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Revision of the *obesus* species group
of the stag beetle genus *Nigidius* MacLeay
(Coleoptera: Lucanidae: Lucaninae: Figulini)

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Revision of the obesus species group of the stag beetle genus *Nigidius* MacLeay (Coleoptera: Lucanidae: Lucaninae: Figulini)

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Abstract. This paper contains nomenclatural acts concerning the genus *Nigidius* MacLeay in the stag beetle tribe Figulini Burmeister (Coleoptera: Lucanidae: Lucaninae). A revision of species in the obesus group results in the correction of multiple nomenclatural problems. A **lectotype is designated** for *N. obesus* Parry, and the identity of *N. helleri* Boileau is corrected. A **new species**, *Nigidius gravelyi* Paulsen, is described from Borneo. The **synonymy** of *Nigidius larssoni* de Lisle is transferred from *N. obesus* to *N. dawnae* Gravely.

Key words. Figuline, taxonomy, Indonesia, Malaysia, Myanmar, Thailand.

Introduction

Nigidius MacLeay consists of 87 species of robust, dorsally convex (not dorsally flattened) figulines with limited sexual dimorphism and, unusually for stag beetles, with both sexes having a strong dorsal ramus or branch on each mandible that is more typically restricted to males of other genera. As such, females have more strongly armed and complex mandibles than is typical for most female stag beetles. Species in the genus are distributed in mainland Africa as well as in Asia from India and Nepal to Korea and Sulawesi, Indonesia.

Materials and Methods

For *Nigidius* species, the dorsal ramus of the mandibles could give false total length measurements if confused with the true mandibular apex, therefore lengths given are measured from the apex of the clypeus to the elytral apex. The greatest width is measured across the pronotum.

Specimens and taxonomic material. The following institutions and private collections provided specimens examined for this study. A total of approximately 700 *Nigidius* specimens, including all accessible type material, formed the basis of this research. Acronyms for collections providing material for this study include:

- CASC California Academy of Sciences, San Francisco, CA, USA (J. Schweikert)
- CMNC Canadian Museum of Nature, Ottawa, ON, Canada (F. Genier)
- FMNH Field Museum of Natural History, Chicago, IL, USA (C. Maier)
- FSCA Florida State Collection of Arthropods, Gainesville, FL, USA (P. Skelley)
- MFC Masayuki Fujioka Collection, Tokyo, Japan
- MJPC M.J. Paulsen Collection, Lincoln, NE, USA
- MNHN Muséum National d'Histoire Naturelle, Paris, France (A. Mantilleri, S. Boucher)
- NHM The Natural History Museum, London, UK (M. Barclay, B. Garner)
- NOC Norio Okuda Collection, Osaka, Japan
- SLTC Stéphane Le Tirant Collection, Lachenaie, Québec, Canada
- TAMU Texas A&M University Collection, College Station, TX, USA (Ed Riley)
- ZMHB Museum für Naturkunde de Humboldt Universität, Berlin, Germany (Johannes Frisch, Joachim Willers)
- ZMUC Zoological Museum, University of Copenhagen, Denmark (A. Solodovnikov)

Taxonomic Treatment

Figulini Burmeister, 1847

Nigidiini Jakobson, 1911, synonym

Penichrolucanini Arrow 1950, synonym

Brasilucanini Nikolajev 1999, synonym

Nigidius MacLeay, 1819

obesus species group

Identification of species within the obesus group has been complicated by erroneous species hypotheses and synonymies. Members of this species group can be readily separated from other Southeast Asian *Nigidius* species by the presence of large, sub-oval lobes of the ocular canthus adjacent to the eyes (Fig. 1). This is in contrast to other Southeast Asian groups that can be generalized as follows: b) the cornutus group, including *N. cornutus* MacLeay, *N. sabahensis* Okuda, and *N. oblongus* Van Roon with a shelf-like canthus that is truncate anteriorly; c) the distinctus group, including *N. distinctus* Parry and *N. lewisi* Boileau with a deeply emarginate canthus; and d) the laevicollis group, including numerous species such as *N. laevicollis* Westwood, *N. elongatus* Boileau, and *N. formosanus* Bates with a posteriorly expanding triangular canthus. In some species (such as *N. kinabaluensis* Ritsema, *N. lichtensteinii* Ritsema) the canthus is weakly emarginate at the anterior third.

Within the obesus species group, species can be distinguished by the shape of the flagellum of the male genitalia, pronotal punctation, and the form of the anterolateral projection of the pronotum. Although useful for species diagnosis, the latter character is informative only for larger specimens because in all species the smaller individuals have a less well-developed projection. The form of the mandibles is conserved in these species, and partially sexually dimorphic. Large males can be sexed easily due to the broad lobe-like tooth near the base of the mandible. In females and small males, the tooth is much narrower and sub-acute.

