

## *Nyctanassa violacea* (Yellow-crowned Night Heron)

Family: Ardeidae (Herons and Egrets)

Order: Ciconiiformes (Storks, Herons and Ibises)

Class: Aves (Birds)



**Fig. 1.** Yellow-crowned night heron, *Nyctanassa violacea*.

[<https://www.shoalcreekconservancy.org/the-pool-and-the-prey/>, downloaded 22 February 2017]

**TRAITS.** *Nyctanassa violacea*, commonly known as the yellow-crowned night heron, is a medium-sized heron (Fig. 1), about 55-70cm in length at maturity, with a wingspan of 110cm; males are slightly larger than females. Adults have a thick neck, slim when extended; short legs and a short, broad bill adapted for crushing the shells of crustaceans (Stabile, 2014). Colour: bluish-grey body and neck; feathers of mantle and back are bluish-grey with black centres, giving a scaled appearance; black head with white cheek patch and conspicuous yellow crown which extends into white streamers when breeding; black, glossy bill; red eyes and yellow legs which turn coral when courting (Watts, 1995). Juveniles have brown feathers with white streaks, orange or yellow eyes and dull, yellow-green legs.

**DISTRIBUTION.** Resident of coastal regions of Central America, the Galapagos Islands and the Caribbean (Fig. 2), where it is a native of Trinidad and Tobago. It is also found along the coastlines of South America (from Peru to Brazil) and inland areas of North America (Nellis, 2001).

**HABITAT AND ACTIVITY.** Due to their dependency on aquatic organisms as their main food source, they can be found both inland and in coastal areas. In coastal areas, their preferred microhabitats for foraging include tidal marshes, beaches, tide pools and rocky shorelines. Inland, these include swamps, mangroves, rivers, ponds and shallow creeks (Watts, 1995). Foraging takes place mainly during the evening, however when breeding, activity peaks at dawn and dusk. Activity is often influenced by the height of tides, and is at its highest within a 3-hour period of low tides, when crabs leave their burrows to socialise (Watts, 1988). When nesting, the chosen habitats are usually wooded areas or forested wetlands within 1.5km of the foraging sites. Nests are often placed in thickets, shrubs or on tree branches of varying heights, and are composed of nearby vegetation and stolen twigs from vacant nests (Nellis, 2001).

**FOOD AND FEEDING.** Known for their carnivorous diet consisting mainly of freshwater crayfish, and crustaceans such as fiddler crabs and blue crabs. However, this species is opportunistic and may also feed on amphibians, molluscs, aquatic insects and fish if available (IUCN Heron Specialist Group, 2011). Foraging is done by either standing still and waiting on prey to approach; or by visually searching for prey, and slowly stalking it before lunging with their bill. Impaling with their bill causes some species of crab to become paralysed and easier to handle (Watts, 1995). Prey selection is partially based on size, as larger prey require greater handling time and are more likely to be dropped. Small prey is swallowed whole, whereas larger prey such as crabs are grabbed at the legs or chelae (claws) and vigorously shaken until the body is detached (Fig. 3). The carapace is crushed using its firm bill and eaten first; the legs are eaten last (Riegner, 1982).

**POPULATION ECOLOGY.** Nesting is done in isolated pairs, conspecific colonies, or with black-crowned night herons in mixed-species colonies of 4-5 nests per colony (Beans and Niles, 2003). These arrangements offer shared predator surveillance as the response by one individual warns the entire colony (Afkhami and Strassmann, 2007). Nests are built less than 2m apart and are defended by both territorial adults and juveniles. Solitary herons maintain a distance of 5m between individuals and are also protective of their feeding site (Watts, 1995). During breeding, the population density varies according to the availability of nests and crustaceans. Fidelity to breeding areas or nests for subsequent years is observed, or abandonment due low resources and predation.

**REPRODUCTION.** They have a monogamous mating system. During courting, males perform a stretch display along with a 'whoop call' (Fig. 4). Mutual preening may also be observed. In general, these herons breed once a year, from March to July, with females producing a clutch size of 3-5 pale blue-green eggs (Fig. 5). Eggs are incubated by both parents for 21-27 days. If eggs or the entire brood is lost, re-nesting is common, however, the nest must first be refurbished if used again (Stabile, 2014; Nellis, 2001).

