

Genetic Population Structure and Genetic Diversity in the Island Populations of the Ryukyu Five-Lined Skink, *Plestiodon marginatus* (Reptilia: Scincidae)

KURITA Kazuki¹, TODA Mamoru², HIKIDA Tsutomu¹

¹Department of Zoology, Graduate School of Science, Kyoto University, Kyoto, Japan

²Tropical Biosphere Research Center, University of the Ryukyus, Okinawa, Japan

The Ryukyu five-lined skink *Plestiodon marginatus* is a medium-sized lizard endemic to the Ryukyu Archipelago, Japan. This species is distributed in most islands of the Okinawa, Amami, and Tokara Island Groups, including very small islets where almost all other reptiles are absent. In order to reveal the population structure and the genetic diversity of island populations, we examined genetic variations of *P. marginatus* in the Okinawa Island Group by use of the mitochondrial DNA and microsatellite data. Results showed that the populations from the northeastern and southwestern regions were genetically differentiated from each other. The genetic variability of island populations became lower as island areas decreased. Although genetic variability of the populations in small islets was mostly quite low, their bottleneck indices varied considerably among the populations. This result suggested that some populations persisted for a long time, but the others have been recently established or otherwise recently reduced in size.