

Coqui Frogs in Hawaii

The coqui frog (*Eleutherodactylus coqui*) is believed to have hitchhiked on a shipment of potted plants from Florida in 1988. Coqui frogs are small, nocturnal predators that eat insects and other invertebrates. Male coqui have a distinct “ko-kee” mating call that can be heard day and night.

A single male call can reach 90 decibels, similar to a running lawnmower.

1. Harm to environment

- High density populations of coqui frogs can eat about 400,00 insects a night
- Coquis put native insect and spider species at risk

2. Harm to economy

- Loud mating calls create noise pollution, causing diminished property values
- Decreased export plant sales
- Adverse impacts on tourism

3. Harm to health & way of life

- Sound levels can lead to lack of sleep
- They may also influence people's willingness to reside or continue to reside, in impacted areas.

For more information:

University of Hawai'i at Mānoa, CTAHR
www.ctahr.hawaii.edu/coqui

Hawai'i Department of Agriculture
www.hdoa.hawaii.gov/pi/ppc/coqui-information

Hawai'i Ecosystems at Risk
www.hear.org/alienspeciesinhawaii/species/frogs



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Controlling Coqui Frogs

Learn how to handle your coqui frog problems



Photo: Jan P. Zegarra, U.S. Fish and Wildlife Service



Photo: Luis-Villanueva-Rivera



Photo: US Fish & Wildlife Service, Southeast Region

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Hand Capture



Photo by: Norman Shapiro

You can find coqui frogs at night on vegetation less than 10 feet off the ground. Shortly after sunset, take a flashlight and scan over and between leaves. Place a ziploc (inside out) over your hand to use as a glove.

- Coqui prefer crotches of trees, palm axils, and large dead leaves.
- Look for eggs under bark, dead leaves, and moss.
- If the frog stops calling, whistle or play a recording of a coqui call.
- There will often be one or more silent females near a calling male.

Lure

Lure traps take advantage of the frog's nesting behavior. Frogs seek dark, damp areas for shelter. Lures help reduce populations by giving the frogs a place to nest and allowing you to collect eggs and adults. Multiple lures are recommended in areas with high frog density.

- Connect an 8" length of 3/4" diameter PVC pipe to a t-connector joint.
- Place trap 3-5 feet high on local vegetation. Check traps during the day at least every 2 weeks.
- Remove any adults and eggs into a plastic bag and freeze to kill.



Photo: Big Island Invasive Species Committee

Spray with Citric Acid



Photo: Maui Invasive Species Committee

Citric acid is the only product labeled for controlling coqui in Hawaii. Frogs breathe through their skin so they are highly sensitive to chemical contact. Spray solution on infested plants to kill coqui frog eggs, juveniles, and adults. Treatments can be repeated every 2 weeks.

- Spray foliage at night when coqui are actively calling, foraging or mating.
- Drench ground and slowly work your way up into the canopy.
- Thoroughly spray to cover the vegetation where frogs perch, including undersides of leaves.
- Citric acid can burn sensitive plants, such as ferns and orchids. To avoid damage, rinse treated plants with fresh water 1 hour after spraying to remove citric acid residue.

How to make your landscaping less coqui-friendly:

- Limit and/or remove rubbish and green waste piles (chip it up). Coqui like to hide in green waste.
- Don't plant bromeliads, or consider replacing them.
- Mow cane grass and other tall grasses.
- Remove dead leaves on banana, ti, and other plants with large leaves.
- Thin out understory vegetation.

Coqui densities in Hawaii can reach as high as 22,000 frogs per acre

Citric Acid Solution

Standard spray bottle:

1/2 cup of citric acid + 32 ounces of water

1-gallon hand pump sprayer:

2.25 cups of citric acid + 1 gallon of water

5-gallon backpack sprayer:

11.25 cups of citric acid + 5 gallons of water

- Wear proper PPE (long-sleeves, pants, shoes, eye protection, and gloves) when spraying.
- Do not store the citric acid solution as it will corrode your plastic sprayer. Spray out all mixed solution and rinse with water after use.