LANTANA CAMARA L., A THREAT TO NATIVE PLANTS AND ANIMALS

by

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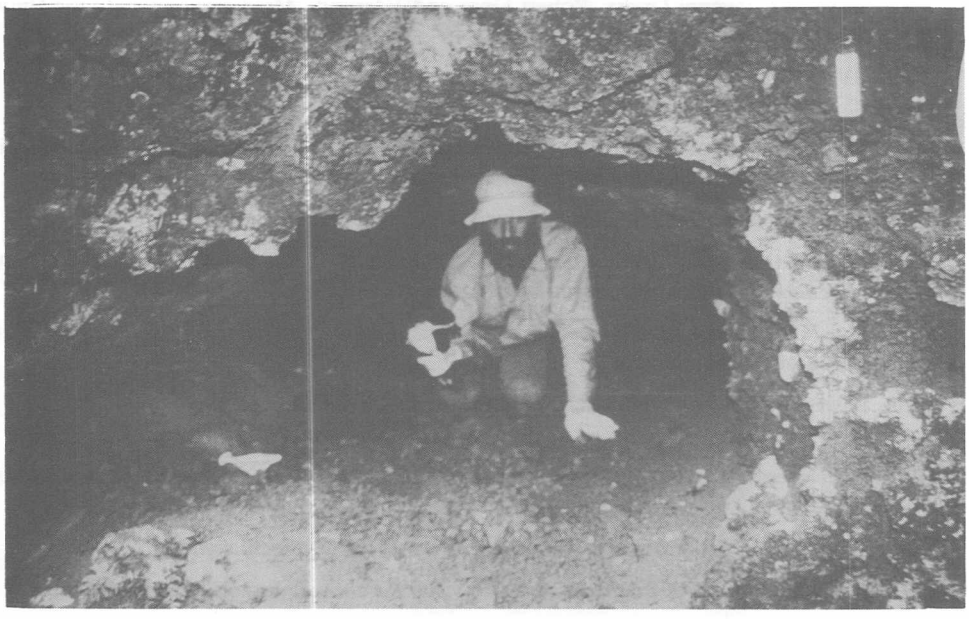
For a long time, the Hawaiian or Dark-rumped Petrel, *Pterodroma phaeopygia,* in the Galapagos Islands, has been threatened by introduced mammals, documented by several authors (Tomkins, 1980; Duffy, 1984). Many efforts have been made to control these threats from predators but until now very little attention has been directed to threats originating from the vegetational changes represented by introduced plant species. While the control of the animals threatening the petrel on Floreana Island are meeting with some success, the introduced aggressive plant, *Lantana camara* L. (Verbenaceae), is spreading into the breeding area of the petrel, thus becoming a threat to this bird and also to some other plant species.

L. camara L. is a native plant of tropical America but is now used extensively as an ornament in all warmer areas of the world. It grows easily into a 1-2 metre high shrub, and is therefore often used as a hedge. *Lantana* reproduces itself easily by means of fruits, usually eaten by birds, but also vegetatively. Because of its easy reproduction, dispersal, and vigorous growth, *L. camara* represents a severe problem around the world when it escapes into natural areas, as seen in S. Africa, Australia, Hawaii, and the USA. When conditions are optimal, the area invaded by *Lantana* turns into an impenetrable 1-2m high stand. The magnitude of the problem of erradication, once *Lantana* has become established, is illustrated by the following citation: "There is little doubt that, where the country lends itself to it, clearing standing *Lantana* with a bulldozer, followed by discing, is the best starting point". (Bartholomew, 1980).



Felipe Cruz measuring and banding an adult petrel at mouth of nesting cave
Photo: Justine Cruz

The introduced *L. camara* (vernacular name: Supirosa) which is a close relative to the native *L. peduncularis,* is known in Santa Cruz, San Cristóbal, and Floreana. Except for Floreana, the problem of *Lantana* is not grave as yet,-but measures to eradicate it from gardens, etc., should be started now, while the elimination of this dangerous species is still possible.

On Floreana, *Lantana* was introduced in 1938 by Ainsley and Francis Conway on their small farm in the central S.E. of the island. Francis wrote that they established a garden with many varieties of fruits and flowers, which included the first recorded *Lantana* plants in Galapagos. While clearing for their garden they would throw cuttings of *Lantana* over their improvised fence and the extra growth helped to keep out the marauding wild cattle and pigs. She adds that the "... balsams and lantanas spread into the jungle trails and the pampas."

Not surprisingly, dense thickets of *Lantana* resulted, and in these areas the population of rats is higher, perhaps because the plants' seeds are a good food source. The native Galapagos finches readily eat and disperse the seeds and during dry spells cattle and donkeys also take the fruit. By 1983 several extensive areas in the highlands close to Cerro Pajas and Cerro Ventana had been covered by stands of *Lantana.* The former vegetation types found in these areas were *Scalesia peduculata* forest and a dry vegetation represented by *Croton, Macraea,* and *Darwiniothamnus.* In the areas now being invaded by *Lantana* some small populations of rare plant species are found and are therefore in danger of being eliminated. This is true of 2 of the 3 populations of *Lecocarpus pinnatifidus* Decaisne (Compositae) and of a population of *Scalesia villosa* (Compositae). Both species are endemic to Floreana.

The impending spread of this agressive weed to the crater area of Cerro Pajas, where the Dark-rumped Petrel nests, is of grave concern. If the plant is allowed to follow its normal growth pattern the resultant dense thicket will keep the petrels, which nest in burrows, from occupying their historic breeding site. As *Lantana* advances there is little doubt but that the Petrels will be forced out of the largest remaining nesting colony in the Galapagos. Likewise little doubt remains that important vegetation types, including rare endemic species, will also become extinct.

Every effort should be made to raise funds to finance an immediate erradication campaign on Floreana. A positive result would help to save the endangered Dark-rumped Petrel as well as the beautiful *Lecocarpus.*

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