

Anhinga anhinga (Anhinga or Snake-bird)

Family Anhingidae (Anhingas and Darters)

Order: Pelecaniformes (Pelicans and Allied Waterbirds)

Class: Aves (Birds)

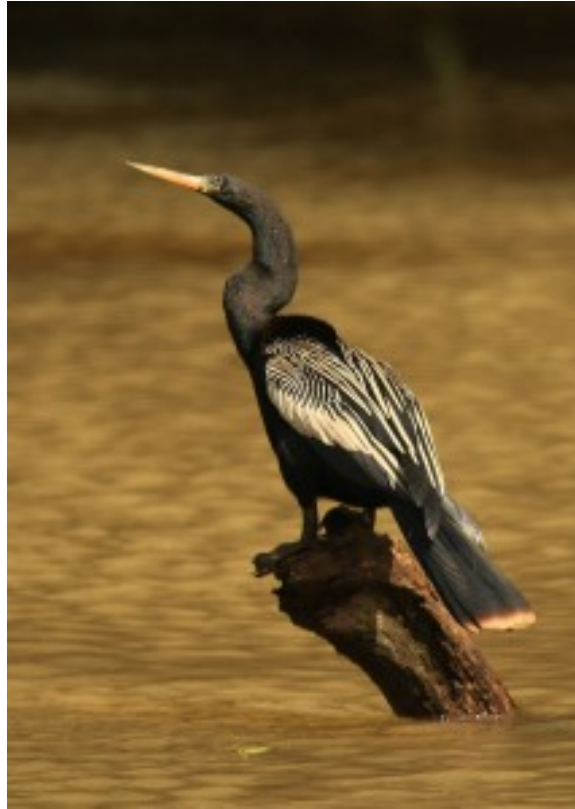


Fig. 1. Anhinga, *Anhinga anhinga*.

[http://animaldiversity.ummz.umich.edu/accounts/Anhinga_anhinga/, downloaded 14 November 2012]

TRAITS. The anhinga is a large bird which measures approximately 75-95 cm in length and can weigh up to 1.22 kg, with a wing size up to 109 cm (Kearns 2009). The females are browner on the back and there is an absence of silver patches on the wings (Siegal-Causey 2000). Apart from this difference in colour the females are very similar looking to the male. However for the males they have darker feathers and it has a vivid black green gloss on the body even though the wing and the tail give the impression that it is black blue in colour (Kearns 2009). They have webbed feet which appear yellow in colour and have long, thin neck and long, sharp pointed bill which is light orange or yellow in colour with dark tip and orange base (Siegal-Causey 2000). The wing has white spots and lines and its long tail has white on the edges of the tip which can be observed when open in flight (Kearns 2009). The region between the eyes and nostrils is greenish in colour and the *A.anhinga* in breeding plumage has blue rings around their eyes (Siegal-Causey 2000). The young are born featherless but within a couple of week there is a colour change from white to brown, and the juveniles have a uniform brown colour until the first breeding season (Kearns 2009).

ECOLOGY. *A. anhinga* has a preference for freshwater and habitats which include areas such as lakes, swamps, mangrove swamps, shallow coastal lagoons and tall trees (Kearns 2009). Within this habitat the *A. anhinga* are able to track their prey and also sit and absorb the sun in the treetops. They also seek protection from danger in the water (Kearns 2009). This bird is distributed in the southwest of the United States from North Carolina to Texas (Kearns 2009), and Mexico, Panama, Cuba, Central America and South America (Siegal-Causey 2000).

SOCIAL ORGANIZATION. Not much information is available but it was noted that *A. anhinga* are solitary birds, but it may gather with herons, cormorants, ibises and storks in the nesting season (Siegal-Causey 2000; Kearns 2009).

ACTIVITY. After staying underwater for very lengthy periods of time during foraging the *A. anhinga* spreads its wings and feathers. The *A. anhinga* can be seen basking for long a period in the sun to dry its feathers, so that the body temperature of the *A. anhinga* is maintained (Hennemann 1982).

FORAGING BEHAVIOUR. *A. anhinga* which is also called the ‘snake-bird’ gets its name due to its swimming technique (Kearns 2009). The *A. anhinga* swims with its neck and head out of the water as a way to seek its prey which can be fish or other amphibians. Because they do not have oil glands and lack waterproof feathers the feathers become waterlogged and allow the bird to dive easier (Kearns 2009). Its reduced buoyancy, which is a result of wet feathers and dense bones, allows them to swim closer to the bottom which is a plus for searching for prey. They are relatively slow swimmers so they mark very slow swimming fishes underwater and when the prey is found they spear them with their long sharp pointed bills. The *A. anhinga* removes the prey from under water and uses its long bill to turn it and devour it head first.

