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## Mammal records of two visits to Pulau Bintan, Riau Archipelago, Indonesia in 2018

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Subjects identified by: Bosco P. L. Chan, Eric J. Sargis (Tupaia glis).

Location: Pulau Bintan, Riau Archipelago, Indonesia.

**Elevation**: Sea-level to ca. 50 metres

**Habitat**: Small patches of old-growth dipterocarp forest (Fig. 1), secondary forest of various successional stages (Fig. 2), golf courses, resort grounds and disturbed grassland-shrubland mosaic. The profusion of palms (Family Arecaceae) and pandans (Family Pandanaceae) are prominent features in the natural forest of the island.

Dates and times: 25-29 July 2018, 14-17 September 2018, day and night.





Figure 1. Figure 2.

## Identity of subjects and descriptions of records:

- Common Treeshrew, Tupaia glis (Mammalia: Scandentia: Tupaiidae),
   Seen daily in forest interior and the resort grounds in September (Fig. 3). Individuals were seen, always on the ground, throughout daylight hours including one raiding a rubbish bin at noon.
- 2) Long-tailed Macaque, *Macaca fascicularis* (Mammalia: Primates: Cercopithecidae), Common, observed daily in both forest interior, golf courses and resort grounds, with troops of up to 30 individuals seen on both trips (Fig. 4).
- 3) Silvery Lutung (Silvered Leaf Monkey), *Trachypithecus cristatus* (Mammalia: Primates: Cercopithecidae), Seen daily on both trips, active at dawn and dusk in patches of mature inland as well as coastal forests (Fig. 5). The biggest troop consisted of 8 individuals with juveniles and infants, and a troop was seen feeding on the cauliflorous fruits of a fig tree (*Ficus* sp.). It is listed as Near Threatened in the IUCN Red List.
- 4) Plantain Squirrel, *Callosciurus notatus* (Mammalia: Rodentia: Sciuridae), Seen daily on both trips, most visible in resort grounds and golf courses, where some individuals are habituated (Fig. 6).
- 5) Small-toothed Palm Civet, *Arctogalidia trivirgata* (Mammalia: Carnivora: Viverridae),
  One adult observed on 28 July at 21:30 hrs, resting ca. 10 metres from the ground in a tall tree in a patch of tall dipterocarp forest with disturbed undergrowth (Fig. 7). When revisited an hour later it was active in nearby tall trees, then it moved out of sight.

- 6) Sambar, *Rusa unicolor* (Mammalia: Artiodactyla: Cervidae),
  Three males, with either velveted or hardened antlers, were seen in Ria Bintan Golf Club (Fig. 8). Sambar is
  not considered to be part of native Bintan fauna (Dammerman, 1926, Meijaard et al, 2007). An interview with
  the management revealed that some deer were imported from Kalimantan by the now closed Lagoi Zoo. One
  male and 3 females were given to the golf club around the year 2013, which bred in captivity and were later
  released. A breeding group of 17-20 deer are currently roaming freely in the vicinity of the golf course and
  surrounding forest, and come out to graze on the fairways. The Bornean subspecies *R u. brookei* is endemic to
  Borneo. Sambar is listed as Vulnerable in the IUCN Red List.
- 7) Eurasian Wild Pig or Bearded Pig, *Sus* sp. (Mammalia: Artiodactyla: Suidae),
  Both the Bearded Pig (*Sus barbatus*) and the Eurasian Wild Pig (*S. scrofa*) have been reported from Bintan
  Island (Dammerman, 1926; website of IUCN SSC Wild Pig, Peccary & Hippo Specialist Groups). Photographs
  taken by handphones were shown to the authors by two separate local inhabitants, but the photo qualities
  precluded definitive species-level identification. Sadly, one set of photos depicted a pig hunting event outside
  the Bintan Resorts area. The other set of photos showed a family group of pigs in daylight crossing a paved
  road near Ria Bintan Golf Club. Diggings by pigs were observed by the authors in forest interior nearby, and
  golf course workers also reported babi hutan ("forest pig" in Bahasa Indonesia) are common, which could be
  either species.

**Remarks**: The authors paid two visits to the northern coast of Pulau (= Island) Bintan, in the Riau Archipelago, Indonesia, which lies some 40 km south of Singapore. The northern part of the island has been developed for international tourism with resorts and associated facilities of different scales, and is known collectively as the "Bintan Resorts". Despite the development, the landscape of Bintan Resorts is predominately covered in secondary (including peat swamp) forests of various successional stages, with small patches of old-growth dipterocarp and original peat swamp forests.

With regards to the Common Treeshrew, the subspecies *T. g. castanea* is endemic to Bintan Island with a distinct pelage (the example in Figure 3 has a markedly reddish tail). Sargis et al. (2017) consider the Bintan subspecies, together with the population from nearby Mapur Island, to be unique amongst common treeshrews, and "... have a clearly distinctive pelage that suggests affinity with a species other than *T. glis*" i.e. it could potentially be a separate species, or related to the Ruddy Treeshrew *T. splendidula* species complex.



Figure 3. Common Treeshrew, Tupaia glis



Figure 4. Long-tailed Macaque, Macaca fascicularis



Figure 5. Silvery Lutung, *Trachypithecus cristatus* 



Figure 6. Plantain Squirrel, Callosciurus notatus



Figure 7. Small-toothed Palm Civet, *Arctogalidia trivirgata* 



Figure 8. Sambar, Rusa unicolor

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Regarding the identity of "forest pigs" on Pulau Bintan, the Bearded Pig subspecies *S. b. barbatus* was previously recorded on the island but was reportedly extirpated; this species is in rapid decline globally and is listed as Vulnerable in the IUCN Red List (Luskin et al., 2017). The Eurasian Wild Pig has been reported as "fairly common throughout northern Bintan" (Subaraj, 1994). Field identification of these two species can be challenging and, in view of the absence of recent biodiversity surveys for Bintan Island and the resilience of pig species to survive on fragmented and degraded forest, both species could still be present. It would be interesting to conduct surveys to clarify the identification, distribution and status of wild pigs on Bintan.

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