



**U.S. FISH & WILDLIFE SERVICE
CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE
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Conservation Measures for the Puerto Rican crested toad

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect listed species, such as federal approval of private activities through the issuance of federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rican crested toad, or destroy its eggs or tadpoles is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species. Download the [project evaluations fact sheet](#) to learn more about the requirements or visit our [project evaluations webpage](#).

The Puerto Rican crested toad (PRCT; *Peltophryne lemur*), commonly known in Spanish as *sapo concho puertorriqueño*, is the only native bufonid of Puerto Rico and the Virgin Islands. An adult PRCT is a medium-size toad ranging from 64 to 120 millimeters (2.5 to 4.5 inches) snout-vent length, of singular aspect, owing to the extraordinary development of the bony crest of the cranium and large size of its eyes. Juvenile PRCTs (recently metamorphosed, less than 1 inch (25.4 mm snout-vent length) have a distinctive coloration and patterns, making them easily identifiable among other toad species in Puerto Rico.



The PRCT was federally listed as threatened in 1987, and has been documented historically in 14 scattered sites along the northern and southern karst regions in Puerto Rico: eight in the northern karst, and six in the southern karst. Presently, the species is only found in three natural populations in the southern karst region and six reintroduced sites (three in the southern karst, and three in the northern karst region). Outside breeding events, the species is difficult to detect. The PRCT seems to be more active at night, from 7:30 pm to 1:00 am, and have been observed using small holes and crevices to access underground chambers as daytime retreats. These animals are able to climb vertical rock faces and steep dirt banks to find holes and crevices. In forested areas and grasslands where the topography has low relief (i.e., rocks, slopes), and limited structural complexity (holes and crevices), adult toads have been found inside dead logs, and inside empty nests of tarantulas (*Cyrtopholis portoricae*).

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the PRCT and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional recommendations can be made besides the ones presented in this document.

1. Inform all project personnel about the potential presence of the PRCT in areas where the proposed work will be conducted. A pre-construction meeting should be conducted to inform all project personnel about the need to avoid harming the species as well as penalties for harassing or harming PRCTs. An educational poster or sign with photo or illustration of the species should be displayed at the project site.
2. Prior to any construction activity, including removal of vegetation and earth movements, the boundaries of the project and areas to be excluded and protected should be clearly marked in the project plan and in the field in order to avoid further habitat degradation into forested and conservation areas.
3. Strict measures should be established to minimize toad casualties by motor vehicles or other equipment in areas where the species is known to occur. Once the routes are determined, maintain the traffic (human and vehicle) within designated access to minimize affecting toads and habitat. When routes intersecting crested toad areas are utilized, personnel should pay attention (particularly at night, before heavy rains and after breeding events) to avoid mortality of adults and juveniles using the roads when migrating to the breeding pond or returning from the breeding pond. You should ensure that “toad crossing” should not be interrupted.
4. Before activities commence each workday during the earth movement, vegetation clearing or debris removal phase, a biologist or personnel with experience identifying and searching for toads should survey the work area to ensure that no toads are present or can be affected by the work activities. If a crested toad is observed during any time within the operational area of the project, cease or delay

activities until the toads move out of the area on their own. Activities at other work sites, where no toads have been found after surveying, may continue.

5. We recommend the continued use of sound recorders and monitoring of ponds if present within or near the project area to detect toad activities and breeding events, particularly during the rainy season.
6. Avoid impacts to drainages connected to potential breeding ponds, and avoid interrupting water flow.
7. If relocation of PRCTs is anticipated, a plan and protocol should be developed and submitted to the Service for revision and concurrence. Qualified and authorized personnel should capture and handle the toads. All individuals should be relocated in appropriate habitat close to the site where they were found.

For all PRCT sightings (dead or alive), record the time and date of the sighting and the specific location and contact the Service. If you have any questions regarding the above conservation measures, please contact the Service:

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