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An Updated Catalogue of the Millipedes (Diplopoda) of Thailand

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Dedicated to Professor Dr. Somsak Panha, the Main Trigger of Research in Invertebrate Systematics in Thailand, on the Occasion of His 65th Birthday in 2023

ABSTRACT. – Thailand, a relatively small country in Southeast Asia, is outstanding in biodiversity owing to three zoogeographic regions overlapping there: the Sino-Himalayan, the Indo-Chinese, and the Sundaic ones. Based on all available published records until 2022, an updated checklist of the millipedes (Diplopoda) of Thailand presently comprises 263 species belonging to 54 genera, 17 families, and nine orders. No less than 222 of these species are endemic to subendemic to Thailand, with only eight being synanthropic and up to subcosmopolitan in distribution. Since the previous checklist in 2005, the fauna has gained 144 species described as new to science, as well as a further 20 representing new country records. This steep progress has largely become possible through the activities of the Animal Systematics Research Unit of Chulalongkorn University, a zealous team of young researchers organized and led by Professor Dr. Somsak Panha. The present full-scale catalogue of the Thai millipedes seems to be particularly topical as a certain landmark, however temporary, not only because of the very considerable time elapsed since the previous, strongly outdated, 2005 catalogue, but also on the occasion of the 65th birthday of Professor Panha, the leader of invertebrate taxonomic research in Thailand.

KEYWORDS: biodiversity, endemism, Indochina, taxonomy

INTRODUCTION

Thailand, historically known as Siam and officially referred to as the Kingdom of Thailand, is situated at the center of Southeast Asia's mainland and spans 513,120 square kilometers. It is bounded to the north by Myanmar and Laos, to the east by Laos and Cambodia, to the south by the Gulf of Thailand and Malaysia, and to the west by the Andaman Sea and Myanmar's westernmost border (Royal Forest Department, 1985). Thailand is a relatively small country, yet it is extremely rich in biodiversity due to the overlap of three zoogeographic regions: the Sino-Himalayan, the Indo-Chinese, and the Sundaic ones (Luangjame et al., 1997). Thailand hosts several forest types and aquatic habitats; it supports at least 10,250 species of vascular plants and gymnosperms, 4,722 species of vertebrates, and 124,526 species of insects, crayfish, snails, shrimp, crabs, and other coral species (Office of Natural Resources and Environmental Policy and Planning, 2015).

The previous checklist of the Diplopoda of Thailand comprised 105 species in 35 genera, with brief notes on the history of research, taxonomy, distribution and biogeography (Enghoff, 2005). Between 1958 and 1959, Mrs Birgit Degerbøl, of Copenhagen, resided in Thailand and collected millipedes. Her material still constitutes the core of the Thai collection of the Natural History Museum of Denmark, which has been examined in an effort to significantly increase the number of identified species in Thailand (Fig. 3) (Enghoff, 2005). Later on, Professor Dr. Somsak Panha, Thai malacologist and biology professor at the Chulalongkorn University's Faculty of Science, initiated the Millipede project in 2006, which was supported by the Biodiversity Research and Training Program (BRT). The Program was established in 1995 and originally started funding fundamental research in Thailand, emphasizing the taxonomy of all species of plants, animals, and microorganisms. The project's initial objective was training and educating Thai people in millipede research, including exploring and collecting millipede diversity in the Ko Sichang Island, Chon Buri Province, before expanding the survey to the entire country (Panha et al., 2007).

At first, Professor Dr. Henrik Enghoff, the Danish myriapodologist from the Natural History Museum of Denmark, University of Copenhagen, Denmark, was invited to participate in this survey and train students and researchers interested in millipede taxonomy (Fig. 1A). The same year, the Shocking Pink Dragon Millipede, *Desmoxytes purpurosea* Enghoff, Sutcharit & Panha, 2007, was officially described from Hup Pa Tard limestone mountain in Uthai Thani Province. It was so named for its vivid pink colour (Enghoff et al., 2007). Amazingly, this millipede was ranked third in

FIGURE 1. Processing photos of millipede activities in Thailand **A.** Prof. Henrik Enghoff provided details about millipedes to Thai research colleagues (Ms. Piyatida Pimvichai and Mr. Natdanai Likhitrakarn, Prof. Somsak Panha) at Chulalongkorn University, Bangkok (2007) **B.** Prof. Somsak Panha and Prof. Sergei I. Golovatch during a survey in Rayong (2010) **C.** Group photo of the 17th International Congress of Myriapodology, Krabi (2017) **D.** Prof. Somsak Panha and Prof. Henrik Enghoff were announcing new discoveries to promote public awareness of millipede diversity and conservation, Bangkok (2019). Photograph credit: **A–C** authors **D** CU NEWF: New Millipede Species Discovered in Thailand https://www.chula.ac.th/en/news/19956/

the Environmental Science and Forestry (ESP) top ten new species among the total number of new species discovered in 2008 (International Institute for Species Exploration, 2008) (Fig. 2E). Since then, Prof. Panha devoted much of his time to instructing three doctoral students – Piyatida Pimvichai, Natdanai Likhitrakarn and Ruttapon Srisonchai, in the field of millipede taxonomy and systematics. He collaborated actively with two experienced millipede specialists, Professor Dr. Henrik Enghoff and Professor Dr. Sergei I. Golovatch, the latter from the Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Moscow, Russia, to supervise and assist these apprentices (Fig. 1B).

Since 2007, the research team has expanded the survey not only countrywide, but also into surrounding countries. There are around 2,500 sampling locations whence millipede material has been taken. In just 17 years since 2005, 144 new species and 20 new records of millipedes have been reported from Thailand, of which 138 new species and 18 new records were contributed by the research team led by Prof. Panha. A large number of type specimens, voucher material, and data collected have resulted in one of the most extensive collections of Southeast Asian millipedes. More than 49 research articles have been published reflecting these findings, which are in part supported by a combination of extensive morphological examinations and contemporary molecular phylogenetic analyses to expand our understanding of their phylogeny and evolution.

We are also announcing these new discoveries to promote public awareness of millipede diversity and conservation, as well as to celebrate the 70th birthday of Professor Dr. Henrik Enghoff (Fig. 1C). In 2017, Professor Dr. Somsak Panha and his team from the Animal Systematics Research Unit of Chulalongkorn University were honoured to host the 17th International Congress of Myriapodology, which gathered 73 participants from 26 countries on July 23–26, 2017 at the Maritime Park & Spa Resort, Krabi, Thailand; this was Asia's first myriapodological conference (Stoev and Edgecombe, 2018). The objective of the congress was to interpret scientific knowledge regarding

Myriapoda and Onychophora, including diplopods, pauropods, symphylans and chilopods, as well as onychophorans, and to attempt building up research connections throughout the scientific community (Panha, 2017).

We present here the most recent, comprehensive and updated catalogue of the Thai Diplopoda compared to that by Enghoff (2005), based on scrutiny of the literature concerning the currently 263 recognized species, including a compilation of recent distribution information, and some taxonomic status data. It is anticipated that it would serve as a reference to millipede diversity in the country and as a monument to Prof. Somsak Panha's 65th forthcoming birthday in 2023 for his contributions to a remarkable advancement in academic millipede study in Thailand.

MATERIALS AND METHODS

This paper provides an updated catalogue of the Diplopoda recorded so far from Thailand. The data per species were assembled and validated by examining the literature published between 1881 and 2022. The following classification basically follows the arrangement by Shear (2011), but families, genera and species are listed alphabetically within each order.

In the catalogue sections, D stands for the original description and subsequent descriptive notes; K for the appearance in a key; L for the appearance in a species list; R for new subsequent records from Thailand; M for a mere mention; and MI for molecular information. Valid names and pertinent synonyms are given, followed by "(E)" for the species known only from Thailand and thus, for the time being, regarded as Thai endemics. Other references detailing with species distributions in other countries, their taxonomic status, and/or biology have been included in the Remarks section.

Locality names in the original publications have been carefully revised or shortened to districts solely. Organized by provinces, all known localities for each species are presented; province names being given boldface, followed by district (Dist.) or subdistrict (Subdist.), and a comma is used to expand the location. After listing all relevant localities in each province, a period is used at the end. If the district or province where the millipede was discovered is the same as for the previous locality, the next location will be listed after a semicolon. Abbreviations are also used for the names of national parks (NP), botanical gardens (BG) or waterfalls (WF). At some well-known localities, districts may not be identified, such as Doi Inthanon NP, Doi Suthep-Pui NP and Doi Chiang Dao NP in Chiang Mai Province or Bang Lang NP in Yala Province. The Thai words "Wat" and "Tham" have been replaced with "Temple" and "Cave", respectively.

We have removed some taxa from the previous checklist of Thai millipedes such as (1) those for which is it unclear whether the collecting locality lies in Thailand or not; (2) taxa which remain unconfirmed as regards their existence; and (3) taxa the identity of which has still not been established; and (4) species with no available name yet.

RESULTS

Systematic Part

Class Diplopoda de Blainville in Gervais, 1844

Order Glomeridesmida Cook, 1895
Family Glomeridesmidae Latzel 1884

Genus *Glomeridesmus* Gervais, 1844

1. *Glomeridesmus siamensis* Wesener, Wongthamwanich & Moritz, 2021 (E)

Glomeridesmus siamensis Wesener et al. 2021: 140 (D).

Record from Thailand: Krabi, Tham Sue Temple (Wesener et al., 2021).

Order Glomerida Brandt, 1833
Family Glomeridae Leach, 1815

Genus *Hyleoglomeris* Verhoeff, 1910

2. *Hyleoglomeris albicollis* Golovatch, 1983 (E)

Hyleoglomeris albicollis Golovatch 1983: 113 (D).

Hyleoglomeris albicollis—Enghoff 2005: 88 (L); Golovatch et al. 2006a: 890 (L, K); 2011a: 4 (M); Likhitrakarn et al. 2015a: 131 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch, 1983).

3. *Hyleoglomeris aurea* Likhitrakarn, Golovatch & Panha, 2015 (E)

Hyleoglomeris aurea Likhitrakarn et al. 2015a: 134 (D, K).

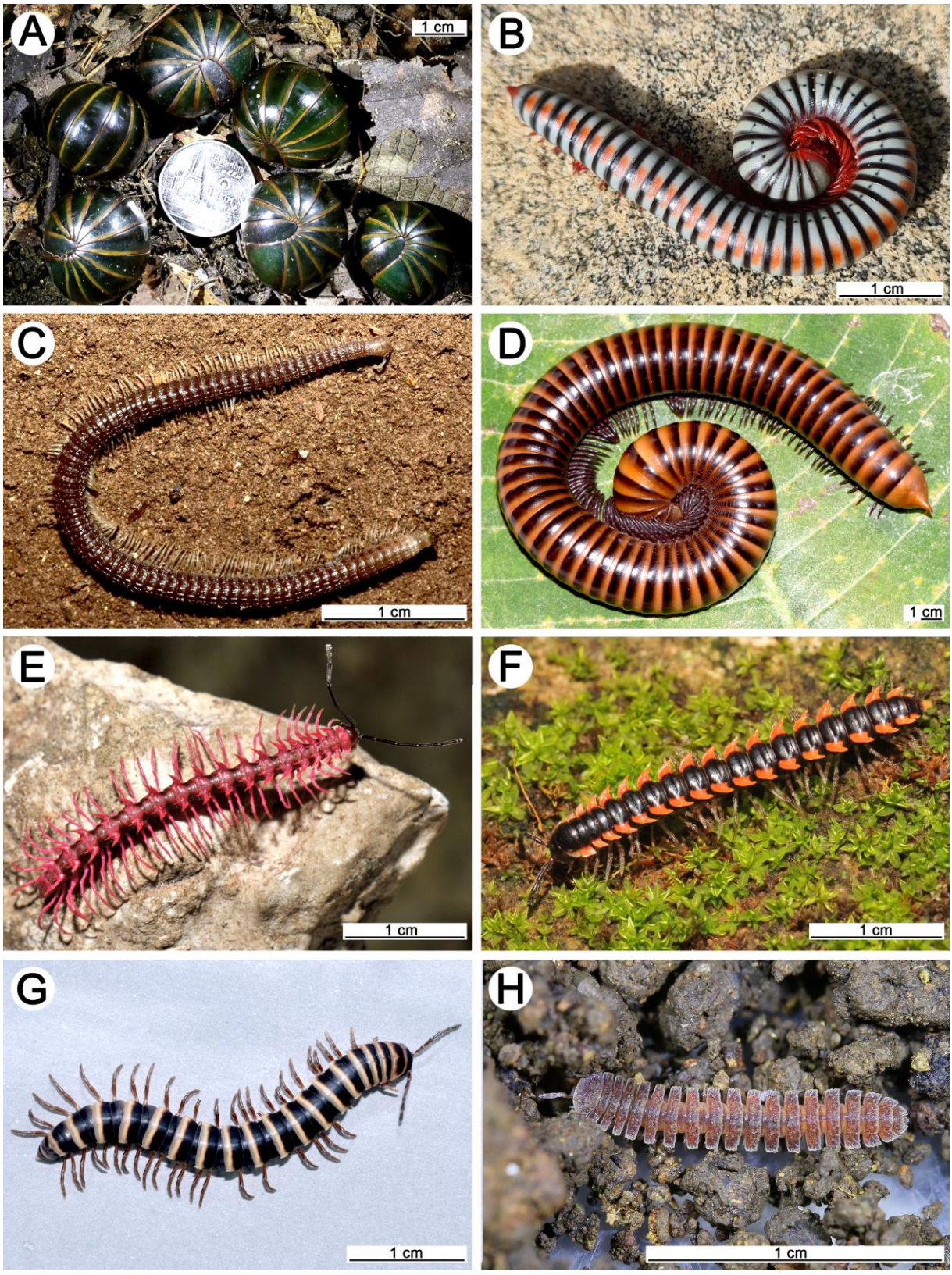

FIGURE 2. Photographs of living Thai millipede. **A.** *Zephronia phrain* Likhitrakarn & Golovatch, 2021 from Chiang Mai **B.** *Litostrophus* cf. *segregatus* Chamberlin, 1921 from Ubon Ratchathani **C.** *Trachyjulus magnus* Likhitrakarn, Golovatch, Jeratthitikul, Srisonchai, Sutcharit & Panha, 2020 from Surat Thani **D.** *Thyropygus macrosiamensis* Pimvichai, Enghoff & Panha, 2011 from Ubon Ratchathani **E.** *Desmoxytes purpurosea* Enghoff, Sutcharit & Panha, 2007 from Uthai Thani **F.** *Orthomorpha parasericata* Likhitrakarn, Golovatch & Panha, 2010 from Phang Nga **G.** *Enghoffosoma zebra* Likhitrakarn, Golovatch, Prateepasen & Panha, 2014 from Nakhon Si Thammarat **H.** *Cryptocorypha enghoffi* Likhitrakarn, Golovatch, Srisonchai, Sutcharit & Panha, 2019 from Chiang Mai.

Record from Thailand: Sukhothai, Si Samrong Dist., Tham Rakhang Temple (Likhitrakarn et al., 2015a).

4. *Hyleoglomeris cavicola* Likhitrakarn, Golovatch & Panha, 2015 (E)

Hyleoglomeris cavicola Likhitrakarn et al. 2015a: 135 (D, K).

Record from Thailand: Chiang Mai, Chom Thong Dist., Barijainda Cave (Likhitrakarn et al., 2015a).

5. *Hyleoglomeris cremea* Golovatch, 1983 (E)

Hyleoglomeris cremea Golovatch 1983: 114 (D).

Hyleoglomeris cremea—Enghoff 2005: 88 (L); Golovatch et al. 2006a: 890 (L, K); Likhitrakarn et al. 2015a: 131 (L).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Golovatch, 1983).

6. *Hyleoglomeris hongkhraiensis* Likhitrakarn, Golovatch & Panha, 2015 (E)

Hyleoglomeris hongkhraiensis Likhitrakarn et al. 2015a: 131 (D, K).

Record from Thailand: Chiang Mai, Doi Saket Dist., Huai Hong Khrai (Likhitrakarn et al., 2015a).

7. *Hyleoglomeris montana* Golovatch, 1983 (E)

Hyleoglomeris montana Golovatch 1983: 112 (D).

Hyleoglomeris montana—Enghoff 2005: 88 (E); Golovatch et al. 2006a: 891 (L, K); Likhitrakarn et al. 2015a: 131 (E).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch, 1983; Enghoff, 2005).

8. *Hyleoglomeris siamensis* Silvestri, 1917 (E)

Apiomeris (*Hyleoglomeris*) *siamensis* Silvestri 1917: 116 (D).

Hyleoglomeris siamensis—Golovatch 1983: 116 (M, K); Enghoff 2005: 88 (L); Golovatch et al. 2006a: 891 (L, K); Likhitrakarn et al. 2015a: 131 (L).

Record from Thailand: Meetaw [= **Tak**, Tak Dist., Raheng Subdist.] (Silvestri, 1917; Likhitrakarn et al., 2015a).

Genus *Rhopalomeris* Verhoeff, 1906

9. *Rhopalomeris carnifex* (Pocock, 1889)

Glomeris carnifex Pocock 1889: 290 (D).

"*Glomeris*" *bicolor*—Verhoeff, 1906: 190 (R).

Rhopalomeris bicolor—Golovatch et al. 2011a: 6 (D).

Rhopalomeris carnifex—Enghoff 2005: 88 (R); Decker 2010: 24 (R); Golovatch and Semenyuk 2016: 414 (M, K); Likhitrakarn et al. 2017a: 6 (L); Nguyen et al. 2019: 292 (M).

Record from Thailand: Surat Thani, Ko Samui Dist., Ko Samui, Khao Phlu; Nam Tok Na Muang Forest Park; Ko Pha Ngan Dist., Ko Phangan, Than Sadet-Ko Phangan NP. **Phang Nga**, Ko Yao Noi; Thap Put Dist., Had Lek Beach; Khao Lak-Lamru NP. **Krabi**, Ao Luk; Saengphet Cave; Ban Khlong Jilat; Ko Lanta Dist., Ko Lanta NP (Decker, 2010); Krabi Dist., Nai Chong. **Phuket**, Salanga Island (= Phuket Island) (Verhoeff, 1906); Katu Dist., Thalang forest (Enghoff, 2005); Phuket Dist., Ko Siray (Decker, 2010).

Remarks. Also found in southern Myanmar (Pocock, 1889, 1890; Attems, 1936; Decker, 2010). This is the type species of the genus *Rhopalomeris*. The species is rather widespread in Tenasserim Hills, compared to other congeners which have restricted distributions. However, body colour variations remain ambiguous, awaiting further investigation of the issue. See Likhitrakarn et al. (2017a) for full synonymy.

Order Sphaerotheriida Brandt, 1833
Family Zephroniidae Gray in Jones, 1843

Genus *Sphaerobelum* Verhoeff, 1924

10. *Sphaerobelum aesculus* Rosenmejer & Wesener, in Rosenmejer et al., 2021 (E)

Sphaerobelum aesculus Rosenmejer et al. 2021: 114 (D, MI).

Sphaerobelum aesculus—Srisonchai et al. 2021: 52 (M); Bhansali and Wesener 2022: 364 (M).

Record from Thailand: Phuket, Kathu Dist. **Nakhon Si Thammarat**, Khao Luang NP (Rosenmejer et al., 2021).

11. *Sphaerobelum meridionalis* Bhansali & Wesener, 2022 (E)

Sphaerobelum meridionalis Bhansali and Wesener 2022: 364 (D, MI).

Record from Thailand: Yala, Than To Dist., Bang Lang NP (Bhansali and Wesener, 2022).

12. *Sphaerobelum truncatum* Wongthamwanich, in Wongthamwanich et al., 2012 (E)

Sphaerobelum truncatum Wongthamwanich et al. 2012a: 34 (D, MI, K).

Sphaerobelum truncatum—Rosenmejer et al. 2021: 109 (M).

Record from Thailand: Nan, Song Khwae Dist., Pang Hi Village (Wongthamwanich et al., 2012a).

Genus *Zephronia* Gray, 1832

13. *Zephronia chrysomallos* Bhansali & Wesener, 2022 (E)

Zephronia chrysomallos Bhansali and Wesener 2022: 367 (D, MI, K).

Record from Thailand: Kanchanaburi, Sai Yok Dist., Sai Yok Noi WF (Bhansali and Wesener, 2022).

14. *Zephronia enghoffi* Srisonchai, Sutcharit & Likhitrakarn, 2021 (E)

Zephronia enghoffi Srisonchai et al. 2021: 32 (D, K).

Zephronia enghoffi—Bhansali and Wesener 2022: 358 (M, K).

Record from Thailand: Khon Kaen, Tham Phaya Nakharat; Chum Pae Dist., Tham Poo Lup. **Loei**, Wang Saphung Dist., Pak Puan Arboretum (Srisonchai et al., 2021).

15. *Zephronia erawani* Bhansali & Wesener, 2022 (E)

Zephronia erawani Bhansali and Wesener 2022: 370 (D, MI, K).

Record from Thailand: Kanchanaburi, Si Sawat Dist., Erawan WF (Bhansali and Wesener, 2022).

16. *Zephronia golovatchi* Srisonchai, Sutcharit & Likhitrakarn, 2021 (E)

Zephronia golovatchi Srisonchai et al. 2021: 37 (D, K).

