Hamadryad Vol. 27, No. 2, pp. x – x, 2003 Copyright Centre for Herpetology Madras Crocodile Bank Trust

The first report on the herpetofauna of Pulau Sembilan and Pulau Seribuat, Pahang, West Malaysia

Seribuat Archipelago is located in the southern section of the South China Sea off the south-east coast of Peninsular Malaysia. It is composed of 32 islands, of which only six have been herpetologically documented; Pulau Tioman (Day, 1990; Grismer et al., 2002; Hien et al., 2001; Hendrickson, 1966a; 1996b; Lim and Lim, 1999), Pulau Aur (Escobar et al., 2001; 2003a; Grismer et al., 2001a), Pulau Tulai (Grismer et al., 2001b; 2002; Hendrickson, 1966a; 1966b) Pulau Pemanggil (Youmans et al., 2002), Pulau Dayang (Wood et al., 2003), and Pulau Tinggi (Escobar et al., 2003a). Field wok was conducted on Pulau Seribuat and Pulau Sembilan with the intention of composing a preliminary checklist of the islands' herpetological diversity. A total of 10 lizards and two frogs were observed.

Pulau Sembilan (103° 53' E; 2° 41' N) is a small oblong island (2.0 x 2.1 km) located 17.6 km north-east coast of Peninsular Malaysia and 0.7 km west of the nearby Pulau Seribuat. The islands are connected at low tide by a shallow sand bar. Pulau Sembilan is low lying and consists of volcanic rocks and wind blown coastal vegetation with a small peak (232 m) on its northern side. The vegetation on the peaks appears more dense than the low-lying regions. Mangrove vegetation nearly surrounds the periphery of the island and small fresh water streams that flow into the ocean occur on its western side.

Pulau Seribuat (103° 55' E; 2° 41' N) is a small cylindrical island (2.6 x 3.3 km) located 16.0 km north-east of Peninsular Malaysia and 0.7 km from Pulau Sembilan. Pulau Seribuat is similar to Pulau Sembilan in that the interiors of both are composed of low-lying volcanic rocks and wind blown coastal vegetation. There is a low peak (139 m) on the southern side of the island, which has a little more forest then the lower less mesic regions. The eastern periphery of the island maintains extensive mangrove swamps. A

small stream runs near the base of the southern peak.

Collections were made on the south-eastern section of Pulau Seribuat between 1000 and 1400 h on 24 March 2003 and between 2000 and 2300 h on 25 March 2003. Collections were made on Pulau Sembilan between 1100 and 1500 h on 25 March 2003 on the western portion of the island. Liver tissue and tail tips were taken from representative specimens and preserved in 90% ethanol. Specimens were preserved using 10% formalin and stored in 70% ethanol. Specimens collected are listed below and deposited in the Forest Research Institute Malaysia (FRIM), Kepong, Kuala Lumpur, Malaysia. Photographic vouchers are deposited in the La Sierra University Photographic Collection the Department of Biology, La Sierra University, Riverside, California, U.S.A.

Anura (frogs)

Polypedates leucomystax (Gravenhorst, 1829)(FRIM 0581-0585, Seribuat; 0613, Sembilan).-Two tadpoles were taken from a drying pool in a stream at 1100 h on Pulau Seribuat, adults were collected at night along a small stream, in the trees, ca. 2 m above the ground, and in low-lying vegetation.

Fejervarya cancrivora (Gravenhorst, 1829)(FRIM 0580, Seribuat; 0610-0612, Sembilan).- Individuals were observed near the beach in a dried stream bed at 1300 h on Pulau Sembilan. An additional specimen was collected at night from the inertial zone on Pulau Seribuat where the freshwater stream meets the ocean.

Squamata (lizards)

Aphaniotis fusca (Peters, 1864)(FRIM 0586, Seribuat; 0614-0616, Sembilan).- Many specimens were collected between 1100 and 1220 h on Pulau Seribuat and Pulau Sembilan. All were 1-9 m above the ground on the trunks of small trees ranging from 0.3 to 0.8 m in diameter.

