

# COQUI FROG

Scientific name: *Eleutherodactylus coqui*

Order: Anura Family: Leptodactylidae

Common names: Puerto Rican tree frog, coqui frog



## LIFE CYCLE



EGGS

- Egg diameter averages 4 mm
- hatches in 14 -17 days
- clusters of eggs (average 28 eggs) are laid every 2 to 4 weeks year-round
- no free-swimming tadpole stage.



FROGLETS

- can live up to a week after hatching on yolk reserve
- able to reproduce at 8 - 12 months old
- males begin calling from 6 months of age



ADULTS

- females (*upper left*) grow up to 2" in length, while males (*lower right*) grow up to 1.5" long
- entirely terrestrial
- adults may live 4 - 6 years
- males guard eggs to prevent drying and predation

## BEHAVIOR

- As amphibians, coqui frogs need to keep their skin **moist** and can tolerate cold better than hot temperatures and direct sunlight.
- They are **nocturnal** and retreat during the day to sites that provide shade and moisture, such as crevices and rock walls (*pictured, top*, irrigated nursery facilities, thick vegetation (*circle*), ground cover, and leaf litter (*left*).
- Coqui frogs "**hitchhike**" from infested areas on plants, construction, landscaping and gardening materials, trash, and vehicles (tire wells, truck beds) and are **spread along roadways** to refuse stations, construction sites, nurseries, garden shops, and residences.
- While adult males can be detected by their call, the presence of eggs, juveniles (< 6 months), and adult females often go **undetected for months** until males mature and begin calling.



Reference: Townsend, D.S. and M.M. Stewart. 1994. Reproductive ecology of the Puerto Rican Frog *Eleutherodactylus coqui*. *Journal of Herpetology* 28:34-40.

# BEST MANAGEMENT PRACTICES FOR COQUI FROGS

	OPTIONS AVAILABLE
<p><b>MONITORING TECHNIQUES</b></p>	<ul style="list-style-type: none"> <li>▪ Use <b>sound-activated recorders</b> to detect calling males on-site at night on a monthly basis.</li> <li>▪ Set out <b>PVC lures</b> (<i>pictured</i>)               <ul style="list-style-type: none"> <li>○ Use 3/4" diameter pipe (8-9" length) with a tee-joint. Do not glue. "Weather" the pieces first to reduce PVC odor. Mount no higher than 2-3 ft off the ground at 2-ft intervals.</li> <li>○ Check the PVC lures at least every 2 weeks; remove nesting adults and eggs.</li> </ul> </li> <li>▪ <b>Conduct visual inspection routinely.</b> <ul style="list-style-type: none"> <li>○ Scan plants, media, leaf litter beneath plants for adults and eggs.</li> <li>○ Inspect building materials and nursery supplies before bringing them onto your property.</li> <li>○ Inspect your vehicle (tire wells, truck beds) for hitchhiking frogs after leaving infested areas.</li> </ul> </li> </ul>
<p><b>SELECT BEST CONTROL METHOD</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Minimize retreat and nesting sites</b> <ul style="list-style-type: none"> <li>○ Avoid stockpiling discarded plant material.</li> <li>○ Re-landscape with less broad-leafed plants.</li> </ul> </li> <li>▪ Install <b>screen barriers</b> (<i>pictured</i>) to keep frogs out of designated areas (fine mesh screen at a 90° angle that frogs cannot cross).</li> <li>▪ <b>Hot water "sprench"</b> (spray + drench)               <ul style="list-style-type: none"> <li>○ Set hot water heater to 120 °F and "sprench" plants for adults and eggs.</li> </ul> </li> <li>▪ <b>Chemical "sprench"</b> with weekly monitoring for frogs               <ul style="list-style-type: none"> <li>○ Natural pyrethrins products plus 8% citric acid applied as a contact spray will control eggs and adults. Natural pyrethrins paralyze adults after 1 application but is fatal after 2 applications (1 hour apart).</li> <li>○ 16% citric acid as contact spray (may burn sensitive plants, including orchids); can be rinsed off 1 hour after application to minimize phytotoxicity but will reduce effectiveness on treated eggs by 15%.</li> </ul> </li> <li>▪ Continue to inspect and listen for frogs <b>weekly after spraying.</b></li> </ul>
<p><b>TREATMENT BEFORE MARKET</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Hot water shower</b> <ul style="list-style-type: none"> <li>○ 109 -113 °F for 5 min for eggs, juveniles, adults</li> <li>○ Place treated plants in a coqui-free holding area to prevent re-infestation prior to transport.</li> </ul> </li> </ul>
<p><b>FINAL INSPECTION</b></p>	<ul style="list-style-type: none"> <li>▪ Use <b>sound-activated recorders</b> (<i>pictured</i>) to detect calling males in shipments at night for at least two nights prior to movement/sale.</li> <li>▪ <b>Visually inspect</b> for frogs and eggs in cryptic areas and plant parts.</li> </ul>



**PRECAUTIONARY STATEMENT / DISCLAIMER:** These recommendations are provided only as a guide. Please read and follow all label directions

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