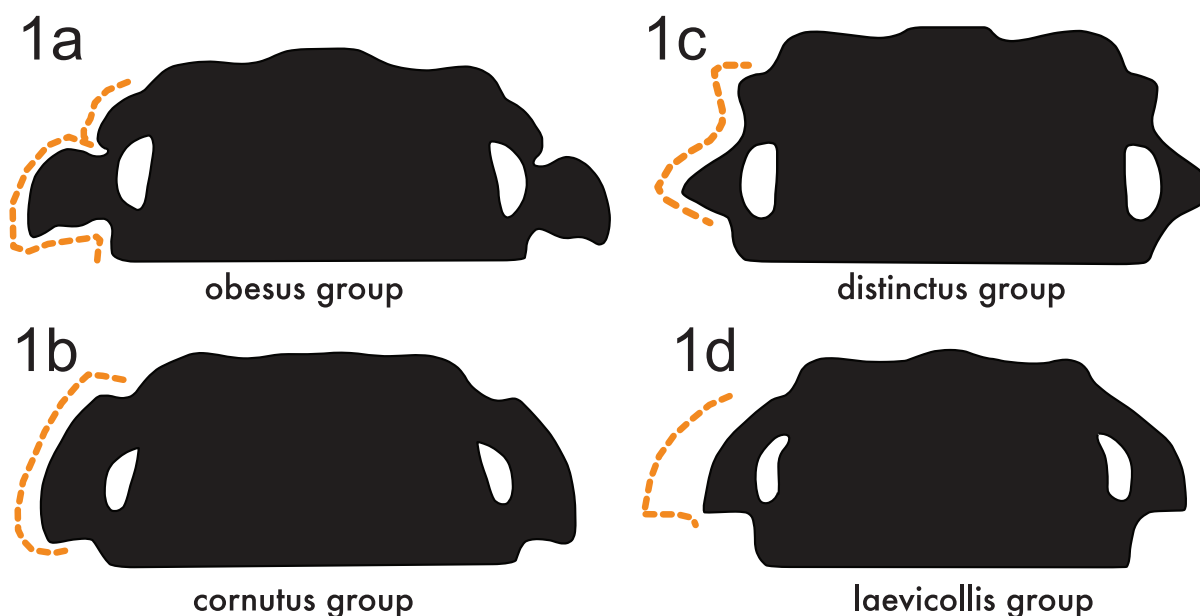


Figure 1. Species groups of Southeast Asian *Nigidius* species based on ocular canthus shape. **1a)** *Nigidius* obesus group. **1b)** cornutus group. **1c)** distinctus group. **1d)** laevicollis group.

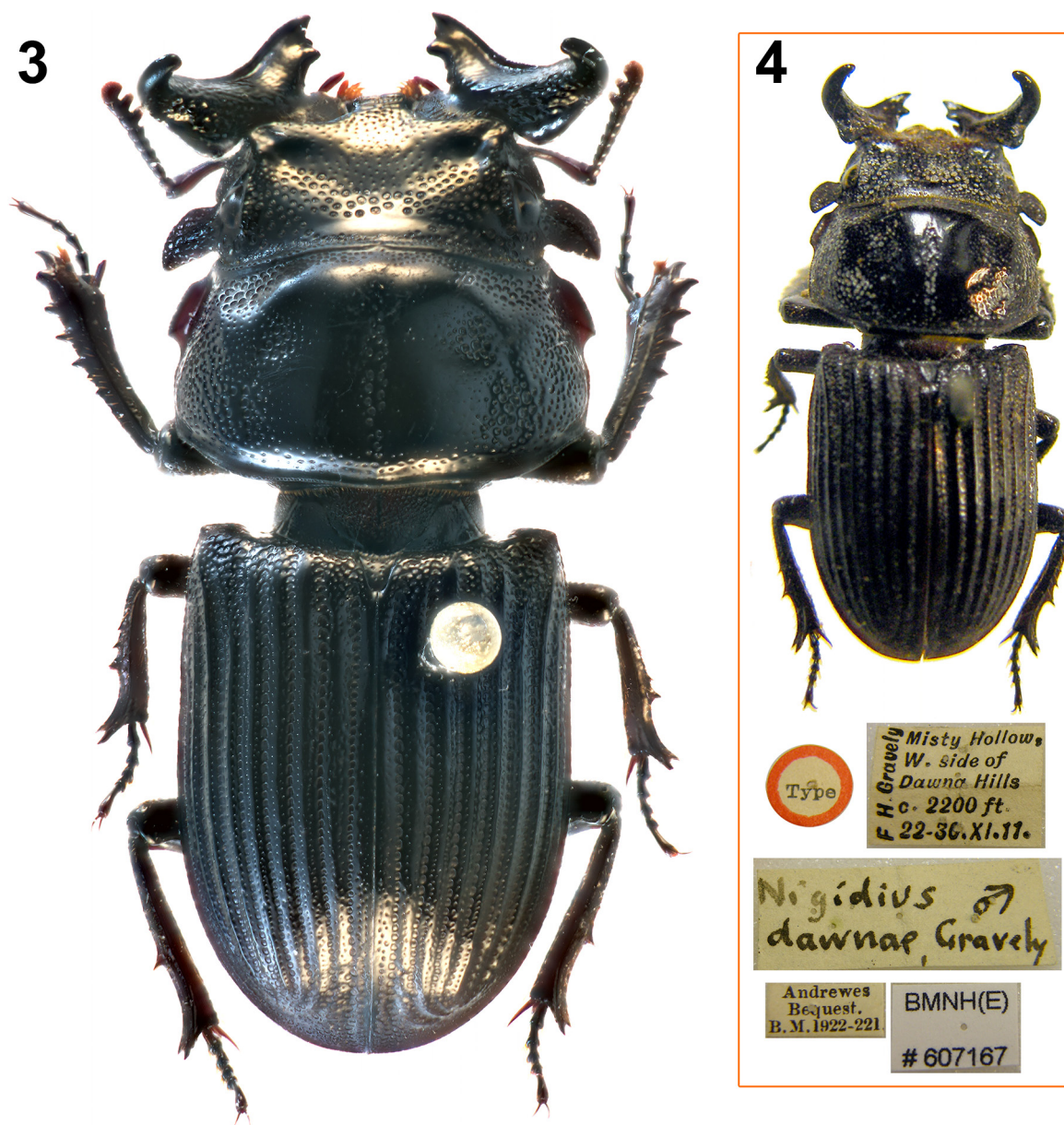
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Figure 2. *Nigidius obesus* Parry, lectotype male, with labels (inset).

