

Elachistocleis surinamensis (Oval Frog or Narrow-mouth Frog)

Family: Microhylidae (Narrow-mouthed Frogs)

Order: Anura (Frogs and Toads)

Class: Amphibia (Amphibians)



Fig. 1. Narrow-mouth frog, *Elachistocleis surinamensis*.

[<http://www.trinidad-tobagoherps.org/Elachistocleissurinamensis.htm>, downloaded 8 March 2017]

TRAITS. Most *Elachistocleis surinamensis* are from 2.5-3cm in length, with females being slightly larger than males (Johnson, 2011). These frogs have backs that are usually tan, brown or yellow-brown in colour. Their underside however is brightly coloured (Fig. 1). The skin is smooth and moist although males may tend to have spinules (Ouboter and Jairam, 2012). The body form is that of an oval teardrop shape with a wide, round body and a short head terminating in a narrow pointed snout, giving the common names oval frog or narrow-mouth frog. The legs are short whereas the toes are long and unwebbed. The eyes are small, with a brown iris. The tympanum (eardrum) of the frog is invisible.

DISTRIBUTION. There is a widespread range of this species in northern Venezuela, Trinidad and east to northern Suriname (Fig. 2). This species is likewise speculated to occur in northern Guyana, however no records of the species in the country has been attained. Narrow-mouth frogs are native to Trinidad, Suriname and Venezuela and are lowland species which exist up to at least 500m above sea level (Murphy, 2011).

HABITAT AND ACTIVITY. This species is terrestrial and its natural habitats include tropical forests and coastal savanna. Narrow-mouth frogs found in Trinidad inhabit forest leaf-litter. These frogs are not found in the open of Trinidad, however they may instead be found in wooded areas of the Aripo Savanna (Murphy, 2011). *Elachistocleis surinamensis* was found in the area of

Rio Claro, Mayaro (Mohammed et al., 2014). Generally nocturnal, narrow-mouth frogs may sometime come out during the day to feed.

FOOD AND FEEDING. The narrow-mouth frog's diet consists primarily of small invertebrates such as ants and termites with ants being the more favourable food (Gale, 2005). The microscopic examination of faecal material from *Elachistocleis* sp. showed the presence of ants (Mebs et al., 2010). Narrow-mouth frog tadpoles are filter feeders which involves the filtering of microorganisms from water.

POPULATION ECOLOGY. Narrow mouth frogs live a solitary, territorial life except during breeding season when they assemble in breeding sites (Gale, 2005). Male frogs have breeding territories which are utilized during the breeding season.

REPRODUCTION. The mode of reproduction in this species involves courtship during which male vocalization plays a critical role. When male narrow-mouth frogs are ready to mate they call females using long ringing notes. This is then followed by amplexus whereby the male climbs on top of the female, allowing for external fertilization of several eggs which are then expelled into water (Gale, 2005). Fertilized eggs are capable of floating and are non-adhesive as shown in Figure 3 (IUCN, 2004). Tadpoles then hatch from eggs and live in waterbodies. Tadpoles then metamorphose into froglets and finally fully grown narrow mouth frogs. Narrow mouth frogs in tropical forests tend to mate any time of the year as it is usually wet and warm. Following spawning male and female parents go their separate ways thus there is no parental care involved.

BEHAVIOUR. Anti-predator behaviour involves a "leap and hide" mechanism where the frog defends itself against predators such as snakes by quickly jumping off and hiding under shrubs, diving underwater or burrowing into litter (Gale, 2005). Males communicate with females using an advertisement call which attracts females and allows for breeding. An alert call is used when the frogs are attacked by a predator and males use an aggressive call to defend their territory from other intruding males (Gale, 2005).

APPLIED ECOLOGY. According to the IUCN the species is listed as of Least Concern. This is due to the fact that there is a wide distribution of the species and there exists a large population of the species. Also, the species population is unlikely to decline at a fast enough rate so as to qualify for listing in a threatened category. Although not fully confirmed it has been hypothesized that the major threat to the species include habitat loss and its degradation which may be due to deforestation (IUCN, 2004).

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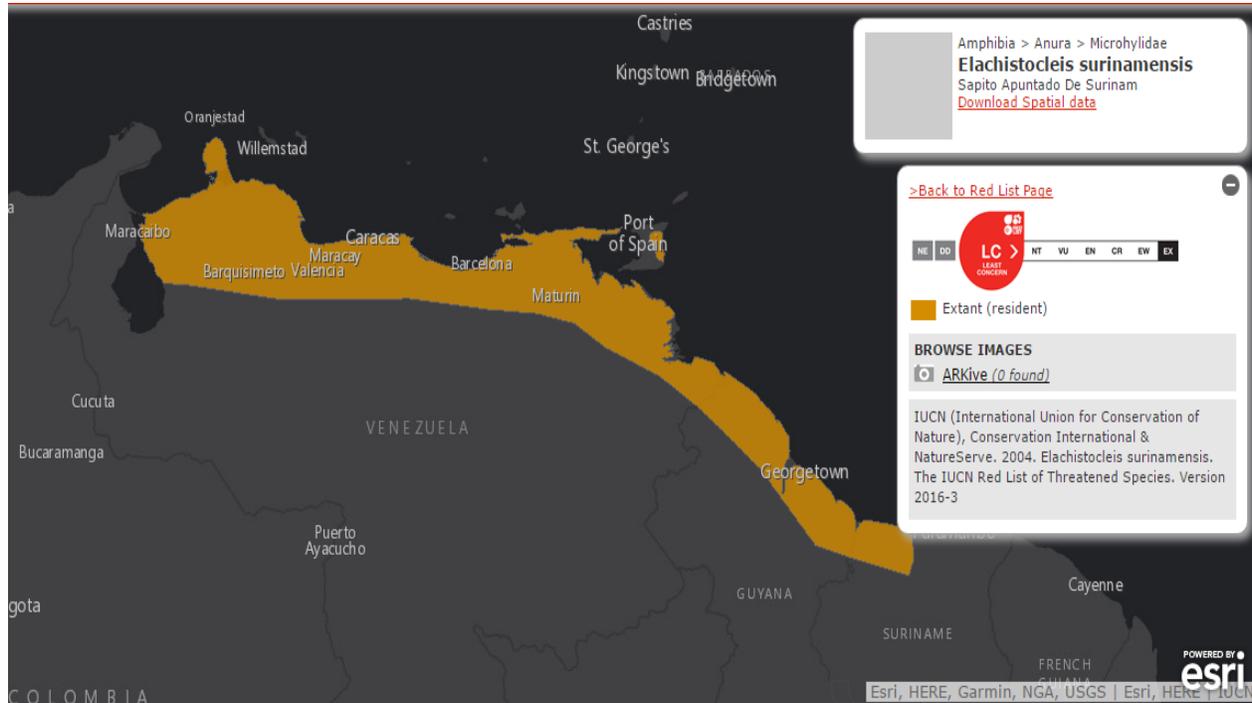


Fig. 2. *Elachistocleis surinamensis* distribution.

[<http://maps.iucnredlist.org/map.html?id=57812>, downloaded 8 March 2017]



Fig. 3. Floating fertilized eggs of a microhylid frog.

[https://www.wildlifedepartment.com/wildlifemgmt/swg/t35p1/WMA/G_carolinensis_AT.shtml, downloaded 8 March 2017]

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