Zephronia golovatchi—Bhansali and Wesener 2022: 376 (R, MI, K).

Record from Thailand: Nakhon Nayok, Khao Yai NP (Bhansali and Wesener, 2022). **Nakhon Ratchasima**, Pak Chong Dist., Khao Yai NP (Srisonchai et al., 2021).

Remarks: Although two populations of the species have been reported from separate areas, their molecular genetic barcoding data reveal significant divergence. Consequently, it is possible that there are two different species involved (Bhansali and Wesener, 2022).

17. *Zephronia lannaensis* Likhitrakarn & Golovatch, in Likhitrakarn et al., 2021 (E)

Zephronia lannaensis Likhitrakarn et al. 2021a: 13 (D).

Zephronia lannaensis—Rosenmejer et al. 2021: 109 (M); Srisonchai et al. 2021: 29 (L, K); Bhansali and Wesener 2022: 376 (R, MI, K).

Record from Thailand: Chiang Mai, Doi Saket Dist., Huai Hong Khrai (Likhitrakarn et al., 2021a); Mae Rim Dist.; Doi Suthep-Pui NP (Bhansali and Wesener, 2022).

18. *Zephronia panhai* Srisonchai, Sutcharit & Likhitrakarn, 2021 (E)

Zephronia panhai Srisonchai et al. 2021: 41 (D, K).

Zephronia panhai—Bhansali and Wesener 2022: 376 (R, MI, K).

Record from Thailand: Kanchanaburi, Kanchanaburi Dist., Tham Mangkorn Thong Temple. **Ratchaburi**, Pak Tho Dist., Buri Ratchawanaram Temple (Srisonchai et al., 2021); Chom Bueng Dist., Tham Khao Bin Forest Park (Bhansali and Wesener, 2022). **Phetchaburi**, Tha Yang Dist., Khao Khachiu Temple; Khao Yoi Dist., Puangmali Temple (Srisonchai et al., 2021).

19. *Zephronia phrain* Likhitrakarn & Golovatch, in Likhitrakarn et al., 2021 (E)

Zephronia phrain Likhitrakarn et al. 2021a: 19 (D).

Zephronia phrain—Rosenmejer et al. 2021: 109 (M); Srisonchai et al. 2021: 29 (D, R, K); Bhansali and Wesener 2021: 375 (R, MI, K).

Record from Thailand: Chiang Mai, Mae Rim Dist., Queen Sirikit BG (Likhitrakarn et al., 2021a); Chiang Dao Dist., Chiang Dao; Doi Suthep-Pui NP. **Lamphun**, Doi Khun Tan NP (Bhansali and Wesener, 2022). **Tak**, Mae Sot Dist., Phawor Shrine (Srisonchai et al., 2021).

Remarks. Two different colour morphs of this species have been documented: dark green in Chiang Mai and brown/dark brown in Tak Province (Likhitrakarn et al., 2021a; Srisonchai et al., 2021). In addition, Bhansali and Wesener (2022) recently presented intraspecific variations in genetic and telopod structures based on their new material. This possibly indicates that there may be cryptic taxa hidden within this species.

20. *Zephronia siamensis* Hirst, 1907 (E)

Zephronia siamensis Hirst 1907: 218 (D).

Zephronia siamensis—Attems 1914: 147 (L); 1936: 182 (L); Jeekel 2001a: 21 (L); Enghoff 2005: 89 (L); Golovatch et al. 2012a: 276 (MI); Wongthamwanich et al. 2012a: 30 (M); Wesener 2016: 35 (L); Likhitrakarn et al. 2021a: 12 (M); Srisonchai et al. 2021: 22 (D, R, K); Rosenmejer et al. 2021: 109 (M); Bhansali and Wesener 2022: 357 (M, K).

Zephronia cf. *siamensis*—Decker 2010: 25 (R).

Record from Thailand: Chonburi, Sichang Dist., Ko Sichang (Hirst, 1907; Srisonchai et al., 2021); Chonburi Dist.; Sattahip Dist., Ko Chang; Bo Thong Dist., Khao Cha-ang-on Temple (Srisonchai et al., 2021). **Rayong**, Rayong Dist., Ko Samet (Decker, 2010; Srisonchai et al., 2021).

21. *Zephronia viridisoma* Rosenmejer & Wesener, in Rosenmejer et al. 2021 (E)

Zephronia viridisoma Rosenmejer et al. 2021: 19 (D, MI).

Zephronia viridisoma—Srisonchai et al. 2021: 29 (L, K); Bhansali and Wesener 2022: 356 (M, K).

Record from Thailand: Nakhon Si Thammarat, Sichon Dist., Khao Lark WF (Rosenmejer et al., 2021).

Order Julida Brandt, 1833
Family Julidae Leach, 1814

Genus *Nepalmatoiulus* Mauriès, 1983

22. *Nepalmatoiulus birmanicus* (Pocock, 1893)

Julus birmanicus Pocock 1893: 392 (D).

Nepalmatoiulus birmanicus—Enghoff 1987: 287 (D, R, K), 2005: 89 (R); Likhitrakarn et al. 2017a: 7 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP; Doi Inthanon NP. **Lampang**. **Loei**, Phu Luang Wildlife Sanctuary; Ban Si Than. **Saraburi**. **Nakhon Nayok**, Khao Yai NP (Enghoff, 1987); Taplan NP (Enghoff, 2005). **Phuket**, Phuket Marine Biology Center. **Phatthalung**, Khao Chong NP (Enghoff, 1987). **Trat**, Ko Chang (Enghoff, 1987; Enghoff, 2005).

Remarks. Also found in Myanmar (Pocock, 1893; Enghoff, 1987) and India (Enghoff, 1987; Golovatch and Wesener, 2016). See Likhitrakarn et al. (2017a) for full synonymy.

23. *Nepalmatoiulus brevipes* Enghoff, 1987 (E)

Nepalmatoiulus brevipes Enghoff 1987: 312 (D, K).

Nepalmatoiulus brevipes—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Enghoff, 1987).

24. *Nepalmatoiulus crassiseta* Enghoff, 1987 (E)

Nepalmatoiulus crassiseta Enghoff 1987: 317 (D, K).

Nepalmatoiulus crassiseta—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Pa Pae (Enghoff, 1987).

25. *Nepalmatoiulus degerboelae* Enghoff, 1987 (E)

Nepalmatoiulus degerboelae Enghoff 1987: 310 (D, K).

Nepalmatoiulus degerboelae—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Enghoff, 1987).

26. *Nepalmatoiulus koh* Enghoff, 1987 (E)

Nepalmatoiulus koh Enghoff 1987: 315 (D, K).

Nepalmatoiulus koh—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Trat, Ko Chang (Enghoff, 1987).

27. *Nepalmatoiulus longipes* Enghoff, 1987 (E)

Nepalmatoiulus longipes Enghoff 1987: 314 (D, K,).

Nepalmatoiulus longipes—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Enghoff, 1987).

28. *Nepalmatoiulus major* Enghoff, 1987 (E)

Nepalmatoiulus major Enghoff 1987: 309 (D, K).

Nepalmatoiulus major—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Enghoff, 1987).

29. *Nepalmatoiulus maximus* Enghoff, 1987 (E)

Nepalmatoiulus maximus Enghoff 1987: 309 (D, K).

Nepalmatoiulus maximus—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Enghoff, 1987).

30. *Nepalmatoiulus minimus* Enghoff, 1987 (E)

Nepalmatoiulus minimus Enghoff 1987: 307 (D, K).

Nepalmatoiulus minimus—Enghoff 2005: 89 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Enghoff, 1987).

31. *Nepalmatoiulus minor* Enghoff, 1987 (E)

Nepalmatoiulus minor Enghoff 1987: 307 (D, K).

Nepalmatoiulus minor—Enghoff 2005: 90 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Enghoff, 1987).

32. *Nepalmatoiulus pygmaeus* Enghoff, 1987 (E)

Nepalmatoiulus pygmaeus Enghoff 1987: 311 (D, K).

Nepalmatoiulus pygmaeus—Enghoff 2005: 90 (R); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Enghoff, 1987; Enghoff, 2005).

33. *Nepalmatoiulus velodentatus* Enghoff, 1987 (E)

Nepalmatoiulus velodentatus Enghoff 1987: 308 (D, K).

Nepalmatoiulus velodentatus—Enghoff 2005: 90 (L); Korsós and Lazányi 2013: 2 (L); Mikhaljova 2020: 48 (L).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Enghoff, 1987).

Order Spirobolida Cook, 1895
Family Pachybolidae Cook, 1897

Genus *Apeuthes* Hoffman & Keeton, 1960

34. *Apeuthes longeligulatus* Pimvichai, Panha & Backeljau, 2022 (E)

Apeuthes longeligulatus Pimvichai et al. 2022a: 102 (D, K, MI).

Apeuthes longeligulatus—Pimvichai et al. 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Sa Kaeo, Klong Hard Dist., Phet Po Thong Cave. **Trat**, Ko Chang Dist., Ko Chang (Pimvichai et al., 2022a).

35. *Apeuthes pollex* Pimvichai, Panha & Backeljau, 2022 (E)

Apeuthes pollex Pimvichai et al. 2022a: 104 (D, K, MI).

Apeuthes pollex—Pimvichai et al. 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Krabi, Krabi Dist., Tham Sue Temple; Khlong Thom Dist., Sra Morakot. **Phang Nga**, Khura Buri Dist., Ko 8 (Pimvichai et al., 2022a).

Genus *Atopochetus* Attems, 1953

36. *Atopochetus anaticeps* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus anaticeps Pimvichai et al. 2018: 178 (D, MI, K).

Atopochetus anaticeps—Pimvichai et al. 2022a: 92 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Saraburi, Chalermprakiat Dist., Phukhae BG; Sri Wilai Temple; Putthanimit Temple (Pimvichai et al., 2018).

37. *Atopochetus caudulanus* (Karsch, 1881)

Spirobolus caudulanus Karsch 1881: 60 (D).

Spirobolus caudulanus—Borre 1884: 73 (L); Pocock 1889: 297 (D); 1893: 394 (D); Attems 1936: 313 (L): Moritz and Fischer 1975: 246 (L).

Trigoniulus caudulanus—Attems 1914: 345 (L).

Tonkinbolus caudulanus—Hoffman 1962: 772 (M); Jeekel 2001b: 52 (L); Enghoff 2005: 90 (L); Likhitrakarn et al. 2017a: 13 (L).

Atopochetus caudulanus—Pimvichai et al. 2018: 174 (M); 2022b: 7 (M).

Record from Thailand: Siam (Karsch, 1881).

Remarks. This species was recorded from Siam [= Thailand] and southern Myanmar (Pocock, 1893). Its identify remains dubious because all specimens discovered were females. In the future, the discovery and examination of male material from Thailand or Myanmar could help us clarify the situation (Hoffman, 1962; Pimvichai et al., 2018).

38. *Atopochetus dollfusii* (Pocock, 1893)

Spirobolus dollfusii Pocock 1893: 397 (D).

Spirobolus dollfusii Attems 1914: 353 (L); 1936: 312 (L).

Tonkinbolus dollfusii—Hoffman 1962: 774 (L); Jeekel 2001b: 53 (L); Enghoff 2005: 90 (R).

Aulacobolus rubropunctatus Attems 1938a: 261 (D), synonymized by Pimvichai et al. (2018: 175).

Atopochetus rubrodorsalis Attems 1953: 192 (D), synonymized by Hoffman (1962: 777).

Atopochetus dollfusii—Pimvichai et al. 2018: 175 (D, R, K, MI); 2022a: 99 (M). 2022b: 8 (M); 2022c: 315 (M).

Record from Thailand: Trat, Ko Kut Dist., Ko Kut (Enghoff, 2005).

Remarks. Also found in Vietnam (Pocock, 1893; Pimvichai et al., 2018) and Cambodia (Attems, 1938a, 1953).

39. *Atopochetus helix* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus helix Pimvichai et al. 2018: 181 (D, MI, K).

Atopochetus helix—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Kanchanaburi, Thong Pha Phum Dist., Suan Pa Thong Pha Phum (Pimvichai et al., 2018).

40. *Atopochetus moulmeinensis* (Pocock, 1893)

Spirobolus moulmeinensis Pocock 1893: 395 (D).

Trigoniulus moulmeinensis—Attems 1914: 346 (L).

Spirobolus moulmeinensis—Attems 1936: 314 (L).

Tonkinbolus moulmeinensis—Hoffman 1962: 773 (D); Jeekel 2001b: 53 (L); Likhitrakarn et al. 2017a: 13 (L).

Atopochetus moulmeinensis—Pimvichai et al. 2018: 175 (D, R, K, MI); 2022a: 99 (M); 2022b: 7 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Tak, Tha Song Yang Dist., Mae Usu Cave (Pimvichai et al., 2018).

Remarks. Originally described from Myanmar (Pocock, 1893).

41. *Atopochetus setiferus* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus setiferus Pimvichai et al. 2018: 181 (D, MI, K).

Atopochetus setiferus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Uthai Thani, Lan Sak Dist., Hub Pa Tard (Pimvichai et al., 2018).

42. *Atopochetus spinimargo* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus spinimargo Pimvichai et al. 2018: 182 (D, MI, K).

Atopochetus spinimargo—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Songkhla, Rattaphum Dist., Charoen Phupha Temple; Songkhla Dist., Ko Yo. **Phatthalung**, Phatthalung Dist., Khuhasawan Temple (Pimvichai et al., 2018).

43. *Atopochetus truncatus* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus truncatus Pimvichai et al. 2018: 185 (D, MI, K).

Atopochetus truncatus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Phang Nga, Khura Buri Dist., Similan Islands, Ko 8 (Pimvichai et al., 2018).

44. *Atopochetus uncinatus* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus uncinatus Pimvichai et al. 2018: 185 (D, MI, K).

Atopochetus uncinatus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Kalasin, Sahatsakhan Dist., Putthanimit Temple; Phu Kum Khao. **Surin**, Surin Dist., Phanom Sawai Forest Park. **Saraburi**, Chaloem Phra Kiat Dist., Phukhae BG. **Phetchaburi**, Khao Yoi Dist., Khao Yoi. **Prachuap Khiri Khan**, Bang Sapan Dist., Khao Mar Rong. **Phang Nga**, Khura Buri Dist., Surin Islands, Ko Surin Tai (Pimvichai et al., 2018).

45. *Atopochetus weseneri* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Atopochetus weseneri Pimvichai et al. 2018: 188 (D, MI, K)

Atopochetus weseneri—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Surat Thani, Ko Samui Dist., Ko Mae Ko; Ko Sam Soa. **Nakhon Si Thammarat**, Khanom Dist., Ko Rab; Supar Royal Beach Hotel. **Krabi**, Ao Luk Dist., Sra Yuan Thong Cave; Ko Lanta Dist., Ko Rok Nai (Pimvichai et al., 2018).

Genus *Leptogoniulus* Silvestri, 1897

46. *Leptogoniulus sorornus* (Butler, 1876)

Spirostreptus sorornus Butler 1876: 445 (D).

Leptogoniulus sorornus—Decker 2010: 26 (R); et auctorum.

Record from Thailand: Phang Nga, Thap Put Dist., Khao Lak-Lamru NP (Decker, 2010).

Remarks. This is a widespread tropical tramp species found in a variety of locations across the world (Shelley and Lehtinen, 1999). See Shelley and Lehtinen (1999) for full synonymy.

Genus *Litostrophus* Chamberlin, 1921

47. *Litostrophus chamaeleon* Pimvichai, Enghoff, Panha & Backeljau, 2018

Litostrophus chamaeleon Pimvichai et al. 2018: 170 (D, MI, K).

Litostrophus chamaeleon—Pimvichai et al. 2020: 598 (M); 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 174 (M).

Record from Thailand: Mukdahan, Phu Pha Terb. **Ubon Ratchathani**, Khong Chiam Dist. (Pimvichai et al., 2018).

Remarks. Also found in Laos (Pimvichai et al., 2018).

48. *Litostrophus saraburensis* Pimvichai, Enghoff, Panha & Backeljau, 2018 (E)

Litostrophus saraburensis Pimvichai et al. 2018: 171 (D, MI, K).

Litostrophus saraburensis—Pimvichai et al. 2020: 598 (M); 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 174 (M).

Record from Thailand: Saraburi, Putthanimit Temple; Phukhae BG (Pimvichai et al., 2018).

49. *Litostrophus segregatus* Chamberlin, 1921 (E)

Litostrophus segregatus Chamberlin 1921: 72 (D).

Litostrophus segregatus—Jeekel 2001b: 51 (L); Enghoff 2005: 90 (R); Pimvichai et al. 2018: 169 (D, R, K, MI); 2020: 598 (M); 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 174 (M).

Record from Thailand: Gulf of Siam (Chamberlin, 1921). **Trat**, Ko Kut (Enghoff, 2005; Pimvichai et al., 2018); Ko Chiang (Enghoff, 2005). **Prachuap Khiri Khan**, Ao Manoa, Khao Lom Muak (Pimvichai et al., 2018).

Genus *Macrurobolus* Pimvichai, Enghoff & Backeljau, 2022

50. *Macrurobolus macrurus* (Pocock, 1893)

Spirobolus macrurus Pocock 1893: 396 (D).

Trigoniulus macrurus—Attems 1914: 346 (L).

Spirobolus macrurus—Attems 1936: 314 (L).

Tonkinbolus macrurus—Hoffman 1962: 773 (D); Jeekel 2001b: 53 (L); Likhitrakarn et al. 2017a: 13 (L).

Atopochetus macrurus—Pimvichai et al. 2018: 174 (M).

Macrurobolus macrurus—Pimvichai et al. 2022b: 7 (D, R, MI); 2022c: 315 (M) ; 2022d: 174 (M).

Record from Thailand: Tak, Mae Sot Dist., Tham Inthanin Temple (Pimvichai et al., 2022b).

Remarks. Originally described from Myanmar (Pocock, 1893; Pimvichai et al., 2022b).

Genus *Trigoniulus* Pocock, 1894

51. *Trigoniulus corallinus* (Gervais, 1847)

Iulus corallinus Gervais 1847: 171 (D).

Spirobolus phranus Karsch 1881: 65 (D).

Trigoniulus lumbricinus—Golovatch and Korsós 1990: 32 (D, R); et auctorum.

Trigoniulus corallinus—Enghoff 2005: 90 (R); Decker 2010: 26 (R); et auctorum.

Record from Thailand: Chiang Mai (Golovatch and Korsós, 1990; Enghoff, 2005). **Bangkok** (Karsch, 1881; Enghoff, 2005; Decker, 2010). **Prachuap Khiri Khan**, Prachuap Khiri Khan Dist., Ao Manao. **Surat Thani**, Phanom Dist., Khao Sok NP (Decker, 2010). **Phang Nga**, Similan Island (Enghoff, 2005); Thap Put Dist., Khao Lak, Phet Kasem (Decker, 2010). **Phuket**, Phuket Marine Biological Center. **Trang**, Hat Chao Mai NP (Enghoff, 2005).

Remarks. This is a pantropical synanthropic species also found on numerous tropical islands throughout the world. It is believed to be indigenous to Southeast Asia, especially the Myanmar-Thailand region (Shelley and Lehtinen, 1999). See Shelley and Lehtinen (1999) and Jeekel (2001b) for comprehensive synonymy.

Family Pseudospirobolellidae Brölemann, 1913

Genus *Benoitolus* Mauriès, 1980

52. *Benoitolus birgitae* (Hoffman, 1981) (E)

Solaenobolellus birgitae Hoffman 1981: 184 (D).

Benoitolus birgitae—Golovatch and Korsós 1992: 10 (M); Jeekel 2001b: 47 (L); Enghoff 2005: 90 (R); Pimvichai et al. 2020: 599 (MI, M); 2022a: 92 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 173 (M).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Hoffman, 1981; Enghoff, 2005); Doi Suthep-Pui NP (Hoffman, 1981).

53. *Benoitolus siamensis* (Attems, 1936) (E)

Cyclothyrophorus siamensis Attems 1936: 300 (D).

Benoitolus siamensis—Jeekel 2001b: 47 (L); Enghoff 2005: 90 (L); Decker 2010: 25 (R); Pimvichai et al. 2020: 599 (M).

Record from Thailand: Chonburi, Ko Same San (Attems, 1936). **Rayong**, Rayong Dist., Ko Samet (Decker, 2010).

Genus *Coxobolellus* Pimvichai, Enghoff, Panha & Backeljau, 2020

54. *Coxobolellus albiceps* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus albiceps Pimvichai et al. 2020: 601 (D, MI, K).

Coxobolellus albiceps—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 183 (M, K).

Record from Thailand: Chiang Rai, Phan Dist., Tham Bamphen Bun Temple. **Nan**, Nan Dist., Pha Tub Cave. **Phrae**, Rong Kwang Dist., Pha Nang Khoi Cave; Huai Rong WF. **Phitsanulok**, Noen Maprang Dist., Wang Daeng Cave (Pimvichai et al., 2020).

55. *Coxobolellus compactogonus* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus compactogonus Pimvichai et al. 2020: 602 (D, MI, K).

Coxobolellus compactogonus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Nakhon Ratchasima, Wang Nam Khiao Dist., Sakaerat Environmental Research Station; Pak Chong Dist., Khao Luk Chang (Pimvichai et al., 2020).