The first species of the group was described from “Penang, Malacca” [West Malaysia], by Parry (1864) as *N. obesus* (Fig. 2), and the species was subsequently illustrated by Westwood (1874). Since that time, most specimens from Malaysia and Indonesia in this group were identified as *N. obesus* (Gestro 1881, Benesh 1960, Bomans 1991, Mizunuma and Nagai 1994). Bomans and Benoit (2007) gave an exceptionally wide distribution for *N. obesus*, encompassing the range of all species in the group, as well as Java and Sumba from which I have not seen specimens. Fujita (2010) limited *N. obesus* to specimens from Malaysia and Sumatra and treated the Borneo specimens as an undescribed species. However, specimens from Sumatra and Borneo possess distinct male genitalia from those of *N. obesus*, and specimens from these areas can themselves be separated into two distinct species. The true *N. obesus* is thus far known only from peninsular Malaysia and shares the same gross morphology of the male genitalia as the other mainland Asian species in the group, *N. dawnae* Gravely (Fig. 3–4).

Specimens from Borneo and Sumatra share similarities in the overall male genitalic form but comprise two distinct species based on obvious differences in the pronotal punctation and the form of the anterolateral margin of the pronotum. In the Sumatran species, the punctation of the pronotum is



Figures 3–4. *Nigidius dawnae* Gravely. 3) Major male, dorsal habitus. 4) Lectotype male with labels.

more uniformly distributed and coarser. The pronota of the Borneo species (and both mainland Asian species) show clear subfoveate areas of coarse punctures juxtaposed with almost impunctate areas with only fine, shallow punctures, and the anterolateral marginal area is more strongly produced as well.

While initially considering both species to be undescribed, I researched existing names that might pertain to these two Indonesian species. The Borneo species in the *obesus* group has not been previously named and it is described and illustrated (Fig. 5) below. The original description of *N. helleri* Boileau (Fig. 6) from Sumatra mentioned its similarity to *N. obesus* and, critically, the presence of a very prominent lobe on the head that is rounded anteriorly, truncate posteriorly, and perpendicular to the body (Boileau 1905). This describes the lobed canthus of the *obesus* group perfectly. I requested an image of the holotype of *N. helleri* from the MNHN (Fig. 7), which confirmed that it is the Sumatran species of the *obesus* group. This is surprising because the name *N. helleri* has been traditionally used for a

