



Flamingo is a type of bird that belongs to the family Ciconiiformes. The family Ciconiiformes includes birds with long necks and legs such as storks and herons. Flamingos have several similar traits with some of the members in the family Ciconiiformes. For example, flamingo has a pelvis and ribs like that of the storks. The egg white composition of the flamingos is similar with herons. The behaviors of the Flamingos' babies are similar with the geese. Like geese, flamingoes have webbed toes which are joined by the skin. There are five species of flamingo including *P. ruber*, *P. chilensis* (Chilean flamingo), *P. minor* (Lesser flamingo), *P. jamesi* (James flamingo) and *P. andinus* (Andean flamingo). There are two subspecies of *Phoenicoterus ruber* including *P. r. ruber* (Caribbean flamingo) and *P. r. roseus* (Greater flamingo). Fossil discoveries have shown that flamingo had existed about 30 million years ago. In 1976, researchers found out that the flamingoes are derived from a ancient shorebirds.

Habitat and Distribution

Flamingos are widely distributed in tropical regions. Chilean flamingo lives in the central region in Peru including Argentina, Uruguay, and Paraguay. Flamingos that were left behind by the group can be found on Falkland Islands. Lesser flamingos are originated from Africa. They can be found in the eastern, southwestern, and western regions of Africa, India and Spain. The James flamingo is rarely seen and can be found in Peru. However, the James flamingos also occupy other regions in the South America such as Chile, and Bolivia. Andean flamingos are distributed to Peru, and Argentina. Caribbean flamingos are restricted to the certain regions in the South America such as Yucatan, Bahamas and Galapagos Islands. The greater flamingos have the largest population compare with other species. Greater flamingo can normally be seen in India, Middle East and Africa. There are also a small numbers of flamingos that live in Europe.

Flamingo likes to live in lakes with salty or alkaline waters such as mangrove swamps, and sandy islands. They are also often spotted near the sea. Chilean flamingos are seldom found in lakes that has fishes. Chilean flamingos don't feed on fish but on invertebrates. The introduction of fish in the lake may disturb the habitat of the flamingos including Chilean, Greater and Caribbean flamingos.

Flamingos don't migrate to a warmer climate like other birds. Despite that, the changes in climate and water level cause the flamingo to move to different locations. For example, flamingos that live in high altitude lakes must relocate to a warmer region when winter is approaching. If the water level increases, the flamingos will fly in group and search for another sites with a more suitable living condition. During the dry season, the flamingoes will move to another location. During the breeding season, flamingos that migrate will return to the original breeding place. During the day, the flamingos will fly at a high altitude to prevent being captured by the eagles. Most flamingos will begin the migration during September. However, some flamingos who are tired or unable to travel will be left behind and spend the winter in that place.

Physical Characteristics

Each species of flamingo has different height and weight. The Greater flamingo has a height of 110 - 130 cm and a weight of up to 3.5 kg. The lesser flamingo can reach up to the height of 80 cm and weight of 2.5 kg. Male flamingos are taller and heavier than the female flamingos. Male flamingos will grow into the adult size after 1.5 - 2 years. The lesser flamingos' wingspan can measure 95 - 100cm while the greater flamingos' wingspan can measure 140 - 165 cm. The wingspan of the Caribbean flaming can reach up to 150cm.

The color of the plumage of flamingo varies from species to species. Caribbean flamingos' plumage has the brightest color of all other species. The plumage color of Caribbean flamingo is crimson or vermilion. Chilean flamingo has a pale pink plumage color.

The coloration of the feathers comes from the carotenoid pigment which is present in the diet of the flamingos. The feather colors of the male and female flamingos are similar. Newborn chicks have a gray or white plumage. After a few months, the chick will grow up into a juvenile bird with grayish

feather. The juvenile bird will take approximately 1 - 2 years to turn into full adult coloration. Parents who are nursing the chicks may lose the natural color of their plumage. The coloration of the flamingos' feet ranges from yellow to pink red. The only flamingo species with yellow feet is the Andean flamingo.

The eyes of the flamingos are located on each side of the head. Baby flamingos have gray eyes. Flamingos that have grown into adult have yellow eyes. The coloration of the flamingos' bill can range from many colors including black, pink, or cream. The coloration of the bill differs from various flamingo species. On average, flamingos have twelve to sixteen tail feathers. Flamingos molt at irregular intervals. The molting of the flamingos is concerned with the breeding cycle. Feathers that are molted away will lose their original color.

Senses

Flamingos have a good hearing capability. The vocalizations play an important role in gathering the flocks. Each parent uses a unique vocalization to call their chick. The unique vocalization is only recognized by the chicks.

The good eyesight helps the flamingos to synchronize the collective displays of the birds. Some researchers claim that flamingos cannot see well in the dark. Despite that, flamingos have better eyesight than human. Flamingos use color perception to view things. They can recognize the faces of the zoo keepers who look after time.

The flamingo's tongue has a tactile organ which is used to examine the food. Flamingos have poor taste and smell senses.

Adaptations for Their Environment

Flamingos have long and webbed feet which help them to wade in the deep part of the lake. If the water is too deep, the flamingo will swim at the surface to find food. The webbed feet allow the flamingo to have the ability to swim. Flamingos cannot dive into water. They are often seen feeding in groups in the lake.