56. *Coxobolellus fuscus* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus fuscus Pimvichai et al. 2020: 604 (D, MI, K).

Coxobolellus fuscus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Kanchanaburi, Sangkhla Buri Dist., Kroeng Krawia WF; Thong Pha Phum Dist., Tha Khanun Temple (Pimvichai et al., 2020).

57. *Coxobolellus nodosus* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus nodosus Pimvichai et al. 2020: 604 (D, MI, K).

Coxobolellus nodosus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Tak, Mae Sot Dist., Chao Por Phawo Shrine (Pimvichai et al., 2020).

58. *Coxobolellus saratani* Pimvichai, Enghoff & Backeljau, 2022 (E)

Coxobolellus saratani Pimvichai et al. 2022d: 179 (D, MI, K).

Record from Thailand: Loei, Muang Dist., Phu Pha Lom (Pimvichai et al., 2022d).

59. *Coxobolellus serratoligulatus* Pimvichai, Enghoff & Backeljau, 2022 (E)

Coxobolellus serratoligulatus Pimvichai et al. 2022d: 181 (D, MI, K).

Record from Thailand: Uttaradit, Thong Saen Khan Dist., Tham Chan (Pimvichai et al., 2022d).

60. *Coxobolellus serratus* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus serratus Pimvichai et al. 2020: 606 (D, MI, K).

Coxobolellus serratus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Prachuap Khiri Khan, Pran Buri Dist., Khao Kalok (Pimvichai et al., 2020).

61. *Coxobolellus simplex* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus simplex Pimvichai et al. 2020: 607 (D, MI, K).

Coxobolellus simplex—Pimvichai et al. 2022a: 92 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Lampang, Mae Prik Dist., Pha Pha Ngam Cave (Pimvichai et al., 2020).

62. *Coxobolellus tenebris* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus tenebris Pimvichai et al. 2020: 608 (D, MI, K).

Coxobolellus tenebris—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Uthai Thani, Ban Rai Dist., Khao Wong Phrohm-majan Temple. **Kanchanaburi**, Sai Yok Dist., Tham Phrom Lok Khao Yai Temple. **Suphan Buri**, Dan Chang Dist., Weluwan Khiriwong Temple (Pimvichai et al., 2020).

63. *Coxobolellus tigris* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus tigris Pimvichai et al. 2020: 610 (D, MI, K).

Coxobolellus tigris—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Chumphon, Pathio Dist., Yai I Cave; Tham Khao Plu Temple (Pimvichai et al., 2020).

64. *Coxobolellus transversalis* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus transversalis Pimvichai et al. 2020: 610 (D, MI, K).

Coxobolellus transversalis—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 183 (M, K).

Record from Thailand: Nan, Nan Dist., Pha Tub Cave (Pimvichai et al., 2020).

65. *Coxobolellus valvatus* Pimvichai, Enghoff, Panha & Backeljau, 2020 (E)

Coxobolellus valvatus Pimvichai et al. 2020: 611 (D, MI, K).

Coxobolellus valvatus—Pimvichai et al. 2022a: 99 (M); 2022b: 8 (M); 2022c: 315 (M); 2022d: 184 (M, K).

Record from Thailand: Mae Hong Son, Mae Hong Son Dist., Sam Ta Cave. **Chiang Mai**, Chiang Dao Dist., Tham Chiang Dao Temple; Chom Thong Dist., Borichinda Cave (Pimvichai et al., 2020).

Genus *Pseudospirobolellus* Carl, 1912

66. *Pseudospirobolellus avernus* (Butler, 1876)

Spirostreptus avernus Butler 1876: 445 (D).

Pseudospirobolellus avernus—Hoffman 1981: 187 (D). Jeekel 2001b: 45 (L); Enghoff 2001: 169 (R); 2005:

90 (R); Decker 2010: 26 (R); Pimvichai et al. 2020: 599 (MI, M); 2022b: 8 (M); et auctorum.
Record from Thailand: Phang Nga, Thap Put Dist., Khao Lak-Lamru NP. **Phuket** (Enghoff, 2001, 2005).

Remarks. This is a pantropical anthropochore species, especially common on numerous tropical islands (Jeekel, 2001b; Enghoff, 2001). See Jeekel (2001b) for complete synonymy.

Genus *Siliquobolellus* Pimvichai, Enghoff, Panha & Backeljau, 2022

67. *Siliquobolellus amicusdraconis* Pimvichai, Enghoff, Panha & Backeljau, 2022 (E)
Siliquobolellus amicusdraconis Pimvichai et al. 2022c: 319 (D, MI, K).
Siliquobolellus amicusdraconis—Pimvichai, et al. 2022d: 175 (M).
Record from Thailand: Uthaithani, Lan Sak Dist., Hub Pa Tard (Pimvichai et al., 2022).

68. *Siliquobolellus constrictus* Pimvichai, Enghoff, Panha & Backeljau, 2022 (E)
Siliquobolellus constrictus Pimvichai et al. 2022c: 319 (D, MI, K).
Siliquobolellus constrictus—Pimvichai et al. 2022d: 175 (M).
Record from Thailand: Prachuap Khiri Khan, Kui Buri Dist., Ban Yang Chum (Pimvichai et al., 2022).

69. *Siliquobolellus prasankokae* Pimvichai, Enghoff, Panha & Backeljau, 2022 (E)
Siliquobolellus prasankokae Pimvichai et al. 2022c: 319 (D, MI, K).
Siliquobolellus prasankokae—Pimvichai et al. 2022d: 175 (M).
Record from Thailand: Lampang, Ngao Dist., Pha Thai (Pimvichai et al., 2022).

Order Spirostreptida Brandt, 1833
Family Cambalopsidae Cook 1895

Genus *Glyphiulus* Gervais, 1847

70. *Glyphiulus duangee* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Glyphiulus duangee Golovatch et al. 2011b: 104 (D).
Glyphiulus duangee—Likhitrakarn et al. 2020a: 58 (MI); 2021b: 178 (D, K); Jiang et al. 2020: 288 (M).
Record from Thailand: Uttaradit, Tong Saen Khan Dist., Khlong Trong NP (Golovatch et al., 2011b).

71. *Glyphiulus longus* Likhitrakarn, Golovatch & Jantarit, 2021 (E)
Glyphiulus longus Likhitrakarn et al. 2021b: 175 (D, K).
Record from Thailand: Nan, Thung Chang Dist., Nam Lod Cave (Likhitrakarn et al., 2021b).

72. *Glyphiulus maidtreejit* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Glyphiulus maidtreejit Golovatch et al. 2011b: 112 (D).
Glyphiulus maidtreejit—Likhitrakarn et al. 2021b: 178 (D, K).
Record from Thailand: Phetchabun, Lom Sak Dist., Pha Hong Cave (Golovatch et al., 2011b).

73. *Glyphiulus mongkon* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Glyphiulus mongkon Golovatch et al. 2011b: 106 (D).
Glyphiulus mongkon—Likhitrakarn et al. 2021b: 178 (D, K).
Record from Thailand: Loei, Ban Non Dist., Tham Maho Lan Cave (Golovatch et al., 2011b).

74. *Glyphiulus promdami* Likhitrakarn, Golovatch & Jantarit, 2021 (E)
Glyphiulus promdami Likhitrakarn et al. 2021b: 180 (D, K).
Record from Thailand: Nan, Na Noi Dist., Chetawan Cave; Na Muen Dist., La-ong Cave. **Phrae**, Rong Kwang Dist., Pha Phrai Wan Cave (Likhitrakarn et al., 2021b).

75. *Glyphiulus sattaa* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Glyphiulus sattaa Golovatch et al. 2011b: 98 (D).
Glyphiulus sattaa—Likhitrakarn et al. 2020a: 58 (MI); 2021b: 178 (D, K); Jiang et al. 2020: 288 (M).
Record from Thailand: Chiang Rai, Mae Sai Dist., Ku Kan Cave; Nam Cham Cave; Prah Cave (Golovatch et al., 2011b).

76. *Glyphiulus siamensis* Mauriès, 1983 (E)
Glyphiulus siamensis Mauriès 1983: 267 (D).
Glyphiulus siamensis—Jeekel 2004: 54 (L); Enghoff 2005: 91 (R); Golovatch et al. 2007a: 11 (L); 2007b: 419 (M, K); Likhitrakarn et al. 2021b: 178 (D, K).
Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Mauriès, 1983; Enghoff, 2005).

Genus *Hypocambala* Silvestri, 1897

77. *Hypocambala helleri* Silvestri, 1897

Hypocambala helleri Silvestri 1897: 11 (D).
Hypocambala helleri—Mauriès 1983: 268 (D, R); Enghoff 1993: 258 (M); 2005: 91 (R); et auctorum.
Record from Thailand: Chiang Mai, Doi Inthanon NP (Mauriès, 1983; Enghoff, 2005); **Trang**, Ton Tae WF (Enghoff, 2005).

Remarks. This is a widespread tropical synanthropic species, so far recorded from Sulawesi, Fiji, the Aru Archipelago, and Guyana (Jeekel, 1963; Mauriès, 1983). See Jeekel (1963, 2004) for complete synonymy.

Genus *Plusioglyphiulus* Silvestri, 1923

78. *Plusioglyphiulus antiquior* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus antiquior Golovatch et al. 2011c: 9 (D, K).
Record from Thailand: Kanchanaburi, Sai Yok Dist., Sai Yok Noi Cave (Golovatch et al., 2011c).

79. *Plusioglyphiulus bessoni* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2009 (E)
Plusioglyphiulus bessoni Golovatch et al. 2009a: 86 (D).
Plusioglyphiulus bessoni—Golovatch et al. 2011c: 53 (D, R, K).
Record from Thailand: Nan, Nan Dist., Pha Tup Cave (Golovatch et al., 2009a, 2011c).

80. *Plusioglyphiulus erawan* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus erawan Golovatch et al. 2011c: 24 (D, K).
Plusioglyphiulus erawan—Likhitrakarn et al. 2020a: 58 (MI, M); 2020b: 56 (M).
Record from Thailand: Lamphun, Pasang Dist., Erawan Cave; Tep Ni Mu Cave; Ban Hong Dist., Luang Ha Wiang Cave (Golovatch et al., 2011c).

81. *Plusioglyphiulus jaydee* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus jaydee Golovatch et al. 2011c: 40 (D, K).
Record from Thailand: Kanchanaburi, Sai Yok Dist., Ban Nam Tok, Rawa Cave (Golovatch et al., 2011c).

82. *Plusioglyphiulus likhitrakarni* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus likhitrakarni Golovatch et al. 2011c: 16 (D, K).
Record from Thailand: Sa Kaew, Khlong Hat Dist., Phet Po Tong Cave (Golovatch et al., 2011c).

83. *Plusioglyphiulus panhai* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus panhai Golovatch et al. 2011c: 5 (D, K).
Record from Thailand: Phachuap Khiri Khan, Sam Roi Yot Dist., Sai Cave (Golovatch et al., 2011c).

84. *Plusioglyphiulus phra* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus phra Golovatch et al. 2011c: 36 (D, K).
Record from Thailand: Prachuap Khiri Khan, Hua Hin Dist., Lap Lae Cave (Golovatch et al., 2011c).

85. *Plusioglyphiulus pimvichaiae* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus pimvichaiae Golovatch et al. 2011c: 20 (D, K).
Record from Thailand: Nakhon Sawan, Tak Fa Dist., Khuhasophon Temple, Prasawan Cave (Golovatch et al., 2011c).

86. *Plusioglyphiulus puttakun* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus puttakun Golovatch et al. 2011c: 43 (D, K).
Record from Thailand: Loei, Phu Kradueng NP, Tham Phulu Cave (Golovatch et al., 2011c).

87. *Plusioglyphiulus saksit* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus saksit Golovatch et al. 2011c: 46 (D, K).
Plusioglyphiulus saksit—Likhitrakarn et al. 2020a: 58 (MI, M).
Record from Thailand: Chaiyaphum, Khon San Dist., Ngoem 2 Cave (Golovatch et al., 2011c).

88. *Plusioglyphiulus samakkee* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus samakkee Golovatch et al. 2011c: 50 (D, K).
Record from Thailand: Ratchaburi, Khao Bin Cave (Golovatch et al., 2011c).

89. *Plusioglyphiulus sutchariti* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)
Plusioglyphiulus sutchariti Golovatch et al. 2011c: 12 (D, K).
Record from Thailand: Phrae, Rong Kwang Dist., Pha Nang Khoi Cave (Golovatch et al., 2011c).

90. *Plusioglyphiulus tham* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)

Plusioglyphiulus tham Golovatch et al. 2011c: 32 (D, K).

Record from Thailand: Chaiyaphum, Phakdi Chumphon Dist., Keo Cave (Golovatch et al., 2011c).

91. *Plusioglyphiulus wat* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2011 (E)

Plusioglyphiulus wat Golovatch et al. 2011c: 28 (D, K).

Record from Thailand: Chanthaburi, Khao Chamao Dist., Bathun Temple, cave (Golovatch et al., 2011c).

Genus *Trachyjulus* Peters, 1864

92. *Trachyjulus calvus* (Pocock 1893)

Cambala calva Pocock 1893: 391 (D).

Trachyiulus (sic!) *nordquisti*—Enghoff 2005: 91 (R); et auctorum.

Trachyiulus (sic!) *nordquisti ambiguus* Mauriès 1983: 262 (D).

Trachyjulus calvus—Golovatch et al. 2012b: 114 (D, R); Likhitrakarn et al. 2017a: 8 (L); 2020a: 56 (M); et auctorum.

Record from Thailand: Kanchanaburi, Daowadueng Cave (Mauriès, 1983). **Phuket**, Phuket Marine Biological Center (Enghoff, 2005).

Remarks. This is a widespread pantropical synanthropic species recorded also from the Republic of Cabo Verde, Brazil, India, Nepal, Myanmar, Malaysia, Singapore, Indonesia and Papua New Guinea (Golovatch et al., 2012b, Likhitrakarn et al., 2017a). See Golovatch et al. (2012b) for complete synonymy.

93. *Trachyjulus magnus* Likhitrakarn, Golovatch, Jeratthitikul, Srisonchai, Sutcharit & Panha, 2020 (E)

Trachyjulus magnus Likhitrakarn et al. 2020a: 60 (D, MI, K).

Record from Thailand: Surat Thani, Ban Na San Dist., Tham Khrom Wanaram Temple, cave (Likhitrakarn et al., 2020).

94. *Trachyjulus phylloides* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2012 (E)

Trachyjulus phylloides Golovatch et al. 2012b: 127 (D).

Trachyjulus phylloides—Likhitrakarn et al. 2020a: 58 (R, MI, M).

Record from Thailand: Ranong, Kra Buri Dist., Phra Khayang Cave. **Chumphon**, Sawi Dist., Kun Mung Cave (Golovatch et al., 2012b; Likhitrakarn et al., 2020a).

95. *Trachyjulus singularis* (Attems, 1938)

Cambolopsis singularis Attems 1938a: 273 (D).

Trachyjulus singularis—Jeekel 1963: 152 (L, K); 2004: 49 (L); Golovatch et al. 2012b: 105 (D, R); Likhitrakarn et al. 2020a: 58 (MI, M).

Record from Thailand: Chonburi, Kao Havot Cave (Likhitrakarn et al., 2020). **Rayong**, Khao Cha Mao Dist., Kao Loy Temple, cave (Golovatch et al., 2012; Likhitrakarn et al., 2020). **Chanthaburi**, Kiang Hang Mau Dist., Kao Wong NP, Kao Wong Cave; Botong Dist., Cha An Ont Temple, Kao Cha An Ont Cave; Kae Hayot Temple, Kao Hayot Cave (Golovatch et al., 2012b).

Remarks. This is a widespread species found in southern Vietnam (Attems 1938a; Golovatch et al. 2012) and eastern Thailand (Golovatch et al., 2012b).

96. *Trachyjulus unciger* Golovatch, Geoffroy, Mauriès & VandenSpiegel, 2012 (E)

Trachyjulus unciger Golovatch et al. 2012b: 119 (D).

Trachyjulus unciger—Likhitrakarn et al. 2020a: 58 (R, MI, M).

Record from Thailand: Phang Nga, Phang Nga Dist., Nam Cave; Phet Cave; Poung Chang Cave. **Surat Thani**, Phanom Dist., Khao Sok 1 Cave. **Satun**, Satun Dist., Phu Pha Phet Cave (Golovatch et al., 2012b); Pung Chang Cave (Likhitrakarn et al., 2020a).

Family Harpagophoridae Attems, 1909

Genus *Anurostreptus* Attems, 1914

97. *Anurostreptus barthelemyae* Demange, 1961

Anurostreptus barthelemyae Demange 1961: 247 (D, K).

Anurostreptus barthelemyae—Enghoff 2005: 92 (R); Jeekel 2006: 44 (L); Pimvichai et al. 2010: 62 (D); 2014: 173 (MI); 2022c: 316 (M); 2022d: 175 (M).

Record from Thailand: Satun, Thale Ban NP; Varoi WF. **Songkhla**, Ton Nga Chang WF. **Yala**, Bang Lang NP (Enghoff, 2005).

Remarks. Originally described from peninsular Malaysia (Demange, 1961).

98. *Anurostreptus longispinus* Demange, 1961

Anurostreptus longispinus Demange 1961: 252 (D, K).

Anurostreptus longispinus—Enghoff 2005: 92 (L); Jeekel 2006: 45 (L); Pimvichai et al. 2010: 62 (L).

Record from Thailand: Massié (Demange, 1961).

Remarks. Also known from Laos (Demange, 1961).

99. *Anurostreptus sculptus* Demange, 1961 (E)
Spirostreptus vittatus—Flower 1901: 9 (M).
Anurostreptus sculptus Demange 1961: 251 (D, K).
Anurostreptus sculptus—Enghoff 2005: 92 (R); Jeekel 2006: 45 (L); Pimvichai et al. 2010: 62 (D, R); 2014: 173 (MI).
Record from Thailand: Dong Phya Fai [= Dong Phaya Yen Mountains] (Demange, 1961). Hinlap (Enghoff, 2005). **Chaiyaphum**, Chaiyaphum Dist., Phu Landkha. **Saraburi**, Chalerm Phra Kiat Dist., Sri Wilai Temple (Pimvichai et al., 2010).

Genus *Gonoplectus* Chamberlin, 1921

100. *Gonoplectus ingenuus* Hoffman & Burkhalter, 1978 (E)
Gonoplectus ingenuus Hoffman and Burkhalter 1978: 415 (D).
Gonoplectus ingenuus—Demange 1983: 563 (D, R); 1986: 862 (L, K); Jeekel 2006: 10 (L); Enghoff 2005: 92 (L); Pimvichai et al. 2010: 52 (M).
Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Demange, 1983; Hoffman and Burkhalter, 1978); Doi Inthanon. **Loei**, Pukradang. **Trat**, Ko Chang; Mahami (Demange, 1983).

Genus *Armatostreptus* Pimvichai, Enghoff & Panha, 2010

101. *Armatostreptus armatus* Demage, 1983 (E)
Humbertostreptus (?) *armatus* Demange 1983: 563 (D).
Humbertostreptus armatus—Enghoff 2005: 92 (L).
Junceustreptus armatus—Jeekel 2006: 41 (L).
Armatostreptus armatus—Pimvichai et al. 2010: 63 (D); 2014: 173 (MI).
Record from Thailand: Lampang, Doi Nya Chang (Demange, 1983).

Genus *Thaiogonus* Demange, 1986

102. *Thaiogonus robustus* Demange, 1986 (E)
Thaiogonus robustus Demange, 1986: 857 (D).
Thaiogonus robustus—Enghoff 2005: 93 (L); Jeekel 2006: 45 (L); Pimvichai et al. 2010: 73 (D).
Record from Thailand: Chiang Mai, Huai Nam Dang (Demange, 1986).

Genus *Heptischius* Pimvichai, Enghoff & Panha, 2010

103. *Heptischius lactuca* Pimvichai, Enghoff & Panha, 2010 (E)
Heptischius lactuca Pimvichai et al. 2010: 68 (D).
Heptischius lactuca—Pimvichai et al. 2014: 173 (MI).
Record from Thailand: Tak, Mae Usu Cave (Pimvichai et al., 2010).

Genus *Thyropygus* Pocock, 1894

104. *Thyropygus allevatus* (Karsch, 1881)
Spirostreptus allevatus Karsch 1881: 27 (D).
Spirostreptus bowringii Pocock 1892: 321 (D).
Thyropygus bowringii—Flower 1901: 10 (D, R).
Thyropygus allevatus—Enghoff 2005: 93 (M, R); Jeekel 2006: 12 (L); Pimvichai et al. 2009a: 19 (L); 2011a: 55 (M); 2014: 173 (M, MI); 2016: 3 (M, MI); 2022c: 316 (M).
Thyropisthus polyodontus Attems 1942: 88 (D, K).
Thyropisthus allevatus—Demange 1983: 563 (R); et auctorum.
Record from Thailand: Siam (Karsch, 1881). East Siam (Attems, 1936). Siam, Penang. Xieng Sang am Mekong (Attems, 1942). **Chiang Mai** (Enghoff, 2005). **Tak. Uthaithani. Lopburi. Ayutthaya. Nonthaburi** (Pimvichai et al., 2014). **Bangkok** (Flower, 1901; Enghoff, 2005; Pimvichai et al., 2014). **Chonburi**, Ko Sichang (Flower, 1901; Demange, 1961); Ko Chang (Demange, 1983). **Nakhon Si Thammarat** (Pimvichai et al., 2014).