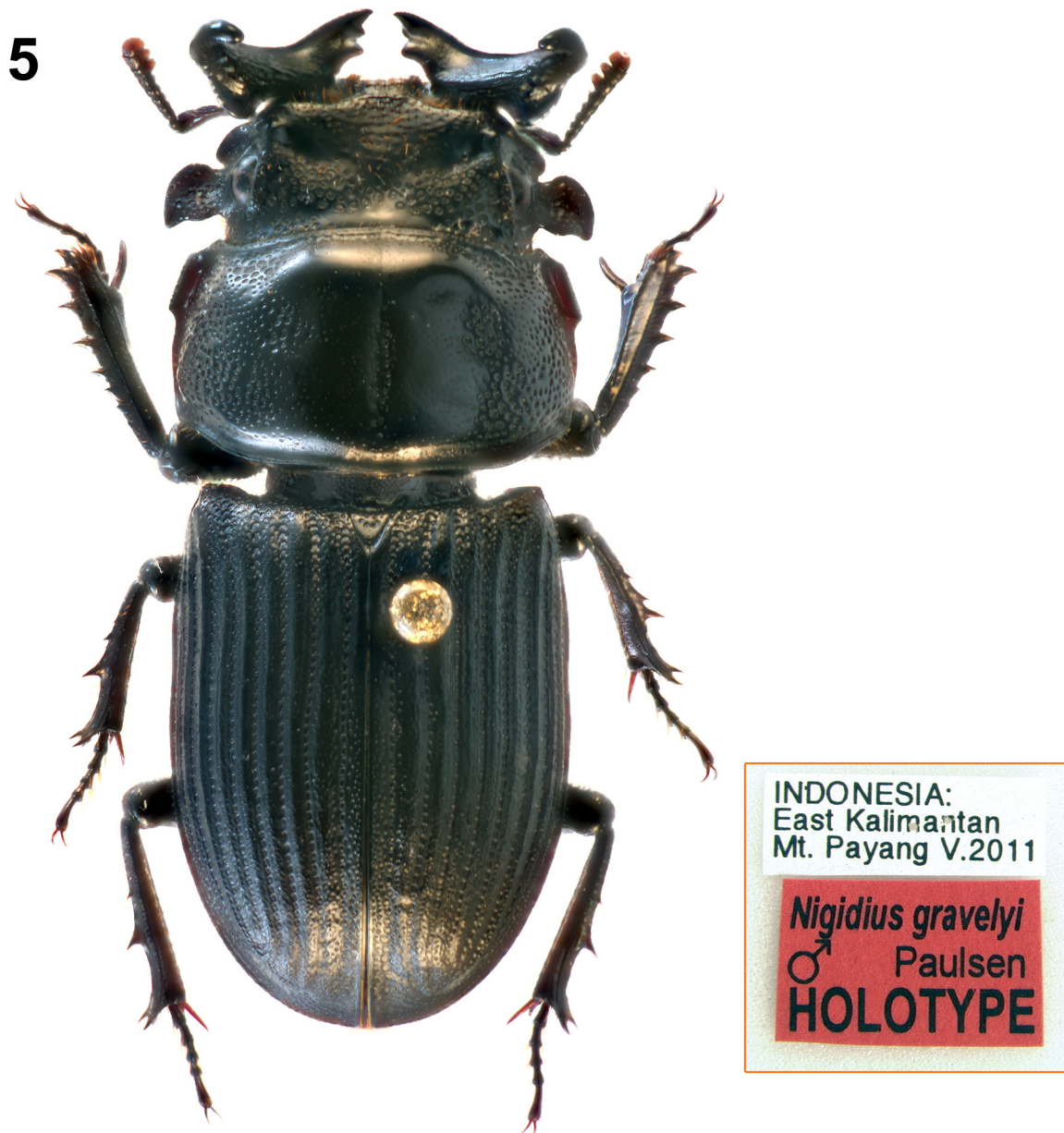


Figure 5. *Nigidius gravelyi* Paulsen, n. sp., holotype male, with labels (inset).

Javan or Sumatran species of the cornutus species group that is present in most collections (Mizunuma and Nagai 1994; Okuda 2002; Fujita 2010).

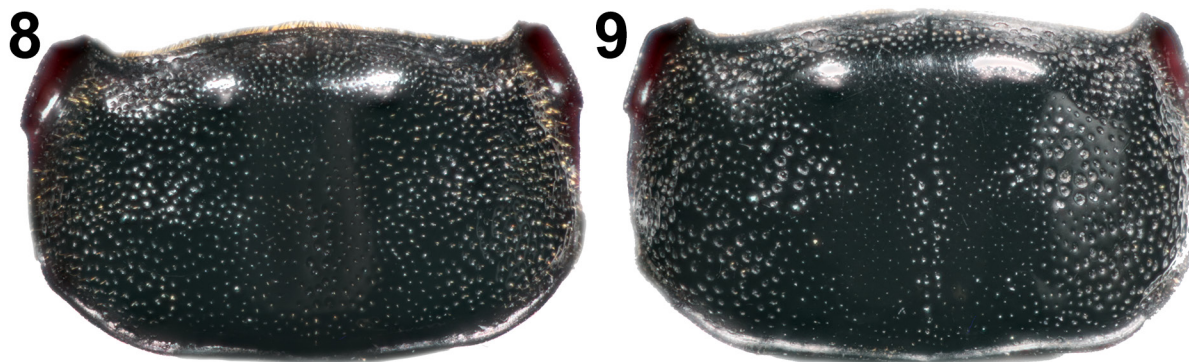
The second mainland species of this group is from Myanmar, northern Thailand, and Laos and was first described as *N. dawnae* Gravelly (1915). Subsequently it has been identified incorrectly as *N. larssoni* de Lisle (de Lisle 1974; Fujita 2010) or *N. obesus* (Mizunuma 2000). Bomans (1993) synonymized *N. larssoni* de Lisle with *N. obesus*. Araya (2003) included images of the type material for all three of these available names. Fujita (2010) recalled *N. larssoni* from synonymy without mention of *N. dawnae*. Examination of the holotype from ZMUC confirmed that *N. larssoni* is a synonym of *N. dawnae*. Compared to *N. obesus*, the anterolateral pronotal projection is broader and more strongly produced in this species. When compared with similarly sized specimens, *N. dawnae* has the largest, broadest mandibles of any species in the obesus group.



Figures 6–7. *Nigidius helleri* Boileau. 6) Major male, dorsal habitus. 7) Holotype male with labels. Photo courtesy of Antoine Mantilleri, MNHN.

Key to *Nigidius* species in the *obesus* group

1. Pronotal disc each side of median sulcus with small but deep punctures, thus surface appearing entirely punctate (Fig. 8); Sumatra ***N. helleri* Boileau**
- Pronotal disc each side of median sulcus with minute, shallow punctures, thus appearing nearly impunctate, contrasting with adjacent groups of coarse punctures (Fig. 9); not from Sumatra **2**
2. Elytral intervals almost impunctate medially, appearing more carinate (intervals with punctures only lateral, adjacent to striae); peninsular Malaysia ***N. obesus* Parry**
- Elytral intervals punctate medially thus appearing less strongly carinate (intervals irregularly punctate); not from peninsular Malaysia **3**



Figures 8–9. Pronotal punctation of obesus group species. **8)** Surface more uniformly punctate, *N. helleri*. **9)** Surface variable with almost impunctate and coarsely punctate areas, *N. gravelyi* Paulsen, n. sp.

