

# Inventory Research on Rhyparochromidae (Insecta: Heteroptera) in Sarawak, Malaysia, with a Checklist of the Family Known from Borneo

Masaaki Tomokuni

Department of Zoology, National Museum of Nature and Science,  
3–23–1 Hyakunin-cho, Shinjuku-ku, Tokyo 169–0073, Japan  
E-mail: tomokuni@kahaku.go.jp

**Abstract.** Twenty-seven species of Rhyparochromidae in seven tribes and 20 genera are recorded from Sarawak, East Malaysia, on the basis of specimens housed in the Forest Research Centre (FRC), Kuching, Malaysia, and the National Museum of Nature and Science, Tokyo, Japan. Of these, nine species are new to Borneo, i.e., *Botocudo yasumatsui*, *Pactye elegans*, *Entisberus archetypus*, *Diniella sevosia*, *Pamerana scotti*, *Paromius piratoides*, *Stigmatonotum geniculatum*, *Tachytatus prolixicornis*, and *Elasmolomus pallens*, and seven species are new to Sarawak, i.e. *Clerada noctua*, *Pactye distincta*, *Heissodrymus magnus*, *Kanigara oculata*, *Horridipamera nietneri*, *Pamerarma ventralis*, and *Pseudopachybrachius guttus*. This result evidently shows an excessive insufficiency of inventory researches on this group not only in Sarawak but also in Borneo as a whole. A checklist of Rhyparochromidae for 57 species in eight tribes and 33 genera known from Borneo is also provided for further progress of the inventory.

**Key words:** Rhyparochromidae, Heteroptera, inventory, Sarawak, Borneo, Malaysia, new record, checklist.

## Introduction

As a state of Malaysia Sarawak occupies the northwestern part of Borneo, the third largest and one of the biodiversity richest island in the world. But unfortunately, the biodiversity in Sarawak has been extinguished rapidly by interminable human activities such as industrial logging, expansion of tree and oil palm plantations, residential developments, and so on. Therefore inventory researches in this area are now become urgent subjects for better understanding of the biodiversity, and the “sustainable use of its components” (Convention on Biological Diversity, 1993) as well.

Taxonomical works on Sarawakian Rhyparochromidae are extremely scarce and only fragmental as summarized hereinafter. As far as I am aware, the first hemipterist who dealt with rhyparochromid species from Sarawak is Stål. He described *Pactye ciconia* and *Narbo longipes* in

1867 based on specimens collected in Sarawak by “Stevens” (cf. Scudder, 1977). Before the middle of 20th century, two British entomologists (Walker, 1872; Distant, 1906) added five species described from Sarawak: *Lygaeus dissimilis* Walker, 1872 (= *Dyakana dissimilis*), *Rhyparochromus alienus* Walker, 1872 (= *Neolethaeus alienus*), *Aphanus raja* Distant, 1906 (= *Neolethaeus descriptus* (Walker, 1872)), *Rhyparochromus nigrifulus* Walker, 1872 (= *Pamerana nigrifula*), and *Aphanus hewitti* Distant, 1906 (= *Elasmolomus hewitti*). After the World War II the taxonomical study was accelerated a little by several heteropterists such as Woodward (1963, 1979), Scudder (1969), Eyles (1973), Malipatil (1980, 1985), Slater & Woodward (1982), Slater (1983), Slater & Zheng (1985b), Malipatil & Woodward (1989), and most recently by Kondorosy (2006). Through these contributions 23 species in 17 genera has been known in Rhyparochromidae of Sarawak to date (see

Checklist in this paper).

Since 1998 I have carried out a series of inventory researches on Heteroptera (Tomokuni, 2005, 2008; Tomokuni & Ishikawa, 2008) in Sarawak. As a part of this research project, this paper deals with Rhyparochromidae from Sarawak based on the material in the collections of the Forest Research Centre (FRC, Fig. 1a, b, c), Sarawak Forestry Corporation, Kuching, Malaysia, and the National Museum of Nature and Science (NSMT), Tokyo, Japan, but no nomenclatural act is included herein. A checklist of Rhyparochromidae known from Borneo is also provided for further progress of the inventory.

## Materials and Methods

All the material in FRC were collected in Lambir Hills National Park near Miri under a Japan-Malaysia cooperative project, “Canopy Biology Program (CBP)”, using UV light traps set on a tree tower at heights of 17, 25, 35, and 45 m. The material in NSMT were collected by myself in Kubah National Park, 20 km NW of Kuching, and Lambir Hills National Park under the projects “Biodiversity Inventory in the Western Pacific Region” conducted by the Museum in 2007–2009, and “Insect Inventory Project in Tropical Asia (TAIIV)” in 2001–2008 conducted by Prof. Osamu Yata of the Kyushu University, Fukuoka, Japan.



Fig. 1. Rhyparochromine collection in Sarawak, Malaysia. a, Forest Research Centre (FRC) in Kuching. b, a cabinet for Heteroptera specimens in FRC. c, a container of Rhyparochromidae in FRC.

No special technique is used for identifying rhyparochromid specimens.

### List of Species

#### Family Rhyparochromidae

#### Subfamily Rhyparochrominae

#### Tribe Antillocorini

##### *Botocudo yasumatsui* (Hidaka, 1959)

Specimens examined. Lambir Hills National Park: 1 ♀, 8 Mar. 2002, M. Tomokuni. Matan Wildlife Center, Kubah National Park: 6 ♂ 2 ♀, 28 Nov. 1998, M. Tomokuni; 2 ♂ 3 ♀, 30 Nov. 1998, M. Tomokuni.

Distribution. Borneo (Sarawak: new record), Japan.