Remarks: This is a species widely distributed in Vietnam and Laos (Hoffman, 1975), Malaysia (Attems, 1942) and Cambodia (Demange, 1961). See Jeekel (2006) and Enghoff (2005) for complete synonymy.

105. *Thyropygus aterrimus* (Pocock, 1889)
Spirostreptus (*Nodopyge*) *aterrimus* Pocock, 1889: 295 (D).
Thyropygus aterrimus—Enghoff 2005: 93 (R); Pimvichai et al. 2009a: 19 (M).
Record from Thailand: Yala, Bang Lang NP. **Narathiwat**, Waeng Dist., Hala Bala WF Research Station (Enghoff, 2005).

Remarks: Also known from Myanmar (Pocock, 1889) and Malaysia (Sinclair, 1901; Wang and Tang, 1965). See Jeekel (2006) for full synonymy.

106. *Thyropygus bearti* Pimvichai, Enghoff & Panha, 2009 (E)
Thyropygus bearti Pimvichai et al. 2009a: 34 (D, K).
Thyropygus bearti—Pimvichai et al. 2014: 172 (M, MI); Pimvichai et al. 2016: 10 (M, MI, K).

Record from Thailand: Surat Thani, Don Sak Dist., Khao Sai (Pimvichai et al., 2009a).

107. *Thyropygus bifurcus* (Demange, 1986) (E)

Thyropisthus bifurcus Demange 1986: 852 (D).

Thyropygus bifurcus—Enghoff 2005: 93 (R); Pimvichai et al. 2009b: 4 (D, K); 2014: 180 (M); 2016: 10 (M, K).

Record from Thailand: Nakhon Si Thammarat, Khao Luang (Demange, 1986; Enghoff, 2005). **Trang**, Hat Chao Mai NP (Enghoff, 2005).

Remark: See Pimvichai et al. (2009b) for full synonymy.

108. *Thyropygus bispinispatula* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus bispinispatula Pimvichai et al. 2009a: 35 (D, K).

Thyropygus bispinispatula—Pimvichai et al. 2014: 174 (MI); 2016: 10 (M, MI, K).

Record from Thailand: Chumphon, Lang Suan Dist., Khao Krieab Temple (Pimvichai et al., 2009a).

109. *Thyropygus bispinus* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus bispinus Pimvichai et al. 2009a: 38 (D, K).

Thyropygus bispinus—Pimvichai et al. 2014: 174 (MI); 2016: 10 (M, MI, K).

Record from Thailand: Uthaithani, Thap Than Dist. **Phrae**, Phrae Dist., Mae Lai Subdist. (Pimvichai et al., 2009a).

110. *Thyropygus brachyacanthus* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus brachyacanthus Pimvichai et al. 2009a: 38 (D, K).

Thyropygus brachyacanthus—Pimvichai et al. 2014: 174 (MI); 2016: 10 (M, MI, K).

Record from Thailand: Surat Thani, Khiri Rat Nikhom Dist., Sathit Khirirom Temple; Ban Takhun Dist. (Pimvichai et al., 2009a).

111. *Thyropygus casjeekeli* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus casjeekeli Pimvichai et al. 2009b: 7 (D, K).

Thyropygus casjeekeli—Pimvichai et al. 2016: 10 (M, K).

Record from Thailand: Krabi, Klong Thom Dist., Sra Morakot (Pimvichai et al., 2009b).

112. *Thyropygus chelatus* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus chelatus Pimvichai et al. 2009a: 41 (D, K).

Thyropygus chelatus—Pimvichai et al. 2014: 174 (MI); 2016: 10 (M, K).

Record from Thailand: Nakhon Si Thammarat, Khanom Dist., Ko Rab; Khanom Dist., Ko Wangnok (Pimvichai et al., 2009a).

113. *Thyropygus cimi* Pimvichai, Enghoff & Panha, 2016 (E)

Thyropygus cimi Pimvichai et al. 2016: 14 (D, MI, K).

Record from Thailand: Nakhon Si Thammarat, Lanska Dist., Namwang Srithammasokrach (Pimvichai et al., 2016).

114. *Thyropygus cristagalli* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus cristagalli Pimvichai et al. 2009a: 41 (D, K).

Thyropygus cristagalli—Pimvichai et al. 2014: 174 (MI); 2016: 10 (M, K).

Record from Thailand: Phang Nga, Ko Yao Dist., Ko Yao Noi (Pimvichai et al., 2009a).

115. *Thyropygus cuisinieri* Carl, 1917

Thyropygus cuisinieri Carl 1917: 392 (D).

Thyropygus cuisinieri—Enghoff 2005: 94 (L); Pimvichai et al. 2009a: 19 (M); 2011b: 41 (D, R); 2014: 180 (M).

Thyropisthus cuisinieri—Demange 1983: 563 (R).

Record from Thailand: Trat, Ko Kut (Carl, 1917).

Remarks: Also known from Vietnam (Carl, 1917; Attems, 1938a; Demange, 1961; Enghoff, 2004; Pimvichai et al., 2011b) and Cambodia (Pimvichai et al., 2011b). See Jeekel (2006) and Pimvichai et al. (2011b) for full synonymy.

116. *Thyropygus culter* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)

Thyropygus culter Pimvichai et al. 2016: 16 (D, MI, K).

Record from Thailand: Krabi, Khlong Thom Dist., Rorn WF (Pimvichai et al., 2016).

117. *Thyropygus demangei* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus demangei Pimvichai et al. 2009b: 8 (D, K).

Thyropygus demangei—Pimvichai et al. 2014: 174 (MI); Pimvichai et al. 2016: 10 (M, MI).

Record from Thailand: Trang, Hat Chao Mai NP (Pimvichai et al., 2009b).

118. *Thyropygus dormiens* Pimvichai, Enghoff & Panha, 2011 (E)

Thyropisthus quietus—Demange 1961: 146 (D, R).
Thyropisthus dormiens Pimvichai et al. 2011a: 58 (D, K).
Record from Thailand: Trat, Kao Seming (Pimvichai et al., 2011a).

119. *Thyropygus enghoffi* (Demange, 1989) (E)
Thyropisthus enghoffi Demange 1989: 779 (D).
Thyropygus enghoffi—Enghoff 2005: 94 (L); Pimvichai et al. 2009a: 20 (M); 2009b: 5 (D, R, K); 2014: 174 (MI); 2016: 10 (M, K); Decker 2010: 27 (M, R).
Cornugonus enghoffi—Jeekel 2006: 19 (L).
Record from Thailand: Phang Nga, Poung Chang Cave (Demange, 1989; Pimvichai et al., 2009b); Thap Put Dist., Khao Lak; Thai Muang Dist., Khao Lak Lam-Ru NP (Pimvichai et al., 2009b; Decker, 2010); Phang Nga Dist., Nam Pud Cave. **Phuket**, Thalang Dist., Tonesai WF (Pimvichai et al., 2009b).

120. *Thyropygus erectus* Pimvichai, Enghoff & Panha, 2009 (E)
Thyropygus erectus Pimvichai et al. 2009a: 44 (D, K).
Thyropygus erectus—Pimvichai et al. 2016: 10 (M, K).
Record from Thailand: Satun, La-ngu Dist., Ko Tarutao (Pimvichai et al., 2009a).

121. *Thyropygus floweri* (Demange, 1961) (E)
Cornugonus floweri Demange 1961: 184 (D).
Cornugonus floweri—Enghoff 2005: 92 (R); Jeekel 2006: 19 (L).
Thyropygus floweri—Pimvichai et al. 2009a: 30 (D, R, K); 2016: 10 (M, K).
Record from Thailand: Bukit Jalor [= **Yala**] (Demange, 1961; Pimvichai et al., 2009a); Bang Lang NP (Pimvichai et al., 2009a).

122. *Thyropygus foliaceus* (Demange, 1961) (E)
Thyropisthus cuisinieri (Carl) *foliaceus* Demange 1961: 122 (D).
Thyropygus foliaceus—Pimvichai et al. 2011b: 42 (D, K); 2014: 173 (M, MI); 2016: 10 (M).
Thyropygus cuisinieri foliaceus—Jeekel 2006: 15 (L).
Record from Thailand: Kalasin, Sahatsakhan Dist., Phu-Kum-Khao (Pimvichai et al., 2011b). **Ubon Ratchathani**, Ugon (Demange, 1961); Khemarat Dist.; Khong Chiam Dist., Phataem NP. **Roi-Et**, Chaturaphak Phiman Dist., Ban Nong Phue (Pimvichai et al., 2011b).

123. *Thyropygus forceps* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)
Thyropygus forceps Pimvichai et al. 2016: 18 (D, MI, K).
Record from Thailand: Nakhon Si Thammarat, Lan Saka Dist., Namwang Srithammasokrach; Ron Phibun Dist., Tham Pha Deang Temple (Pimvichai et al., 2016).

124. *Thyropygus globulus* (Demange, 1989) (E)
Thyropisthus globulus Demange 1989: 777 (D).
Thyropygus globulus—Enghoff 2005: 94 (L); Jeekel 2006: 15 (L); Pimvichai et al. 2009a: 20 (M).
Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Demange, 1989).

125. *Thyropygus hoffmani* (Demange, 1961) (E)
Thyropisthus hoffmani Demange 1961: 108 (D).
Thyropygus hoffmani—Hoffman 1975: 127 (M); Demange 1983: 563 (D, R); Enghoff 2005: 94 (L); Jeekel 2006: 15 (L); Pimvichai et al. 2009a: 20 (M).
Record from Thailand: Chiang Mai, Doi Inthanon NP; Doi Suthep-Pui NP (Demange, 1983). Kanbudi? or Ranbudi [= **Ratchaburi]** (Demange, 1961; Enghoff, 2005).

126. *Thyropygus implicatus* (Demange, 1961)
Cornugonus implicatus Demange 1961: 181 (D).
Cornugonus implicatus—Enghoff 2005: 92 (R); Jeekel 2006: 19 (L).
Thyropygus implicatus—Pimvichai et al. 2009a: 31 (D, R, K); 2016: 10 (M, K).
Record from Thailand: Satun, Thale Ban NP (Enghoff, 2005; Pimvichai et al., 2009a).

Remarks: Also known from Malaysia (Demange, 1961).

127. *Thyropygus induratus* Attems, 1936
Thyropygus induratus Attems 1936: 262 (D).
Thyropygus induratus—Pimvichai et al. 2011a: 50 (D, R, K); 2014: 173 (M, MI); 2016: 3 (M, MI).
Thyropisthus resimus—Demange 1961: 142 (D).
Record from Thailand: Eastern Thailand (Attems, 1936); **Udon Thani**, Non Sa-at Dist., Nangrin WF. **Chaiyaphum**, Chaiyaphum Dist., Tard-Tone WF. **Khon Kaen**, Phu-Wiang Dist., Phu Wiang NP. **Maha Sarakham**, Maha Sarakham Dist., Ban Tha-Toom. **Surin**, Surin Dist., Phanom Sawai Forest Park. **Sisaket**, Kantharalak Dist. **Ubon Ratchathani**, Nam-Yuen Dist., Kang Lam-duan; Nam-Yeun Dist., Yotdome wildlife sanctuary (Pimvichai et al., 2011a).

Remarks. Also found in Vietnam (Attems, 1938a) and Cambodia (Demange, 1961). See Pimvichai et al. (2011a) for full synonymy.

128. *Thyropygus inflexus* (Demange, 1989) (E)

Cornugonus inflexus Demange 1989: 780 (D).
Cornugonus inflexus—Enghoff 2005: 92 (L); Jeekel 2006: 20 (L).
Thyropygus inflexus—Pimvichai et al. 2009a: 33 (D, K); 2014: 174 (R, MI); 2016: 10 (M, MI, K).
Record from Thailand: Kanchanaburi (Demange, 1989); Sai Yok Dist. (Pimvichai et al., 2019a); Srisawat Dist., Srinakarin Dam (Pimvichai et al., 2014).

129. *Thyropygus jarukchusri* Pimvichai, Enghoff & Panha, 2011 (E)
Thyropygus jarukchusri Pimvichai et al. 2011b: 44 (D, K).
Thyropygus jarukchusri—Pimvichai et al. 2014: 173 (M, MI); 2016: 4 (M, MI).
Record from Thailand: Roi-Et, Chaturaphak Phiman Dist., Ban Nong Phue (Pimvichai et al., 2011b).

130. *Thyropygus laterolobatus* Pimvichai, Enghoff & Panha, 2011 (E)
Thyropygus quietus—Decker 2010: 27 (M, R).
Thyropygus laterolobatus Pimvichai et al. 2011a: 61 (D, K); 2016: 173: (M, MI).
Record from Thailand: Rayong, Rayong Dist., Ko Samet (Pimvichai et al., 2011a; Decker, 2010).

131. *Thyropygus loxia* Pimvichai, Enghoff & Panha, 2009 (E)
Thyropygus loxia Pimvichai et al. 2009a: 44 (D, K).
Thyropygus loxia—Pimvichai et al. 2014: 173 (MI); 2016: 10 (MI, K).
Record from Thailand: Surat Thani, Thanchana Dist., Tam-Yai Temple (Pimvichai et al., 2009a).

132. *Thyropygus macrosiamensis* Pimvichai, Enghoff & Panha, 2011 (E)
Thyropygus macrosiamensis Pimvichai et al. 2011a: 61 (D, K).
Thyropygus macrosiamensis—Pimvichai et al. 2014: 173 (M, MI).
Record from Thailand: Ubon Ratchathani, Khong Chiam Dist., Phataem NP (Pimvichai et al., 2011a).

133. *Thyropygus mesocristatus* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)
Thyropygus mesocristatus Pimvichai et al. 2016: 20 (D, MI, K).
Record from Thailand: Songkhla, Rattaphum Dist., Srikasorn (Pimvichai et al., 2016).

134. *Thyropygus navychula* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)
Thyropygus navychula Pimvichai et al. 2016: 22 (D, MI, K).
Record from Thailand: Phang Nga, Khura Buri Dist., Surin Islands (Pimvichai et al., 2016).

135. *Thyropygus opinatus* (Karsch, 1881)
Spirostreptus opinatus Karsch 1881: 23 (D).
Thyropygus opinatus—Pimvichai et al. 2009a: 27 (D, R, K); 2014: 174 (M, MI); 2016: 10 (M, MI, K).
Record from Thailand: Tenasserim (Karsch, 1881). **Phetchaburi**, Cha-am Dist., Nakwang Cave. **Prachuap Khiri Khan**, Bang Saphan Dist., Ban Grude; Khao Sam Roi Yot NP (Pimvichai et al., 2009a).

Remarks: Also known only from Myanmar (Pocock, 1889, 1893; Demange, 1961). See Pimvichai et al. (2011a) for full synonymy.

136. *Thyropygus peninsularis* Hoffman, 1982 (E)
Thyropygus peninsularis Hoffman 1982a: 250 (D).
Thyropygus peninsularis—Enghoff 2005: 94 (L); Jeekel 2006: 17 (L); Pimvichai et al. 2009a: 20 (M); 2014: 173 (M, MI).
Record from Thailand: Northwest Halbinsel, Kapa [= **Ranong**, Kapoe Dist.] (Hoffman, 1982a; Enghoff, 2005).

137. *Thyropygus planispina* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)
Thyropygus planispina Pimvichai et al. 2016: 23 (D, MI, K).
Record from Thailand: Krabi, Krabi Dist., Tham Sua Temple (Pimvichai et al., 2016).

138. *Thyropygus quadricuspis* Pimvichai, Enghoff & Panha, 2009 (E)
Thyropygus quadricuspis Pimvichai et al. 2009b: 9 (D, K).
Thyropygus quadricuspis—Pimvichai et al. 2014: 174 (MI); 2016: 10 (M, MI, K).
Record from Thailand: Trang, Huai Yot Dist., Tam Khao Pina Temple (Pimvichai et al., 2009b).

139. *Thyropygus resimus* Attems, 1938
Thyropygus resimus Attems 1938a: 283 (D).
Thyropygus allevatus resimus—Hoffman 1975: 136 (L); Jeekel 2006: 13 (L).
Thyropisthus resimus—Pimvichai et al. 2011a: 53 (D, K); 2014: 173 (M, MI); 2016: 3 (MI); et auctorum.
Record from Thailand: Chiang Mai (Hoffman, 1975); Fang Horticult. Exp. Station. **Tak**, Mae Usu Cave; Umphang Dist., Ta Kho Pi Cave. **Kamphaeng Phet**, Khlong Lan Dist., Klong Larn WF NP. **Phitsanulok**, Wat Bot Dist., Kaeng Ched Kweaw. **Sakon Nakhon**, Phu Phan Dist., Saerithai Cave. **Loei**, Loei Dist., Piya Cave; Ban Si Than. **Kalasin**, Sahatsa-

khan Dist., Phu-Kum-Khao. **Maha Sarakham**, Maha Sarakham Dist., Ban Tha-Toom; Northern Thailand, Silang (Pimvichai et al., 2011a).

Remarks: This species is widespread in numerous Thai provinces, also known from Laos (Attems, 1938a); Vietnam (Demange, 1961); Laos and Myanmar (Pimvichai et al., 2011a). See Pimvichai et al. (2011a) for full synonymy.

140. *Thyropygus richardhoffmani* Pimvichai, Enghoff & Panha, 2009 (E)

Thyropygus richardhoffmani Pimvichai et al. 2009b: 11 (D, K).

Thyropygus richardhoffmani—Pimvichai et al. 2016: 10 (MI, K).

Record from Thailand: Trang, Na Yong Dist., Khao Chong (Pimvichai et al., 2009b).

141. *Thyropygus siamensis* Verhoeff, 1938 (E)

Thyropygus (*Thyropygus*) *siamensis* Verhoeff 1938: 318 (D).

Thyropygus siamensis—Jeekel 2006: 18 (L); Pimvichai et al. 2011a: 55 (D, R, K); 2014: 173 (M, MI).

Thyropisthus ligulus Demange 1961: 133 (D).

Thyropygus ligulus—Hoffman 1975: 132 (L); Jeekel 2006: 16 (L); Pimvichai et al. 2009a: 20 (L).

Record from Thailand: Ninlap (Verhoeff, 1938). **Saraburi**, Kaeng Khoi Dist.; Ched-Kod WF; Saraburi Dist., Sam Lan WF NP; Muak Lek Dist., Ched Sao Noi WF. **Nakhon Nayok**, Khao Yai NP. **Nakhon Ratchasima**, Pak Chong Dist., Khao Luk Chang (Pimvichai et al., 2011a); Dong Phya Fai; Ubon (Demange, 1961); Khao Yai NP (Demange, 1986).

Remarks. See Pimvichai et al. (2011a) for full synonymy.

142. *Thyropygus sutchariti* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)

Thyropygus sutchariti Pimvichai et al. 2016: 25 (D, MI, K).

Record from Thailand: Phetchaburi, Kaeng Krachan Dist., Kaeng Krachan (Pimvichai et al., 2016).

143. *Thyropygus uncinatus* (Demange, 1961) (E)

Thyropisthus induratus uncinatus Demange 1961: 137 (D).

Thyropygus allevatus uncinatus—Hoffman 1975: 136 (L); Jeekel 2006: 13 (L).

Thyropisthus induratus uncinatus—Demange 1983 563 (R).

Thyropygus uncinatus—Pimvichai et al. 2011a: 57 (D, R, K); 2014: 173 (M, MI); 2016: 3 (M, MI).

Record from Thailand: Roi-Et, Chaturaphak Phiman Dist., Nong Phue. **Nakhon Ratchasima**, Nak-hon Ratchasima Dist. **Buriram**, Buriram Dist., Khao Kradong. **Surin**, Surin Dist., Phanom Sawai Forest Park. **Saraburi**, Chalermp Chaloem Phra Kiat Dist., Phukhae BG. **Prachinburi**, Prachantakham Dist., Ban Khamtanod (Pimvichai et al., 2011a). **Bangkok** (Demange, 1983). **Chonburi,** Ko Sichang (Demange, 1961, 1983; Pimvichai et al., 2011a). **Trat**, Ko Chang (Pimvichai et al., 2011a).

144. *Thyropygus undulatus* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)

Thyropygus undulatus Pimvichai et al. 2016: 27 (D, MI, K).

Record from Thailand: Krabi, Krabi Dist., Khao Phanom Bencha (Pimvichai et al., 2016).

145. *Thyropygus ursus* Pimvichai, Enghoff, Panha & Backeljau, 2016 (E)

Thyropygus ursus Pimvichai et al. 2016: 29 (D, MI, K).

Record from Thailand: Krabi, Ko Lanta Dist., Lanta Islands (Pimvichai et al., 2016).

Order Callipodida Pocock, 1894
Family Sinocallipodidae Zhang, 1993

Genus *Sinocallipus* Zhang, 1993

146. *Sinocallipus thai* Stoev, Enghoff, Panha & Fuangarworn, 2007 (E)

Sinocallipus thai Stoev et al. 2007: 64 (D).