Flamingos use their lungs to take in the oxygen. While feeding underneath the water, they will hold their breath temporarily to prevent the water from entering into the lungs.

When the flamingo is weary, she will sit down with the feet tucked in. While sitting down on the ground, the flamingo will face towards the wind. By doing this, the wind and rain cannot penetrate their plumage.

For thermoregulation purpose, flamingo will frequently stand on one leg so that the heat can be conserved in the body. The flamingo is often observed standing one foot in both warm and cold climate.

Before they can take flight, they will run a few steps. As they run, they slowly increase the speed. Finally, they will flap their wings and fly up to the sky. When the flamingo land on the ground, he will have to touch the ground and runs a few steps. When flamingo fly, the neck is stretched forward and the legs are trailing behind. The speed of the flamingo's flight can range from 50 - 60 kph. Flamingo can travel approximately 500 - 600 km per night.

Most of the lake habitat of the flamingos has salty water. Flamingos obtain their drinking water from the nearby geysers. They are capable of drinking boiling water without hurting themselves.

Behavior

Flamingo likes to socialize with other birds of their own species. They are often seen in groups of ten thousands. In the zoo, the flamingos are seen in a smaller group of 2 - 340 birds due to captivity condition. Flamingo performs several behavior displays to socialize with each other including head-flag, wing-salute, and twist-preen. When performing the head-flag, the flamingo will stretch the neck and head up. Wing salute involves stretching the wings into a wide span and showing off the striking colors.

Flamingos that are breeding will feed once during the day or night. Birds that are not breeding will search for food during the night. During the day, the flamingos will perform recreation activities such as taking a bath in the lake. Unlike other birds, flamingos spend a small part of their time cleaning their bill. While cleaning the bill, the oil gland near the tail will emit oil which will be distributed throughout all the feathers.

Diet and Eating Habits

Flamingos rely on a few food sources for survival. Some of the common food in the flamingos' diet includes red algae, small fishes, crustaceans and etc. The pinkish color in the flamingo skin is derived from the alpha and beta carotenoid pigments in the food. The food source with the highest concentration of carotenoids is algae, and insects. The flamingo's bill is purposely formed to filter the food. The flamingo's bill shape varies from various species. For example, Lesser, James and Andean flamingo are equipped with deep keeled bills. Flamingos with deep keeled bills are primarily feed on blue-green algae, red algae and diatoms. The shallow-keeled bills of the Great, Caribbean and Chilean flamingos are designed specifically for catching and eating larvae, crustaceans and small fishes.

When feeding, the flamingos will lower their head so that they are facing the water and the bills hang upside down. The flamingos will then turn their heads from side to side to collect food. After they have collected the food in the bill, the fringed lamellae on the tongue will filter the food from the mud.

Reproduction

Baby flamingos will become sexually matured after 6 years. Flamingo can breed at anytime of the year. They can breed up to two times per year. The nest building will depends on the quantity of rainfall and the food availability. Lesser flamingos will only mate after the algae had bloomed.

Hatching and Care of Young

Unlike other birds, the flamingo only lay one egg. They egg measures 78 by 48mm. It has a weight of 115g. Like the chicken egg, the flamingo's eggs have oblong shape. The egg is white in color. However, it turns blue immediately after the mother laid it. Though it is normal for flamingos to lay two eggs, it is rarely that both eggs will hatch. If one of the eggs cannot be hatched, the mother will continue to hatch the other eggs.

As soon as the egg is laid, the mother and father flamingo will take turns sitting on the nest mound. The incubation period will last for twenty six to thirty one days. During the incubation process, the parent bird will use its bill to lift and turn the egg.

There is no standard hatching season. The chicks can be hatch at anytime. When it is time for the egg to hatch, the chick will take 24 - 36 hours to break the shell and crawl out. As the chick crawl out of the shell, she will make tiny vocalizations to the mother. The chick break the shell of the egg by using a growth on the beak called egg tooth. When the egg is hatching, the parent will stand on one stand and appear worried. When the egg shell becomes brittle, the parent will sit on it so that it will eventually be broken. New chicks have grey downs and swollen legs. The swelling on the leg will be reduced after 2 days. The red color on the bill and legs will become black after a week had passed.

Vocalizations

Flamingo uses a wide range of vocalizations including honking, grunting and growling. The vocalizations help to keep the flock together. The specific vocalization calls is associated with certain behavior. Each vocalization denotes a different meaning to the flamingo.

Longetivity and Causes of Death

Scientists have not yet discovered the lifespan of the flamingos. In a zoo at Philadelphia, one flamingo managed to live for forty four years old. Flamingo has several predators. Most of the predators are other bird species such as lappet-faced vultures, white headed vultures, marabou stock, eagle and black kite.

Conservation

The James Flamingos nearly extinct in 1924. Later, scientists found new colonies living with the Chilean flamingo. Some flamingo species are labeled as threatened animal. However, the U.S. Endangered Species Act did not listed any of the flamingo species are as an endangered animal. The IUCN/World Conservation Union has listed both Andean and James flamingo.

-- We Love Flamingos, 10 April 2010