Note. This antillocorine species has been known only from Japan. It is most abundant in the Ryukyu Islands, the southernmost part of Japan. Specimens from Sarawak agree well with those from Japan in morphology. It is quite possible that this species is distributed widely in the area lying between Japan and Borneo.

##### *Botocudo* sp.

Specimens examined. Lambir Hills National Park: 35 ♂ 18 ♀, 20 Mar. 2009, M. Tomokuni; 5 ♂ 3 ♀, 23 Mar. 2009, M. Tomokuni.

Note. This species is very similar to *Botocudo yasumatsui*, but is distinguishable from the latter by smaller and narrower body with much strong luster, and rather strongly constricted pronotum.

#### Tribe Cleradini

##### *Clerada noctua* Distant, 1901

Specimens examined. Lambir Hills National Park: 1 ♂, 28 Aug.–1 Sep. 1992, CBP; 1 ♂, 22–26 Mar. 1993, CBP; 1 ♂, 19–20 July 1993, CBP; 1 ♀, 22–23 Nov. 1995, CBP; 1 ♀, 19–20 May 1996, CBP; 1 ♀, 9–10 Apr. 1997, CBP; 1 ♀, 4–5 July 1997, CBP; 2 ♂ 1 ♀, 15–16 Feb. 2002, CBP.

Distribution. Borneo (Sarawak: new record, Sabah).

Note. This species was described from

Sabah by Distant (1901) and is here recorded from Sarawak for the first time.

##### *Pactye ciconia* Stål, 1867

Specimens examined. Lambir Hills National Park: 1 ♀, 28 Aug.–1 Sep. 1992, CBP; 1 ♂, 25–28 Sep. 1992, CBP; 1 ♂, 22–26 Dec. 1992, CBP; 1 ♀, 18–22 June 1993, CBP; 1 ♂, 15–16 Sep. 1993, CBP; 1 ♀, 12–13 May 1994, CBP; 1 ♂, 11–12 Feb. 2002, CBP; 1 ♀, 8 Mar. 2002, M. Tomokuni; 1 ♂, 15–16 May 2002, CBP; 2 ♀, 12–13 Aug. 2002, CBP; 1 ♂, 23 Mar. 2009, M. Tomokuni. Sungai Liam near Lambir Hills National Park: 1 ♀, 2 Feb. 2008, M. Tomokuni.

Distribution. Borneo (Sarawak).

##### *Pactye distincta* Scudder, 1978

Specimens examined. Lambir Hills National Park: 1 ♀, 1 Mar. 1995, CBP.

Distribution. Borneo (Sarawak: new record, Sabah).

Note. This species was described from Sabah based on the two female specimens (cf. Scudder, 1978) and is newly recorded from Sarawak herein.

##### *Pactye elegans* (Breddin, 1901) (Fig. 2a)

Specimens examined. Lambir Hills National Park: 1 ♂, 22–26 Mar. 1993, CBP; 2 ♂, 22–26 Apr. 1993, CBP; 1 ♀, 19–20 July 1993, CBP; 1 ♀, 29–30 Jan. 1995, CBP; 1 ♀, 12–13 Aug. 2002, CBP.

Distribution. Sumatra, Borneo (Sarawak: new record).

Note. This species was originally described from Sumatra under a monotypic new genus *Henricodohrnia* Breddin, 1901, but the genus was synonymized with *Pactye* by Malipatil (1983). It is first recorded here from Borneo (Sarawak).

#### Tribe Drymini

##### *Appoloni* sp.

Specimens examined. Sungai Liku near Lambir Hills National Park: 1 ♂, 1 Feb. 2008, M. Tomokuni.

