

Anas clypeata (Northern Shoveler)

Family: Anatidae (Ducks and Geese)

Order: Anseriformes (Waterfowl)

Class: Aves (Birds)



Fig. 1. Northern shoveler, *Anas clypeata*.

[<http://www.ducks.org/hunting/waterfowl-id/northern-shoveler>, downloaded 10 February 2017]

TRAITS. The northern shoveler duck *Anas clypeata* is distinguished by its large broad bill about 6.5cm long. Total length varies from 43-56cm and their mass from 470-1000g. Shovelers are sexually dimorphic. Males are black, brown and have a white chest and chestnut belly and flanks (Fig. 1). The head is a bright green during the breeding season. Males have a black bill and yellow eyes. Female shovelers are mostly shades of brown (Fig. 2). Females have a brown-green bill and brown eyes. Male breeding and winter plumage is distinct from that of females and post-breeding males; legs of dabbling ducks are centrally placed, allowing easy take-off and walking (Marsh, 2011).

DISTRIBUTION. *Anas clypeata* has a broad geographical range (Fig. 3), and is in a great abundance across North America, Europe and Asia. Most migrate south in the winter. Areas of migration include the southern USA, Africa, India, south-east Asia, Mexico, Australia and New Zealand. This species is incidental and rare in Trinidad and Tobago.

HABITAT AND ACTIVITY. The habitat of *Anas clypeata* includes shallow marshes surrounded by swampy ground that can be used for nesting. Shovelers select areas with rich vegetation and freshwater lakes. They swim quickly with the bill submerged in water, and often spend time resting on the mud. Males are territorial in the breeding season and spend most of their time defending their area. *Anas clypeata* searches for food both in the day and the night.

FOOD AND FEEDING. Northern shovelers belong to the group of dabbling ducks. The large bill is used for filter-feeding (Fig. 4). Food generally consists of small aquatic insects and invertebrates, shrimp, molluscs, larvae and seeds. *Anas clypeata* forages for food on surface of the water. The large bill is suited for straining small insects such as crustaceans and plankton from the water. The comb-like structures called lamellae allows water to squirt from the sides of the bill. In shallow water, the northern shoveler sieves through muddy bottoms for small crustaceans and molluscs (Alderfer, 2006). Female shovelers require a large supply of food for reproduction and tend to consume more food than males.

POPULATION ECOLOGY. Often found in groups of 20-30, shovelers are a gregarious species but the males are also very territorial. Shovelers have a very large global population, with an increased number in many areas during migration, such as the Great Salt Lake of Utah, an important wintering area for waterfowl (Roberts and Conover, 2015). Utah recorded about 1300 breeding shovelers annually. The average lifespan of this species is 18 years. The population remains stable as a result of favourable habitat conditions, breeding and migration.

REPRODUCTION. Male and female shovelers are monogamous and form pairs in the winter, and this continues through migration. Shovelers have a strong pair bond that lasts longer than other dabbling duck species. The reproductive season is from April to June. *Anas clypeata* spends several days selecting and preparing a suitable nest of grass and down feathers near fresh water. Females lay an average of 9-11 buff-coloured eggs, incubated for about 24 days. Males often remain with the females during incubation, but only the female shoveler is involved in incubation and tending to the young (Fig. 5). Ducklings reach sexual maturity at one year.

BEHAVIOUR. Generally social ducks when not nesting. *Anas clypeata* is relatively tolerant of human presence. Males tend to be aggressive defenders of their territory, particularly during nesting. Panting is common during periods of high air temperature and little wind. Shoveler hens maintain egg temperatures within an optimal range by adjusting their incubation rhythms to varying weather (Afton, 1977). The female is also very protective of her eggs to avoid predation. Ducklings have similar characteristics to the female and can fly after about six weeks. The bill gets larger as the duckling matures. Shovelers spend more time foraging for food during the winter. In mid-winter the birds invest less time in foraging and more in pair formation (Tamisier et al., 1995).

APPLIED ECOLOGY. This species is registered as Least Concern because it has a wide geographic distribution. *Anas clypeata* tends to maintain stable populations because they are less affected by drought and food scarcity as a result of their feeding technique. Hunting, pollution and habitat degradation can affect the shoveler population. Although the northern shoveler population has been decreasing slightly, it is not to the extent to be considered Vulnerable by the IUCN Red List of Threatened Species.

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Posted online: 2017



Fig. 2. Female northern shoveler, *Anas clypeata*.

[http://www.birdweb.org/birdweb/bird/northern_shoveler downloaded 4 March 2017]



Fig. 3. Northern shoveler, *Anas clypeata*, geographic distribution.
[<http://maps.iucnredlist.org/map.html?id=22680247>, downloaded 22 April 2017]



Fig. 4. Female northern shoveler dabbling for food.

[<http://www.10000birds.com/mating-and-feeding-behavior-of-the-northern-shoveler.htm> downloaded 4 March 2017]



Fig. 5. Female northern shoveler with ducklings.

[<http://www.nhptv.org/natureworks/northernshoveler.htm> downloaded 4 March 2017]

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