

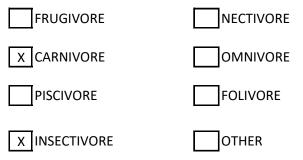
Grreen Woodhoopoe

TEMPERATURE TOLERANCE

業

From <u>30° F</u>to <u>110° F</u>

🍎 DIET



Their natural diet consists of arthropods, insects, and occasionally lizards and vertebrates probed out of crevices and fissures in bark, wood and grasses. They have also been shown to drink nectar of Erythrina flowers and eat small fruits. Diet for the young can include: caterpillars, grubs, insect egg masses, beetles, termites, ants, and moths. For adults, prey is either swallowed directly or first beaten against a branch to break the prey item into manageable pieces.

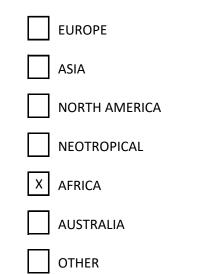
Green woodhoopoes are primarily carnivorous and insectivorous and their captive diet should reflect this. A variety of insects should be provided such as waxworms, adult crickets and mealworms/super worms of various sizes. Their diet should also include small pieces of bird-of-prey meat (i.e. Nebraska, Toronto, etc.), soaked dog food and/or soft bill pellets, and can include a very small amount of chopped greens and fruit if desired. A sprinkle of vitamin supplement such as vionate, calcium (especially important during nesting season), or Nekton 1 should also be provided.

Median Life Expectancy		Maximum Longevity	1
Within AZA In the Wild	9.7 years X	X 8 years	Q
Within AZA	9.4 years	Х	\cap

Phoeniculus purpureus

FAMILY: Phoeniculidae ORDER: Bucerotiformes AZA MANAGEMENT: Provisional

Q GEOGRAPHIC RANGE



A HABITAT

		0
FOREST	Green woodhoopoes dwell in	5
DESERT	savannah, open woodland, palm groves, acacia	C
GRASSLAND	thornvelds and wooded	
COASTAL	garden areas. They are absent from arid zones and	
RIVERINE	forest.	
MONTANE		
OTHER		
CIRCADIAN C	YCLE	,
X DIURNAL		,
CREPUSCULAR		,

NOCTURNAL	In the Wild	х	8 years	¥
OTHER				

BREEDING INFORMATION

AGE AT SEXUAL MATURITY

Males: viable at 1 year but not routinely successful until age 2-3 years

Females: viable at 1 year but not routinely successful until age 2-3 years

Incubation period: Breeding usually occurs during the rainy season (July-October depending on geographical area). Incubation by the female starts with the complete clutch and lasts for 17-18 days.

Fledgling Period: Fledging occurs at 28-30 days. The young are protected and fed by all members of the flock for several weeks after fledging. A few months later the fledglings will, in turn, contribute food to the next group of hatchlings. They will remain with the parents for 1-5 years as non-breeding helpers.

CLUTCH SIZE, & EGG DESCRIPTION

Ō

The average clutch size is 3-5 blue-green eggs about 25x18mm. Pairs can produce two clutches per year in a bountiful season in the wild and routinely clutch multiple times in captive environments.

COURTSHIP DISPLAYS

In any given territory there is generally one monogamous breeding pair, usually the oldest birds. Prior to breeding, the pair leaves the group to forage and allopreen quietly on their own with the male frequently offering food to the female. During this time, the non-breeding members of the flock are scouting for nesting sites while foraging. Nest sites chosen are usually closest to the most concentrated food source in the territory. The unlined nest of choice usually consists of a natural live tree cavity or an old nest hole from a woodpecker or barbet.

NEST SITE DESCRIPTION

Green Woodhoopoes have successfully bred in both freeflight aviaries and small well-planted enclosures (smallest averaging 4'x10'x10') when isolated into pairs. When provided a variety of nest boxes and palm logs in larger aviaries, they will generally inspect each one to find one of their liking. Boxes should average about 12-18" deep with a 2-3" diameter hole and can be between 8" and 12" square. There are obviously exceptions with some pairs choosing boxes that weren't originally meant for them. The birds nest in unlined cavities in the wild but they will usually excavate shavings if placed in the box. There should be a bed of nesting material in the box at all times to prevent chicks from splaying.