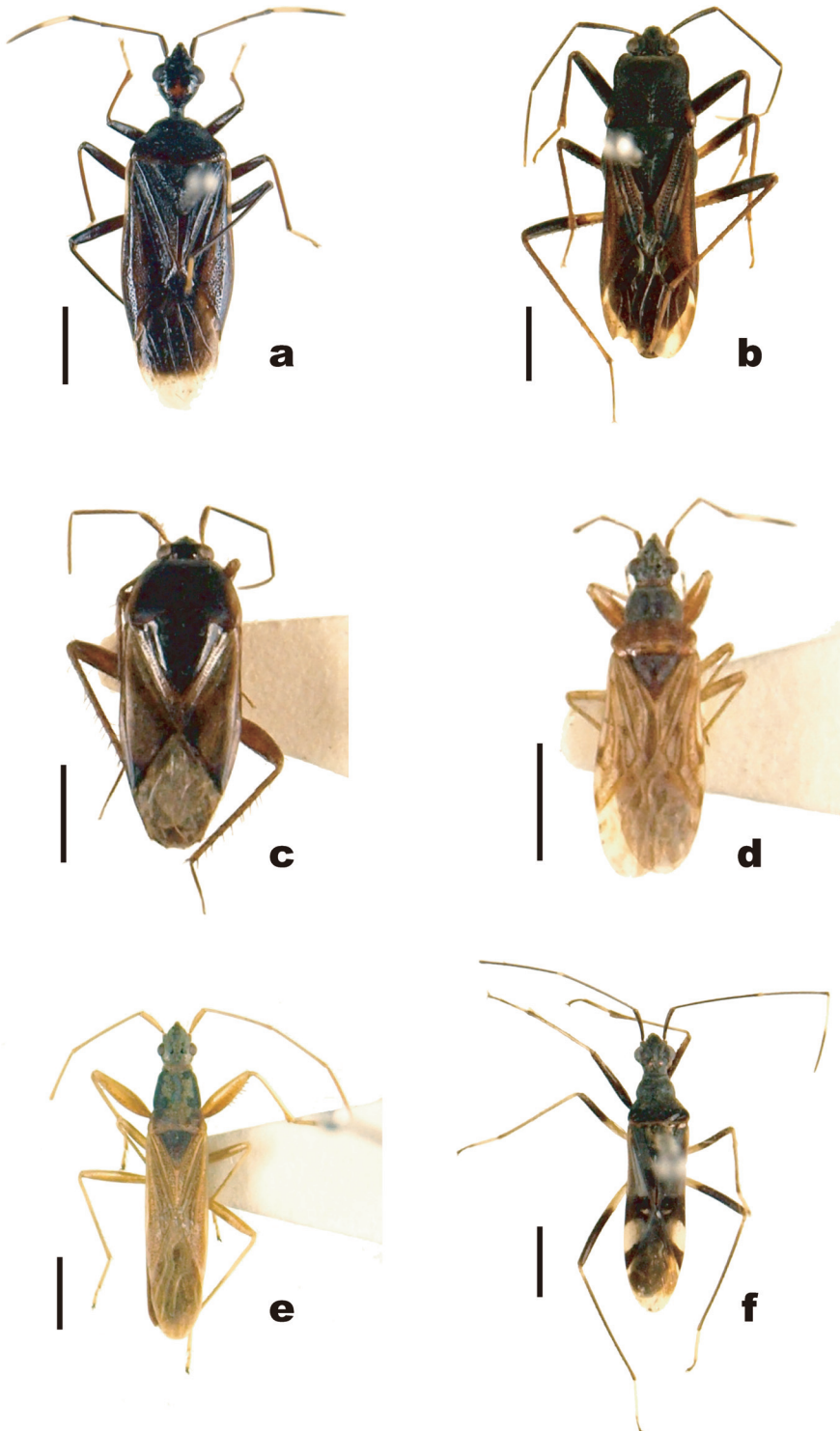


Fig. 2. Some Rhyparochromidae new to Borneo or new to Sarawak. a, *Pactye elegans* (Breddin, 1901), female, 19–20 July 1993, CBP. b, *Heissodrymus magnus* Kondorosy, 2006, male, 22–26 Apr. 1993, CBP. c, *Kanigara oculata* Scudder, 1969, female, 12–13 May 2002, CBP. d, *Pamerana scotti* (Distant, 1901), female, 11–15 May 2002, CBP. e, *Paromius piratoides* (Costa, 1864), male, 3 Dec. 1998, at light, M. Tomokuni. f, *Tachytatus prolixicornis* Bergroth, 1918, female, 30–31 May 1995, CBP. Scales: 2 mm.

Note. This species is most similar to *Appolonius crassus* Distant, 1906 described from Sri Lanka, but differs from it in the larger body (4 mm long) and the larger and more conspicuous whitish marking on the membran. No species of the genus *Appolonius* has been known from Borneo to date.

***Borneodrymus gracilis*** Kondorosy, 2006

Specimens examined. Lambir Hills National Park: 2♂1♀, 25–28 Sep. 1992, CBP; 1♂, 23–27 Nov. 1992, CBP; 1♂, 19–23 May 1993, CBP.

Distribution. Borneo (Sarawak, Sabah, Brunei).

***Entisberus archetypus*** Distant, 1903a

Specimens examined. Lambir Hills National Park: 1♀, 22–26 Apr. 1993, CBP; 2♂1♀, 19–23 May 1993, CBP; 1♂, 18–22 June 1993, CBP; 1♀, 8 Mar. 2002, M. Tomokuni; 1♂1♀, 12–13 Aug. 2002, CBP; 1♂, 20 Mar. 2009, M. Tomokuni.

Distribution. Sri Lanka, Borneo (Sarawak: new record), Philippines (Mindanao, Luzon).

Note. This species was described originally from Sri Lanka (as Ceylon, Distant, 1903a) and later recorded from the Philippines by Bergroth (1918). The new record from Borneo (Sarawak) suggests that this species may be distributed widely in South and Southeast Asia.

***Heissodrymus magnus*** Kondorosy, 2006 (Fig. 2b)

Specimens examined. Lambir Hills National Park: 3♀, 25–28 Sep. 1992, CBP; 1♂, 22–26 Dec. 1992, CBP; 2♂3♀, 22–26 Apr. 1993, CBP; 2♂, 18–22 June 1993, CBP; 1♀, 17–21 July 1993, CBP; 1♀, 16–20 Aug. 1993, CBP; 1♀, 15–16 Jan. 1994, CBP; 2♂, 12–14 Sep. 1996, CBP.

Distribution. Borneo (Sarawak: new record, Brunei, Kalimantan).

Note. This species was recently described from Brunei and Kalimantan, and is here recorded from Sarawak as well.

***Kanigara oculata*** Scudder, 1969 (Fig. 2c)

Specimens examined. Lambir Hills National Park: 1♀, 23–27 Nov. 1992, CBP; 1♀, 22–26 Dec. 1992, CBP; 2♀, 12–13 May 2002, CBP; 1♂, 15–16 May 2002, CBP; 1♂1♀, 12–13 Aug. 2002, CBP.

Distribution. Malay Peninsula (Johore), Sumatra, Borneo (Sarawak: new record, Brunei).

Note. From current distributional knowledge this species seems to belong one of the typical elements of the Malayan Subregion. It is new to Sarawak.

***Kanigara punctata*** Scudder, 1969

Specimens examined. Lambir Hills National Park: 1♀, 25–28 Sep. 1992, CBP; 1♀, 22–26 Dec. 1992, CBP; 1♂, 22–26 Apr. 1993, CBP; 2♂2♀, 19–23 May 1993, CBP; 1♂, 16–17 Mar. 1994, CBP; 1♀, 14–15 May 2002, CBP; 1♀, 12–13 Aug. 2002, CBP.

