History of taxonomic recognition of reptile diversity in the East Asian Islands

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The East Asian Islands consists of several hundred of inhabited islands and uninhabited islets of Japan and Taiwan, and is located in the eastern off-shore of the Eurasian continent. It extends from the cool-temperate zone in northeast to the subtropical zone in southwest. Such topography, along with its diverse geomorphology, makes the climate of this region highly variable, offering diverse temperature, humidity and precipitation environments to its terrestrial organisms. Geologically the East Asian Islands is characterized by radical and complicated tectonic movements, which often lead to heavy earthquakes and cause remarkable uplifting and subsidence of localized crusts. To the terrestrial animals with limited ability of oversea dispersals, formation of a landbridge and its subsequent fragmentaion, involved by such tectonic movements and also by the eustatic sea level changes, offer good opportunities of range extension and vicariance. Indeed, terrestrial fauna of the East Asian Islands is characterized by a high degree of endemism and distinct difference in species composition even between neighboring areas, when they are separated by long standing straits.

The taxonomic description of terrestrial animals in the East Asian Islands was first started in the early 19th Century by a few European naturalists. Since then, nearly two centuries have passed. Nevertheless, a huge number of new and newly recorded taxa are still reported from this region every year. On this opportunity, I review the history of taxonomic recognition of reptile diversity in this region.

Over 160 native species and subspecies of terrestrial reptiles have been reported from the East Asian Islands. From Japan, 80 are currently recognized, of which nearly 3/4 are endemic to this region. With respect to Taiwan, more than 80 species and subspecies are also reported, of which, however, less than half are endemic. The difference in the ratio of endemic taxa between the two regions seems to reflect the difference in their history as isolated islands: many of the Japanese islands are considered to have been consistently isolated from the continent for more than one million years, whereas the main island of Taiwan, where most Taiwanese species and subspecies occur, seems to have connected to the continent around 15,000—20,000 years ago, when the sea level lowered by ca. 120 m as a result of continental glaciation.

Of the native taxa of terrestrial reptiles in the East Asian Islands, more than 2/3 were described or recorded from this region by the middle of the 20th Century, and over 9/10 by the early 1980s. However, with the progress and prevalence among taxonomists of molecular and cytogenetic techniques that are quite effective in detecting morphologically poorly diverged but genetically distinct or reproductively isolated species, the number of taxa newly discovered from the East Asian Islands have started to increase again during the last two decades. The temporal pattern of increase of the reptile taxa recognized from this region predicts that a substantial portion of the cryptic taxonomic diversity still remains to be appropriately recognized.

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Taxonomy, biogeography, and conservation of tarsiers

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Hill (1955) classified tarsiers into three species, each from a distinct biogeographic region: *Tarsius bancanus* from island areas of Sundaland, *T. syrichta* from islands of the southern Philippines, and *T. tarsier* (=*spectrum*) from Sulawesi and nearby islands. Multiple species and/or subspecies have been