruders.

<u>Migration</u>: Most migration is offshore. Migrates later in fall than other jaegers, especially young birds, with juveniles rarely seen south of the Arctic before October. Some apparently migrate to far southern oceans, but others remain off North American coasts in winter. Very rare inland, but such strays may appear in summer as well as during migration seasons.

# **Predators**:

<u>Predators</u>: Arctic Fox, Glaucous Gull, **Snowy Owl**, and other Arctic Predators. No predators reported for ADULTS. <u>Anti-Predator Defenses</u>: Other species of jaegers, which are potential predators on eggs and young, often evoke responses like those directed at intruding conspecifics, including Long Call with Oblique Posture and Wing-raising Display. Other potential predators usually evoke direct chases and attacks. Snowy Owls and Short-eared Owls evade these attacks by fleeing from the territory or ascending 50–80 m in the air.

# **Diet and Nutrition**:

<u>Adult Diet</u>: During breeding, Pomarine Jaegers specialize on eating brown lemmings, with smaller numbers of other rodents like tundra voles and collared lemmings. Lemming populations cycle over a multiyear period and their population levels can have a strong effect on Pomarine Jaeger breeding. After snowmelt, the birds scan for their prey from small rises in the tundra and fly or run after it. They catch shorebirds, ducks, and ptarmigan infrequently during summer, but the constant threat of predation seems to lower shorebird nest success when jaegers are around. During the nonbreeding season the diet is much more varied, including lemmings, birds, eggs, carrion, insects, fish, squid, and crabs. At sea, they harry kittiwakes, shearwaters, petrels, puffins, terns, boobies, gulls, and other seabirds to steal their catches.

*Juvenile Diet*: NONE (^)

<u>Special Adaptations for Getting Prey</u>: Hunting methods change as vulnerability of lemmings changes during summer. Following snow melt, lemmings have little cover because the ground remains frozen and vegetation is minimal. At this time, a Pomarine often uses any small rise to scan for prey, which it can spot at distances of >150 m; then flies in pursuit, sometimes chasing the lemming on the ground, and strikes and grabs it with its bill; often returns to its perch to tear the lemming to pieces.

# Reproduction:

**Mode of Reproduction**: Monogamous.

<u>Mating System</u>: Socially monogamous. No information on extra-pair copulations. No indications that morphs mate

nonrandomly.

Mating Season: April to June

<u>Courtship</u>: Establish territories and then attract mates. A single territorial bird responds to an approaching potential mate with Wing-raising Display, much like the response to other intruders. As a prospective mate comes closer, the resident responds by raising its head to a position behind vertical (with bill either raised or lowered), erecting its breast feathers, raising its tail slightly and then elevating the two central rectrices above the rest. Long Calls accompany this display. Occasionally two birds perform this display facing each other or alternately. Similar displays occur throughout Jun between established pairs. Preceding copulation, the male sometimes performs elements of this display, including raising the central rectrices. <u>Territoriality</u>: HOME RANGE and if a bird approaches its boundary in flight, the neighbor usually retaliates by approaching and calling. Except when territories are packed at maximal densities, a boundary zone 30–60 m wide separates territories, in

Mating: NONE

<u>Nesting</u>: Nests on the ground, typically on a slight rise or hummock in the tundra. Both sexes help trample down a slight depression in the tundra vegetation, sometimes pulling in some nearby vegetation to make a lining.

which neither neighbor has an advantage. After a chase near a boundary, a bird often banks steeply to return to its territory.

*Egg-Laying*: Clutch Size: 1-2 eggs Number of Broods: 1 brood Egg Length: 2.2-2.9 in (5.7-7.3 cm) Egg Width: 1.6-1.9 in (4-4.8 cm) Incubation Period: 25-27 days Nestling Period: 2-4 days Egg Description: Brown to dark olive-buff, spotted with brown and gray.

<u>Hatching and Incubation/Gestation</u>: Downy and able to leave the nest in a couple of days.

<u>Development</u>: Down well developed. PRECOCIAL. Young able to leave the nest after 2 d; usually do so by 4 d. After a week can move fast and swim well; many are no longer near the nest. First fly at 31–32 d; fly well by 35–40 d.

<u>Parental Care</u>: Both parents feed young by tearing pieces from lemmings and presenting them to chicks. Male and female apparently must work together to tear prey into pieces suitable for young chicks; young failed to eat whole lemmings delivered by a single male after losing its mate.

*Lifespan*: Around 8-9 years.

# **Conservation**:

<u>Official Federal Status</u>: Least Concern <u>Special Statuses in Individual States</u>: NONE

<u>Threats</u>: Pomarine Jaegers breed in the high Arctic and depend on lemming populations for breeding success—two features that make their numbers difficult to track. Partners in Flight estimates the global breeding population at 1.1 million. They score a 10 out of 20 on the Continental Concern Score, which means they are not on the Partners in Flight Watch List and are a species of low conservation concern.

Conservation Efforts: ^^^^

# **Extra Facts**:

- 1. Snowy Owls and Pomarine Jaegers vie for breeding territories with high numbers of lemmings. In these cases, the jaegers usually have the upper hand over the big white owls. Pomarine Jaegers can occasionally kill an intruding Snowy Owl, but the owls apparently do not attack jaegers.
- 2. Successful reproduction occurs only in one of every three or four years in a typical lemming cycle, and only in areas where lemming populations reach high concentrations.
- 3. A group of skuas are collectively known as a "shishkab" of skuas.
- 4. The Pomarine jaeger was first described in 1815 by Coenraad Jacob Temminck, Dutch aristocrat and zoologist. It will fly at the head of a human or other intruder approaching its nest.

**Notable Species**: NONE