Sinocallipus thai—Stoev et al. 2008: 7 (L); Stoev and Enghoff 2011: 26 (D, K).

Record from Thailand: Saraburi, Saraburi Dist., Tham Sriwilai Temple (Stoev et al., 2007).

Order Chordeumatida Pocock, 1894
Family Heterochordeumatidae Pocock, 1894

Genus *Infulathrix* Shear, 2000

147. *Infulathrix siam* Shear, 2000 (E)

Infulathrix siam Shear 2000: 368 (D, K).

Infulathrix siam—Shear 2012: 80 (M); Enghoff 2005: 94 (L).

Record from Thailand: Phuket, Ton Sai WF (Shear, 2000).

Family Magalotylidae Golovatch, 1978

Genus *Nepalella* Shear, 1979

148. *Nepalella inthanonae* Mauriès, 1988 (E)

Nepalella taiensis inthanonae Mauriès 1988: 45 (D, K).
Nepalella taiensis inthanonae—Golovatch et al. 2006b: 84 (K).
Nepalella inthanonae Likhitrakarn et al. 2022: 188 (L, K).
Record from Thailand: Chiang Mai, Doi Inthanon NP (Mauriès, 1988).

149. *Nepalella siamensis* Likhitrakarn, Golovatch & Panha, 2022 (E)
Nepalella siamensis Likhitrakarn et al. 2022: 188 (D, K).
Record from Thailand: Sa Kaeo, Ta Phraya Dist., Ta Phraya NP (Likhitrakarn et al., 2022).

150. *Nepalella taiensis* Mauries, 1988 (E)
Nepalella taiensis Mauries 1988: 43 (D, K).
Nepalella taiensis taiensis—Golovatch et al. 2006b: 84 (K)
Nepalella taiensis—Likhitrakarn et al. 2022: 188 (L, K).
Record from Thailand: Chiang Mai, Doi Pha Hom Pok NP (Mauriès, 1988).

Family Metopidiotrichidae Attems, 1907

Genus *Metopidiothrix* Attems, 1907

151. *Metopidiothrix anderseni* Shear, 2002 (E)
Metopidiothrix anderssoni Shear 2002: 874 (D).
Metopidiothrix anderseni Enghoff 2005: 95 (L) (nom. emend.).
Record from Thailand: Chiang Mai, Doi Pha Hom Pok NP (Mauriès, 1988).

Order Polydesmida Pocock, 1887
Family Haplodesmidae Cook, 1895

Genus *Eutrichodesmus* Silvestri, 1910

152. *Eutrichodesmus cavernicola* (Sinclair, 1901) (E)
Doratonotus cavernicola Sinclair 1901: 521 (D).
Doratonotus cavernicola—Attems 1914: 182 (L).
Ascetophacus cavernicola—Hoffman 1977a: 250 (M).
Cerastelachys cavernicola—Hoffman 1977b: 709 (D).
Eutrichodesmus cavernicola—Golovatch et al. 2009b: 5 (M, K); 2009c: 2 (L, K); Srisonchai et al. 2020: 64 (D, K).
Record from Thailand: Gua Glaf [= **Yala**, Yala Dist., Khuhapimuk Temple] (Sinclair, 1901; Srisonchai et al., 2020).

153. *Eutrichodesmus gremialis* Hoffman, 1982 (E)
Dyomerothrix gremialis Hoffman 1982b: 88 (D).
Dyomerothrix gremialis—Enghoff 2005: 100 (L).
Eutrichodesmus gremialis—Golovatch et al. 2009b: 45 (M, K); 2009c: 2 (L, K); Srisonchai et al. 2020: 65 (D, K).
Record from Thailand: Chiang Mai, Chiang Dao Dist., Chiang Dao Cave (Hoffman, 1982b).

Family Paradoxosomatidae Daday, 1889

Genus *Anoplodesmus* Pocock, 1895

154. *Anoplodesmus anthracinus* Pocock, 1895
Anoplodesmus anthracinus Pocock 1895: 798 (D).
Anoplodesmus anthracinus—Nguyen and Sierwald 2013: 1274 (L); Golovatch and Stoev 2013: 8 (D, R); Golovatch 2018a: 1 (R, M); et auctorum.
Record from Thailand: **Phuket**, Bangtao Beach (Golovatch, 2018a).

Remarks. This species is known to occur also in Myanmar (Pocock, 1895), Malaysia and Sri Lanka (Golovatch and Stoev, 2013). See Nguyen and Sierwald (2013) for full synonymy.

155. *Anoplodesmus malayanus* (Golovatch, 1993) (E)
Paranedyopus malayanus Golovatch 1993: 10 (D).
Anoplodesmus malayanus—Golovatch 2000: 219 (M); Enghoff 2005: 95 (L); Nguyen 2010: 53 (L); Nguyen and Sierwald 2013: 1276 (R).
Record from Thailand: Yala, Bang Lang NP (Golovatch, 1993).

156. *Anoplodesmus perplexus* (Golovatch, 1993) (E)
Paranedyopus perplexus Golovatch 1993: 12 (D).
Anoplodesmus perplexus—Golovatch 2000: 220 (M); Enghoff 2005: 95 (L); Nguyen 2010: 53 (L); Nguyen and Sierwald 2013: 1276 (L); Golovatch 2016b: 347 (M).
Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch, 1993).

Genus *Antheromorpha* Jeekel, 1968

157. *Antheromorpha festiva* (Brölemann, 1896)
Orthomorpha festiva Brölemann 1896: 1 (D).
Orthomorpha festiva—Brölemann 1904: 4 (D, R); et auctorum.
Antheromorpha festiva—Enghoff 2005: 95 (L); Nguyen and Sierwald 2013: 1234 (L); Likhitrakarn et al. 2016a: 45 (D, R, K); 2019b: 80 (D, R, K); Nguyen et al. 2018: 98 (D, MI, L); et auctorum.

Record from Thailand: Siam (Brölemann, 1904). **Surat Thani**, Phanom Dist.; Kanchanadit Dist., Khao Phanom Wang. **Nakhon Si Thammarat**, Nakhon Si Thammarat Dist. **Satun**, Satun Dist., Kao Noi Temple; Khao Nom Phothiyan Temple (Likhitrakarn et al., 2016a).

Remarks. This species also occurs in Vietnam (Nguyen et al., 2018; Likhitrakarn et al., 2019b) and Malaysia (Likhitrakarn et al., 2016a). See Likhitrakarn et al. (2016a, 2019b) for full synonymy.

158. *Antheromorpha paviei* (Brölemann, 1896)

Orthomorpha Paviei Brölemann 1896: 1 (D).

Orthomorpha Paviei—Brölemann 1904: 8 (D).

Orthomorpha paviei—Enghoff 2005: 97 (L); Likhitrakarn et al. 2011: 52 (M, L, K); 2014a: 2 (D, R); Nguyen and Sierwald 2013: 1253 (L); et auctorum.

Antheromorpha paviei—Likhitrakarn et al. 2016a: 30 (M, L, K); 2019b: 78 (M, K); Nguyen et al. 2018: 99 (D, R); Golovatch 2018b: 261 (M, R).

Record from Thailand: Siam (Brölemann, 1904).

Remarks. This species also occurs in Laos (Likhitrakarn et al., 2014a; Golovatch, 2018b) and Vietnam (Nguyen et al., 2018). See Likhitrakarn et al. (2016a) for full synonymy.

159. *Antheromorpha rosea* Golovatch, 2013

Antheromorpha rosea Golovatch 2013a: 23 (D).

Antheromorpha rosea—Golovatch 2013b: 308 (D); Nguyen and Sierwald 2013: 1235 (L); Likhitrakarn et al. 2016a: 40 (D, R, K); 2019b: 78 (M, K); et auctorum.

Record from Thailand: Chiang Mai, Mae Rim Dist., Queen Sirikit BG; Pong Yang, Ban Muang Kham; Hang Dong Dist., Kaewtachang WF; Chiang Dao Dist., Tham Pha Plong Temple; Mae Taeng Dist., Buathong Cave (Likhitrakarn et al., 2016a).

Remarks. This species was originally described from China (Golovatch, 2013a, 2013b). See Likhitrakarn et al. (2016a) for full synonymy.

160. *Antheromorpha uncinata* (Attems, 1931) (E)

Orthomorpha (*Orthomorpha*) *uncinata* Attems 1931: 117 (D).

Antheromorpha uncinata—Enghoff 2005: 95 (R); Nguyen and Sierwald 2013: 1235 (L); Likhitrakarn et al. 2016a: 30 (D, R, K); 2019b: 78 (M, K); et auctorum.

Record from Thailand: Chiang Rai, Chiang Rai Dist., Pang Rimkorn. **Chiang Mai**, Mae Rim Dist., Mae Rim. **Sukhothai**, Si Samrong Dist., Tham Rakhang Temple. **Loei**, Nong Hin Dist., Tham Pho Thi Sat Temple; Tham Dok Bua Temple; Hin Pha Ngam Park; Wang Saphung Dist., Tham Wangsaphung Temple. **Uthai Thani**, Ban Rai Dist. **Phetchabun**, Bueng Sam Phan Dist., Ban Phanom Phet; Nam Nao Dist., Nam Nao NP (Likhitrakarn et al., 2016a). **Kamphaeng Phet**; Sitang; Phu Kradung. **Chayaphum**, Phu Kugio (Enghoff, 2005). **Lopburi**, Phatthana Nikhom Dist., Dilang Temple. **Nakhon Ratchasima**, Wang Nam Khiao Dist., Sakaerat Environmental Research Station; Pak Chong Dist., Khao Luk Chang. **Kanchanaburi**, Sai Yok Dist.; Si Sawat Dist.; Nong Prue Dist. **Ratchaburi**, Ratchaburi Dist., Tham Khaobin Temple. **Saraburi**, Kaeng Khoi Dist., Siharatdechochai (Likhitrakarn et al., 2016a); Muok Lek [= Muak Lek Dist.] (Attems, 1931). **Nakhon Sawan**, Nakhon Sawan Dist., Mano Temple; Takhli Dist., Thampratun Temple. **Sa Kaeo**, Khlong Hat Dist., Phet Phothong Cave; Ta Phraya Dist., Ta Phraya; Wang Sombun Dist., Thamkhao Phrapphrueng Thong. **Prachuap Khiri Khan**, Thap Sakae Dist., Thap Sakae; Bang Saphan Dist., Khao Ma Rong Cave; Hua Hin Dist., Kaeng Krachan; Kui Buri Dist., Ban Yang Chum; Kui Buri Dist., Kui Buri NP (Likhitrakarn et al., 2016a).

Remarks. This species has recently been fully redescribed (Likhitrakarn et al., 2016a). See Likhitrakarn et al. (2016a) for full synonymy.

Genus *Asiomorpha* Verhoeff, 1939

161. *Asiomorpha coarctata* (De Saussure, 1860)

Polydesmus coarctatus De Saussure 1860: 297 (D).

Paradesmus flavocarinatus Daday, 1889: 136 (D).

Orthomorpha coarctata—Flower 1901: 15 (D, R); Golovatch 1998: 35 (R); Decker 2010 30 (R); Likhitrakarn et al. 2011: 12 (D, R); 2014a: 3 (M); 2019c: 124 (R, MI, K); et auctorum.

Asiomorpha coarctata—Enghoff 2005: 95 (R); Nguyen and Sierwald 2013: 1236 (L); Golovatch 2019: 461 (R); et auctorum.

Record from Thailand: Chiang Mai (Enghoff, 2005; Decker, 2010; Likhitrakarn et al., 2011). **Nan**, Nan Dist.; Pua Dist. **Phrae**, Rong Kwang Dist. **Tak**, Tha Song Yong Dist.; Umphang Dist. **Phitsanulok**, Wang Thong Dist. **Kamphaeng**, Kamphaeng Phet Dist. **Ubon Ratchathani,** Khongchiam Dist. **Saraburi**, Chaloem Phra Kiat Dist. **Phra Nakhon Si Ayutthaya**, Phra Nakhon Si Ayutthaya Dist.; Maharat Dist. **Nakhon Nayok**, Ban Na Dist. **Sa Kaeo**, Khlong Hat Dist. (Likhitrakarn et al., 2011). **Bangkok** (Daday, 1889; Flower, 1901; Enghoff, 2005; Decker, 2010; Likhitrakarn et al., 2011). **Chonburi**, Si Racha Dist.;

Bothong Dist. (Likhitrakarn et al., 2011); Pattaya Dist. (Enghoff, 2005). **Ranong**, Ranong Dist. **Chanthaburi**, Khlung Dist.; Khaeng Hang Maeo Dist. **Phetchaburi**, Ban Laem Dist. **Surat Thani**, Ban Ta Khun Dist. (Likhitrakarn et al., 2011); Ko Samui Dist. **Phang Nga**, Thap Put Dist. (Decker, 2010); Khura Buri Dist. (Likhitrakarn et al., 2011). **Phuket** (Golovatch, 1998, 2019; Enghoff, 2005). **Krabi** (Enghoff, 2005). **Trang**, Hat Chao Mai NP (Golovatch, 1998). **Phatthalung**, Phatthalung Dist. **Satun**, Satun Dist. (Likhitrakarn et al., 2011).

Remarks. This pantropical synanthropic species belongs to a monotypic genus, having been redescribed several times and recently revised by Likhitrakarn et al. (2011). The species has often been classified in the genus *Orthomorpha*, but because Likhitrakarn et al. (2019) have demonstrated that *A. coarctata* is sufficiently distinct, both genetically and morphologically, from *Orthomorpha* species, they agree it is better to be treated it as a member of the distinct monospecific genus *Asiomorpha*. See Nguyen and Sierwald (2013) for full synonymy.

Genus *Carinorthomorpha* Golovatch, 2000

162. *Carinorthomorpha minuta* Golovatch, 2000 (E)

Carinorthomorpha minuta Golovatch 2000: 215 (D).

Carinorthomorpha minuta—Enghoff 2005: 96 (L); Nguyen and Sierwald 2013: 1238 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch, 2000).

Genus *Chondromorpha* Silvestri, 1897

163. *Chondromorpha xanthotricha* (Attems, 1898)

Prionopeltis xanthotrichus Attems 1898: 359 (D).

Chondromorpha xanthotricha—Nguyen and Sierwald 2013: 1282 (L); Likhitrakarn et al. 2017b: 282 (D, R); et auctorum.

Record from Thailand: Chiang Mai, San Sai Dist.; Mae Rim Dist., Queen Sirikit BG (Likhitrakarn et al., 2017b).

Remarks. This pantropical species has been reported from synanthropic habitats in the Mascarene Islands, Sri Lanka, Singapore, Indonesia, Taiwan, Oceania, Fiji Islands, Samoa, the Philippines, New Guinea, the United States, Mexico, Costa Rica, Panama, the Greater and Lesser Antilles, Venezuela etc. (Shelley and Cupul-Magaña, 2007). See Nguyen and Sierwald (2013) for full synonymy.

Genus *Desmoxytes* Chamberlin, 1923

164. *Desmoxytes aurata* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Desmoxytes aurata Srisonchai et al. 2018a: 26 (D, K).

Record from Thailand: Surat Thani, Kanchanadit Dist., Khao Phanom Wang Cave (Srisonchai et al., 2018a).

165. *Desmoxytes breviverpa* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2016 (E)

Desmoxytes breviverpa Srisonchai et al. 2016: 99 (D).

Desmoxytes breviverpa—Srisonchai et al. 2018a: 34 (D, R, K).

Record from Thailand: Lampang, Mae Tha Dist., Tham Phra Sabai Temple (Srisonchai et al., 2018a); Tham Phra Sabai Temple; Mae Tha Dist., Chakkrabhat Monastery Cave. **Phrae**, Long Dist., Sareethai Cave (Srisonchai et al., 2016). **Uttaradit**, Thong Saen Khan Dist., Chan Cave (Srisonchai et al., 2018a).

166. *Desmoxytes cervina* (Pocock, 1895)

Prionopeltis cervinus Pocock 1895: 831 (D).

Desmoxytes cervina—Golovatch and Enghoff 1994: 61 (L); Nguyen and Sierwald 2013: 1241 (L); Srisonchai et al. 2018a: 37 (D, R, K); et auctorum.

Desmoxytes pterygota Golovatch and Enghoff 1994: 55 (D); Enghoff 2005: 96 (L); Decker 2010: 30 (R); Nguyen and Sierwald 2013: 1242 (L).

Desmoxytes sp.—Golovatch and Enghoff 1994: 60 (D).

Record from Thailand: Chumphon, Chumphon Dist., Tham Chang Phuek Temple; Sawi Dist., Nam Cha Temple. **Ranong**, Kra Buri Dist., Phra Khayang Cave; Bok Krai WF (Srisonchai et al., 2018a); Kapoe Dist. (Golovatch and Enghoff, 1994). **Surat Thani**, Ban Na San Dist.; Ban Ta Khun Dist.; Khirirat Nikhom Dist.; Ko Samui Dist.; Phanom Dist.; Wiang Sa Dist. **Phang Nga**, Khura Buri Dist., Mu Ko Surin NP; Takua Thung Dist., Suwan Khuha Temple; Thai Mueang Dist., Khaolak-Lumru NP (Srisonchai et al., 2018a); Phang Nga Dist., Thap Put Dist. (Srisonchai et al., 2018a; Decker, 2010). **Nakhon Si Thammarat**, Sichon Dist., Khao Lark WF; Thung Song Dist., Yong WF; Nopphitam Dist., Krung Ching WF; Khanom Dist., Nai Plao Beach; Tham Phannara Dist., Tham Kanlaya Namit Temple; Tham Thong Phannara Temple. **Krabi**, Ao-Luek Dist.; Khlong Thom Dist.; Krabi Dist., Tham Sue Temple (Srisonchai et al., 2018a); Krabi Dist.; Railay Beach (Decker, 2010). **Phuket** (Golovatch and Enghoff, 1994; Srisonchai et al., 2018a).

Remarks: This species was originally described from Myanmar (Pocock, 1895). See Srisonchai et al. (2018a) for full synonymy.

167. *Desmoxytes corythosaurus* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Desmoxytes corythosaurus Srisonchai et al. 2018a: 52 (D, K).

Record from Thailand: Surat Thani, Phanom Dist., Ban Song Phi Nong (Srisonchai et al., 2018a).

168. *Desmoxytes delfae* (Jeekel, 1964) (E)

Pratinus delfae Jeekel 1964a: 66 (D, K).

Desmoxytes delfae—Golovatch and Enghoff 1994: 61 (L, K); Enghoff 2005: 96 (L), Decker 2010: 28 (R); Nguyen and Sierwald 2013: 1241 (L); Srisonchai et al. 2018a: 59 (D, R, K); et auctorum.

Desmoxytes rubra Golovatch and Enghoff, 1994: 53 (D, K); Enghoff 2005: 96 (L); Decker 2010: 30 (R); Nguyen and Sierwald 2013: 1242 (L).

Record from Thailand: Surat Thani, Phanom Dist., Khao Sok NP (Decker, 2010); Wiang Sa Dist., Khiri Rat Pattana Temple; Tham Phannara Dist., Tham Kanlaya Namit Temple. **Krabi**, Krabi Dist., Huai To WF; Tham Sue Temple. **Nakhon Si Thammarat**, Nopphitam Dist., Krung Ching WF; Thung Song Dist., Talod Cave; Weruwan Temple (Srisonchai et al., 2018a); Lan Saka Dist., Khao Luang NP (Decker, 2010). **Satun**, Thale Ban NP Golovatch and Enghoff, 1993; Srisonchai et al., 2018a); Bukit Besar; Bukit Besar, Nawnchila (Jeekel, 1964); Thung Wa Dist., Khan Ti Phol Cave; La-ngu Dist. **Trang**, Palian Dist., Khao Ting Cave. **Phatthalung**, Khao Chaison Dist., Khao Chaison Hot Spring; Khuan Khanun Dist., Wang Thong Cave; Kong Ra Dist., Khao Phaya Hong. **Songkhla**, Hat Yai Dist., Ton Nga Chang WF; Sa Dao Dist., Khao Wong Pra Chan Temple; Tham Nang Phaya Lued Kao Temple (Srisonchai et al., 2018a). **Yala**, Bang Lang NP (Golovatch and Enghoff, 1993; Srisonchai et al., 2018a).

Remark: See Srisonchai et al. (2018a) for full synonymy.

169. *Desmoxytes des* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2016 (E)

Desmoxytes des Srisonchai et al. 2016: 94 (D).

Desmoxytes des—Srisonchai et al. 2018a: 71 (D, K).

Record from Thailand: Chiang Mai, Fang Dist., Doi Angkhang; Chiang Dao Dist., Tham Krab Temple (Srisonchai et al., 2016).

170. *Desmoxytes euros* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Desmoxytes euros Srisonchai et al. 2018a: 74 (D, K).

Record from Thailand: Chonburi, Bo Thong Dist., Tham Khao Cha-ang Oune Temple. **Rayong,** Khao Chamao Dist. **Chanthaburi**, Kaeng Hang Maeo Dist., Khao Wong Kot Cave; Khao Sip Ha Chan NP; Khlung Dist., Makok WF; Chantaburi Dist., Phlio WF; Tha Mai Dist., Khao Su Kim Temple. **Sa Kaeo**, Khlong Hat Dist., Phet Pho Thong Cave; Khao Chakan Dist., Tham Khao Chakan Temple (Srisonchai et al., 2018a).

