

Species Fact Sheets

Order: Struthioniformes
Scientific Name: *Struthio camelus*

Family: Struthionidae
Common Name: Ostrich

AZA Management: Green Yellow Red None

Photo (Male): [color of neck varies between subspecies]



Photo (Female):



NATURAL HISTORY:

Geographic Range: Europe Asia North America Neotropical
 Africa Australia Other [Click here to enter text.](#)

Habitat: Forest Desert Grassland Coastal
 Riverine Montane Other [Click here to enter text.](#)

Circadian Cycle: Diurnal Crepuscular Nocturnal Other [Click here to enter text.](#)

Cold Tolerance: To 70° F To 60° F To 50° F To 40° F
 To 30° F To 20° F Other

Supplemental shelter with heat and dry substrate should be provided when ambient temperatures fall below 40° F for sustained periods. Additionally, during inclement weather and/or precipitation ostrich should have available access to shelter below 35° F as research has suggested moisture can cause a significant decrease in the insulative properties of ostrich feathers, and can cause profound hypothermia, especially in conjunction with wind.

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Heat Tolerance: To 30° F To 50° F To 70° F To 90° F
 To 110° F Other During warm periods with sustained temperatures above 90° ostrich should have available access to shade

Diet: Frugivore Carnivore Piscivore Insectivore
 Nectivore Omnivore Folivore Other (Add Below)

Captive Dietary Needs:

Ostriches should be maintained on commercial ratite diet supplemented appropriately with enrichment items such as apple, greens, alfalfa.

Life Expectancy in the Wild: Males: 30-40 (up to 50) Years Females: 30-40 (up to 50) Years

Life Expectancy in Captivity: Males: 30-40 (up to 50) Years Females: 30-40 (up to 50) Years

BREEDING INFORMATION:

Age at Sexual Maturity: Males: 2-4 Years Old Females: 2-4 Years Old

Courtship Displays: The male extends his wings, beating them alternatively side to side in order to attract a female. Once a female has approached, he will flap his wings more urgently and poke at the ground with his beak. Females will signal their receptivity by lowering their necks and wings, before sitting down and allowing the male to copulate.

Nest Site Description: The nest consists of a scrape on the ground, up to 3 meters across. Several females [a major hen and 1-2 minor hens] will lay their fertilized eggs in one nest. During the day, the female sits on the eggs, camouflaging them, while at night the male sits on the nest. Females will incubate as many eggs as they can cover with their body – if there are too many eggs to cover, she will roll some away, starting with those that are not her own.

Clutch Size, Egg Description: Ostriches lay the largest eggs of any living bird species (although they are the smallest in proportion to the size of the bird that lays them). Eggs measure 15 by 13cm, and weight an average of 1.4kg. The thick shell is cream-colored and covered with small pores. Up to 60 eggs may be laid in a nest by multiple females, though 20 is a more usual number.

Incubation Period: 35-45 Days

Fledgling Period: 3 Days

Parental Care: Unlike other ratites, both sexes care for the chicks. Adults protect the chicks from hyenas, jackals, and other predators. Chicks from different nests may congregate to form larger crèches.

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Chick Development: Ostrich chicks are precocial and leave the nest at about 3 days of age. Chicks are buff-colored with black lines and spots; males begin to acquire their adult plumage by the time they are two years old. During the first year of life, chicks grow 25cm per month. Chicks reach 45kg by the age of 1 year, and are fully grown at 18 months. In the wild, approximately 15% of chicks survive their first year of life. At sexual maturity, males are 1.8-2.8m tall, females 1.7-2m tall.

CAPTIVE HABITAT INFORMATION:

Social Structure in the Wild: Usually solitary or paired, occasionally found in larger groups. During the breeding season, males acquire harems of 2-7 females.

