



Department of Planning and Natural Resources
Division of Fish and Wildlife
U.S.V.I. Animal Fact Sheet #09



Fishing Bat

Noctilio leporinus

Taxonomy

Kingdom	Anamalia
Phylum	Chordata
Subphylum	Vertebrata
Class	Mammalia
Order	Microchiroptera
Family	Noctilionidae
Genus	<i>Noctilio</i>
species	<i>leporinus</i>
subspecies	mastivus



Identification Characteristics

- ◆ Pale stripe along center of back
- ◆ Tip of tail is free on the upper surface of the interfemoral membrane.
- ◆ Have an especially strong musky smell
- ◆ Short hair
- ◆ Flanks nearly naked

Description

The Fishing bat has a pointed muzzle and lacks the nose leaf seen in many other bats. Upper lips are smooth but divided by a "hare lip", a vertical fold of skin under the nostrils. The lips are also large and swollen in appearance suggesting another of its common names, the Greater Bulldog Bat.

This bat presents a formidable dental arsenal and its cheeks are elastic and can be greatly expanded; internal cheek pouches are present. The ears are large, slender, pointed, and separate. The wings are quite narrow and long, being more than two and a half times the length of the head and body. Nearly 65% of the wingspan is composed of the third digit.

The tail tip is "free", protruding for about 1/4 to 1/2 inches from the dorsal surface of a well-developed uropatagium (membrane connecting rear legs and tail). This membrane is supported by the legs, tail, and calcar (a cartilaginous structure that is connected to the heel bone and is unique to bats). In this species the calcar is very large, and serves to hold the uropatagium out of

the water when the bat flies close to the surface. The fishing bat has unusually long hind limbs and very large hind feet (1.8 to 3.9 times larger than non-fishing bats).

Fishing bats are sexually dimorphic. The males tend to be larger and reddish to orange on their back, the females are generally greyish or dull brown and smaller than the males. Both males and females tend to have pale underparts, and the fur is extremely short.

Distribution & Habitat

The fishing bat is found throughout New World tropic and sub tropic lowland habitats where either fresh or salt waters are calm enough to allow it to fish for example ponds and quiet streams, estuaries, bays and lagoons along coastlines. In the USVI these bats roost in small colonies in caves, rocky crevices, rock piles, or hollow trees usually on or close to the shoreline. They have even been found under empty turtle shells. Caves where fishing bats roost, can be recognized by the strong musky smell that is characteristic of the species. They are mostly active around dusk and at night, but have also

been seen late in the afternoon, in the middle of groups of feeding pelicans, zigzagging across the waters surface.

Diet

The Greater Fishing Bat is one of six bat species to have evolved a fish eating habit. Fish-eating, or piscivory, in bats is thought to have evolved from catching floating or swimming insects off the water. A species of bat, *Noctilio albiventris*, closely related to the fishing bat is primarily insectivorous. Using echolocation to capture insects from the water surface, it also possesses cheek pouches similar to the fishing bat.

Analyses of stomach contents provide evidence that fish are not taken exclusively. Although the remains of fish were found in the stomachs of the bats examined, significant amounts of insect material also were reported.

When hunting, fishing bats fly zig-zagging over the water surface at a height of between 7 and 20 inches. They use echolocation to detect ripples on the waters surface, left by fish swimming near the surface. This is termed high search flight.

When the bat detects a disturbance in the water, that may indicate the presence of a small fish, it descends to the water surface. In this low search flight, the bat's body is parallel to the water and only 1-4 inches above it. It then rakes its enormous taloned feet, like two grappling hooks, through the water trying to gaff the fish.

They may eat while flying, or transfer the fish to the uropatagium and take it to a perch to consume it. These bats can catch fish up to 3 inches in length from as deep as 1 inch below the water surface.

The fishing bat can adjust the frequency of its echolocation call to enhance communication. They can drop the frequency sweep of the echolocation call an extra octave in effect "honking". This behavior has been observed when there are two or more bats flying close to each other. If bats were on a collision course they would "honk" at each other then veer away to avoid a collision.

Reproduction

Males may reside with female groups for two or more reproductive seasons. Generally the females bear a single young each pregnancy. Gestation may be as long as two months. Young bats don't leave the roost for their first attempts at sustained flight until nearly adult size, a little less than one month of age. Some females may breed again after their first offspring has left to have 2 young in a breeding season. This extended breeding season corresponds to the period of greatest food availability.

Both parents remain at the roost throughout suggesting a high degree of bi-parental care, which may be a characteristic of this species.

What you can do to HELP

1. Reducing the amount of pesticides and chemicals we use to control pests will help the fishing bats.
2. Please, if possible let them take care of themselves. They have been doing their job for millions of years, and are a great benefit to us.
3. Remember it is illegal to take, catch, possess, injure, harass, or kill any indigenous species. The only exceptions are for people holding valid permits from the Division of Fish and Wildlife
4. For more information on this and other animals in the Virgin Islands please visit our website at:

www.vifishandwildlife.com

Written by William Coles 2002.
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