🥏 CHICK DEVELOPMENT

Woodhoopoe chicks hatch asynchronously, although it's typical for the adults to not begin incubation until the second or third egg of the clutch is laid. This results in the first hatchings to be similar with the final 2-3 eggs hatching the following days. The chicks develop slowly over the course of the 26-28 day nesting period and typically all fledge within 24 hours of each other. The chicks will routinely return to the nest box for an extended time after they have fledged.

M PARENTAL CARE

These birds use a cooperative breeding system in which the primary breeding pair will have help feeding their young from typically 1-10 non-breeding birds, including

their offspring from previous clutches. The male and helper birds will forage for food and bring it to the female who relays it to the altricial chicks. Just prior to fledging, all the members of the flock call extensively to the young and preen them. This appears to prepare them for integration into the group. Breeding pairs can frequently have multiple clutches per season. The adult pair and the eldest clutch of fledged chicks can generally be maintained together, but it is advisable to remove these older chicks when the subsequent clutch is ready to fledge. The breeding pair can be aggressive to and sometimes kill the older chicks. Same-sex pairings of adult green woodhoopoes have been successful in both large and small aviaries. Although it is typically possible to house the primary breeding pair with previous offspring during breeding season, there are instances of this not being successful. The possibility of the adult birds attacking the juveniles exists, as does the possibility of the juveniles predating the newly hatched chicks.

CAPTIVE HABITAT INFORMATION

SOCIAL STRUCTURE

In the wild: Green woodhoopoes are highly sociable, chattering birds usually seen in small flocks of 4-15 individuals typically from a family group. Groups are often seen following each other from tree to tree while foraging in cracks and crevices. During the dry season they also forage on the ground. The sex ratio is approximately 1:1 but as a rule only includes one breeding pair. These birds are highly territorial with each family-based flock usually defending the same large area throughout the year. Territorial defense is through group displays with birds often passing lichens or bark between themselves to increase group cohesion. Sexes generally roost separately. When vacancies in flock occur through predation, they are often filled by birds of the same sex from nearby territories. Members of flocks tend to be very closely related. Unrelated females break off to form new flocks when they reach sexual maturity.

MIXED SPECIES EXHIBITS

Compatible in mixed species exhibits?



X YES

Comments: Woodhoopoes have been successfully housed with many dozens of species without complication.

🏠 OPTIMAL HABITAT SIZE

For a single pairing the enclosure can be as small as 4' wide by 10' deep by 8' in height. However, this is not recommended for breeding birds or groups. For larger flock sizes the available space should increase significantly based on the number of birds comprising the flock.

A MANAGEMENT CHALLENGES

The biggest challenge presented by woodhoopoes without a doubt is their inquisitive nature in finding every gap and cavity in an enclosure. They are adept at Within AZA: Birds can be housed as a pair in a breeding or non-breeding situation, in a large mixed gender flock based on both family and unrelated groupings, or as a single-gender flock.

Minimum Group Size: 2

Maximum Group Size: Depends on the size of the enclosure, but up to 15 birds or more is reasonable in very large habitats.

finding the weak point of their habitats and numerous birds have found ways to escape. Roughly 8-10% of the historical captive population has escaped from zoological institutions (most of these were recovered), showing a need for care in choosing enclosures. Green woodhoopoes explore their environment in great detail due to their nature of being foragers as well as having a healthy supply of curiosity. They often inspect every inch of their enclosure from top to bottom and find weaknesses that exist. Their body design allows them to slip into tight spaces that either allows them escape, or equally as likely, entrapment. Birds that are not seen for several days are sometimes found dead, wedged into spaces that they were unable to escape from. They have also been known to chip away at old, rotten wood thus making their own escape route. Always inspect aviaries, introduction cages, and any other spaces they are housed in for even the smallest openings.