3. Male genitalia with flagellum sinuous, with small lobe near apex (Fig. 11); Southeast Asia *N. dawnae* Gravely
 – Male genitalia with flagellum overall straight, with large lateral lobe distant from apex (Fig. 12); Borneo *N. gravelyi* Paulsen, n. sp.

Nigidius obesus Parry 1864: 63

Type material. Lectotype, **here designated**, male (NHM; Fig. 2) labeled: a) “85/28; yellow paper, handwritten “*obesus* / Parry / Penang”; b) “BMNH(E) / 607172”. Paralectotype female (NHM) labeled: a) red-bordered circular “Type”; b) “TYPE / SP.”; c) yellow paper, handwritten “*N. obesus.* / Parry, Type / Westw. fig. 5 / Tr. Ent. Soc. 1874 / Cambodia”; d) yellow paper, handwritten “Type sp. vid / Tr. Ent. Soc. 73”; e) “85/28”; f) “BMNH(E) / 607171”. Type locality: “Penang, Malacca”.

Additional material examined (Fig. 14). MALAYSIA: PERAK: Batang Padang Jor Camp (1, NHM); Changkat Menteri (5, NHM); Perak (5, ZMHB). PAHANG: Cameron Highlands (1, MJPC).

Diagnosis. This species can be distinguished from the insular species by the narrower, more convex and less punctate elytral intervals, as well as by details of the male genitalia, which has a more sinuous flagellum with a different apex (Fig. 10). It differs from *N. dawnae* in the medially impunctate elytral intervals and more oval (less lenticular) punctures laterally on the pronotum.

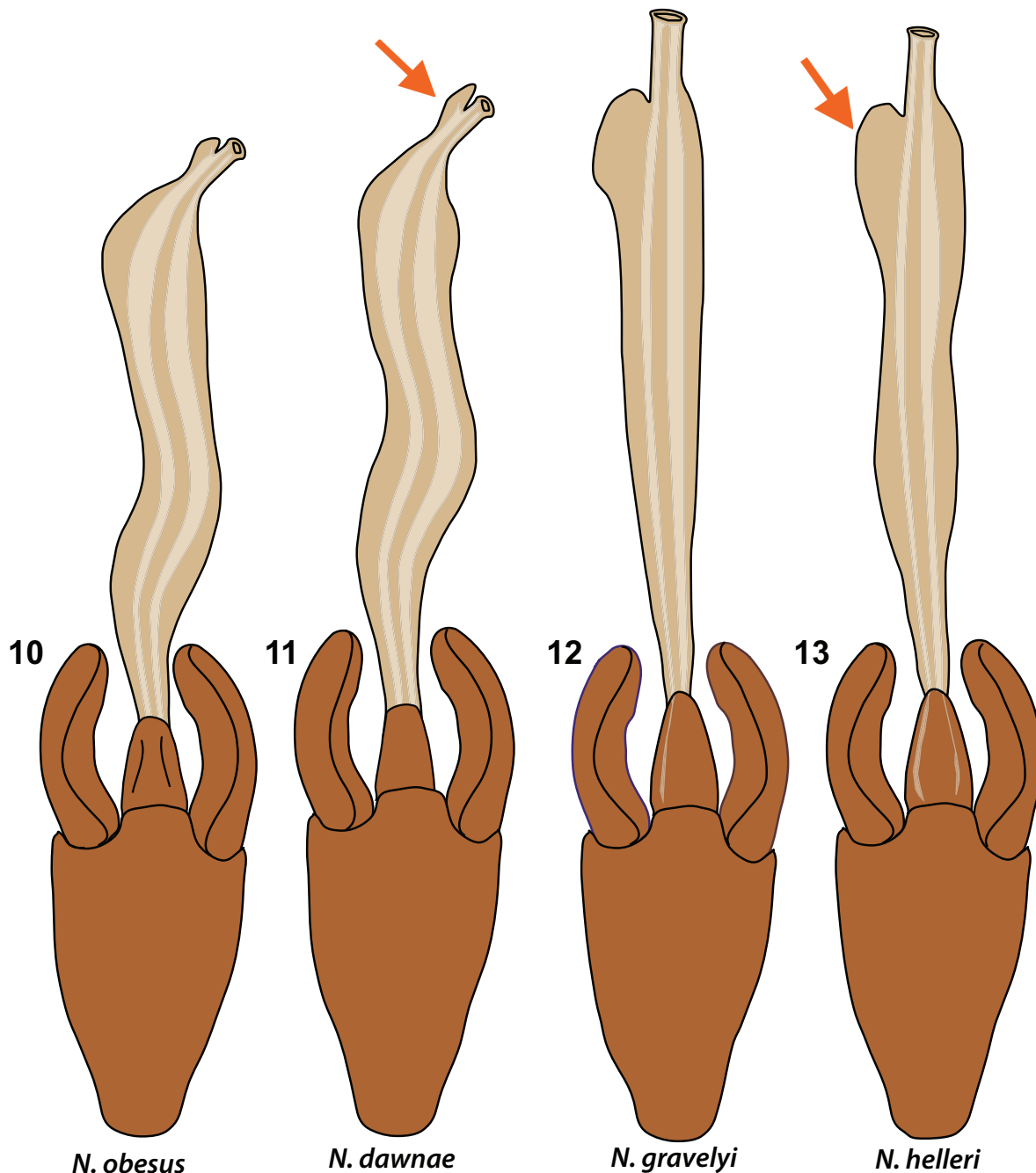
Remarks. The number of specimens examined by Parry (1864) is not indicated. The label 85/28 on both putative type specimens indicates accession into the NHM from the auction of specimens from the Parry collection via Mr. Janson. The lectotype male is appropriately labeled as being from Penang. The female has been labeled “Cambodia” in the same style, but this locality is not mentioned in the original description. A secondary label on the female specimen alludes to it being a type described in 1873. The species described by Parry (1873) from Cambodia is *N. distinctus* Parry, from a different species group with a drastically different form of ocular canthus. It is clear from the description of the emarginate lateral margin of the head with two distinct acute angles that the female in question is not *N. obesus*. Thus, the attribution of the species to Cambodia is considered erroneous.