Distribution. Sumatra, Borneo (Sarawak, Sabah), Sulawesi, Philippines (Palawan, Luzon, Leyte).

**Tribe Lethaeini**

***Diniella glabrata*** (Stål, 1874)

Specimens examined. Lambir Hills National Park: 1♂, 22–26 Apr. 1993, CBP; 4♂, 19–23 May 1993, CBP; 1♀, 18–22 June 1993, CBP; 1♀, 23 Mar. 2009, M. Tomokuni.

Distribution. Australia, India (as *D. insignis* Distant, 1918), Borneo (Sarawak), Philippines.

Note. More than a century later from Stål's original description of this species from the Philippines, Woodward (1979) recorded it from Sarawak, as well as Australia, with the synonymization of *D. insignis* with this Stål's species.

***Diniella sevoa*** (Distant, 1901)

Specimens examined. Lambir Hills National Park: 1♀, 13–14 May 2002, CBP; 2♂1♀, 23 Mar. 2009, M. Tomokuni.

Distribution. Sri Lanka, Borneo (Sarawak: new record).

Note. The Sarawakian specimens agree well with Distant's (1901) original description and a photograph of the lectotype that I took at the Natural History Museum, London, in 1995. This species is new to Borneo.

*Neolethaeus alienus* (Walker, 1872)

Specimens examined. Lambir Hills National Park: 1♀, 24–27 Oct. 1992, CBP; 1♀, 22–26 Dec. 1992, CBP.

Distribution. Borneo (Sarawak).

Tribe **Myodochini**

*Horridipamera nietneri* (Dohrn, 1860)

Specimens examined. Lambir Hills National Park: 3♀, 21–25 Feb. 1993, CBP; 1♀, 22–26 Apr. 1993, CBP; 1♂, 23 Sep. 1995, CBP; 3♂8♀, 3–6 Dec. 1998, at light, M. Tomokuni; 1♀, 11–12 Feb. 2002, CBP; 1♂1♀, 22 Mar. 2009, at light, M. Tomokuni.

Distribution. As summarized by Slater and Zheng (1984) this species is distributed widely in almost whole Oriental Region, as well as wide parts of Australia and the Pacific Islands. In Borneo it has been found only from Sabah and is here newly recorded from Sarawak.

*Pamerana sarawakensis* Malipatil, 1980

Specimens examined. Lambir Hills National Park: 3♀, 21–25 Feb. 1993, CBP; 1♀, 22–26 Apr. 1993, CBP; 1♀, 14–15 May 2002, CBP; 1♀, 10–11 Aug. 2002, CBP.

Distribution. Borneo (Sarawak).

*Pamerana scotti* (Distant, 1901) (Fig. 2d)

Specimens examined. Lambir Hills National Park: 2♂, 21–25 Feb. 1993, CBP; 1♀, 19–20 July 1993, CBP; 2♂1♀, 11–15 May 2002, CBP.

Distribution. India, Sri Lanka, Myanmar, Borneo (Sarawak: new record), Japan.

Note. This species was originally described from Japan and is newly recorded from Borneo (Sarawak) herein.

*Pamerarma ventralis* (China, 1930)

Specimens examined. Lambir Hills National Park: 1♂1♀, 21–25 Feb. 1993, CBP; 2♂3♀, 22–26 Apr. 1993, CBP; 1♂, 19–23 May 1993, CBP; 1♀, 13–14 Mar. 1994, CBP; 2♂, 14–15 May 2002, CBP. Matan Wildlife Center, Kubah National Park: 1♂, 28 Nov. 1998, M. Tomokuni.

Distribution. This Samoan species is known to occur widely in the Pacific area including Mariana, Caroline, Tubuai, Samoa, Fiji, and Cook Islands, and also Australia (Queensland), New Guinea, Borneo (Sabah), Malay Peninsula, and Japan (cf. Slater, 1964; Barber, 1958; Malipatil, 1978). But, from Sarawak it is first recorded herein.

Note. This species was referred to as *Pachybrachius chinai* Usinger, 1946, a junior synonym of *Pamerarma ventralis*, in some of the previous records (cf. Malipatil, 1978). In Borneo it has been known only from Sabah (Malipatil, 1978), but is newly recorded also from Sarawak herein.

*Paromius piratoides* (Costa, 1864) (Fig. 2e)

Specimens examined. Lambir Hills National Park: 2♂, 3 Dec. 1998, at light, M. Tomokuni.

Distribution. Thailand, Borneo (Sarawak: new record), Sulawesi, Philippines, Caroline and Mariana Islands.

Note. This tropical species is first recorded from Borneo (Sarawak) herein. The specimens from Sarawak agree well with those from the Philippines, the type locality of this species.

*Pseudopachybrachius guttus* (Dallas, 1852)

Specimens examined. Lambir Hills National Park: 1♂, 21–25 Feb. 1993, CBP; 2♀, 22–26 Apr. 1993, CBP; 1♀, 19–23 May 1993, CBP; 1♂2♀, 3–6 Dec. 1998, at light, M. Tomokuni; 1♀, 12–13 May 2002, CBP. Sungai Liam near Lambir Hills National Park: 1♂, 2 Feb. 2008, M. Tomokuni.

Distribution. This myodochin bug is widely distributed in the Oriental, Australasian, and southern part of Palearctic Regions (cf. Slater, 1964; Barber, 1958; Malipatil, 1978), but from Sarawak it is first recorded herein.

Note. *Pachybrachius pacificus* (Stål, 1874) known from many Pacific islands was synonymized with this species (Malipatil, 1978).

