Recurvirostra americana (American Avocet)

Family: Recurvirostridae (Stilts and Avocets)
Order: Charadriiformes (Shorebirds and Waders)
Class: Aves (Birds)

Fig. 1. American avocet, Recurvirostra americana.
https://www.flickr.com/photos/musicarver/8357205015

TRAITS. Recurvirostra americana is a large shorebird reaching 40-50cm in length, weighing approximately 340g and with a wingspan of 21-24cm. Its non-breeding plumage consists of a white underbody and wings that are black with white stripes (Fig. 1). It has a thin, black upturned, pointed bill and long grey-blue legs. This shorebird is semi-palmate or half webbed, having three toes pointing outwards, with the middle being the longest (Thompson 2002). Females are distinguished from the males by their short and more upturned bill (Cornell University 2015). The plumage along the upper neck and head of adult birds changes to a rusty brown colour in the breeding season (Fig. 2) (Encyclopædia Britannica 2017). Leucism or loss of pigment on the feathers is observed in some birds, whereby their wings are brown and white, with a patchy brown head, and legs and culmen that appears pale (Ayala-Perez et al. 2013).

ECOLOGY. Recurvirostra americana can be observed in the United States of America (Evans 1988). They breed in large numbers on wetlands in the Northern states and even Canada (Fig. 3). In the winter, R. americana migrates down to coastal areas and marshes of California, Florida and Mexico (Robinson and Lewis 1996). Although not observed in Trinidad, R. americana is
sighted in Tobago, islands of the Greater Antilles and is incidental in other parts of the Caribbean due to migrants that overshoot their destination (ffrench 2012). They inhabit salt and fresh-water wetlands including, ponds, beaches, swamps, mudflats and brackish marshes. These areas contain abundant aquatic invertebrates and crustaceans like shrimp, molluscs and insects which constitutes their primary diet. (Evans 1988). *Recurvirostra americana* occasionally consumes seeds and aquatic plants and their diet coincides with other wetland birds like the black-necked sills and white-faced ibis. Predation encompasses nest-robbing by small land mammals including foxes, raccoons and skunks.

**SOCIAL ORGANIZATION.** They are migratory and colonial nesters. At the beginning of the breeding season, *R. americana* migrates in flocks of several hundred to the breeding grounds. During migration they maintain some family group associations but it contains age-specific differences based on the length of the journey and range (Robinson and Lewis 1996). *Recurvirostra americana* is very territorial around their nesting site and biparental care is displayed as both parents build the nest and care for the egg and young ones (Cornell University 2015). Four eggs are produced and are incubated for 22-29 days (Thompson 2002). The precocial hatchlings are able to forage for themselves in shallow waters but still require parental protection (Fig. 4). After a few days they obtain their winter plumage, and fledge at 4-5 weeks old.

**ACTIVITY.** They exhibit activity during all hours of the day and the amount of activity is directly proportional to the time of year and temperature. Approximately, 45-60% of the day is spent foraging during the breeding season, while 84% is spent in the non-breeding season (Evans 1988). When they are not foraging, *R. americana* spends the rest of time preening, scratching and sleeping (Evans 1988). Resting is observed on days of strong winds, temperatures less than 11°C and during strong rainfall (Encyclopædia Britannica 2017). Thousands of individuals can roost together.

**FORAGING BEHAVIOUR.** Groups of 5-30 are typically seen foraging. Methods include pecking at flies in the air and on the ground, scythe feeding; or sweeping horizontally at an arc, as well as scratching the mud and filtering (Davis et al. 2008). *Recurvirostra americana* is omnivorous and wades through shallow waters, moving its bill up and down the water surface, then proceeds to scoop up insects and aquatic plants (Thompson 2002). They habitually feed in waters that are 10-20cm in depth and are morphologically adapted to specialize in this depth, in order to minimize competition with other wading species. They also upend like ducks, plunging their head and neck into the water. *R. americana* can swim into deeper waters to capture prey and larger invertebrates that is then broken down into smaller pieces and swallowed (Cornell University 2015).

**COMMUNICATION.** The alarm call of *R. americana* is described as a melodious “kleet” that is often repeated at a very high pitch (Thompson 2002). They also tend to make a shrill, “wheet” sound when nests are being threatened by intruders (Herring et al. 2011). Visual communication is exhibited when the males perform intricate displays by spreading his wings, swaying, crouching and bowing to impress the female during courtship.
SEXUAL BEHAVIOUR. They are monogamous and display philopatry i.e. the tendency to remain or habitually return to an area. After courtship, the pre-copulatory ritual takes place on shallow waters. While the male preens, copulation is initiated by the females as she extends her neck forward, positioning it parallel to the water (Gibson 1971). The male then flies up and mounts the female from behind. He stands on her wings, holding them down, while trying to balance. Copulation begins with the cloacal “kiss” and then the male twists his tail (Gibson 1971). Copulation ends in a few minutes and the male dismounts. *R. americana* then exhibit the post-copulation dance which involves the wings extending across each other or protective wing mantling (Fig. 5) (Gibson 1971). Both male and female cross their bills and walk slowly together and after a few minutes they separate (Thompson 2002). Both male and female *R. americana*, stay together for the entire breeding season. Biparental care is observed during nest building and tending to the hatchlings.

JUVENILE BEHAVIOUR. Upon hatching, the precocial chicks are able to forage close to the shore and effectively feed themselves (Cornell University 2015). They only depend on their parents for protection against predators during the first few weeks (Thompson 2002) and these chicks can swim and efficiently move around just 24 hours after hatching (Sordahl 1988). After one month they are able to fly and move further away to forage. Male juveniles tend to stray further away from the social group than the juvenile females (Sordahl 1988). Juveniles form flocks with other fledglings and adults during migration.

ANTIPREDATOR BEHAVIOUR. *Recurvirostra americana* produces a very high pitched “kleet” when threatened by predators. They tend to be very aggressive with intruders who venture close to active nests and can perform aggressive aerial displays involving dive-bombing. They also can be seen lunging towards the predators with a lowered head, bill pointing out and wings extended. On the ground, they move more erratically, crouching and extending their wings in order to intimidate the predator. Males display more aggressive behaviours than females (Sordahl 1990) since females need to conserve energy after egg laying. Males are often more aggressive towards intruders, attacking and defending the nest at a higher frequency and even striking other birds including ravens (Herring et al. 2011). Under extreme, life-threatening cases, chicks evacuate and escape on water, using their waterproof down and webbed feet (Burt 2015). Antipredator behavior in *R. americana* can also be observed via the removal the empty and broken egg shells from the active nest (Sordahl 1994). This preventative measure is taken to ensure that the shells don’t attract predators or cut the chicks. Empty shells are dropped far from the nest or even submerged under water. Dead chicks are also removed since they too can attract predators and spread disease to the other chicks.

REFERENCES


Author: Jaime Loutan
Posted online: 2018
**Fig. 2.** American avocet, breeding female (left) and non-breeding male (right).


**American Avocet**

*Recurvirostra americana*

**Fig. 3.** American avocet geographic distribution.

[https://www.allaboutbirds.org/guide/American_Avocet/id](https://www.allaboutbirds.org/guide/American_Avocet/id)
**Fig. 4.** Less than one day old juvenile, walking.

https://www.flickr.com/photos/19528005@N06/26714621961

**Fig. 5.** Post-copulation display.

http://www.jimburnsphotos.com/pages/americanavocet.html

For educational use only - copyright of images remains with original source