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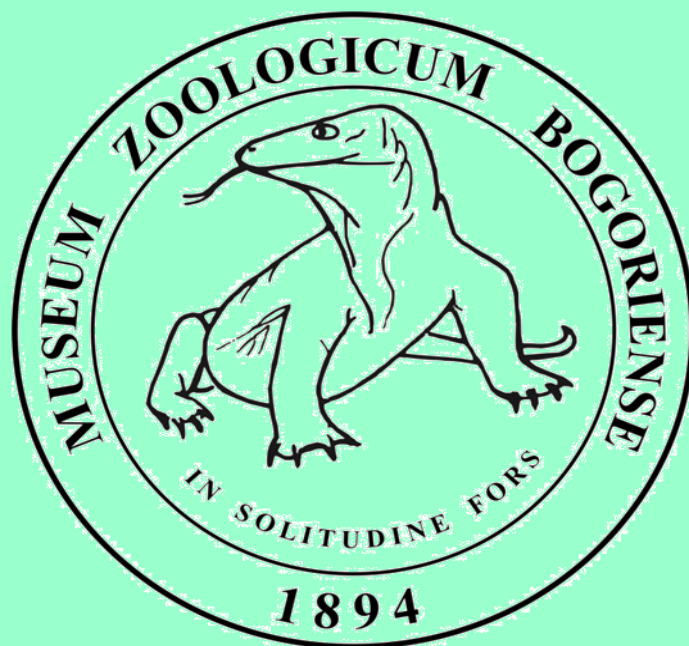


TREUBIA

*A JOURNAL ON ZOOLOGY
OF THE INDO-AUSTRALIAN ARCHIPELAGO*

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UDC: 594.3:591.3(594)

Nur Rohmatin Isnaningsih

The morphology and ontogenetic of *Tarebia granifera* (Lamarck, 1822) from Indonesia (Gastropoda: Cerithioidea: Thiaridae)

TREUBIA, December 2017, Vol. 44, pp. 1–14.

The freshwater gastropod *Tarebia* H. Adams & A. Adams, 1854, are found in rivers, lakes, and other limnetic habitats. In Indonesia, *Tarebia granifera* (Lamarck, 1822) is the only species within the genus that has a wide distribution. The systematics and identity of this species are still doubtful due to high variation in shell morphology, especially shell height and ornamentation or sculpture of shell. To determine the identity of *T. granifera* from Lombok, Banten, and Maros, ontogenetic studies have been conducted. The results showed that *T. granifera* from Lombok produce the highest number of embryonic shells. The number of progeny in the brood pouch from a single individual of *T. granifera* can vary between 9 to 203 embryonic shells which are found in various stages of 0.22 mm to about 5 mm in size inside the brood pouch.

(Nur Rohmatin Isnaningsih, Adi Basukriadi and Ristiyanti Marsetiyowati Marwoto)

Key words: embryonic shell, ontogeny, subhaemocoelic brood pouch, *Tarebia granifera*, Thiaridae

UDC: 597.8:57.065

Amir Hamidy

Phylogenetic relationships of *Leptobrachium hasseltii* Tschudi, 1838 (Amphibia, Anura, Megophryidae) - detection of a possible cryptic species

TREUBIA, December 2017, Vol. 44, pp. 15–28.

By examining mitochondrial DNA phylogeny using 2424bp of sequence data 12S rRNA, tRNA^{val}, and 16S rRNA genes, we evaluated the taxonomic relationships among Javan litter frogs *Leptobrachium hasseltii* from southern Sumatra, Java, and Bali. *Leptobrachium hasseltii* formed a well-supported monophyletic group, which comprised two major clades. One major clade represented the southern Sumatran and Javan populations and the other consisted of the population from Bali. The Javan and southern Sumatran clade included two subclades: the West Javan-southern Sumatran group and the Central Javan group. The genetic divergence between the two major clades (Bali vs. Java-Sumatra) suggested their separation happen at species level. Further studies using morphological and acoustic data are needed to determine the taxonomic status of Bali population.

(Amir Hamidy and Masafumi Matsui)

Key words: Bali, Java, *Leptobrachium*, mitochondrial DNA, Sumatra

UDC: 595.771(083.8)(594.47)

Sidiq Setyo Nugroho

An updated checklist of the mosquitoes from South Sumatra Province with a new record of *Aedes (Downsiomyia) pexus* Colless, 1958 (Diptera: Culicidae) in Indonesia

TREUBIA, December 2017, Vol. 44, pp. 29–46.

Data of mosquito fauna is important to be known as basic effort in vector mosquito control. It is necessary to update the data from time to time. The effort of updating the mosquito fauna was started from South Sumatra Province. Amount of 2,784 mosquito specimens were examined. The result showed there are 62 species of mosquitoes from South Sumatera Province and they belong to 10 genera. One species of culicid mosquito were recorded for the first time from Indonesia, namely *Aedes (Downsiomyia) pexus* and six other species were first recorded on Sumatra Island. These species are now included in the Sumatran Culicidae checklist.