Specimens studied were from March, October, and September. In general, adults of *Nigidius* species can be found year-round.

Nigidius dawnae Gravely 1915: 427

Nigidius larssoni de Lisle 1973: 797, **new synonymy**.

Type material. Male* lectotype of *Nigidius dawnae* (NHM; Fig. 4) labeled: a) red-bordered circular “Type”; b) “Misty Hollow, / W. side of / Dawna Hills / c. 2200 ft. / 22-30.XI.11. / (along right margin) F.H.



Figures 10–13. Male genitalia of obesus group species. **10)** *N. obesus*. **11)** *N. dawnae*, arrow indicates small apical lobe. **12)** *N. gravelyi* Paulsen, n. sp. **13)** *N. helleri*, arrow indicates large lateral lobe.

Gravely”; c) “Andrewes / Bequest. / B.M. 1922-221”; d) handwritten “*Nigidius* (male symbol) / *dawnae* Gravely”; e) “BMNH(E) / #607167”. Female paralectotype (NHM) labeled: a) yellow-bordered circular “Co- / type”; b) “Misty Hollow / to Sukli / 2100-2500 ft. / 22-29.XI.11. / (along right margin) F.H. Gravely”; c) as type; d) as type, except (female symbol); e) “BMNH(E) / #607168”. Male paralectotype (NHM) labeled: a) green-bordered circular “Co- / type”; b) as type; c) as type; d) as type above, except (female symbol) [sic]; e) “BMNH(E) / #607169”. Type locality: “Lower Burma... - near Misty Hollow and Sukli”. [*The 15 mm lectotype was not dissected to determine sex, but the shape of the basal mandibular tooth is consistent with a moderately sized male.]

Holotype female of *Nigidius larssoni* (ZMUC) labeled: a) “Zoologisk Museum, København. / Loc. [Doi Sutep, N. Thailand / 1100 m] / Dat.: [17-6-1958] / Leg.: [B. Degenbøl] / Det. [Pr. 492] Journ. [4259]”; b) “[Holotypus / *Nigidius / larssoni*] / M.O. de Lisle det. 197[2]”; c) red paper, “TYPE”; d) “zmuc / 00020974”; e) “*Nigidius / dawnae / Gravely / det. M.J. Paulsen 2015*”. Type locality: “Doi Sutep, N. Thailand”.

Additional material examined (Fig. 14). LAOS: OUDOMXAY: Ban Tong (7, CASC). MYANMAR: KAYIN: Dawna Hills (2, MJPC). THAILAND: CHIANG MAI: Chiang Dao (1, MJPC). CHIANG RAI: Wiang Pa Pao (2, MJPC). KANCHANABURI: Thong Pha Phoom/Phu Yae (1, MJPC). TAK: Umphang Village (450, NHM).

Diagnosis. *Nigidius dawnae* has male genitalia that are most similar to *N. obesus*, with a sinuous flagellum bearing a small lobe near the apex (Fig. 11). The flagellum is unique in having a greatly reduced lateral area that is enlarged in the remaining species (forming a large, lateral lobe in the Indonesian species). The elytral intervals are more irregularly punctate than in *N. obesus*, and the basal mandibular tooth of males is much broader than in *N. obesus*.

Remarks. The distribution of *N. dawnae* specimens examined is shown in Fig. 14. Gravely’s concept of Tenasserim included the Dawna Hills, so it cannot be assumed that the specimen labeled simply “Tenasserim” is from Tanintharyi state farther south, which is the current, more restricted interpretation of Tenasserim. A small series of *N. dawnae* from CASC are labeled as being from Ban Tong, Laos. A cursory general search online for the locality resulted in eleven such place-names. Burton (1978) attempted to reconcile the labels of the collector in question, Vitalis de Salvaza, which he noted were overly specific to localized place-names and for the most part untraceable. He indicated that de Salvaza collected in Panghai, Laos on 8.v.1920, which is about one month after the Ban Tong specimens’ date of 9.iv.1920. Panghai is in Sainyabuli province less than 14 km from Chiang Rai province of Thailand, where *N. dawnae* is known to occur. A further complication is that Beuk (1999) lists a BMNH specimen label of “Thailand, Ban Tong, 9.iv.1920, R. V. de Salvaza”, giving the exact date but with a different country, perhaps due to the differently defined boundaries of the time. I have found no other instance of a Vitalis de Salvaza label attributed to Thailand, and he seems to have collected most frequently in present-day Laos. The most likely Ban Tong locality is at 19°57'53"N, 100°57'18"E, in Oudomxay Province not far removed (~45 km) from Chiang Rai, Thailand or Panghai, Laos. This locality has been indicated on the map with a question mark. Regardless, the specimens from Laos constitute a new country record. Specimens examined are from April – July and December.

