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Taxonomic importance of a tiny island: type locality - Singapore. New species from inland to off-shore. Will we discover more?

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exemplified by the Iriomote cat (see Oral-12). Consequent vacancy of some niches in the Ryukyu islands seems to have enabled other animals to make their niches unusually broad.

2) Distinct patterning in geographic distributions of non-volant mammals in this region. Most of their ranges are delimited by the Watase's Line and the Hachisuka's Line (see above), as has been already noted. This suggests the substantial influence of paleogeography on the formation of current distributions of species and subspecies in mammals as in the case of other animal groups.

3) Unexpectedly limited distributions of chiropteran species and subspecies in this region. Many previous authors implicitly or explicitly assumed that bat taxa generally show distributions whose pattern does not necessarily correspond to island configuration due to their highly effective migration ability. However, many of the Ryukyu bats actually show strongly limited distributions that more or less correspond to island shapes. This probably reflects the influence of geographic arrangements of important resources, such as resting sites and foraging areas.

O-11

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The island of Singapore has been the designated type locality for practically hundreds of newly described taxa for more than a hundred years. New genera, subgenera, species and subspecies of a wide variety of vertebrates and invertebrates have been described by various scientists from around the world, even till today. In total, how many published taxa have been described. Of these, how many are actually valid still? In the future, how many more discoveries remain to be unearthed? Where are some of the local 'hotspots' for biodiversity, where potentially new species lie waiting to be found? This is a preliminary attempt to answer these, and other questions, pertaining to Singapore's past, present and future significance from a taxonomic perspective.

Oral -12

Significance of diversity of small animals as viewed from a wild cat surviving on a small subtropical island

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The Iriomote cat *Prionailurus bengalensis iriomotensis*, a wild cat endemic to Iriomotejima Island, is the only indigenous medium-sized carnivore in the Ryukyu Archipelago. Recent molecular studies indicated that this cat is closely related to the leopard cat distributed from India and Southeast Asia to Russia and that the former was derived from the latter through migration to Iriomotejima island and subsequent isolation for about 200,000 years. Carnivores, occupying the top of the food chain, usually need wide ranges of habitats that guarantee constant provision of prey animals. The Iriomotejima Island (284 km²) is apparently too small for such medium-sized carnivores as the Iriomote cat. Moreover, except for some chiropteran species, no small indigenous terrestrial mammals that are almost always the staple of feline diet occur on this island. The survival of the Iriomote cat on Iriomotejima Island has therefore been regarded as a kind of enigma by mammalogists and ecologists.

We have studied food habits, home ranges, and activities of the Iriomote cat to solve this enigma. The scat analyses showed that the diet of this cat consists of an extraordinarily wide range of animal taxa, including not only such small mammals as the native fruit bats and the introduced black rats, but also