(Sidiq Setyo Nugroho, Mujiyono, Triwibowo Ambar Garjito, Riyani Setyaningsih, Siti Alfiah, Yahya, Anif Budiyanto and Lasbudi Pertama Ambarita)

Key words: Indonesia, mosquito fauna, new species record, South Sumatra

UDC: 597.8:591.5(594.53)

Mirza Dikari Kusrini

Morphological and ecological observations on *Chiromantis vittiger* (Anura: Rhacophoridae) in Mount Halimun - Salak National Park, Indonesia

TREUBIA, December 2017, Vol. 44, pp. 47–66.

Despite an early description, the rhacophorid frog (*Chiromantis vittiger* (Boulenger 1897)) is relatively poorly known species. It has been found in several areas in the mountainous part of western Java, one of which is in the Chevron Geothermal Indonesia (CGI) concession area within Mount Halimun-Salak National Park. An ecological study of this species and its habitat was conducted in CGI from April to September 2008. The biological and ecological aspects of this tree frog such as morphology, habitat characteristics, breeding behaviour, and larval development are presented in this paper. This study found that the fertilised eggs hatch as free-swimming tadpoles. In addition, the availability of artificial habitat in the form of concrete ponds helps sustain the population throughout the year. We also report parental care in this species.

(Mirza Dikari Kusrini, Muhammad Irfansyah Lubis, Bobby Darmawan and Luthfia Nuraini)

Key words: breeding behaviour, *Chiromantis vittiger*, larval development, Mount Halimun-Salak National Park, parental care

UDC: 577.2(594)

Bruno Cancian de Araujo

Indobiosys – DNA barcoding as a tool for the rapid assessment of hyperdiverse insect taxa in Indonesia: a status report

TREUBIA, December 2017, Vol. 44, pp. 67–76.

A status report with preliminary results for the IndoBioSys project is presented and the impact of the project results for study of the Indonesian fauna is discussed. Using the REST API available on Barcode of Life Datasystem we found 21,153 public records (3,390 BINs) from Indonesia and compare them to the 21,813 records (3,580 BINs) generated by the IndoBioSys project. From all IndoBioSys BINs, 3,366 (94%) are new to Indonesia. IndoBioSys is responsible for a BIN increase of 36.5% in Lepidoptera, 62.6% in Trichoptera, 986% in Coleoptera, and 1,086% in Hymenoptera. After two years of the IndoBioSys project, the Museum Zoologicum Bogoriense became the depository institution for voucher specimens of 51.9% of Lepidoptera records, 95.8% of Coleoptera records, 97.6% of Hymenoptera records and 59.4% of Trichoptera records for Indonesia available on Barcode of Life Datasystem (BOLD). Now, with 55% of all Indonesian records available on BOLD. It is the most important depository for records of Indonesian genetic biodiversity, housing more than 23,000 new voucher specimens in their collections. Before IndoBioSys, Museum Zoologicum Bogoriense was responsible for only 9% of all records available in Barcode of Life Datasystem for Indonesia, showing the importance of those pipelines in empowering the local institutions in becoming the reference depository of the local fauna.

(Bruno Cancian de Araujo, Stefan Schmidt, Thomas von Rintelen, Hari Sutrisno, Kristina von Rintelen, Rosichon Ubaidillah, Christoph Häuser, Djunijanti Peggie, Raden Pramesa Narakusumo and Michael Balke)

Key words: biodiversity inventory, CO1, DNA barcode, high-throughput pipeline, metabarcoding

UDC: 598.2(594)

Dewi Malia Prawiradilaga

A colourful new species of *Myzomela* honeyeater from Rote Island in eastern Indonesia

TREUBIA, December 2017, Vol. 44, pp. 77–100.

The avifauna of Rote Island in the Lesser Sundas is not well studied and generally considered to be similar to that of adjacent Timor Island. However, some cases of bird endemism have recently been documented on this island. A population of *Myzomela* honeyeater is one such example. First observed in October 1990, it has been subsumed with *Myzomela dammermani* from Sumba Island given its superficially similar appearance. Based on extensive morphological inspection and bioacoustic analysis, we here describe this population as a new taxon to science. Apart from previously overlooked plumage distinctions, the new taxon bioacoustically differs from *M. dammermani* in the presence or absence of several unique call types and considerable differences across two parameters in shared call types. Considering the importance of bioacoustics in avian species delimitation, we propose that the new Rote *Myzomela* be considered a distinct species. Given continued habitat conversion across its small range, we propose the International Union for Conservation of Nature and Natural Resources (IUCN) threat status Vulnerable for the species.

(Dewi Malia Prawiradilaga, Pratibha Baveja, Suparno, Hidayat Ashari, Nathaniel Sheng Rong Ng, Chyi Yin Gwee, Philippe Verbelen and Frank Erwin Rheindt)

Key words: bird, Lesser Sundas, *Myzomela*, new species, Rote Island