Nigidius gravelyi Paulsen, new species

Type material. Holotype male (Fig. 5), ex MJPC, deposited at FSCA, labeled: a) “INDONESIA / East Kalimantan / Mt. Payang V.2011”; b) on red paper, “HOLOTYPE / *Nigidius gravelyi* / Paulsen, 2014”. Type locality: Indonesia: East Kalimantan: Mt. Payang.

Paratypes ($n = 41 \text{ ♂}, 56 \text{ ♀}$). Paratypes (9 ♂) with locality label as holotype. Paratypes (11 ♂, 15 ♀) labeled: “INDONESIA: Kalimantan / August, 2011”. Paratypes (3 ♂, 2 ♀) labeled: “INDONESIA / Kalimantan / V.2010”. Paratype (1 ♂) labeled: “INDONESIA / Borneo / Jan 2008”. Paratypes (1 ♂, 9 ♀) labeled: “INDONESIA / Kalimantan / no date”. Paratypes (5 ♂, 5 ♀) labeled: “INDONESIA / Kalimantan / February, 2011”. Paratype (1 ♀, SLTC) labeled: “BORNEO Sabah / Crocker Range NP / IV – V 2008 / Tropical forest, elev / 1200 m, local coll.”. Paratypes (2 ♂, 8 ♀) labeled: a) “INDONESIA: Borneo / (S. Kalimantan) Prov. / Meratus Mountains / VII.2015; local coll.”. Paratype (1 ♀) labeled: “MALAYSIA: N / BORNEO, Sabah / Crocker Range / coll. 24.IX.2006”. Paratype (1 ♂, NHM) labeled: a) “J. Devecis / Tenom 900 m / Crocker’s Range / Sabah 30-IV-93”; b) “H. Bomans det 19[93] / *Nigidius / [obesus Parry]*”; c) “17784”; d) “H.E. Bomans / BMNH(E) / 1999-248”. Paratype (1 ♀, CMNC) labeled: “Borneo Sabah Mt. / Kinabalu Nat. Pk. / Poring Hot / Springs 520m / 13.V.87 A. Smetana”. Paratypes (3 ♂, 5 ♀, NHM) labeled: a) “Borneo Occ. / Pontianak / 1900”. Paratypes (2 ♂) labeled: a) “Borneo Occ. / Pontianak / 1900”; b) “Ritsema / vidit 1903”. Paratypes (1 ♂, 2 ♀, ZMHB) labeled: a) “Borneo Occ. / Pontianak / 1900”. Paratype (1 ♀, TAMU) labeled: a) Malaysia, Sabah / Ranau / V-3-2006 / local coll.”. Paratype (1 ♀, FMNH) labeled: a) “N. Borneo”; b) “Coll. Dr. Ed. Knirsch / [*Nigid. kina - / baluensis* Rits.] / Determ.



Figure 14. Distribution of obesus group species: *N. obesus* (triangles), *N. dawnae* (squares), *N. gravelyi* Paulsen, n. sp. (diamonds), *N. helleri* (circles).

Dr. Knirsch"; c) handwritten "*Nigidius / obesus / Parry*", on obverse "Det. / B. Benesh / 27-9-'58"; d) "H. Bomans det., 19[86] / *Nigidius / [obesus Parry]*". Paratype (1 ♀, FMNH) labeled: a) "N. Borneo"; b) "Coll. Dr. Ed. Knirsch / [*Nigid. kina - / baluensis* Rits.] / Determ. Dr. Knirsch"; c) "CNHM 1957 / Eduard Knirsch / Lucanid Collection"; d) "H. Bomans det., 19[86] / *Nigidius / [obesus Parry]*". Paratype (1 ♀, MFC) labeled: a) "Malaysia: Sabah / Crocker Range / near Kimanis Rd. / 1-31.III.2008 / local collector". Paratype (1 ♂, MFC) labeled: a) "Trus Madi / Sabah N. Borneo / E. Malaysia / Feb. 2004." Paratype (1 ♀, MJPC) labeled: a) "Kimanis Road / Sabah N. Borneo / Malaysia / 1-20.IV.1998; Coll. N. Okuda." Paratype (1 ♀, NOC) labeled: a) "Kimanis Road / near Keningau / Sabah Malaysia / 1-20.IV.1998". Paratype (1 ♂, NOC) labeled: a) "Near Keningau / Sabah Borneo I. / Malaysia / 28-III~12.IV.1994; Coll. N. Okuda." Paratype (1 ♀, NOC) labeled: a) "INDONESIA / South Kalimantan / Tanah Bumbu / Batulicin; VI.2007". All paratypes labeled, on yellow paper: "*Nigidius gravelyi / Paulsen / PARATYPE*". Some paratypes without acronyms in this list will be deposited from MJPC to CASC, FMNH, FSCA, MHNG, NHM, SLTC, and ZMUC.

