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CONTENT

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Yaheita Yokoi

CALLIDIOPINI BEETLES (COLEOPTERA, CERAMBYCIDAE) IN THE COLLECTION OF MUSEUM ZOOLOGICUM BOGORIENSE, INDONESIA. PART II. GENITALIA AND TAXONOMY OF THE GENUS *TETHIONEA* PASCOE

TREUBIA, December 2021, Vol. 48, No. 2, pp. 81–102.

Species of *Tethionea* Pascoe, 1869, Callidiopini, in the collection of Museum of Zoologicum Bogoriense are reviewed. Two new species of the genus are described, *T. peggieae* sp. nov. and *T. oculata* sp. nov., both from Papua Province, Indonesia. In addition, *T. unicolor* Pascoe, *T. strumosa* Pascoe and *T. tridentata* Pascoe are redescribed. Their male genitalia are documented and illustrated in detail. In particular, the ejaculatory duct complexes of endophalli are carefully observed, as well as 8th sternites and tergites. For *T. oculata* sp. nov., the female genitalia are described. Morphological and taxonomical aspects of these species are discussed.

(Yaheita Yokoi, Hiroshi Makihara, and Woro A. Noerdjito)

Key words: Callidiopini, ejaculatory duct complex, endophallus, genitalia, *Tethionea*

UDC: 598.112.8:597.6

Ahmad Nauval Arroyyan

FIRST REPORT ON THE FEEDING BEHAVIOR OF EARLESS MONITOR, *LANTHANOTUS BORNEENSIS* AND ITS PREDATION ON RICE FIELD FROG, *FEJERVARYA LIMNOCHARIS* IN A CAPTIVE ENVIRONMENT

TREUBIA, December 2021, Vol. 48, No. 2, pp. 103–116.

Being endemic to Borneo, the Earless monitor, *Lanthanotus borneensis* (Steindacner, 1878) is rarely found in its habitats due to its cryptic behavior. We provide care for confiscated animals in the Reptile House of Museum Zoologicum Bogoriense (MZB) in Cibinong, West Java, Indonesia since 2014. Little is known on its natural prey but from scattered descriptive reports. This study is aimed at documenting the feeding behavior of ten captive Earless monitors and events of predation on frogs. We set up two experiments, one with meat of Rice Field Frog, *Fejervarya limnocharis*, and the other with live frog of the same species. Our recorded observations ran for four weeks for the frog meat feeding experiment and followed by the frog predation experiment. Our results showed that lizards constantly accepted frog meat. Lizards tended to feed before sunset for a short period of time on the muddy soil surface, although a few individuals inconsistently fed under water. The average body mass for these lizards increased by 4.29 g and average SVL by 0.45 cm. We recorded predation on frogs in three out of ten individuals observed during this study. If *F. limnocharis* is confirmed to occur in the natural habitats of *L. borneensis*, it is possible that this frog species is among the natural prey for Earless monitors. Further studies on its natural diets should be conducted to gain in-depth knowledge essential for generating effective captive husbandry for this nationally protected species in Indonesia.

(Ahmad Nauval Arroyyan, Evy Arida, and Nirmala Fitria Firdhausi)

Key words: crepuscular, frog meat, prey, reptile house, survival

UDC: 595.771.001.3

Sidiq Setyo Nugroho

SPECIES DISTRIBUTION UPDATE OF *MANSONIA* BLANCHARD, 1901 MOSQUITOES (DIPTERA: CULICIDAE) IN INDONESIA WITH THE ILLUSTRATED KEY FOR FEMALE MOSQUITO

TREUBIA, December 2021, Vol. 48, No. 2, pp. 117–128.

Mansonia is a genus of mosquitoes of which several species are confirmed vectors of lymphatic filariasis. Many countries including Indonesia are still struggling to eliminate lymphatic filariasis. Report of the *Mansonia* mosquito diversity and its distribution is essential to develop the control strategies. Six of eight *Mansonia* species have been confirmed as lymphatic filariasis vectors in Indonesia. This paper aims to update the distribution of the *Mansonia* mosquito in Indonesia. Species distribution data were summarized from various literature regarding the *Mansonia* mosquito. The data is complemented by the results of the National Research on Disease Vector and Reservoir (Rikhus Vektora) results conducted by the National Institute of Health Research and Development (NIHRD) in 2015-2018. There were new distribution records for four species of *Mansonia* mosquitoes in Indonesia. *Mansonia annulata* Leicester*, Ma. annulifera* (Theobald)*,* and *Ma. indiana* Edwards are now recorded distributed throughout the archipelago. Meanwhile, *Ma. bonneae* Edwards has a new distribution record in the Moluccas. The illustrated identification key for female *Mansonia* mosquitoes in Indonesia is provided in this paper.