***Stigmatonotum geniculatum*** (Motschulsky, 1863)

Specimens examined. Lambir Hills National Park: 1♂, 23 Mar. 2009, M. Tomokuni. Sungai Liam near Lambir Hills National Park: 1♂2♀, 2 Feb. 2008, M. Tomokuni. Matan Wildlife Center, Kubah National Park: 1♂1♀, 30 Nov. 1998, M. Tomokuni.

Distribution. Similarly to the preceding species *S. geniculatum* shows wide distribution almost throughout tropical and subtropical areas of the Old World, and extends its range northward into China and Japan (Slater & Zheng, 1985a), but there was no actual record from Borneo previously.

#### Tribe Ozophorini

***Tachytatus prolixicornis*** Bergroth, 1918 (Fig. 2f)

Specimens examined. Lambir Hills National Park: 2♂2♀, 22–26 Apr. 1993, CBP; 1♂, 19–23 May 1993, CBP; 1♀, 30–31 May 1995, CBP; 1♀, 20 May 2009, M. Tomokuni.

Distribution. Borneo (Sarawak: new record).

Note. This monobasic genus *Tachytatus* was described from the Philippines with *T. prolixicornis* as the type species (Bergroth, 1918). It is also record here from Borneo (Sarawak) for the first time.

#### Tribe Rhyparochromini

***Dieuches major*** Eyles, 1973

Specimens examined. Lambir Hills National Park: 1♀, 14–15 June 1996, CBP; 1♀, 13–14 Dec. 1996, CBP.

Distribution. Borneo (Sarawak).

Note. Among this extremely diverse genus *Dieuches* only two species, *D. major* and *D. japonicus* Hidaka & Eyles, 1968, has been known to occur in Borneo. It is quite possible that some other species inhabit there.

***Elasmolomus hewitti*** (Distant, 1906)

Specimens examined. Lambir Hills National Park: 1♂, 28 Sep.–1 Oct. 1992, CBP; 1♂, 14–15 May 2002, CBP; 1♂, 12–13 Aug. 2002, CBP.

Distribution. Borneo (Sarawak).

***Elasmolomus pallens*** (Dallas, 1852)

Specimens examined. Lambir Hills National Park: 1♀, 22–26 Apr. 1993, CBP; 1♀, 19–20 July 1993, CBP; 1♂, 11–12 May 2002, CBP.

Distribution. This species has very wide distributional range in the tropical, subtropical, and a part of temperate regions in Africa, Asia, and Pacific islands (cf. Slater, 1964). Despite its wide distribution, no previous record from Borneo can be found.

Note. This species has long been known as *Elasmolomus sordidus* (Fabricius, 1787). *Elasmolomus pallens* is a replacement name of *E. sordidus* that was preoccupied by *Cimex sordidus* Goeze, 1778 and *C. sordidus* Thunberg, 1783 (cf. Slater & O'Donnell, 1995).

***Narbo longipes*** Stål, 1867

Specimens examined. Lambir Hills National Park: 1♂, 25–28 Sep. 1992, CBP; 1♂, 21–25 Feb. 1993, CBP; 1♀, 22–26 Apr. 1993, CBP; 2♀, 29–30 Jan. 1995, CBP; 3♂, 9–10 May 1997, CBP.

Distribution. Myanmar, Malay Peninsula, Borneo (Sarawak).

#### Discussion

As Sarawakian Rhyparochromidae a total of 27 species in seven tribes and 20 genera are recorded herein on the basis of specimens in two series of collections mentioned previously. Of these, excluding two unidentified species, nine species are new to Borneo, i.e. *Botocudo yasumatsui*, *Pactye elegans*, *Entisberus archetypus*, *Diniella sevosa*, *Pamerana scotti*, *Paromius piraoides*, *Stigmatonotum geniculatum*, *Tachytatus prolixicornis*, and *Elasmolomus pallens*, and seven species are new to Sarawak, i.e. *Clerada noctua*, *Pactye distincta*, *Heissodrymus magnus*,

*Kanigara oculata*, *Horridipamera nietneri*, *Pamerarma ventralis*, and *Pseudopachybrachius guttus*. As a result 57 species in eight tribes and 33 genera become known in the rhyparochromid fauna of Borneo (see Checklist in this paper). These numbers evidently show an excessive insufficiency of inventory researches on this group not only in Sarawak but also in Borneo as a whole. In fact a number of specimens in the present collections still remain unidentified and many of them are presumed to belong undescribed species. The present material was collected only in restricted areas in Sarawak, Kubah National Park and Lambir Hills National Park. Extension of research areas, particularly to mountainous areas, is essential toward a full inventory of this group in Sarawak.

### Checklist of the Rhyparochromidae from Borneo

#### Subfamily Rhyparochrominae

##### Tribe Antillocorini

- Genus *Baeocoris* Slater, 1983  
*molliculus* Slater, 1983  
 Sarawak, Sabah: Slater (1983)  
*woodwardi* Slater, 1983  
 Sarawak: Slater (1983)
- Genus *Botocudo* Kirkaldy, 1904  
*flavicornis* (Signoret, 1880) (*Tropistethus*)  
 Borneo: Lethierry & Severin (1894).  
*yasumatsui* (Hidaka, 1959) (*Cligenes*)  
 Sarawak: present paper
- Genus *Lethaeastroides* Malipatil & Woodward, 1989  
*sarawakensis* Malipatil & Woodward, 1989  
 Sarawak: Malipatil & Woodward (1989).  
*vooni* Malipatil & Woodward, 1989  
 Sarawak: Malipatil & Woodward (1989).

##### Tribe Cleradini

- Genus *Clerada* Signoret, 1863  
*noctua* Distant, 1901  
 Sarawak: present paper. Sabah: Distant (1901); Malipatil (1982).