SEXUAL BEHAVIOUR. During mating the *A. anhinga* execute flight displays. With its large, broad wings it permits them to soar very well and fly in horizontal flight, interchanging the wing beats and glides (Siegal-Causey 2000). In courtship the *A. anhinga* fly towards the nest from great altitude. Studies have shown that Mexican anhingas perform displays such as vocalization to each other and elongation of the neck towards the male (Siegal-Causey 2000). After these displays they intertwine their necks and engage in passing materials to build their nest which is built on a tree 4-20 feet high above water (Siegal-Causey 2000). Because they are monogamous they use the same nest each year. The breeding season is triggered by either temperature or availability of food, and can occur throughout the year or in the dry season in countries such as Mexico and the Caribbean (Siegal-Causey 2000). In this season both male and female engage in soaring but males fly more in groups or individually. There are various displays which the male *A. anhinga* participate in during the mating season to defend their nests which include the “aerial display” which involves the pulling of twigs and branches (Siegal-Causey 2000). Males partake in “pointing display” which is stimulated by other birds landing nearby. Another display is “wing- waving” which transitions from a horizontal position to “peering around” (Siegal-Causey 2000). This is done at any period of the day as long as the female is present and the male flashes their silvery wing coverts and neck feathers at them (Siegal-Causey 2000). Another mechanism the *A. anhinga* display while nesting is the “forward snap” which is a response due to approaching birds (Siegal-Causey 2000). When the females roam through the areas where there is the presence of breeding males they “peer around” and move on. The female approaches the male which has just demonstrated “forward snaps” and in response the female opens its bill and

vibrate its throat whilst performing “pointing display” which is the forward and backward movement of the neck (Siegal-Causey 2000). Crossing of necks is often displayed by courting birds which causes the male to engage in “wing waving”, mutual preening, and bill rubbing and mock feeding. Copulation can continue for 15 days where there is a decrease in the intensity and frequency (Siegal-Causey 2000). 3-5 eggs are laid which are blue white or green in colour and incubated for 25-30 days by both of the parents (Siegal-Causey 2000). When eggs are hatched they are brooded by their parents for 12 days, fed with fluids and fish that were regurgitated directly into the open throat (Siegal-Causey 2000).

COMMUNICATION. Vocal communication: Juveniles have wheezing calls but *A. anhinga* are generally silent. There is a distinguishing, fast, rising and falling clicking or chattering during incubation (Siegal-Causey 2000). The rolling repetitive call is done when the bird is not yet settled in the nest. During courtship there is a whistling sound which is first loud then decreases in strength; grunting calls are also made (Rodgers 1987). These sounds are made near the nest or while flying or roosting (Siegal-Causey 2000).

ANTIPREDATOR BEHAVIOUR. Male and female engage in “bill-waving” and “peering around” which cautions prowler away (Siegal-Causey 2000). Flattened neck, head and closed bill which is stretched forward and waved slowly while tail is raised (point display); lustrous appearance is said to be a threat display (Siegal-Causey 2000).

JUVENILE BEHAVIOUR. When the young hatches they appear to be naked and reptile-like in appearance with opened eyes (Siegal-Causey 2000). Because the hatching does not occur at the same time there are various sizes amongst the siblings. Because they are unable to feed independently there are fights during feeding (Siegal-Causey 2000). This involves pecking and consequently loss of the youngest sibling due to unavailability of food. Within 2 weeks of hatching the birds will jump out of their nests and will end up in the water. As a result of this they will swim and climb back into the nest (Siegal-Causey 2000).

REFERENCES

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- Kearns, L. “Anhinga anhinga .” 2009. http://animaldiversity.ummz.umich.edu/accounts/Anhinga_anhinga/ (accessed November 14, 2012).
- Siegal-Causey, Peter C. Fredrick and Douglas. “The Birds of North America.” *Anhinga* , 2000: 522.
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Fig. 2. Nesting behaviour of *Aninga aninga*.

[http://animaldiversity.ummz.umich.edu/accounts/Aninga_aninga/, downloaded 14 November 2012]



Fig. 3. *Aninga aninga* in flight.

[<http://www.animalspot.net/anhinga.html>, downloaded 14 November 2012]



Fig. 4. *Aninga aninga* basking.

[http://rivaitphoto.com/bird-gallery_aninga-thermoregulating.html, downloaded 14 November 2012]

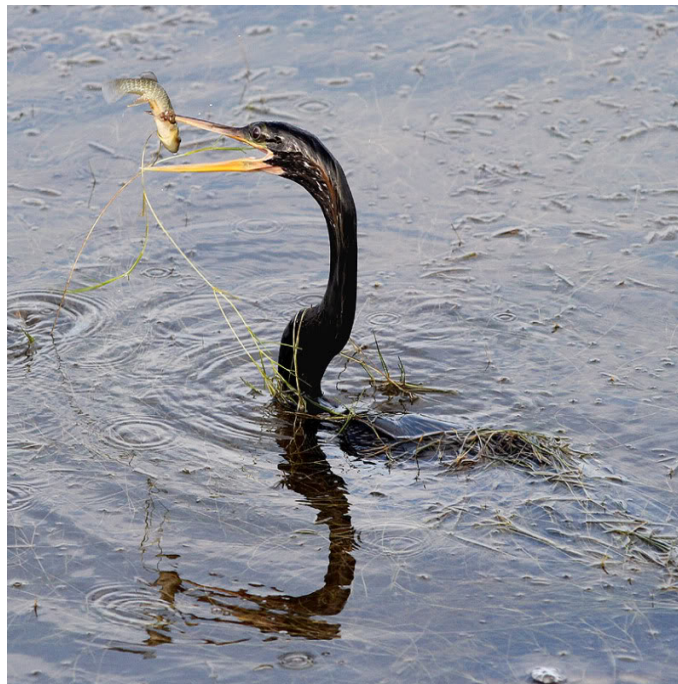


Fig. 5. *Aninga aninga* foraging.

[<http://photography-on-the.net/forum/showthread.php?t=884835>, downloaded 14 November 2012]