(Sidiq Setyo Nugroho, Mujiyono, and Fahmay Dwi Ayuningrum)

Key words: distribution, Indonesia, *Mansonia*, mosquito

UDC: 595.78:636.082.4(594.53)

Djunijanti Peggie

CAN *TROIDES HELENA* AND *PACHLIOPTA ADAMAS* CO-EXIST? A PERSPECTIVE FROM THE BUTTERFLY BREEDING FACILITY, CIBINONG SCIENCE CENTER, INDONESIA

TREUBIA, December 2021, Vol. 48, No. 2, pp. 129–140.

Troides helena and *Pachliopta adamas* utilize the same food plant species: *Aristolochia acuminata.* For the purpose of captive breeding and conservation, it is desirable to find out whether they can co-exist in captivity. Captive breeding research was conducted on the butterfly species within the period of October 2016 to September 2019. In total, 1,361 individuals were observed. Data on adult emergence of the species is presented to show the trends. Both species co -existed poorly at the facility when food plants were limited. It took 45.9 days for *T. helena helena* and 32.6 days for *P. adamas adamas* to grow from egg to imago stage. Habitat enrichment can encourage the species to come and establish the population.

(Djunijanti Peggie, Supadi, Guntoro, and Muhammad Rasyidi)

Key words: captive breeding, co-exist, *Pachliopta adamas*, parental stocks, *Troides helena*

UDC: 595.799:638.1

Sih Kahono

DIVERSITY OF THE CLOSED-NESTED HONEY BEES (APIDAE: *APIS* SPP.) AND THE TRADITIONAL HONEY COLLECTING AND BEEKEEPING IN FOUR ISLANDS OF INDONESIA

TREUBIA, December 2021, Vol. 48, No. 2, pp. 141–152.

The closed-nested honey bees are an important group that has been successfully bred traditionally and in a modern way. The traditional honey beekeeping practices are still favorable by local people living near natural habitats. Many rural areas in Indonesia are well known as producers of honey from the traditional honey collecting and traditional honey beekeeping of the closed-nested honey bees. However, there is limited information on the diversity of the honey bees that had supported the honey productions and their traditional honey beekeeping. This research was to provide an overview of the diversity of the honey bee species that are used in the wild honey collecting and their traditional honey beekeeping in four selected study sites in the islands of Java, Bawean, Kalimantan, and Peleng. We recorded three species of closed-nested native honey bees in the traditional honey collecting and traditional honey beekeeping, namely *Apis cerana*, *A. koschevnikovi*, and *A. nigrocincta*. We observed that traditional beekeeping of *A. cerana* was carried out in Tasikmalaya and Bawean Island, and that of *A. cerana* and *A. koschevnikovi* were carried out in Kayan Hilir. On Peleng Island, people do not do beekeeping but collect honey directly from the forest. Honey collecting and beekeeping practices are related to changes in the seasons of the flowering period in their habitats. The knowledge of the flowering period is needed to know the seasonal movement of honey bees from forest to village and vice versa.

(Sih Kahono, Djunijanti Peggie, and Eko Sulistyadi)

Key words: *Apis cerana, A. koschevnikovi*, *A. nigrocincta,* Indonesia, traditional honey collecting and beekeeping

UDC: 594.3(594)

Ayu Savitri Nurinsiyah

LIST OF LAND SNAILS IN JAVA AND SEVERAL ADJACENT

TREUBIA, December 2021, Vol. 48, No. 2, pp. 153–170.

The malacofauna of Java has been most studied among the Indonesian islands, but the list of land snails in the area remains outdated. This study presents an updated check list of land snails in Java and its adjacent islands. This list is a compilation data from field work in Java conducted in 2013-2016, records from various museums in Europe and Indonesia, collections from private collectors, data from citizen sciences, and literatures. In total, 263 land snail species were recorded in Java and its adjacent islands. The number comprises of 36 families i.e. Subclass Neritimorpha (2 families), Caenogastropoda (6 families), and Heterobranchia (28 families). About 40% are species endemic to Java and among them have restricted distribution to certain areas. In addition, 5% or 13 introduced species were recorded in Java.

(Ayu Savitri Nurinsiyah)

Key words: biodiversity, Gastropoda, Indonesia, Mollusca, terrestrial