- Genus *Dyakana* Distant, 1906  
*dissimilis* (Walker, 1872) (*Lygaeus*)  
 Sarawak: Walker (1872).
- Genus *Laticlerada* Malipatil, 1981  
*muluensis* Malipatil, 1985  
 Sarawak: Malipatil (1985)
- Genus *Pactye* Stål, 1865  
*ciconia* Stål, 1867  
 Sarawak: Stål (1867); Miller (1948, as *Phibalocoris grus* Miller, 1948)  
*distincta* Scudder, 1978  
 Sarawak: present paper. Sabah: Scudder (1978)  
*elegans* (Breddin, 1901) (*Henricodohrnia*)  
 Sarawak: present paper  
*izzardii* Scudder, 1978  
 Borneo: Scudder (1978)
- Genus *Prehensocoris* Harrington, 1988  
*indonesensis* Harrington, 1988  
 Sabah: Harrington (1988)

##### Tribe Drymini

- Genus *Borneodrymus* Kondorosy, 2006  
*gracilis* Kondorosy, 2006  
 Sarawak, Sabah, Brunei: Kondorosy (2006)
- Genus *Entisberus archetypus* Distant, 1903a  
 Sarawak: present paper
- Genus *Heissodrymus* Kondorosy, 2006  
*bruneiensis* Kondorosy, 2006  
 Sabah, Brunei: Kondorosy (2006)  
*erikae* Kondorosy, 2006  
 Sabah, Brunei: Kondorosy (2006)  
*magnus* Kondorosy, 2006  
 Sarawak: present paper. Brunei, Kalimantan: Kondorosy (2006)
- Genus *Hirtomydrus* Scudder, 1978  
*trispinosus* Scudder, 1978  
 Borneo: Scudder (1978)
- Genus *Kanigara* Distant, 1906  
*oculata* Scudder, 1969  
 Sarawak: present paper. Brunei: Kondorosy (2006)  
*punctata* Scudder, 1969  
 Sarawak, Sabah: Scudder (1969)
- Genus *Notochilaster* Breddin, 1907



Subgenus *Notochilaster* Breddin, 1907*heissi* Kondorosy, 2006

Sarawak, Sabah, Brunei: Kondorosy (2006)

Subgenus *Parachilaster* Kondorosy, 2006*collaris* Kondorosy, 2006

Brunei: Kondorosy (2006)

## Tribe Lethaeini

Genus *Diniella* Bergroth, 1893*glabrata* (Stål, 1874) (*Dinia*)

Sarawak: Woodward (1979)

*sevosa* (Distant, 1901) (*Dinia*)

Sarawak: present paper

Genus *Neolethaeus* Distant, 1909*alienus* (Walker, 1872) (*Rhyparochromus*)

Sarawak: Walker (1872)

*descriptus* (Walker, 1872) (*Rhyparochromus*)Sarawak: Distant (1906, as *Aphanus raja*)

Distant, 1906). Sabah: Distant (1904)

*tenebrosus* (Distant, 1914) (*Lethaeus*)

Sarawak: Woodward (1963)

## Tribe Lilliputocorini

Genus *Lilliputocoris* Slater & Woodward, 1979*grossocerata* Slater & Woodward, 1982

Sarawak: Slater &amp; Woodward (1982)

*taylori* Slater & Woodward, 1982

Sarawak, Sabah: Slater &amp; Woodward (1982)

## Tribe Myodochini

Genus *Horridipamera* Malipatil, 1978*nietneri* (Dohrn, 1860) (*Plociomerus*)

Sarawak: present paper. Sabah: Slater &amp; Zheng (1984)

Genus *Pamerana* Distant, 1909*fulvomaculata* Malipatil, 1978

Sabah, Labuan I.: Malipatil (1978)

*nigritula* (Walker, 1872) (*Rhyparochromus*)

Sarawak: Walker (1872)

*sarawakensis* Malipatil, 1980

Sarawak: Malipatil (1980)

*scotti* (Distant, 1901) (*Pamera*)

Sarawak: present paper

Genus *Pamerarma* Malipatil, 1978*ventralis* (China, 1930) (*Orthaea*)

Sarawak: present paper. Sabah: Malipatil (1978)

Genus *Paraecosmetus* Malipatil, 1978*pallicornis* (Dallas, 1852) (*Rhyparochromus*)

Sabah: Distant (1883)

Genus *Parapamerana* Malipatil, 1980*pippeti* Malipatil, 1980

Sarawak: Malipatil (1980)

Genus *Paromius* Fieber, 1860*australis* Malipatil, 1978

Sabah: Malipatil (1978)

*piratooides* (Costa, 1864) (*Plociomerus*)

Sarawak: present paper

Genus *Pseudopachybrachius* Malipatil, 1978*guttus* (Dallas, 1852) (*Rhyparochromus*)Sarawak: present paper. Sabah: Malipatil (1978). Borneo: Barber (1958, as *Pachybrachius pacificus* Stål, 1874); Zheng & Slater (1984)Genus *Remaudiereana* Hoberlandt, 1954*nigriceps* (Dallas, 1852) (*Rhyparochromus*)

Sabah: Malipatil (1978)

*puberula* (China, 1930) (*Orthaea*)

Sabah: Malipatil (1978)

Genus *Stigmatonotum* Lingberg, 1927*geniculatum* (Motschulsky, 1863) (*Plociomerus*)

Sarawak: present paper

## Tribe Ozophorini

Genus *Bryanellocoris* Slater, 1994*globosus* Chen & Ashlock 1987

Sabah: Chen &amp; Ashlock (1987).

