Eleutherodactylus planirostris **System:** Freshwater_terrestrial

Kingdom	Phylum	Class	Order	Family
Animalia	Chordata	Amphibia	Anura	Leptodactylidae

Common name rana-ladrona de invernadero (Spanish), greenhouse frog (English)

Synonym *Hylodes planirostris*
Euhyas planirostris

Similar species

Summary *Eleutherodactylus planirostris*, the greenhouse frog, is a small anuran native to the Caribbean which has invaded non-native Caribbean locations, the United States, and Mexico. Most commonly spread through infested plants transported by nursery trade, it has potential for rapid colonization and represents a threat to native funa in introduced ranges.

view this species on IUCN Red List

Species Description
Eleutherodactylus planirostris is a very small frog, about 1-3 cm long. It may have light longitudinal stripes or a mottled coloration with light and dark patches. It is brown with orange or reddish tones and has reddish eyes. Its toes are not webbed and are long and thin with well developed tubercles. Its call is a soft, melodious series of irregular chirps (Somma, 2008; GSMFC, 2007; USGS-NWRC, 2007; NatureServe, 2008).

Lifecycle Stages
Greenhouse frogs lack a larval stage, hatchlings emerge fully developed measuring about 0.5 cm (GSMFC, 2007).

Uses
Some people intentionally introduce *Eleutherodactylus planirostris* to their gardens because they find them and/or their call appealing (Bomford *et al*., 2005).

Habitat Description
A terrestrial, nocturnal amphibian, the greenhouse frog typically inhabits forests, riparian zones, and other areas that offer shelter and moisture. They are commonly found among husk piles and thrive in human altered areas such as junk yards, greenhouses, nurseries, lawns, and gardens. They are also resilient to hot and dry conditions making them a formidable colonist species. *Eleutherodactylus planirostris* is generally observed only at night or in rain. They do not depend on standing freshwater as they are a direct-developing frog species and have no larval stage (NatureServe, 2008; GSMFC, 2007; USGS-NWRC, 2007; Rice *et al*., 2007; Pough *et al*., 1977).

Reproduction
Sexual, oviparous. Breeding in greenhouse frogs occurs in the summer. Clutches of 3-26 eggs are laid on the ground under moist vegetation, rocks, or debris. Hatching occurs approximately 2 weeks later. Development takes place within the egg and hatchlings emerge fully developed at about 0.5 cm in length. Increased reproduction and dispersal can be facilitated by large storms (GSMFC, 2007; Somma, 2008)

Nutrition
Eleutherodactylus planirostris commonly feeds on invertebrates, insects, and arthropods. Ants, beetles, spiders, copepods and earthworms comprise most common prey (GSMFC, 2007).

General Impacts
Eleutherodactylus planirostris' potential for rapid colonization and population explosion make it a potential threat to trophically similar endemic species in introduced ranges. Because these habitats lack disease and predators to control their populations, greenhouse frogs can cause ecological detriment. They prey heavily on invertebrates including insects, spiders, and snails some of which are threatened. In addition to invertebrates themselves, greenhouse frogs threaten bird and fish species by competing for their prey as in the case of Hawaii's endangered Oahu 'elepaio (see *Chasiempis sandwichensis* in IUCN Red List of Threatened Species) (MISC, 2007).

Management Info
Preventative measures: Control of horticulture trade would be the most effective means of mitigating the spread of *Eleutherodactylus planirostris*. However enforcement of such policies has proven difficult (Kraus & Campbell, 2002).
Cultural: Hawaii has published pest alerts informing the public of greenhouse frogs and their negative effects on the environment. It gives a physical description and a description of their call as well as urges the public to reports sightings and even hand capture and dispose the frogs humanely (PestAlert, undated).
Chemical: Chemical treatment appears to be the only practical and cost effective means of controlling *E. planirostris* once established. Hawaii legalized and advocates the use of Ash Grove Kemilime and/or Graymont Hydrated Lime on outdoor ornamentals in nurseries, residential areas, parks, resorts, forest habitats and other natural areas to control *E. planirostris* under an EPA approved Quarantine Exemption. Also, spray application of 2.0% concentration caffeine solution has been demonstrated to eliminate greenhouse frogs (Kraus & Campbell, 2002; USFS, 2006).

Principal source: Somma, Louis A., 2008. *Eleutherodactylus planirostris*. USGS Nonindigenous Aquatic Species Database, Gainesville, FL.
Gulf States Marine Fisheries Commission (GSMFC)., 2007. *Eleutherodactylus planirostris* (Cope, 1862).

Compiler: National Biological Information Infrastructure (NBII) & IUCN SSC Invasive Species Specialist Group (ISSG)

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ALIEN RANGE

[1] GRENADA
[1] JAMAICA
[1] TURKS AND CAICOS ISLANDS
[1] GUAM
[1] MEXICO
[9] UNITED STATES

Red List assessed species 1: VU = 1;

Chasiempis sandwichensis **VU**

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