171. *Desmoxytes flabella* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Desmoxytes flabella Srisonchai et al. 2018a: 83 (D, K).

Record from Thailand: Trang, Palian Dist., Khao Ting Cave; Khao Ting Cave. **Satun**, Thung Wa Dist., Khan Ti Phol Cave (Srisonchai et al., 2018a).

172. *Desmoxytes golovatchi* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Desmoxytes golovatchi Srisonchai et al. 2018a: 91 (D, K).

Record from Thailand: Kanchanaburi, Thong Pha Phum Dist.; Sai Yok Dist., Daowadueng Cave (Srisonchai et al., 2018a).

173. *Desmoxytes octoconigera* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Desmoxytes octoconigera Srisonchai et al. 2018a: 99 (D, K).

Record from Thailand: Kanchanaburi, Sangkhla Buri Dist.; Thong Pha Phum Dist. (Srisonchai et al., 2018a).

174. *Desmoxytes pinnasquali* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2016 (E)

Desmoxytes pinnasquali Srisonchai et al. 2016: 107 (D).

Desmoxytes pinnasquali—Srisonchai et al. 2018a: 113 (D, R, K).

Record from Thailand: Phitsanulok, Noen Maprang Dist., Pra Tham Mans Temple; Pa Ma Muang Temple (Srisonchai et al., 2016, 2018a).

175. *Desmoxytes planata* (Pocock, 1895) (E)

Prionopeltis planatus Pocock 1895: 829 (D).

Desmoxytes planata—Golovatch and Enghoff 1994: 60 (D, R, K); Enghoff 2005: 96 (L). Decker 2010: 29 (R); Nguyen and Sierwald 2013: 1240 (L); Srisonchai et al. 2018a: 116 (D, K); Golovatch 2018b: 262 (D, R); et auctorum.

Record from Thailand: Chiang Rai, Mae Lao Dist. (Srisonchai et al., 2018a). **Chiang Mai** (Golovatch and Enghoff, 1994; Decker, 2010; Srisonchai et al., 2018a). **Mae Hong Son**, Mae Hong Son Dist.; Mae Sariang

Dist. **Phayao**, Phusang Dist.; Chiang Kham Dist. **Lampang**, Mae Mo Dist.; **Phrae**, Rong Kwang Dist.; Den Chai Dist. (Srisonchai et al., 2018a). **Tak**, Phop Phra Dist.; Phop Phra Dist.; Umphang Dist. (Srisonchai et al., 2018a); Mae Sot Dist. (Decker 2010; Srisonchai et al. 2018a). **Kanchanaburi**, Sri Sawat Dist. (Decker, 2010); Thong Pha Phum Dist.; Sangkhla Buri Dist.; Sri Sawat Dist.; Kanchanaburi Dist.; **Saraburi**, Muak Lek Dist. (Srisonchai et al., 2018a); **Nakhon Rachasima**, Pak Chong Dist.; **Rayong**, Klaeng Dist.; **Chanthaburi**, Chanthaburi Dist.; **Sa Kaeo**, Sa Kaeo Dist.; **Trat**, Laem Ngop Dist. (Decker, 2010). **Ratchaburi**, Ratchaburi Dist.; **Phetchaburi**, Kaeng Krachan Dist.; Khao Yoi Dist.; **Prachuap Khiri Khan**, Bang Saphan Dist.; Prachuap Khiri Khan Dist. (Srisonchai et al., 2018a); Hua Hin Dist.; Thap Sakae Dist. (Decker, 2010); Kui Buri Dist. (Srisonchai et al., 2018a; Golovatch, 2018b). **Chumphon**, Pathio Dist. (Srisonchai et al., 2018a).

Remarks: This pantropical species is widely distributed in many parts of the world and also in all regions of Thailand (see Srisonchai et al., 2018a). This species has recently been revised and redescribed (Srisonchai et al., 2018a). See Srisonchai et al. (2018a) for full synonymy.

176. *Desmoxytes purpurosea* Enghoff, Sutcharit & Panha, 2007 (E)

Desmoxytes purpurosea Enghoff et al. 2007: 33 (D).

Desmoxytes purpurosea—Nguyen and Sierwald 2013: 1242 (L); Srisonchai et al. 2018a: 131 (D, R, K).

Record from Thailand: Lamphun, Pasang Dist., Erawan Cave (Srisonchai et al., 2018a). **Uthai Thani**, Lan Sak Dist., Hup Pa Tard (Enghoff et al., 2007; Srisonchai et al., 2018a); Ban Rai Dist.; **Kanchanaburi**, Sai Yok Dist.; Si Sawat Dist.; Sangkhla Buri Dist.; Thong Pha Phum Dist.; **Suphanburi**, Dan Chang Dist., Weruwan Cave (Srisonchai et al., 2018a).

Remarks: This species is currently known from limestone areas in the western part of Thailand, still being endemic to the country. The species was ranked third in the top ten new species list of 2008 by the International Institute for Species Exploration (International Institute for Species Exploration, 2008).

177. *Desmoxytes takensis* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2016 (E)

Desmoxytes takensis Srisonchai et al. 2016: 103 (D).

Desmoxytes takensis—Srisonchai et al. 2018a: 142 (D, R, K).

Record from Thailand: Tak, Phobphra Dist., Nangkruen WF (Srisonchai et al., 2016, 2018a); Mae Sot Dist.; Umphang Dist.; Tha Song Yang Dist.; **Kamphaeng Phet**, Khlong Lan Dist., Khlong Lan WF (Srisonchai et al., 2018a).

178. *Desmoxytes terae* (Jeekel, 1964)

Pratinus terae Jeekel 1964a: 69 (D, K).

Desmoxytes terae—Golovatch and Enghoff 1994: 59 (D, R, K); Enghoff 2005: 97 (L); Nguyen and Sierwald 2013: 1243 (L); Srisonchai et al. 2018a: 154 (D, R, K).

Record from Thailand: Satun, Thale Ban NP (Golovatch and Enghoff, 1994; Srisonchai et al., 2018a).

Remarks: Also known from peninsular Malaysia (Jeekel, 1964a). See Srisonchai et al. (2018a) for full synonymy.

Genus *Enghoffosoma* Golovatch, 1993

179. *Enghoffosoma bispinum* Likhitrakarn, Golovatch & Panha, 2014 (E)

Enghoffosoma bispinum Likhitrakarn et al. 2014c: 508 (D, K).

Enghoffosoma bispinum—Golovatch 2016b: 349 (M); 2018a: 8 (M).

Record from Thailand: Rayong, Rayong Dist., Kaosab Temple (Likhitrakarn et al., 2014c).

180. *Enghoffosoma funda* Likhitrakarn, Golovatch & Panha, 2014 (E)

Enghoffosoma funda Likhitrakarn et al. 2014c: 505 (D, K).

Record from Thailand: Sisaket, Kantharalak Dist., Sisaket Nature Resources Environment (Likhitrakarn et al., 2014c).

181. *Enghoffosoma zebra* Likhitrakarn, Golovatch & Panha, 2014

Enghoffosoma zebra Likhitrakarn et al. 2014c: 493 (D, K).

Record from Thailand: Nakhon Ratchasima, Wang Nam Khiao Dist., Sakaerat Environmental Research Station. **Ubon Ratchathani**, Khong Chiam Dist., Tadtone; Nam Yuen Dist., Numtip Temple; Yod Dom Forest Reserve (Likhitrakarn et al., 2014c).

Remarks. This species is also known to occur in Laos (Likhitrakarn et al., 2014c).

Genus *Eudasypeltis* Pocock, 1985

182. *Eudasypeltis setosus* (Pocock, 1894)

Strongylosoma setosum Pocock 1894: 320 (D).

Eudasypeltis setosus—Likhitrakarn et al. 2010c: 215 (D, R); Nguyen and Sierwald 2013: 1243 (L); et auctorum.

Record from Thailand: Phang Nga, Khura Buri Dist., Similan NP, Ko 6 (Likhitrakarn et al., 2010).

Remarks. This species was originally described from Myanmar (Pocock, 1894). See Nguyen and Sierwald (2013) for full synonymy.

Genus *Gigaxytes* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018

183. *Gigaxytes fusca* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018

Gigaxytes fusca Srisonchai et al. 2018c: 11 (D, K).

Record from Thailand: Prachuap Khiri Khan, Bang Saphan Dist., Khao Tham Ma Rong Temple. **Chumphon**, Pathio Dist., Phitsadarn Cave (Srisonchai et al., 2018c).

Remark: This species also occurs in southern Myanmar (Srisonchai et al., 2018c).

184. *Gigaxytes gigas* (Golovatch & Enghoff, 1994) (E)

Desmoxytes gigas Golovatch and Enghoff 1994: 56 (D, K).

Desmoxytes gigas—Enghoff 2005: 96 (L); Nguyen and Sierwald 2013: 1241 (L); Golovatch 2016b: 343 (M).

Gigaxytes gigas—Srisonchai et al. 2018c: 16 (D, R, K).

Record from Thailand: Krabi (Golovatch and Enghoff, 1994); Ao Luek Dist., Than Bok Khorani; Krabi Dist., Tham Sue Temple Cave; Na Mee Cave; Plai Phraya Dist., Wat Khao Hua Sing. **Nakhon Si Thammarat**, Thung Song Dist., Weruwan Temple; Talod Cave; Nopphitam Dist., Krung Ching WF. **Trang**, Hui Yot Dist., Khao Phra Yot; Khao Huai Hang Temple; Na Yong Dist., Khao Chang Hai Cave; Ratsada Dist., Tham Phra Phut Temple. **Phatthalung**, Khuan Khanun Dist., Wang Thong Cave; Kong Ra Dist., Khao Phaya Hong; Si Banphot Dist., Khao Pu-Khao Ya NP; Srinagarindra Dist., Tham Sumano Temple (Srisonchai et al., 2018c).

185. *Gigaxytes parvoterga* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Gigaxytes parvoterga Srisonchai et al. 2018c: 24 (D, K).

Record from Thailand: Trang, Palian Dist., Khao Ting Cave. **Songkhla**, Rattaphum Dist., Sri Khaesorn Cave (Srisonchai et al., 2018c).

186. *Gigaxytes suratensis* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Gigaxytes suratensis Srisonchai et al. 2018c: 31 (D, K).

Record from Thailand: Surat Thani, Ban Ta Khun Dist., Ratchaprapa Dam; Khao Wong Water Supply Station; Khirirat Nikhom Dist., Satit Khirirom Temple; Phanom Dist., Ban Song Phi Nong; Khlong Phanom NP; Tham Wararam Temple (Srisonchai et al., 2018c).

Genus *Haplogonomorpha* Mršić, 1996

187. *Haplogonomorpha gogalai* Mršić, 1996

Haplogonomorpha gogalai Mršić 1996: 142 (D).

Haplogonomorpha gogalai—Golovatch 1998: 35 (M, R); Enghoff 2005: 97 (L); Nguyen and Sierwald 2013: 1258 (L).

Record from Thailand: Yala, Bang Lang NP (Golovatch, 1998).

Remarks. This species was originally described from peninsular Malaysia, very close to the border to Thailand (Mršić, 1996).

Genus *Hylomus* Cook & Loomis, 1924

188. *Hylomus jeekeli* (Golovatch & Enghoff, 1994)

Desmoxytes jeekeli Golovatch and Enghoff 1994: 48 (D, K).

Desmoxytes jeekeli—Enghoff 2005: 96 (L); Decker 2010: 29 (R); Nguyen and Sierwald 2013: 1241 (L).

Hylomus jeekeli—Srisonchai et al. 2018a: 11 (M); Golovatch 2018b: 264 (R, M).

Record from Thailand: Chiang Rai, Doi Thung. **Chiang Mai**, Doi Saket Dist., Doi Sanyao; Huay Mae Kok; Fang Dist., Doi Angkhang (Decker, 2010); Doi Suthep-Pui NP; Doi Chiang Dao NP (Golovatch and Enghoff, 1994; Decker, 2010).

Remarks. This species also occurs in Laos (Golovatch, 2018b).

Genus *Kronopolites* Attems, 1914

189. *Kronopolites fuscocingulatus* Jeekel, 1983 (E)

Kronopolites fuscocingulatus Jeekel 1983: 238 (D).

Kronopolites fuscocingulatus—Enghoff 2005: 97 (M, R); Golovatch, 2009: 121 (M, K); Nguyen and Sierwald 2013: 1288 (L); Likhitrakarn et al. 2015b: 31 (M, K); Golovatch 2020a: 166 (M, K).

Record from Thailand: Chiang Rai, Hakka village; Mae Chan. **Chiang Mai**, Doi Suthep-Pui NP (Jeekel, 1983; Enghoff, 2005); Doi Pha Hom Pok NP; Doi Chiang Dao NP (Enghoff, 2005).

Genus *Malayorthomorpha* Mršić, 1996

190. *Malayorthomorpha halabala* Likhitrakarn, Golovatch & Sittichaya, 2022 (E)

Malayorthomorpha halabala Likhitrakarn et al. 2022: 7 (D).

Record from Thailand: Yala, Betong Dist. (Likhitrakarn et al., 2022).

191. *Malayorthomorpha hulutbeeda* Likhitrakarn, Golovatch & Sittichaya, 2022 (E)

Malayorthomorpha hulutbeeda Likhitrakarn et al. 2022: 12 (D).

Record from Thailand: Yala, Betong Dist. (Likhitrakarn et al., 2022).

Genus *Nagaxytes* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018b

192. *Nagaxytes acantherpestes* (Golovatch & Enghoff, 1994) (E)

Nagaxytes acantherpestes Golovatch and Enghoff 1994: 51 (D, K)

Nagaxytes acantherpestes—Enghoff 2005: 96 (L); Decker 2010: 28 (R); Nguyen and Sierwald 2013: 1240 (L); Srisonchai et al. 2018b: 11 (D, R, K).

Record from Thailand: Prachuap Khiri Khan, Hua Hin Dist., Hua Hin (Golovatch and Enghoff, 1994); Kui Buri Dist., Ban Yan Sue (Srisonchai et al., 2018b). **Krabi**, Ao Luk Dist., Thanboke Khoranee NP (Decker, 2010).

193. *Nagaxytes erecta* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Nagaxytes erecta Srisonchai et al. 2018b: 18 (D, K).

Record from Thailand: Kanchanaburi, Thong Pha Phum Dist., Phuphrai Thannam Resort; Pha Sukit Suwannaket Temple; Pak Lam Pilock Temple; Tha Kha-nun Temple; Prang Ka Sri Temple; Sai Yok Dist., Daowadueng Cave; Sunantha Wanaram Temple (Srisonchai et al., 2018b).

194. *Nagaxytes gracilis* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Nagaxytes gracilis Srisonchai et al. 2018b: 27 (D, K).

Record from Thailand: Kanchanaburi, Sai Yok Dist., Ban Thung Kang Yang; Daowadueng Cave; Hellfire Pass; Kra Sae Cave; Tham Phrom Lok Khao Yai Temple; Phuttha Vimooddhi Wanaram Temple; Sunantha Wanaram Temple (Srisonchai et al., 2018b).

195. *Nagaxytes spatula* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)

Nagaxytes spatula Srisonchai et al. 2018b: 34 (D, K).

Record from Thailand: Tak, Mae Sot Dist., Chao Por Phawo Shrine; Pho Thi Khun Temple; Tham Inthanin Temple; Umphang Dist., Takhobi Cave; Doi Hua Mod (Srisonchai et al., 2018b).

Genus *Orthomorpha* Bollman, 1893

196. *Orthomorpha alutaria* Likhitrakarn, Golovatch & Panha, 2010 (E)

Orthomorpha alutaria Likhitrakarn et al. 2010a: 32 (D, K).

Orthomorpha alutaria—Likhitrakarn et al. 2011: 118 (L); Nguyen and Sierwald 2013: 1248 (L).

Record from Thailand: Uthai Thani, Lan Sak Dist., Thep Mueang Thong Temple; Thap Than Dist., Khao Patawe Temple; Ban Rai Dist., Tham Khao Wong Temple. **Lopburi**, Khok Samrong Dist., Khao Wong Phrachan Temple (Likhitrakarn et al., 2010a).

197. *Orthomorpha asticta* Likhitrakarn, Golovatch & Panha, 2010 (E)

Orthomorpha asticta Likhitrakarn et al. 2010a: 33 (D, K).

Orthomorpha asticta—Likhitrakarn et al. 2011: 118 (L); Nguyen and Sierwald 2013: 1248 (L).

Record from Thailand: Satun, Tarutao NP (Likhitrakarn et al., 2010a).

Remarks. This species occurs also in the adjacent parts of Malaysia (Likhitrakarn et al., 2010a).

198. *Orthomorpha atypica* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha atypica Likhitrakarn et al. 2011: 41 (D, K).

Orthomorpha atypica—Nguyen and Sierwald 2013: 1248 (L).

Record from Thailand: **Chanthaburi**, Khlung Dist., Troknong WF (Likhitrakarn et al., 2010a).

199. *Orthomorpha banglangensis* Golovatch, 1998 (E)

Orthomorpha banglangensis Golovatch 1998: 38 (D, K).

Orthomorpha banglangensis—Enghoff 2005: 97 (L); Likhitrakarn et al. 2011: 97 (D, K); Nguyen and Sierwald 2013: 1248 (L).

Record from Thailand: Yala, Bang Lang NP (Golovatch, 1998).

200. *Orthomorpha communis* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha communis Likhitrakarn et al. 2011: 37 (D, K).

Orthomorpha communis—Nguyen and Sierwald 2013: 1249 (L).

Record from Thailand: Prachinburi, Prachantakham Dist., Takror WF; Na Di Dist., Nong Tabaek WF. **Surin**, Surin Dist., Khao Phanom Sawai NP. **Ubon Ratchathani**, Khong Chiam Dist., Patam NP; Tadtong WF (Likhitrakarn et al., 2011).

201. *Orthomorpha enghoffi* Likhitrakarn, Golovatch & Panha, 2010 (E)

Orthomorpha enghoffi Likhitrakarn et al. 2010a: 24 (D, K).

Orthomorpha enghoffi—Likhitrakarn et al. 2011: 118 (L); Nguyen and Sierwald 2013: 1250 (L).

Record from Thailand: Loei, Wang Saphung Dist., Huay E Loet. **Nakhon Ratchasima**, Pak Chong Dist., Khao Luk Chang (Likhitrakarn et al., 2010a).

202. *Orthomorpha horologiformis* Golovatch, 1998 (E)

Orthomorpha horologiformis Golovatch 1998: 39 (D, K).

Orthomorpha horologiformis—Enghoff 2005: 97 (L); Decker 2010: 31 (R); Likhitrakarn et al. 2011: 89 (D, R, K); Nguyen and Sierwald 2013: 1251 (L).

Record from Thailand: Phang Nga, Phang Nga Dist., Phung Chang Cave (Likhitrakarn et al., 2011); Katang Dist., Khao Lak-Lamru NP (Decker, 2010). **Phuket**, Phuket Marine Biology Center (Enghoff, 2005). **Krabi**, Khlong Thom Dist.; Krabi Dist.; **Nakhon Si Thammarat**, Nopphitam Dist., Krungshing WF (Likhitrakarn et al., 2011). **Trang**, Hat Chao Mai NP (Golovatch, 1998; Enghoff, 2005; Decker, 2010; Likhitrakarn et al., 2011); Trang Dist.; Na Yong Dist.; **Phatthalung**, Srinagarindra Dist., Sumano Cave; Khao Chaison Dist., Nam Yen Hot Spring Cave. **Satun**, Satun Dist., Tarutao NP (Likhitrakarn et al., 2011).

203. *Orthomorpha insularis* Pocock, 1895

Orthomorpha insularis Pocock 1895: 817 (D).

Orthomorpha karschii intercedens Attems 1937: 71 (D).

Orthomorpha intercedens—Enghoff 2005: 97 (R); Decker 2010: 31 (R); et auctorum.

Orthomorpha insularis—Likhitrakarn et al.: 2011: 107 (D, R, K); 2017a: 22 (R); Nguyen and Sierwald 2013: 1251 (L); et auctorum.

Record from Thailand: mountains between Myanmar and Thailand (Attems, 1937). **Chiang Mai,** Doi Inthanon NP (Enghoff, 2005); Doi Suthep-Pui NP; Chiang Dao Dist. (Enghoff, 2005; Likhitrakarn et al., 2011). **Mae Hong Son**, Mae Hong Son Dist., Tham Woa Temple. **Phayao**, Phu Sang Dist., Phu Sang NP. **Tak**, Mae Sot Dist., Doi Mu Soe; Tha Song Yang Dist., Mae Usu Cave; Umphang Dist.; **Kanchanaburi**, Thong Pha Phum Dist., Krienkravia WF; Thong Pha Phum; Sai Yok Dist., Daowadueng Cave NP (Likhitrakarn et al., 2011). **Prachuap Kiri Khan**, Thap Sakae Dist., Huay Yang NP (Decker, 2010).

Remarks. Also found in Myanmar (Likhitrakarn et al., 2017). See Likhitrakarn et al. (2011, 2017) for full synonymy.

204. *Orthomorpha isarankurai* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha isarankurai Likhitrakarn et al. 2011: 118 (D, K).