Genus *Porta* Distant, 1903b*gracilis* Distant, 1903b

Sabah: Slater &amp; Zheng (1985b)

*longipes* Slater & Zheng, 1985b

Sabah: Slater &amp; Zheng (1985b)

Genus *Primierus* Distant, 1901*quadrispinosus* Slater & Zheng, 1985b

Sarawak, Sabah: Slater &amp; Zheng (1985b)

*venustus* Slater & Zheng, 1985b

Sabah: Slater &amp; Zheng (1985b)

Genus *Tachytatus* Bergroth, 1918*prolixicornis* Bergroth, 1918

Sarawak: present paper

Tribe Rhyparochromini

Genus *Dieuches* Dohrn, 1860

*japonicus* Hidaka & Eyles, 1968

Sabah: Hidaka & Eyles (1968)

*major* Eyles, 1973

Sarawak: Eyles (1973)

Genus *Elasmolomus* Stål, 1872

*hewitti* (Distant, 1906) (*Aphanus*)

Sarawak: Distant (1906)

*pallens* (Dallas, 1852) (*Rhyparochromus*)

Sarawak: present paper

Genus *Narbo* Stål, 1865

*fasciatus* Distant, 1901

Kalimantan ? (as S.E. Borneo): Distant (1901)

*longipes* Stål, 1867

Sarawak: Stål (1867)

### Acknowledgements

I thank Takao Itioka of the Kyoto University and the chief member of CBP, Tomoaki Ichie of the Kochi University, Osamu Yata of the Kyushu University and the leader of TAIIV, and Het Kaliang of the Forest Research Centre for their kind supports to my field and laboratory works in Sarawak. This study is partly supported financially by the Grants-in-Aid for Scientific Research Program Nos. 14255016 and 17255001 from the Japan Society for the Promotion of Science (JSPS).

### References

- Barber, H. G., 1958. Heteroptera: Lygaeidae. *Insects of Micronesia*, 7: 173–218.
- Bergroth, E., 1918. Studies in Philippine Heteroptera, I. *Philippine Journal of Science*, 13 (2–3): 43–126.
- Chen, J.-X. & Ashlock, P. D., 1987. A revision of the genus *Bryanellocoris* with thirty-five new species from the Southwest Pacific (Hemiptera-Heteroptera: Lygaeidae). *University of Kansas Science Bulletin*, 53: 393–435.
- Distant, W. L., 1883. First report on the Rhynchota collected in Japan by Mr. George Lewis. *Transactions of the Entomological Society of London*, 1883: 413–443.
- Distant, W. L., 1901. Rhynchotal notes. XI. Heteroptera: Fam. Lygaeidae. *Annals and Magazine of Natural History*, Series 7, 8: 465–486, 497–510.
- Distant, W. L., 1903a. On some undescribed Rhynchota. *Annals and Magazine of Natural History*, Series 7, 11: 72–77.
- Distant, W. L., 1903b. Report on the Rhynchota. Part I. Heteroptera. *Fasciculi Malayenses, Zoology*, 1: 219–272, pls. 15–16.
- Distant, W. L., 1904. Fauna of British India, including Ceylon and Burma. Rhynchota. Vol. II. (Heteroptera). xvii+503 pp. Taylor & Francis, London.
- Distant, W. L., 1906. Oriental Heteroptera. *Annales de la Société Entomologique de Belgique*, 50: 405–417.
- Eyles, A. C., 1973. Monograph of the Genus *Dieuches* Dohrn (Heteroptera: Lygaeidae). 465 pp. Otago Daily Times, Dunedin, New Zealand.
- Harrington, J., 1988. Comments on the blood-feeding tribe Cleradini (Hemiptera: Lygaeidae: Rhyparochrominae) and description of a new genus and new species with the legs modified for grasping. *Annals of the Entomological Society of America*, 81: 577–580.
- Hidaka, T. & Eyles, A. C., 1968. *Dieuches japonicus* new name for *Dieuches fuscus* Hidaka preoccupied (Heteroptera: Lygaeidae). *New Zealand Journal of Science*, 11: 337–341.
- Kondorosy, E., 2006. New genera and species of Drimini (Heteroptera, Rhyparochromidae) feeding on *Ficus* in Brunei. *Denisia*, 19: 483–492.
- Lethierry, L. & Severin, G., 1894. Catalogue Général des Hémiptères. Tome II. Hétéroptères Coreidae, Berytidae, Lygaeidae, Pyrrhocoridae. 277 pp. F. Hayez, Bruxelles.
- Malipatil, M. B., 1978. Revision of the Myodochini (Hemiptera: Lygaeidae: Rhyparochrominae) of the Australian Region. *Australian Journal of Zoology, Supplementary Series*, (56): 1–178.
- Malipatil, M. B., 1980. A new genus and two new species of Myodochini (Hemiptera: Lygaeidae: Rhyparochrominae) from Malaysia. *Oriental Insects*, 14: 397–404.
- Malipatil, M. B., 1982. Revision of Australian Cleradini (Heteroptera: Lygaeidae). *Australian Journal of Zoology*, 29: 773–819.
- Malipatil, M. B., 1983. Revision of world Cleradini (Heteroptera: Lygaeidae), with a cladistic analysis of relationships within the tribe. *Australian Journal of Zoology*, 31: 205–225.
- Malipatil, M. B., 1985. A new species of *Laticlerada* (Hemiptera: Lygaeidae) from Malaysia. *Oriental Insects*, 19: 111–114.
- Malipatil, M. B. & Woodward, T. E., 1989. A new genus and two new species of Antillocorini from Malaysia (Hemiptera: Lygaeidae: Rhyparochrominae). *Oriental*