**BEHAVIOUR.** Juvenile behaviour: Hatchlings are incapable of leaving the nest and are dependent on their parents for food. They are fed regurgitated food, dropped at the centre of the nest, and receive parental care from both parents up to two weeks after hatching. Preening is observed in the third week of age (Nellis, 2001). Fledging occurs approximately 44 days after hatching, and they may go short distances from the nest, and return to roost and feed. Agonistic (conflict) behaviour is observed when older juveniles often trample or push younger ones out of the nest. As they become independent, they leave the breeding site and do not return until sexual maturity is reached at an age of two years (Beans and Niles, 2003; Watts, 1995).

Antipredator behaviour: When defending its nest, adults use a forward display along with an aggressive or warning 'squawk' call. The forward display involves moving towards the intruder, thrusting its head forward, and snapping its bill or vocalising (Stabile, 2014). It is also observed that pairs sleep facing opposite directions in the nest. This may be done to improve vigilance (Afkhami and Strassmann, 2007). Predators of adults and juveniles of this species include the red-tailed hawk and the great horned owl, and predators of eggs and hatchlings include raccoons and fish crows (Nellis, 2001).

Communication: They communicate using various vocalisations. For example, the 'yup yup' call given by both sexes as a greeting during courtship, and displays such as the 'forward display' and 'stretch display' are used for defence and courting rituals (Watts, 1995).

**APPLIED ECOLOGY.** This species is listed as Least Concern due to its large range and stable population size (IUCN 2017). Its main threats are predation and hunting, however, in Trinidad and Tobago this bird is protected under the Conversation of Wild Life Act.

## REFERENCES

- Afkhami, M. E. and Strassmann, J. E. (2007). Adult Yellow-crowned Night-Herons Face in Opposite Directions at the Nest. *The Journal of Ornithology*. **119**: 747-749.
- Beans, B. E. and Niles, L. (2003). *Endangered and Threatened Wildlife of New Jersey*. New Jersey: Rutgers University Press.
- IUCN. (2017). *Nyctanassa violacea*. The IUCN Red List of Threatened Species.  
<http://www.iucnredlist.org/details/22697203/0>.
- IUCN Heron Specialist Group. (2011). Yellow-crowned Night Heron (*Nyctanassa violacea*).  
<http://www.heronconservation.org/styled-5/styled-66/>.
- Nellis, D. W. (2001). Common Coastal Birds of Florida and the Caribbean. Sarasota, Florida: Pineapple Press, Inc.
- Riegner, M. F. (1982). Prey Handling in Yellow-crowned Night-Heron. *The Auk*. **99**: 380-381.
- Stabile, F. (2014). *Nyctanassa violacea* Yellow-crowned Night Heron. Animal Diversity Web.  
[http://animaldiversity.org/accounts/Nyctanassa\\_violacea/](http://animaldiversity.org/accounts/Nyctanassa_violacea/).
- Watts, B. D. (1988). Foraging Implications of Food Usage Patterns in Yellow-Crowned Night-Herons. *The Condor*. **90**: 860-865.
- Watts, B. D. (1995). Yellow-crowned Night-Heron, *Nyctanassa violacea*. *The Birds of North America Online*. **161**: 1-24.

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**Fig. 2.** Yellow-crowned night heron geographic distribution.

[<https://dcbirds.si.edu/bird/yellow-crowned-night-heron>, downloaded 22 February 2017]



**Fig. 3.** Yellow-crowned night heron feeding on a crab.

[<http://onthewingphotography.com/wings/yellow-crowned-night-heron-images/>, downloaded 22 February 2017]





**Fig. 4.** Male performing 'stretch display' (courting ritual) for female.

[<http://darkroom.baltimoresun.com/2014/06/yellow-crowned-night-herons-call-baltimore-home/> - 12, downloaded 22 February 2017]



**Fig. 5.** Female yellow-crowned night heron with clutch of five eggs.

[<http://darkroom.baltimoresun.com/2014/06/yellow-crowned-night-herons-call-baltimore-home/> - 14, downloaded 22 February 2017]