

Scarthyla vigilans (Grass Frog)

Family: Hylidae (Tree Frogs)

Order: Anura (Frogs and Toads)

Class: Amphibia (Amphibians)



Fig. 1. Grass frog, *Scarthyla vigilans*.

[<http://herpetologytt.blogspot.com/2017/01/grass-frog-scarthyla-vigilans-family.html>, downloaded 4 March 2017]

TRAITS. *Scarthyla vigilans*, commonly known as the grass frog (or as ranita vigilante in Spanish) is a small frog of snout-vent length up to approximately 21mm. The snout protrudes beyond the lip margin and the tympanum (eardrum) is very noticeable, about half the diameter of the eye. The hind limbs are long and slender, the fingers are unwebbed (Fig. 1) and the toes are nearly fully webbed, with small round discs at the end (Solano, 1971). In the day it appears pale brown with broken stripes (Fig. 2), compared to plain lime green in the night. The first two toes in *Scarthyla vigilans* are completely webbed, which separates it from the similar brown tree frog, *Scinax ruber*, which has reduced or no webbing present between its first two toes (Murphy, 2017).

DISTRIBUTION. *S. vigilans* is abundant in northern Colombia and western and northern Venezuela. This species has been found in Llanos ecosystems in both countries, east of the Andes mountains (Fig. 3), mainly below 500m a.s.l. (IUCN, 2004). Recent reports have found *Scarthyla*

vigilans in Trinidad, specifically in the south-west region between Icacos and Point Fortin (Smith et al., 2011).

HABITAT AND ACTIVITY. It has been known to be a Llanos ecosystem species, regularly found sitting on plants, mostly those with numerous leaves and branches (Fig. 4). Activity of this species is nocturnal and crepuscular. Breeding occurs in swamps and areas with standing water (Murphy, 2017). *S. vigilans* is a small inconspicuous species, despite being very abundant. Its habitat comprises of channels, marshes, ditches, brackish coastal areas, lakes and slow-moving rivers and streams. Calling males are more often seen as they call from tall plants and grasses and leap quickly to escape. Females are larger and remain lower on the same plants (Smith et al., 2011). *S. vigilans* can escape from danger by leaping to the water and skittering on the surface (Murphy, 2017).

FOOD AND FEEDING. No recorded studies were found on the feeding pattern of this species, however, other species in the Hylidae family eat arthropods, therefore *S. vigilans* are most likely to consume these as well (Kenny, 1969).

REPRODUCTION. Reproductive activity of *S. vigilans* is unknown, but likely to be similar to that of other frogs of the Hylidae family. During the reproductive season (mainly the rainy season between June-November) females select males based on the quality of their calls, preferring males with deeper voices, prolonged calls and loud vocalization. Additionally, females may select males based on the quality of their territory. Once mated, females place eggs in water or on leaves above water and the males fertilize the eggs externally. Eggs measure 1.5mm in diameter and have a thick jelly coat. Development is typical and rapid (Murphy, 1997).

BEHAVIOUR. On July 31 2007, between 15:00 and 17:30 h, Smith et al. (2011) reported hearing adult *S. vigilans* males making chirping sounds from a man-made pond in Bowen Trace located in the southern part of Trinidad. The frog calling significantly increased in windy conditions and the fractious chittering call sounded like wind blowing through grass. Barrio-Amorós (1998) reported hearing calls from the Maracaibo lake area Venezuela, sounding like a cricket chirp, very low in intensity, each call being of 5-6 notes, the initial 3-4 notes having a duration of 0.27-0.29 seconds. The two other notes were separated by 0.094 seconds from the first group of four, with the duration of the entire call being 0.35 seconds. Calls emitted from the same individual had a separation that varied from 0.5-2 seconds. The dominant frequency was estimated to be 4700Hz, whilst the fundamental was 3800Hz.

APPLIED ECOLOGY. The International Union for Conservation of Nature (IUCN, 2004) has Listed *Scarthyla vigilans* as being of Least Concern in light of its ability to tolerate a large extent of habitats, and its population is presumed to be large and widespread, and not facing any known threats.

REFERENCES

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Fig. 2. Grass frog appearance during the day.

[<http://www.biotaxa.org/cl/article/view/7.5.574/25478>, downloaded 4 March 2017]



Fig. 3. Grass frog geographic distribution.

[<http://maps.iucnredlist.org/map.html?id=55688>, downloaded 4 March 2017]



Fig. 4. Grass frog sitting high on plant.

[<http://glasgowexsoc.org.uk/blogs/trinidad/wp-content/uploads/sites/5/2014/07/S.-vigilans.jpg>, downloaded 4 March 2017]