Cnemaspis kendallii (Gray, 1845)(FRIM 0587-0589, Seribuat; 0617, Sembilan).- Several specimens were collected on Pulau Seribuat and Pulau Sembilan along stream beds in the forest. Specimens were observed on rocks and logs between 1000 and 1200 h near a stream bed.

Cyrtodactylus sp. (FRIM 0590-0597, Seribuat; 0618, Sembilan).- Several individuals were collected on the beach and within the intertidal zones near mangrove swamps on Pulau Seribuat and Pulau Sembilan. All were found between 1900 and 2200 h. During the day, specimens were found beneath dead coconut husks and pieces of plywood debris on the beach. This population represents a new species whose description is in preparation.

Gekko monarchus (Duméril and Bibron 1836)(FRIM 0600-0601, Seribuat; 0620; Sembilan).- Two specimens were collected on Pulau Seribuat, ca. 1 m above ground on trees next to the stream bed. The first specimen was found at 2021 h on a small (0.5 m diameter) tree, ca. 0.5 m above the ground. The second was found on a tree near the edge of a stream.

Hemidactylus frenatus (Duméril and Bibron, 1836) (FRIM 0598-0599, Seribuat; 0619, Sembilan).- Two specimens on Pulau Seribuat were found in a tree, ca. 2 m above the ground in the mangrove swamps. Both were collected between 1000 and 1300 h.

Ptychozoon kuhlii (Stejneger, 1902)(FRIM 0602, Seribuat).- One well-developed embryo was taken from an egg attached to a medium sized tree (0.5 m in diameter), ca. 4 m above the ground along a dry stream bed at 1126 h on Pulau Sembilan.

Emoia atrocostata (Lesson, 1830)(FRIM 0603-0605, Seribuat).- Five individuals were collected in the intertidal zone and mangrove swamps on Pulau Seribuat. All were taken between 1000 and 1200 h. All had a light orange ventral colouration.

Lygosoma bowringi (Günther 1864)(FRIM 0606, Seribuat; 0621, Sembilan).- Three specimens were collected on a sandy beach under a log near the base of a tree on Pulau Seribuat and another near the base of at tree on Pulau Sembilan. Individuals attempted to burrower into the sand to escape capture.

Eutropis multifasciata (Kuhl, 1820)(FRIM 0607-0609, Seribuat; 0622, Sembilan).- Eight specimens were observed from throughout the locations visited on both Pulau Sembilan and Pulau Seribuat. Most were collected while bask-

ing on the forest floor on rocks, near trees, or in the leaf litter.

Unconfirmed species

Boiga dendrophila (Boie, 1827).- The caretaker of a radio tower on the western side of the Pulau Seribuat reported seeing a long black snake with yellow bands on the body. It is assumed to be *Boiga dendrophlia*. Future fieldwork is planned to confirm this identification.

Varanus salvator (Laurenti, 1768).- One specimen was seen on Pulau Seribuat walking along the beach foraging for food in the intertidal zone.

The amphibians and reptiles of Pulau Seribuat are a subset of the species found on Pulau Sembilan. We can make this assumption based on the ecological similarity of the two islands and their close proximity. However, additional fieldwork will probably demonstrate that these islands share the same species. The only difference in the herpetofauna at this point is the presence of, *Ptychozoon kuhlii* on Sembilan and *Hemidactylus frenatus* on Seribuat. We expect to find these two species on Seribuat with future fieldwork.

We are most grateful to Sahir bin Othman of the Department of Wildlife, Jabatan Perlindungan Hidupan Liar dan Taman Negara (PERHILTITAN) for permission to conduct fieldwork in the Seribuat Archipelago. For comments on the manuscript we would like to thank L. L. Grismer. This fieldwork was supported by grants from the University Research Council of La Sierra University and the Rychman Endowment Funding

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 Received: 4 July 2003. Accepted: 25 July 2003.