ADDITIONAL COMMENTS

Green Woodhoopoes are currently listed as least concern and are still fairly common across their native range. They have adapted to human intrusion into their habitat and have been able to make use of human structures for reproduction when natural sites are no longer available. Breeding success and life expectancy are affected by several factors including predation and competition. Driver ants have shown to be nocturnal predators of nestling woodhoopoes in nest holes. Predators to fledglings and adults include Gabar goshawks, Harrier hawks, Pearl-spotted owls, genets and mite infestations. There is often intense competition for proper nesting sites between woodhoopoes and other bird species, mammals, and honeybees. Green woodhoopoes annual numbers are further affected by parasitation by Greater Honeyguides in Nigeria. According to Urban et al., their overall mean annual survival is low.

\bigcirc REFERENCES

del Hoya, J., Elliot, A., & Sargatal, J. eds (2001): Handbook of the Birds of the World. Volume 6. Mousebirds to Hornbills. Lynx Edicions, Barcelona. 589pp.

Fry, C.H., Keith, S.N., ad Urban, E.K. (1998). The Birds of Africa - Volume III Parrott to Woodpeckers. Academic Press Limited, London. 359-362

Hawn, A.T., Radford, A.N. & du Plessis, M.A. (2007) Delayed breeding affects lifetime reproductive success differently in male and female green woodhoopoes. Current Biology 17: 844-849.

Radford, A.N. (2009) Selective prey delivery to incubating females in the cooperatively breeding green woodhoopoe. Ethology Online early.

Radford, A.N. (2008) Age-related changes in nestling diet of the cooperatively breeding green woodhoopoe. Ethology 114: 907-915.

Radford, A.N. & du Plessis, M.A. (2006) Dual function of allopreening in the cooperatively breeding green woodhoopoe, Phoeniculus purpureus. Behavioral Ecology and Sociobiology 61: 221-230.

Radford, A.N. (2005) Neighbour-stranger discrimination in the group-living green woodhoopoe. Animal Behaviour 70: 1227-1234.

Radford, A.N. & du Plessis, M.A. (2004) Territorial vocal rallying in the green woodhoopoe: factors affecting the contest length and outcome. Animal Behaviour 68: 803-810.

Radford, A.N. (2004) Voice breaking in males results in sexual dimorphism of green woodhoopoe calls. Behaviour 141: 555-569.

Radford, A.N. (2004) Vocal mediation of foraging competition in the cooperatively breeding green woodhoopoe, Phoeniculus purpureus. Behavorial Ecology and Sociobiology 56: 279-285.

Radford, A.N. (2004) Incubation feeding by helpers influences female nest attendance in the green woodhoopoe, Phoeniculus purpureus. Behavorial Ecology and Sociobiology 55: 583-588.

Radford, A.N. & du Plessis, M.A. (2004) Extreme sexual dimorphism in green woodhoopoe bill length: a case of sexual selection? Auk 121: 178-183.

Radford, A.N. & du Plessis, M.A. (2004)Green woodhoopoe territories remain stable despite group-size fluctuations. Journal of Avian Biology 35: 262-268.

Radford, A.N. (2004) Vocal coordination of group movement by green woodhoopoes (Phoeniculus purpureus). Ethology 110: 11-20. 109

Radford, A.N. & du Plessis, M.A. (2003) Bill dimorphism and foraging niche partitioning in the green woodhoopoe. Journal of Animal Ecology 72: 258-269.

Radford, A.N. (2000) Can woodhoopoes count? Numerical assessment during territorial rallying in the red-billed woodhoopoe.

Wright, J & Radford, A.N. (2004) Risk-sensitive woodhoopoes: a new explanation for sex-specific differences in preferred foraging techniques.

COMPLETED BY:

Name: Kevin Graham

Date: 6/21/24