

A brief guide to the Flamingos *Phoenicopteridae*

There are six forms in this ancient family which shares characteristics with both the wildfowl (Anseriformes) and (Ciconiiformes) as well as having features of its own. Typically associated with warm shallow brackish or saline lakes, they feed by filtering out small animals or plants by means of a highly specialized bill. Breeding, which is probably delayed until the fifth year, takes place in dense colonies, a single egg being laid on a mud nest. Both sexes incubate. Males tend to be larger than females, but the sexes are almost indistinguishable, even by cloacal examination. Wing lengths (mm.) are given. The plumage is white, suffused to varying degrees with the pink pigment canthaxanthin, derived from the food. The most striking differences between forms are in bill and leg colour.

Greater or African Flamingo Phoenicopterus ruber roseus

Bill, pink with black tip; eyes, strawcoloured; legs, grey-pink, joints and feet darker pink; wings, crimson and black, of 360-445, \$\times\$ 355-425. Found, southwestern Europe, southern Asia east to India, much of Africa. Habitat, shallow lagoons, especially temporary salt or soda pans. Diet, chironomid and other insect larvae, shrimps, molluscs.

Rosy, Caribbean, Cuban or West Indian Flamingo P. ruber ruber

Bill, orange-pink, tipped black with white base; eyes, straw-coloured; legs and webs, grey-pink, joints and toes, darker pink; wings, crimson and black, & 401-425, \$\varphi\$ 370-408; body, bright pink. Found Bahamas, Cuba, Yacatan, Bonaire and, less commonly, on other Caribbean islands; isolated colony on Galapagos; introduced in Florida. Habitat, stable salt lakes on coast. Diet, larvae and pupae of brine fly Ephydra, shrimps, molluscs.

Chilean Flamingo P. ruber chilensis

Bill, very pale pink, tipped black; eyes, pale yellow or slightly pink; legs, upper yellowish-grey, lower grey, joints and webs bright pink, toes grey; wings, carmine, vermillion and black, 3 406-445, ♀ 385-410. Found southern Chile and Peru, Bolivia and northern Argentina, less common Brazil and Uruguay. Habitat, salt waters from sea level to 16,500 feet. Diet, molluscs, crustaceans, algae.

Andean Flamingo Phoenicoparrus andi-

Bill, black with basal half ivory-coloured, some birds have pinky-orange flush on ivory of upper mandible; eyes, dark red-brown with a spot of bare red skin in front; legs and feet, yellow, no hind toe; wings, bright pink with conspicuous black tips, ♂ 430-457, ♀ 413-422; breast purple. Found SW. Peru, plateau of W. Bolivia, rare in Chile and NW. Argentina. Habitat, salt lakes between 14,000 and 16,500 feet, breeding sites possibly associated with hot springs. Diet, diatoms and algae.

James' Flamingo Phoenicoparrus jamesi

Bill, yellow with black tip; eye, dark red-brown with extensive area bare red skin in front; legs and feet red, no hind toe; wings, red-pink tipped black, long red scapulars and wing-coverts, 3 416-425, ♀ 374-415; purple spots on breast and shoulders. Found mainly Laguna Colorada, Bolivia. Habitat, mountain salt lakes, associated with Andean Flamingo.

Lesser Flamingo Phoenicopterus minor

Bill, dark purplish-grey with dark red band above black tip; eyes, orange red; legs, grey-pink, joints and feet slightly darker; wings, pink blotched with crimson and crimson-lake, and black-tipped, ♂ 321-354, ♀ 310-325. Found eastern and, less commonly, southern Africa, Cameroons, Madagascar and north-west India and Pakistan. Habitat, usually permanent salt lakes, often in association with Greater Flamingo. Diet, mainly unicellular algae but also small invertebrates.

Selected References

ALLEN, R. P. 1956. The Flamingos. New York: National Audubon Society BROWN, L. H. 1959. The Mystery of the Flamingos. London: Country Life.

GALLET, E. 1950. The Flamingos of the Carmargue. Oxford: Blackwell. JOHNSON, A. W., F. BEHN and W. R. MILLIE. 1958. The South American Flamingos. Condor 60 : 289-99.

ROOTH, J. 1965. The Flamingos on Bonaire. R.I.V.O.N. Verhandeling No. 1. SIBLEY, C. H., W. C. KENDALL and J. H. HAAVIE. 1969. The relationships of the Flamingos as

indicated by the egg-white proteins and hemoglobins. Condor 71: 155-79. STUDER-THIERSCH, A. von. 1967. Beiträge zur Brutbiologie der Flamingos (Gattung Phoenicopterus). Der Zoologische Garten 34: 159-229.

JANET KEAR