Social Structure in Captivity: Solitary, Pairs, or Single-Male/Multiple-Female Flocks

Minimum Group Size: [Click here to enter text.](#)

Maximum Group Size: Single Male/Multiple-Female Flocks

Compatible in Mixed Species Exhibits:

Yes

Comments:

Ostriches are often maintained in mixed-species exhibits with other African herbivores. Examples of successful combinations include antelope, zebra, giraffe, African elephant, suids, bovids, white rhinoceros, cranes, storks, Anseriformes, Galliformes, large tortoises. They have also successfully been housed with various deer, camelids, rhea, emu, and domestic stock, both in traditional zoos and in safari parks. They can be extremely territorial and aggressive and not all species are appropriate to house with ostrich [zebra and giraffe can be particularly problematic].

Optimal Habitat Size: In breeding situations a minimum enclosure size of 600 m² for pairs is necessary. Caution should be taken to provide ample space for breeding situations or with multiple females (2,000 m² minimum) to avoid inter-female aggression.

Management Challenges: Adult males can be very aggressive, and holding pens for shifting males into during cleaning may be necessary to ensure keeper safety. Due to their large size, hands on body scoring can be challenging and dangerous. Birds should be scale trained so that weights can be monitored. Birds are prone to feather plucking, the origin of which is not always known. Female ostrich occasionally develop black plumage and phenotypically appear male; this has been observed in various situations including groups with no male presence. It is not an uncommon occurrence with many bird species.

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ADDITIONAL COMMENTS:

Ostriches are the largest and heaviest of all living birds. A male may stand 2.1-2.75m tall and weigh 100-155kg, while the smaller females are 1.75-1.9m tall and weigh 90-110kg. They have a long, bare neck, long unfeathered legs, and a small head; the eyes are the largest of any land animal, measuring 5cm in diameter. The wingspan is 2m, although the birds are flightless (they lack the keel for wing muscle attachments, and the sternum is flat). The plumage of the male is black with a white tail and white primary feathers, whereas females are a grayish-brown. They have many anatomical characteristics which make them unique from other birds. They are the only bird to have two toes on each foot – the inner toe is very thick and strong, with a large claw up to 10cm long. Also unlike all other birds, ostriches secrete their urine and feces separately. Males possess a retractable copulatory organ 20cm long.

There are four living subspecies: the North African (*S. c. camelus*), Somali (*S. c. molybdophanes*), Maasai (*S. c. massaicus*), and Zambezi River (*S. c. australis*). A fifth subspecies, the Asiatic or Middle-Eastern ostrich (*S. c. syriacus*) is now presumed extinct. The ostrich is the only species in the genus *Struthio*. Some authorities list the Somali ostrich as a full species, *S. molybdophane*.

Contrary to popular belief, ostriches do not stick their heads in the sand to “hide” from predators. This myth probably originated from the tendency of ostriches to lie flat with their head on the ground in order to look inconspicuous. The main defense of an ostrich against predators, however, is speed – at 50km/hr, they are the world’s fastest two-legged animal. They are also capable of defending themselves with lethal kicks. Lions are the most common predator of ostriches. Nests – especially unguarded ones – may be raided by many small predators. The thick shell of an ostrich egg offers some protection, but some nest predators, such as mongooses and Egyptian vultures, are known to use tools to break open the eggs.

Historically, ostriches have been utilized by humans for many purposes, including their skin (for leather), their plumage (which is very soft and was in high demand for hats in the 19th century), and their meat. In Roman times, they were also used in gladiatorial games. Some African cultures in the Kalahari still use the eggs of ostriches as water containers. Today ostriches are farmed throughout the world, and have been introduced to southern Australia. In some countries (including parts of the United States), ostriches are ridden by jockeys in races, complete with saddles, reins, and bits.

Although listed as “Least Concern” by the IUCN, wild ostrich populations have declined in recent years, and most populations are confined to protected areas or farms. The North African subspecies is considered especially endangered, mostly due to habitat loss caused by overgrazing. The AZA Ratite TAG works closely with Sahara Conservation Fund on the conservation of the North African ostrich
<http://www.saharaconservation.org/?Ostrich-Conservation-Niger>

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