Orthomorpha isarankurai—Nguyen and Sierwald 2013: 1252 (L).

Record from Thailand: Sa Kaeo, Khao Chakan Dist., Khao Sam Sip. **Chachengsao**, Phanom Sarak-ham Dist., Khao Hin Sorn; Kaeng Hang Maeo Dist., Khao Sip Ha Chan NP. **Chonburi**, Chon Buri Dist., Ang Hin Station. **Chanthaburi**, Chanthaburi Dist., Krathing WF (Likhitrakarn et al., 2011).

205. *Orthomorpha latiterga* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha latiterga Likhitrakarn et al. 2011: 45 (D, K).

Orthomorpha latiterga—Nguyen and Sierwald 2013: 1253 (L).

Record from Thailand: Chanthaburi, Pong Nam Ron Dist., Hin Dard WF (Likhitrakarn et al., 2011).

206. *Orthomorpha lauta* Golovatch, 1998

Orthomorpha lauta Golovatch 1998: 38 (D, K).

Orthomorpha lauta—Enghoff 2005: 97 (L, R); Likhitrakarn et al. 2011: 89 (D, R, K); Nguyen and Sierwald 2013: 1253 (L).

Record from Thailand: Surat Thani, Kanchanadit Dist.; Ko Samui Dist. (Likhitrakarn et al., 2011). **Krabi**, Sikhoraphum Dist. (Golovatch, 1998); Ao Luek Dist.; Krabi Dist.; Khlong Thom Dist.; **Trang**, Na Yong Dist.; **Phatthalung**, Khuan Khaum Dist.; Phatthalung Dist.; **Satun**, Khuan Don Dist.; **Songkhla**, Rattaphum Dist.; Hat Yai Dist. (Likhitrakarn et al., 2011).

Remarks. This species also occurs in Malaysia (Likhitrakarn et al., 2011).

207. *Orthomorpha parasericata* Likhitrakarn, Golovatch & Panha, 2010 (E)

Orthomorpha parasericata Likhitrakarn et al. 2010a: 35 (D, K).

Orthomorpha parasericata—Likhitrakarn et al. 2011: 118 (L); Nguyen and Sierwald 2013: 1253 (L).

Record from Thailand: Surat Thani, Khiri Rat Nikhom Dist., Sathit Khirirom Temple (Likhitrakarn et al., 2010a).

208. *Orthomorpha picturata* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha picturata Likhitrakarn et al. 2011: 21 (D, K).

Orthomorpha picturata—Nguyen and Sierwald 2013: 1253 (L).

Record from Thailand: Phang Nga, Khura Buri Dist., Similan NP, Ko 9 (Likhitrakarn et al., 2011).

209. *Orthomorpha pterygota* Golovatch, 1998 (E)

Orthomorpha pterygota Golovatch 1998: 41 (D, K).

Orthomorpha pterygota—Enghoff 2005: 98 (L); Decker 2010: 31 (R); Likhitrakarn et al. 2011: 86 (D, R, K); Nguyen and Sierwald 2013: 1253 (L).

Record from Thailand: Krabi, Sikhoraphum Dist. (Golovatch, 1998); Katang Dist., Ko Lanta; Nuea Khlong Dist., Ko Jam (Decker, 2010). **Phuket**, Phuket Dist. (Golovatch, 1998; Decker, 2010; Likhitrakarn et al., 2011).

210. *Orthomorpha sericata* Jeekel, 1964 (E)

Orthomorpha sericata Jeekel 1964b: 355 (D, K).

Orthomorpha sericata—Jeekel 1968: 56 (M); Golovatch 1998: 42 (D); Enghoff 2005: 98 (L); Likhitrakarn et al. 2010a: 38 (D, K); 2011: 117 (L); Nguyen and Sierwald 2013: 1254 (L).

Record from Thailand: Wat Sum, Bandon River [= **Surat Thani**, Kanchanadit Dist., Son Temple] (Jeekel, 1964; Likhitrakarn et al., 2010a).

211. *Orthomorpha similanensis* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha similanensis Likhitrakarn et al. 2011: 129 (D, K).

Record from Thailand: Phang Nga, Khura Buri Dist., Similan NP, Ko 4 (Likhitrakarn et al., 2011).

212. *Orthomorpha suberecta* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha suberecta Likhitrakarn et al. 2011: 49 (D, K).

Orthomorpha suberecta—Likhitrakarn et al. 2014: 10 (M).

Record from Thailand: Nong Bua Lamphu, Suwannakhuha Dist., Suwannakhuha Cave (Likhitrakarn et al., 2011).

213. *Orthomorpha subkarschi* Golovatch, 1998 (E)

Orthomorpha subkarschi Golovatch 1998: 41 (D, K).

Orthomorpha subkarschi—Enghoff 2005: 98 (L); Decker 2010: 32 (R); Likhitrakarn et al. 2010a: 93 (D, R, K); 2011: 93 (D, R).

Record from Thailand: Chumphon, Lang Suan Dist. (Decker, 2010); Lang Suan Dist., Khao Kriab Temple. **Ranong**, Ranong Dist., Ngao WF. **Surat Thani**, Tha Chana Dist., Tam Yai Temple; Khiri Rom Temple; Phanom Dist., Khao Phanom NP; Padang Cave. **Phang Nga**, Thap Put Dist., Tham Kop; Tao Tong WF (Likhitrakarn et al., 2011). **Phuket**, Ton Sai WF (Golovatch, 1998).

214. *Orthomorpha subsericata* Golovatch, 1998 (E)

Orthomorpha subsericata Golovatch 1998: 35 (D, K).

Orthomorpha subsericata—Enghoff 2005: 98 (L); Likhitrakarn et al. 2010a: 30 (D, R, K); 2011: 117 (L); Decker 2010: 32 (R); Nguyen and Sierwald 2013: 1254 (L).

Record from Thailand: Prachuap Khiri Khan, Hua Hin Dist., Hua Hin (Golovatch, 1998); Bang Saphan Dist. (Likhitrakarn et al., 2010a); Prachuap Khiri Khan Dist. (Likhitrakarn et al., 2010a; Decker, 2010).

215. *Orthomorpha subtuberculifera* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha subtuberculifera Likhitrakarn et al. 2011: 32 (D, K).

Orthomorpha subtuberculifera—Nguyen and Sierwald 2013: 1254 (L).

Record from Thailand: Nakhon Ratchasima, Wang Nam Khiao Dist., Sakaerat Enviromental Research Station (Likhitrakarn et al., 2011).

216. *Orthomorpha thalebanica* Golovatch, 1998 (E)

Orthomorpha thalebanica Golovatch 1998: 37 (D, K).

Orthomorpha thalebanica—Enghoff 2005: 98 (L); Decker 2010: 32 (R); Likhitrakarn et al. 2011: 99 (D, R, K); Nguyen and Sierwald 2013: 1255 (L).

Record from Thailand: Rayong, Rayong Dist., Ko Samet NP. **Trat**, Ko Chang Dist., Ko Chang (Decker, 2010). **Satun**, Thale Ban NP (Golovatch, 1998; Likhitrakarn et al., 2011).

217. *Orthomorpha tuberculifera* Likhitrakarn, Golovatch & Panha, 2011 (E)

Orthomorpha tuberculifera Likhitrakarn et al. 2011: 24 (D, K).

Orthomorpha tuberculifera—Nguyen and Sierwald 2013: 1255 (L).

Record from Thailand: Nakhon Ratchasima, Pakchong Dist., Khao Luk Chang (Likhitrakarn et al., 2011).

Genus *Spinaxytes* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018

218. *Spinaxytes biloba* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes biloba Srisonchai et al. 2018d: 29 (D, K).
Record from Thailand: Surat Thani, Phanom Dist., Khlong Phanom NP (Srisonchai et al., 2018d).

219. *Spinaxytes hasta* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes hasta Srisonchai et al. 2018d: 39 (D, K).
Record from Thailand: Chumphon, Thung Tako Dist., Khao Ma Ngaen; Chumphon Dist., Tham Sanook Temple; Lang Suan Dist., Ratcha Burana School Temple; Khao Kriap Cave; Sawi Dist., Nam Cha Temple (Srisonchai et al., 2018d).

220. *Spinaxytes krabiensis* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes krabiensis Srisonchai et al. 2018d: 43 (D, K).
Record from Thailand: Krabi, Krabi Dist., Tham Sue Temple; Ao Luek Dist. (Srisonchai et al., 2018d).

221. *Spinaxytes macaca* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes macaca Srisonchai et al. 2018d: 47 (D, K).
Record from Thailand: Phang Nga, Takua Thung Dist., Suwan Khuha Temple (Srisonchai et al., 2018d).

222. *Spinaxytes palmata* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes palmata Srisonchai et al. 2018d: 51 (D, K).
Record from Thailand: Surat Thani, Phanom Dist., Tham Wararam Temple (Srisonchai et al., 2018d).

223. *Spinaxytes sutchariti* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes sutchariti Srisonchai et al. 2018d: 55 (D, K).
Record from Thailand: Krabi, Krabi Dist., Na Mee Cave (Srisonchai et al., 2018d).

224. *Spinaxytes typica* Golovatch, 2018 (E)
Spinaxytes typica Golovatch 2018b: 264 (D).
Record from Thailand: Prachuap Khiri Khan, Khao Sam Roi Yot NP (Golovatch, 2018b).

225. *Spinaxytes uncus* Srisonchai, Enghoff & Panha, in Srisonchai et al. 2018 (E)
Spinaxytes uncus Srisonchai et al. 2018d: 61 (D, K).
Record from Thailand: Phang Nga, Phang Nga Dist.; Thap Put Dist., Kerewong Temple (Srisonchai et al., 2018d).

Genus *Streptogonopus* Attems, 1914

226. *Streptogonopus degerboelae* Golovatch, 2000 (E)
Streptogonopus degerboelae Golovatch 2000: 218 (D).
Streptogonopus degerboelae—Enghoff 2005: 98 (L); Nguyen and Sierwald 2013: 1316 (L).
Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Golovatch, 2000).

Genus *Substrongylosoma* Golovatch, 1984

227. *Substrongylosoma moniliforme* Golovatch, 1993 (E)
Substrongylosoma moniliforme Golovatch 1993: 5 (D).
Substrongylosoma moniliforme—Enghoff 2005: 98 (L); Nguyen and Sierwald 2013: 1269 (L).
Record from Thailand: Yala, Betong Dist.; Than To Dist., Bang Lang NP (Golovatch, 1993).

Genus *Tetracentrosternus* Pocock, 1985

228. *Tetracentrosternus theelorsuensis* Likhitrakarn, Golovatch & Panha, 2013 (E)
Tetracentrosternus theelorsuensis Likhitrakarn et al. 2013: 4 (D, K).
Tetracentrosternus theelorsuensis—Golovatch 2016a: 143 (M, K).
Record from Thailand: Tak, Umphang Dist., Thee Lor Sue WF; Mokro Subdist.; Pa Wai WF (Likhitrakarn et al., 2013).

Genus *Tylopus* Jeekel, 1968

229. *Tylopus affinis* Golovatch & Enghoff, 1993 (E)
Tylopus affinis Golovatch and Enghoff 1993: 94 (D, K).
Tylopus affinis—Enghoff 2005: 98 (R); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).
Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993); Doi Inthanon NP (Golovatch and Enghoff, 1993; Enghoff, 2005).

230. *Tylopus allorugosus* Golovatch & Enghoff, 1993 (E)
Tylopus allorugosus Golovatch and Enghoff 1993: 100 (D, K).
Tylopus allorugosus—Enghoff 2005: 98 (L); Likhitrakarn et al. 2010b: 42 (D, R, K); 2014b: 65 (M, K);

2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993); Doi Inthanon NP (Golovatch and Enghoff, 1993; Likhitrakarn et al., 2010b).

231. *Tylopus amicus* Golovatch & Enghoff, 1993 (E)

Tylopus amicus Golovatch and Enghoff 1993: 104 (D, K).

Tylopus amicus—Enghoff 2005: 98 (L); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Chiang Mai, Doi Pha Hom Pok NP (Golovatch and Enghoff, 1993).

232. *Tylopus asper* Golovatch & Enghoff, 1993 (E)

Tylopus asper Golovatch and Enghoff 1993: 116 (D, K).

Tylopus asper—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch and Enghoff, 1993).

233. *Tylopus baenzigeri* Golovatch & Enghoff, 1993 (E)

Tylopus baenzigeri Golovatch and Enghoff 1993: 101 (D, K).

Tylopus baenzigeri—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 32 (D, R, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993); Fang Dist., Doi Angkhang (Likhitrakarn et al., 2016b).

234. *Tylopus bispinosus* Likhitrakarn, Golovatch, Prateepasen & Panha, 2010 (E)

Tylopus bispinosus Likhitrakarn et al. 2010b: 27 (D, K).

Tylopus bispinosus—Likhitrakarn et al. 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Tak, Umphang Dist., Umphang City (Likhitrakarn et al., 2010b).

235. *Tylopus coriaceus* Golovatch & Enghoff, 1993 (E)

Tylopus coriaceus Golovatch and Enghoff 1993: 113 (D, K).

Tylopus coriaceus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Chaiyaphum, Phu Kheio (Golovatch and Enghoff, 1993).

236. *Tylopus corrugatus* Likhitrakarn, Golovatch & Panha, 2014 (E)

Tylopus corrugatus Likhitrakarn et al. 2014b: 66 (D, K).

Tylopus corrugatus—Likhitrakarn et al. 2016b: 35 (M): Golovatch 2020b: 491 (M).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Likhitrakarn et al., 2014b).

237. *Tylopus degerboelae* Golovatch & Enghoff, 1993 (E)

Tylopus degerboelae Golovatch and Enghoff 1993: 111 (D, K).

Tylopus degerboelae—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 43 (D, R, K); 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP; Doi Chiang Dao NP (Golovatch and Enghoff, 1993); Doi Suthep-Pui NP (Golovatch and Enghoff, 1993; Likhitrakarn et al., 2010b); WiangKaen Dist., Doi Phatang (Likhitrakarn et al., 2010b).

238. *Tylopus doriae* (Pocock, 1895)

Orthomorpha doriae Pocock 1895: 823 (D).

Tylopus doriae—Golovatch and Enghoff 1993: 103 (M, R, K); Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 35 (M, K); Nguyen and Sierwald 2013: 1298 (L); Golovatch 2018a: 194 (M); 2018b: 267 (M); et auctorum.

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993).

Remarks. This species was originally described from Myanmar (Pocock, 1895). See Nguyen and Sierwald (2013) for full synonymy.

239. *Tylopus extremus* Likhitrakarn, Golovatch, Prateepasen & Panha, 2010 (E)

Tylopus extremus Likhitrakarn et al. 2010b: 33 (D, K).

Tylopus extremus—Likhitrakarn et al. 2014b: 65 (M, K); 2016b: 36 (M, K); Nguyen and Sierwald 2013: 1299 (L).

Record from Thailand: Chiang Mai, Doi Phahom Pok NP (Likhitrakarn et al., 2010b).

240. *Tylopus flavolineatus* Likhitrakarn, Golovatch & Panha, 2016 (E)

Tylopus flavolineatus Likhitrakarn et al. 2016b: 3 (D, K).

Record from Thailand: Lopburi, Nong Muang Dist., Tham Santisuk Temple (Likhitrakarn et al., 2016b).

241. *Tylopus grandis* Likhitrakarn, Golovatch, Prateepasen & Panha, 2010 (E)

Tylopus grandis Likhitrakarn et al. 2010b: 30 (D, K).

Tylopus grandis—Likhitrakarn et al. 2014b: 65 (M, K); 2016b: 36 (M, K); Nguyen and Sierwald 2013: 1299 (L).

Record from Thailand: Mae Hong Son, Pangmapha Dist., Pha Mon Cave; Mae Lana (Likhitrakarn et al., 2010b).

242. *Tylopus haplorugosus* Golovatch & Enghoff, 1993 (E)

Tylopus haplorugosus Golovatch and Enghoff 1993: 99 (D, K).

Tylopus haplorugosus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 45 (D, R, K); 2014b: 65 (M, K); 2016b: 36 (M, K); Nguyen and Sierwald 2013: 1299 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch and Enghoff, 1993; Likhitrakarn et al., 2010b).

243. *Tylopus hoffmani* Golovatch & Enghoff, 1993 (E)

Tylopus hoffmani Golovatch and Enghoff 1993: 107 (D, K).

Tylopus hoffmani—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 25 (M, K); 2014b: 65 (M, K); 2016b: 36 (M, K); Nguyen and Sierwald 2013: 1299 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993).

244. *Tylopus hongkhraiensis* Likhitrakarn, Golovatch & Panha, 2016 (E)

Tylopus hongkhraiensis Likhitrakarn et al. 2016b: 7 (D, K).

Tylopus hongkhraiensis—Golovatch 2018a: 194 (M).

Record from Thailand: Chiang Mai, Doi Saket Dist., Huai Hong Khrai (Likhitrakarn et al., 2016b).

245. *Tylopus jeekeli* Golovatch & Enghoff, 1993 (E)

Tylopus jeekeli Golovatch and Enghoff 1993: 108 (D, K).

Tylopus jeekeli—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 45 (D, R, K); 2014b: 65 (M, K); 2016b: 36 (M, K); Nguyen and Sierwald 2013: 1299 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch and Enghoff, 1993); Doi Suthep-Pui NP (Likhitrakarn et al., 2010b).

246. *Tylopus pallidus* Golovatch & Enghoff, 1993 (E)

Tylopus pallidus Golovatch and Enghoff 1993: 109 (D, K).

Tylopus pallidus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 65 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1299 (L).

Record from Thailand: Chiang Mai, Doi Pha Hom Pok NP (Golovatch and Enghoff, 1993).

247. *Tylopus parahilaroides* Likhitrakarn, Golovatch & Panha, 2014 (E)

Tylopus parahilaroides Likhitrakarn et al. 2014b: 70 (D, K).

Tylopus parahilaroides—Likhitrakarn et al. 2016b: 37 (M).

Record from Thailand: Loei, Phuluang Dist., Phuluang Wildlife Sanctuary (Likhitrakarn et al., 2014b).

248. *Tylopus parajeekeli* Likhitrakarn, Golovatch, Prateepasen & Panha, 2010 (E)

Tylopus parajeekeli Likhitrakarn et al. 2010b: 39 (D, K).

Tylopus parajeekeli—Likhitrakarn et al. 2014b: 65 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1300 (L).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Likhitrakarn et al., 2010b).

249. *Tylopus perarmatus* Hoffman, 1973 (E)

Tylopus perarmatus Hoffman 1973: 372 (D).

Tylopus perarmatus—Golovatch and Enghoff 1993: 106 (M, R); Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 54 (D, R, K); 2014b: 65 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1300 (L); et auctorum.

Record from Thailand: Chiang Rai, Chiang Rai Dist., Ban Pang Rim Kon; Thoeng Dist., Phucheefah; Wiang Kaen Dist., Doi Pha Tang (Likhitrakarn et al., 2010b). **Chiang Mai**, Doi Suthep-Pui NP (Hoffman, 1973; Golovatch and Enghoff, 1993); Doi Chiang Dao NP (Golovatch and Enghoff, 1993); Doi Inthanon NP (Golovatch and Enghoff, 1993; Likhitrakarn et al., 2010b); Wiang Kaen Dist., Doi Phatang. **Lampang**, Mae On Dist. (Golovatch and Enghoff, 1993); Ngao Dist., Pha Thai Cave. **Phayao**, Chiang Kham Dist., Nam Min WF. **Nan**, Pua Dist., Ton Tong WF. **Phrae**, Rong Kwang Dist., Pha Nang Khoi Cave (Likhitrakarn et al., 2010b).

250. *Tylopus perplexus* Golovatch & Enghoff, 1993 (E)

Tylopus perplexus Golovatch and Enghoff 1993: 105 (D, K).

Tylopus perplexus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 65 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1300 (L).

Record from Thailand: **Chiang Mai**, Doi Pha Hom Pok NP (Golovatch and Enghoff, 1993).

251. *Tylopus poolpermorum* Golovatch & Enghoff, 1993 (E)

Tylopus poolpermorum Golovatch and Enghoff 1993: 102 (D, K).

Tylopus poolpermorum—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 66 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1300 (L).

Record from Thailand: Chiang Mai, Doi Pha Hom Pok NP (Golovatch and Enghoff, 1993).

252. *Tylopus prosperus* Golovatch & Enghoff, 1993 (E)

Tylopus prosperus Golovatch and Enghoff 1993: 93 (D, K).

Tylopus prosperus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 46 (D, R, K); 2014b: 66 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1300 (L); Golovatch 2020a: 168 (M).

Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch and Enghoff, 1993; Likhitrakarn et al., 2010b).

253. *Tylopus pulvinipes* Golovatch & Enghoff, 1993 (E)

Tylopus pulvinipes Golovatch and Enghoff 1993: 112 (D, K).

Tylopus pulvinipes—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 66 (M, K); 2016b: 37 (M, K); Nguyen and Sierwald 2013: 1300 (L).

Record from Thailand: Chaiyaphum, Phu Kheio (Golovatch and Enghoff, 1993).