Description, holotype. Coleoptera: Scarabaeoidea: Lucanidae: Lucaninae: Figulini. *Length:* 17.4 mm. *Width:* 7.6 mm. *Color:* Piceous. *Head:* Surface shiny, punctate, punctures with long setae anteriorly; punctures coarse, ocellate, and dense on frons, fine and sparse on clypeus. Frontoclypeal area impunctate. Clypeus short, emarginate on each side, apex truncate. Labrum visible dorsally. Eyes completely divided by ocular canthus, canthus consisting of a declivous rounded anterior portion, deep emargination, then posterior ovoid lobe adjacent to eye; lobe rounded anteriorly, sinuate posteriorly with posterior angle subacute; lobe coarsely punctate. Antennal club small, shorter than scape, antennomeres 8 and 9 of club tomentose only distally, antennomere 10 tomentose except for semicircular proximal area. Mandibles (to true apex) shorter than head, apex tridentate. Dorsal surface produced into long, vertical curved ramus (false apex); ramus with basal lobe posteriorly. Mentum broad, bilobed, surface coarsely but shallowly punctate. Labial palp with terminal palpomere ovoid. *Pronotum:* Form short, wider than elytra. Anterior angles explanate, about 1/3 length of pronotum. Surface variable on disk with subfoveate areas of coarse, dense punctures contrasting with almost impunctate areas with only fine punctures; anterior ridge elevated and appearing impunctate (fine punctures present); longitudinal median furrow coarsely punctate. Setae of coarse punctures prominent laterally. *Elytra:* Form parallel-sided. Surface with serially punctate, impressed striae with broad, weakly convex intervals; striae with coarse, ocellate, horseshoe-shaped, almost contiguous punctures; intervals 1–4 punctate with fine, shallow punctures in 2–3 irregular rows. Setae of coarse punctures prominent laterally. *Legs:* Protibia with 6 acute teeth decreasing in size proximally. Meso- and metatibiae with 1 large external tooth below middle with 1–2 smaller accessory teeth proximally. *Abdomen:* Male genitalia (Fig. 12) with permanently everted internal sac (flagellum) with lateral margins more or less straight when manually extended (vs. more sinuate in other species), but one side with large, lateral lobe well-removed from simply tubular apex.

Paratype variation. Males ($n = 41$). Length: 13.7–19.3 mm. Width: 5.7–7.9 mm. Females ($n = 56$). Length: 14.7–17.7 mm. Width: 6.0–7.0 mm. Females and males less than 14.4 mm with posterior lobe of dorsal ramus of the mandibles narrower, subacute.

Etymology. The species is named in honor of F. H. Gravely, who described another valid species in this group, *N. dawnae*, which has at times been overlooked.

Distribution. The species is known only from the island of Borneo, occurring in both Kalimantan, Indonesia and East Malaysia (Fig. 14).

Remarks. Nothing is known of the life history of this species. The more or less straight flagellum of the male genitalia when extended is unique; the remaining species have flagella that are more sinuous. Elytral intervals 2–4 are irregularly punctate, not almost impunctate medially as in *N. obesus*. It is distinguished from *N. helleri* by the less regularly punctate pronotum with clusters of fine punctures that appear as impunctate areas and the more strongly produced anterolateral projection on the pronotum. In this species, males less than 14.4 mm in length from the clypeal apex to elytral apex cannot be distinguished from females by the basal tooth of the mandibles, and genitalic dissection is required to determine sex. In specimens over 14 mm the basal tooth is sexually dimorphic.

***Nigidius helleri* Boileau 1905: 47**

Type material. Holotype female (Fig. 7), MNHN, labeled: a) “Palembang / Sumatra”; b) “TYPE / [H.B.]”; c) handwritten, “Helleri / type”; d) “ex coll. / Boileau”; e) on red paper, “TYPE”; f) on red paper, “HOLOTYPE”; g) “HOLOTYPE / *Nigidius helleri* Boileau”; h) “MNHN / EC4652”. Type locality: “Palembang, Sumatra”.

Additional material examined. INDONESIA: JAMBI: Tebo/Teluk Kayu Putih (3 SLTC). SUMATERA BARAT: Annai Valley/Lapai (2 SLTC); Mt. Singgalang (2 SLTC); Mt. Talang (9 MJPC); Padang (10 MJPC); Pariaman (1 MJPC).

Diagnosis. The Sumatran member of the *obesus* group is recognizable by its more homogeneous pronotal punctures that, although variable in size, are regularly distributed and never fine enough to give the appearance of impunctate areas (Fig. 8). In addition, the anterior lateral margin of the pronotum is the least produced in *N. helleri*, and the seta of the pronotum are most distinct.

Remarks. This name has until now been misapplied to different species in the *cornutus* group of *Nigidius* from Java and Sumatra, and this will be addressed fully in a subsequent paper on that group. Specimens examined are from February, April, August, and December, indicating that adults are present year-round.

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