- Insects*, 23: 169–176.
- Miller, N. C. E., 1948. A new genus of Lygaeidae (Rhynchota) from Borneo. *Annals and Magazine of Natural History*, Series 12, 1: 683–684.
- Scudder, G. G. E., 1969. The world Rhyparochrominae (Hemiptera: Lygaeidae). VII. New species of *Kanigara* Distant. *Pacific Insects*, 11: 535–540.
- Scudder, G. G. E., 1977. The world Rhyparochrominae types (Hemiptera: Lygaeidae) XIII. The Stål types. *Entomologica Scandinavica*, 8: 29–35.
- Scudder, G. G. E., 1978. The world Rhyparochrominae (Hemiptera: Lygaeidae). XV. New genera and species from the Indo-Pacific. *Pacific Insects*, 18: 37–50.
- Slater, J. A., 1964. A Catalogue of the Lygaeidae of the World. Volume II. Pp. 779–1668. University of Connecticut, Storrs.
- Slater, J. A., 1983. On the systematic position of *Lethaeaster* with descriptions of a new genus and four new species of Antillocorini (Hemiptera: Lygaeidae). *International Journal of Entomology*, 25: 285–296.
- Slater, J. A. & O'Donnell, J. E., 1995. A Catalogue of the Lygaeidae of the World (1960–1994). xv+410 pp. New York Entomological Society, New York.
- Slater, J. A. & Woodward, T. E., 1982. Lilliputocorini, a new tribe with six new species of *Lilliputocoris*, and a cladistic analysis of the Rhyparochrominae (Hemiptera: Lygaeidae). *American Museum Novitates*, (2754): 1–23.
- Slater, J. A. & Zheng, L.-Y., 1984. A revision of the genus *Horridipamera* Malipatil (Hemiptera: Lygaeidae). *Journal of the New York Entomological Society*, 92: 316–341.
- Slater, J. A. & Zheng, L.-Y., 1985a. Revision of the genus *Stigmatonotum* Lindberg (Hemiptera: Lygaeidae). *Entomologica Scandinavica*, 16: 13–25.
- Slater, J. A. & Zheng, L.-Y., 1985b. Revision of the lygaeid genera *Porta* and *Primierus* (Hemiptera: Heteroptera), with the description of a new genus of Ozophorini from Papua New Guinea (Hemiptera). *Systematic Entomology*, 10: 453–469.
- Stål, C., 1867. *Analecta Hemipterologica. Berliner Entomologische Zeitschrift*, 10: 151–172, 381–394.
- Tomokuni, M., 2005. Towards a full inventory of the heteropterous insects in Borneo. In: Yata, O. (ed.) Report on Insect Inventory Project in Tropic Asia (TAIIV) (2005). Pp. 241–246. Kyushu University, Fukuoka.
- Tomokuni, M., 2008. A small collection of Tingidae (Insecta: Heteroptera) from Sarawak, East Malaysia, with a checklist of the known species. *Memoirs of the National Museum of Nature and Science, Tokyo*, (45): 53–57.
- Tomokuni, M. & Ishikawa, T., 2008. Inventory researchs of Reduviidae (Heteroptera) in Sarawak, East Malaysia. In: Yata, O. (ed.) Report on Insect Inventory Project in Tropic Asia (TAIIV) (2008). Pp. 363–376. Kyushu University, Fukuoka.
- Walker, F., 1872. Catalogue of the Specimens of Hemiptera Heteroptera in the Collection of the British Museum. Part V. 202 pp. British Museum, London.
- Woodward, T. E., 1963. A new species of *Neolethaeus* Distant from Australia (Hemiptera: Lygaeidae). *Journal of the Entomological Society of Queensland*, 2: 61–66.
- Woodward, T. E., 1979. The occurrence in Australia of *Diniella* Bergroth (Hemiptera: Lygaeidae: Rhyparochrominae) with descriptions of two species. *Journal of the Australian Entomological Society*, 18: 171–175.
- Zheng, L.-Y. & Slater, J. A., 1984. A revision of the lygaeid genus *Pseudopachybrachius* (Hemiptera). *Systematic Entomology*, 9: 95–115.
-

サラワクにおけるヒョウタンナガカメムシ科（昆虫綱：カメムシ目）の  
インベントリー調査およびボルネオ産全既知種のチェックリスト

友国雅章

国立科学博物館の研究プロジェクト「西太平洋における島弧の自然史科学的総合研究」により得られた標本と、サラワク州森林研究センターに保管されている標本を基に、2種の未同定種を含め7族20属27種のサラワク産ヒョウタンナガカメムシ科を見いだした。うち9種、すなわち *Botocudo yasumatsui*, *Pactye elegans*, *Entisberus archetypus*, *Diniella sevosia*, *Pamerana scotti*, *Paromius piratoides*, *Stigmatonotum geniculatum*, *Tachytatus prolixicornis*, および *Elasmolomus pallens* はボルネオから初記録であり、7種すなわち *Clerada noctua*, *Pactye distincta*, *Heissodrymus magnus*, *Kanigara oculata*, *Horridipamera nietneri*, *Pamerarma ventralis*, および *Pseudopachybrachius guttus* はサラワク初記録である。この結果、これまでの既知種と合わせてサラワクからは計8族33属57種のヒョウタンナガカメムシ科昆虫が知られることになった（チェックリスト参照）。この調査が、クバ国立公園とランビルヒルズ国立公園というごく限られた区域で行われたにも拘らず、これほど多数の未記録種が発見されたことは、この科のインベントリー調査がきわめて遅れていることを明白に示している。事実、今回調べた標本の中にはまだ多数の未同定種が残されており、その多くはおそらく未記載種だと思われる。他の地域、とくに山岳部での調査を実施してインベントリーの充実を図ることが今後の大きい課題である。