254. *Tylopus rugosus* Golovatch & Enghoff, 1993 (E)

Tylopus rugosus Golovatch and Enghoff 1993: 95 (D, K).

Tylopus rugosus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 50 (D, R, K); 2014b: 66 (M, K); 2016b: 38 (M, K); Nguyen and Sierwald 2013: 1300 (L); Golovatch 2020b: 491 (M).

Record from Thailand: Chiang Mai, Doi Chiang Dao NP (Golovatch and Enghoff, 1993); Phrao Dist., Buathong WF (Likhitrakarn et al., 2010b).

255. *Tylopus semirugosus* Golovatch & Enghoff, 1993 (E)

Tylopus semirugosus Golovatch and Enghoff 1993: 98 (D, K).

Tylopus semirugosus—Enghoff 2005: 99 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 66 (M, K); 2016b: 38 (M, K); Nguyen and Sierwald 2013: 1300 (L).

Record from Thailand: Tak, Ban Mussoe (Golovatch and Enghoff, 1993).

256. *Tylopus similirugosus* Golovatch & Enghoff, 1993 (E)

Tylopus similirugosus Golovatch and Enghoff 1993: 96 (D, K).

Tylopus similirugosus—Enghoff 2005: 100 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 66 (M, K); 2016b: 38 (M, K); Nguyen and Sierwald 2013: 1300 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993).

257. *Tylopus subcoriaceus* Golovatch & Enghoff, 1993 (E)

Tylopus subcoriaceus Golovatch and Enghoff 1993: 115 (D, K).

Tylopus subcoriaceus—Enghoff 2005: 100 (L); Likhitrakarn et al. 2010b: 26 (M, K); 2014b: 66 (M, K); 2016b: 38 (M, K); Nguyen and Sierwald 2013: 1301 (L).

Record from Thailand: Chiang Mai, Doi Suthep-Pui NP (Golovatch and Enghoff, 1993).

258. *Tylopus veliger* Likhitrakarn, Golovatch, Prateepasen & Panha, 2010 (E)

Tylopus veliger Likhitrakarn et al. 2010b: 36 (D, K).

Tylopus veliger—Likhitrakarn et al. 2014b: 66 (M, K); 2016b: 38 (M, K); Nguyen and Sierwald 2013: 1301 (L).

Record from Thailand: Nan, Pua Dist., Ton Tong WF (Likhitrakarn et al., 2010b).

259. *Tylopus trigonum* Likhitrakarn, Golovatch & Panha, 2014 (E)

Tylopus trigonum Likhitrakarn et al. 2014b: 73 (D, K).

Tylopus trigonum —Likhitrakarn et al. 2016b: 38 (M).

Record from Thailand: Tak, Umphang Dist., Pa Wai WF; Thee Lor Sue WF (Likhitrakarn et al., 2014b).

Family Plalyrhacidae Pocock, 1895

Genus *Platyrhachus* C.L. Koch, 1847

260. *Platyrhacus andersonii* Pocock, 1895

Platyrrhachus andersonii Pocock 1895: 788 (M, R).
Polydesmus (*Platyrhacus*) *moebiusi*—Attems 1938b: 218 (D, R, K).
Platyrhachus andersoni—Decker 2010: 27 (R).
Platyrhacus andersonii—Likhitrakarn et al. 2017a: 15 (L); et auctorum.
Record from Thailand: Ranong, Kapoe Dist., Khlong Nakha Wildlife Sanctuary. **Surat Thani**, Phanom Dist., Khao Sok NP. **Phang Nga**, Thap Put Dist., Khao Lak-Lamru NP. **Krabi**, Railay Beach (Decker, 2010). Salanga [= **Phuket**] (Attems, 1938b).

Remarks. This species was originally described from Myanmar (Pocock, 1895, 1889; Attems 1899, 1914), also found in Malaysia and Indonesia (Wang and Tang, 1965). See Likhitrakarn et al. (2017a) for full synonymy.

261. *Platyrhacus bouvieri* Brölemann, 1896
Platyrrhachus Bouvieri Brölemann 1896: 333 (D).
Platyrrhacus Bouvieri—Attems 1899: 323 (L); Brölemann 1904: 306 (D).
Platyrhachus bouvieri—Enghoff et al. 2004: 37 (L); Enghoff 2005: 95 (L); Decker 2010: 28 (R).
Platyrhacus bouvieri—Golovatch and Nguyen 2007: 218 (D); Likhitrakarn et al. 2017a: 16 (L); et auctorum.
Record from Thailand: Nakhon Ratchasima, Khao Yai NP (Decker, 2010). **Nakhon Nayok** (Brölemann, 1904).

Remarks. This species, found also to occur in Myanmar (Attems, 1936), was rather recently redescribed by Golovatch and Nguyen (2007). See Likhitrakarn et al. (2017a) for full synonymy.

Family Polydesmidae Leach, 1815

Genus *Pacidesmus* Golovatch, 1991

262. *Pacidesmus shelleyi* Golovatch, 1991 (E)
Pacidesmus shelleyi Golovatch 1991: 146 (D).
Pacidesmus shelleyi—Enghoff 2005: 100 (L).
Record from Thailand: Chiang Mai, Doi Inthanon NP (Golovatch, 1991).

Family Pyrgodesmidae Silvestri, 1896

Genus *Cryptocorypha* Attems, 1907

263. *Cryptocorypha enghoffi* Likhitrakarn, Golovatch, Srisonchai, Sutcharit & Panha, 2019 (E)
Cryptocorypha enghoffi Likhitrakarn et al. 2019a: 124 (D).
Record from Thailand: Chiang Mai, Doi Saket Dist., Huai Hong Khrai (Likhitrakarn et al., 2019a).

SPECIES REMOVED FROM THE THAI LIST

Order Glomeridesmida Cook, 1895
Family Glomeridesmidae Latzel, 1884

Genus *Glomeridesmus* Gervais, 1844

***Glomeridesmus* spp. (E)**
Glomeridesmus spp.—Shelley 2011: 3 (R).
Record from Thailand: Chiang Mai, Doi Inthanon NP; Doi Pui. **Sa Keo,** Khlong Hat Dist., Siwa Cave (13°19'15.8"N, 102°19'39.5"E), ca 170 m, bat guano (Shelley, 2011).

Remarks. Because neither the identities nor the real number of species involved are known, it seems best to neglect these records for the time being.

Order Sphaerotheriida Brandt, 1833
Family Zephroniidae Gray in Jones, 1843

Genus *Zephronia* Gray, 1832

***Zephronia viridescens* Attems, 1936**
Zephronia viridescens Attems 1936: 180 (D).
Zephronia viridescens—Jeekel 2001a: 22 (L); Wesener 2016: 35 (L).
Zephronia cf. *viridescens*—Wongthamwanich et al. 2012b: 913 (M); Sukteeka and Thanee 2015: 18 (M); Likhitrakarn et al. 2017a: 12 (M); Srisonchai et al. 2021: 50 (L, M).

Remarks. This species was originally described by Attems (1936) from Tavoy, Lower Burma [= Dawei]. Subsequently, the name "*Zephronia* cf. *viridescens*" was used for millipede specimens from northern and northeastern Thailand in ecological studies (Wongthamwanich et al., 2012b; Sukteeka and Thanee, 2015). Nevertheless, it appears probable that the "cf. *viridescens*" specimens belong to a species distinct from *Z. viridescens*, especially because of their body coloration and distribution (Srisonchai et al., 2021). To validate the existence of *Z. viridescens* in Thailand, further taxonomic investigations involving fresh specimens from northern and northeastern Thailand should be conducted. At the moment, this nominal species is excluded from the millipede list of Thailand.

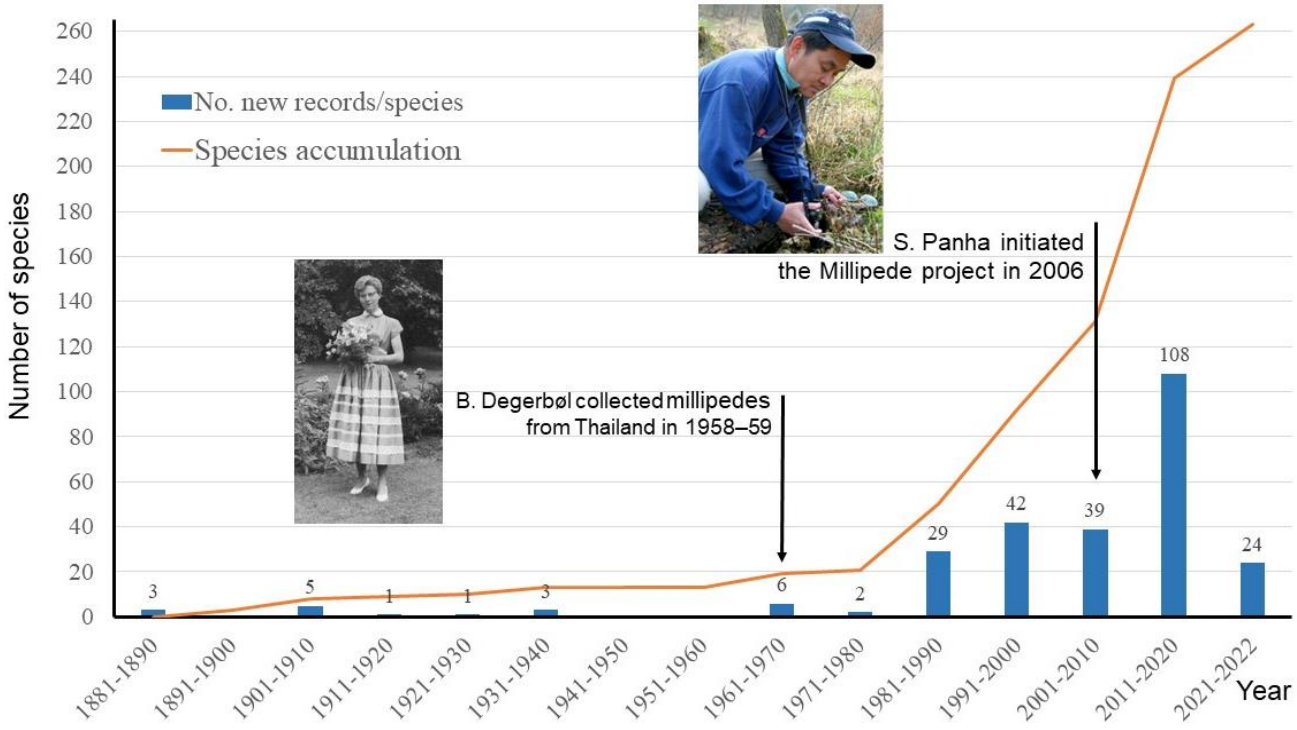

FIGURE 3. Progress in the studies on the Thai millipede fauna between 1881 and 2022.

Order Platydesmida Cook, 1895
Family Andrognathidae Cope, 1869

Genus *Pseudodesmus* Pocock, 1887

***Pseudodesmus* sp.**
Pseudodesmus sp.—Flower 1901: 8 (D).
Record from Thailand: Hinlap. **Saraburi**, Muok Tek [= Muak Lek Dist.]; Dong Phya Fai [= Dong Phaya Yen Mountains] (Flower, 1901).

Remarks. Even though a brief description was provided by Flower (1901), it is insufficient to establish the identity of the species. Flower's original specimens must therefore be restudied

Order Polydesmida Pocock, 1887
Family Paradoxosomatidae Daday, 1889

"*Orthomorpha" variegata* Brölemann, 1896
Orthomorpha variegata Brölemann 1896: 333 (D).
Orthomorpha variegata—Brölemann 1904: 10 (D); Attems 1898: 339 (M); 1914: 238 (M); 1937: 94 (M); Jeekel 1968: 66 (M); Golovatch 1998: 42 (D); Enghoff et al. 2004: 39 (M); Enghoff 2005: 98 (L).

Remarks. Likhitrakarn et al. (2011) excluded this doubtful species from the genus *Orthomorpha* since the paraterga of the female holotype did not agree with those characteristic of the genus, whereas male features remained unknown. In addition, no locality was specified in the original description (Brölemann, 1896), only "Indo-China" appearing in the title of the paper. Later, in his redescription of the species, Brölemann (1904) listed the locality as "Siam"; however, the species' status in Thailand remains uncertain.

DISCUSSION

Our updated catalogue of the millipedes of Thailand presently contains 263 species belonging to 54 genera, 17 families, and nine orders. These findings have radically increased the record with 144 species new to science and a further 20 new country reports compared to the previous checklist (Enghoff, 2005), altogether representing 62% of the country's entire diplopod list (Fig. 3). This can definitely be related to the recent progress in millipede exploration in the country, led by Professor Dr. Somsak Panha.

Thai millipede diversity is dominated by the order Polydesmida, which alone consists of 5 families, 24 genera, and 112 species (42.58%); followed by Spirostreptida with two families, ten genera and 76 species (28.9%); Spirobolida with two families, ten genera and 34 species (13.68%); and Sphaerotheriida and Julida,

TABLE 1. The taxonomic composition of millipede species in Thailand.

Order	Family	Genus	Species	Percentage
Glomeridesmida	Zephroniodesmidae	1	1	0.39
Glomerida	Glomeridae	2	8	3.1
Sphaerotheriida	Zephroniidae	2	12	4.65
Platydesmida	Andrognathidae	1	1	0.39
Julida	Julidae	1	12	4.65
Spirobolida	Pachybolidae	6	18	6.98
	Pseudospirobolellidae	3	13	5.04
Spirostreptida	Cambalopsidae	4	27	10.47
	Harpagophoridae	6	49	18.99
Callipodida	Sinocallipodidae	1	1	0.39
Chordeumatida	Heterochordeumatidae	1	1	0.39
	Magalotylidae	1	3	1.16
	Metopidiotrichidae	1	1	0.39
Polydesmida	Haplodesmidae	1	2	0.78
	Paradoxosomatidae	20	106	41.09
	Plalyrhacidae	1	2	0.78
	Polydesmidae	1	1	0.39
	Pyrgodesmidae	1	1	0.39
10	**18**	**53**	**257**	**100**

each containing 12 species (4.56%), but only two genera and one genus, respectively (Table 1). The proportion of orders reported from Thailand is comparable to that of Myanmar (Likhitrakarn et al., 2017a). The most speciose millipede families in Thailand are the Paradoxosomatidae (106 species), followed by Harpagophoridae (49 species), Cambalopsidae (27 species), Pachybolidae (18 species) and Pseudospirobolellidae (18 species) (Table 1). The six most species-rich genera are *Thyropygus* (42 species), *Tylopus* (31 species), *Orthomorpha* (22 species), *Desmoxytes* (15 species), *Plusioglyphiulus* (14 species) and *Nepalmatoiulus* (12 species), which combined represent 52.7% of all Thai millipede species diversity.

A total of 222 species (84%) have been documented exclusively from Thailand and are thus to be considered endemic. Only eight of the 54 genera (14%) reported from Thailand (*Armatostreptus*, *Carinorthomorpha*, *Coxobolellus*, *Heptischius*, *Infulathrix*, *Nagaxytes*, *Siliquobolellus* and *Thaiogonus*) are endemic to the country, while the remaining genera are also present in other regions of Southeast Asia and beyond. This ratio is nearly identical to previous estimates for Thailand (14%) and Myanmar (12%) (Enghoff, 2005; Likhitrakarn et al., 2017a).

However, the remaining 41 species (16%) from 25 genera, six families and five orders are recognized as widespread, with eight species being widespread synanthropic and 21 species inhabiting Thailand's neighbouring countries such as Laos (*Litostrophus chamaeleon*, *Enghoffosoma zebra* and *Hylomus jeekeli*) and Malaysia (*Desmoxytes terae*, *Haplogonomorpha gogalai* and *Orthomorpha lauta*) (Table 2). Due to Thailand's geography in the center of the Indochinese Peninsula in Southeast Asia, it shares the environmental (and thus faunal) characteristics of adjacent nations. It is therefore no surprise that several species occur both in Thailand and these adjacent regions.

After Diplopoda having been collected from various habitats throughout Thailand over the last 17 years, we have been able to grossly determine the species diversity of millipedes in the country and found that a species with a broad distribution and a larger size would have a higher probability of being discovered than one with a limited distribution and a smaller size. The timing of sample collection also plays significant roles in detecting the variety of millipedes at a particular location. Even at the same site, different species can be found at various time periods, exemplified by the genus *Tylopus*, which was found at Doi Inthanon and Doi Suthep, both located in Chiang

TABLE 2. Distribution of non-endemic Thai millipede.

	Myanmar	Laos	Cambodia	Malaysia	Vietnam	Other
Rhopalomeris carnifex (Pocock, 1889)	▲			▲		
Nepalmatoiulus birmanicus (Pocock, 1893)	▲					India
Atopochetus caudulanus (Karsch, 1881)	▲					
Atopochetus dollfusii (Pocock, 1893)			▲		▲	
Atopochetus moulmeinensis (Pocock, 1893)	▲					
Leptogoniulus sorornus (Butler, 1876)						widespread tropical tramp species
Litostrophus chamaeleon Pimvichai et al., 2018		▲				
Macrurobolus macrurus (Pocock, 1893)	▲					
Trigoniulus corallinus (Gervais, 1847)	▲					synanthropic species
Pseudospirobolellus avernus (Butler, 1876)						pantropical anthropochore species
Hypocambala helleri Silvestri, 1897						synanthropic species
Trachyjulus calvus (Pocock, 1893)	▲			▲		syanthropic species
Trachyjulus singularis (Attems, 1938)					▲	
Anurostreptus barthelemyae Demange, 1961				▲		
Anurostreptus longispinus Demange, 1961		▲				
Thyropygus allevatus (Pocock, 1889)		▲	▲	▲	▲	
Thyropygus aterrimus Pocock, 1889	▲			▲		
Thyropygus cuisinieri Carl, 1917			▲		▲	
Thyropygus implicatus (Demange, 1961)				▲		
Thyropygus induratus Attems, 1936			▲		▲	
Thyropygus opinatus (Karsch, 1881)	▲					
Thyropygus resimus Attems, 1938	▲	▲			▲	
Anoplodesmus anthracinus Pocock, 1895	▲			▲		Sri Lanka
Antheromorpha festiva (Brölemann, 1896)				▲	▲	
Antheromorpha paviei (Brölemann, 1896)		▲			▲	
Antheromorpha rosea Golovatch, 2013						China
Asiomorpha coarctata (De Saussure, 1860)	▲	▲	▲		▲	anthropochoric species
Chondromorpha xanthotricha (Attems, 1898)						syanthropic species
Desmoxytes cervina (Pocock, 1895)	▲					
Desmoxytes terae (Jeekel, 1964)				▲		
Desmoxytes planata (Pocock, 1895)	▲					pantropical species
Enghoffosoma zebra Likhitrakarn et al., 2014		▲				
Eudasypeltis setosus (Pocock, 1894)	▲					
Gigaxytes fusca Srisonchai et al., 2018	▲					
Haplogonomorpha gogalai Mršić, 1996				▲		
Hylomus jeekeli (Golovatch & Enghoff, 1994)		▲				
Orthomorpha insularis Pocock, 1895	▲					
Orthomorpha lauta Golovatch, 1998				▲		
Tylopus doriae (Pocock, 1895)	▲					
Platyrhacus andersonii Pocock, 1895	▲			▲		Indonesia
Platyrhacus bouvieri Brölemann, 1896	▲					
Total	**20**	**8**	**5**	**12**	**9**	

Mai Province in northern Thailand, harbouring at least ten distinct species each (Likhitrakarn et al., 2014b).

Molecular phylogenetic studies are being increasingly topical, particularly concerning large-sized specimens of Spirobolida, Spirostreptida and Sphaerotheriida (Pimvichai et al., 2014, 2016, 2018, 2020; Rosenmejer et al., 2021; Bhansali and Wesener, 2022). Attempts to apply molecular analyses to some other millipede groups have also been made, but in most cases were hampered by difficulties with insufficient sample sizes, budget issues, laboratory technique issues, and expensive spending prices for the approaches, making it unsuitable for everyone or every millipede group. However, morphology-based taxonomy is still topical since many species must be discovered quickly before they become extinct due to the current increasingly dramatic environmental changes.

While the diplopod fauna of Thailand has now become fairly well explored, several major habitats that have previously gotten little attention, such as caves or soil ecosystems, have not been properly prospected. In caves, for instance, there are numerous cave millipedes (Cambalopsidae) (Fig. 2C) that form a distinct endemic fauna which occurs in specialized microhabitats of the cave floor and are awaiting identification, as well as a huge number of micropolydesmidans (Haplodesmidae, Trichopolydesmidae and Pyrgodesmidae) that may be found throughout the country. Consequently, there are many species that are yet to be described. Even at the ordinal level, compared to the published millipede lists of India, China, Myanmar, Laos, Cambodia, and Vietnam (Enghoff et al., 2004; Likhitrakarn et al., 2014a, 2015a; Golovatch and Wesener, 2016; Golovatch and Liu, 2020), no species of the orders Polyxe-

nida, Polyzoniida, Siphonophorida and Stemmiulida have yet been reported from Thailand, although the occurrence of the first three of these in the country was mentioned by Enghoff (2005).

Finally, we hope that millipede research in Thailand will continue in the future, and that new academics will join us in conducting this fascinating research to further enrich our understanding of Thai millipedes.

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