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## **Nitidulidae (Col.) collected by the Noona Dan Expedition in the Philippine and Bismarck Islands.**

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The family Nitidulidae is composed of small clavicorn beetles with transverse coxae. They live in flowers, fungi, fermenting fruits, and stored products. Although this family is of little economic importance, some species create a considerable nuisance by feeding in stored products, drying fruit, and flowers of certain seed crops.

Entomologists of the Danish expedition vessel "Noona Dan" collected 185 beetles of the family Nitidulidae during 1961 and 1962 when they explored the southwestern islands of the Philippine group and the Bismarck Islands in the south-western Pacific Ocean (Petersen, 1966). In this collection 16 genera are represented by 41 species. This sample of the fauna is significant as most of the insects represent extensions to their previously known distribution.

A single female specimen of *Pocadites* from Palawan in the Philippines awaits identification until further collections can be made. According to Hisamatsu in his revision of the genus it is found in various of the Hymenomycetes fungi in Japan and the Ryukyu Islands.

Presented here is a key to the 41 species of Nitidulidae which were collected by the Noona Dan Expedition, a list of determinations and collection data, and a bibliography to the original descriptions of the insects.

The Nitidulidae collected by the Noona Dan Expedition to the southwest Pacific area were made available to me through the kindness of Dr. Børge Petersen of the Zoological Museum of Copenhagen, Denmark.

## Key to the Nitidulidae collected.

1. Tibiae: Middle and posterior tibiae with simple outer edges, without keel on upper side, tips rounded or oblique truncate; anterior tibiae crenulate or toothed ..... (Meligethinae) 2
- Tibiae: Middle and posterior tibiae with double outer edges, upper edge rather dorsal, giving effect of keel; all tibiae truncate or with outer angle produced and toothlike ..... 3
2. Prothorax with sides strongly arcuate, base much narrower than middle; male mandible tip simple and with strong basal tooth ..... *Haptognathus minutus*
- Prothorax with sides arcuate, narrowed anteriorly, base hardly narrower than middle; male mandible tips forked ..... *Haptognathus reticulatus*
3. Abdomen with no more than pygidium exposed (occasionally hind margin of penultimate segment visible) ..... 5
- Abdomen with two or more dorsal segments exposed ..... (Carpophilinae) 4
4. Body oval, length about twice width (ventral abdominal segments 2 and 3 short; 1, 4 and 5 long) ..... 7
- Body elongate, length at least three times width ..... 6
5. Labrum concealed by and connate with clypeus ..... (Cryptarchinae) ..... *Cryptarcha maculata*
- Labrum free, not concealed by clypeus ..... (Nitidulinae) 15
6. Tibiae: Anterior pair finely serrate on outer margin, others margined with setae only; prothorax base about as wide as elytra ..... *Brachypeplus kusatensis*
- Tibiae armed with stout teeth or spines on outer margin; prothorax base narrower than elytra ..... *Cillaeus modiglianii*
7. Metasternum with axillary space behind mesocoxae extending at least one-fourth length of metasternal suture ..... 8
- Metasternum with axillary space extending less than one-fifth length of metasternal suture or absent ..... 11
8. Line marking off axillary space extending beyond middle of metasternal suture ..... 9
- Line not reaching middle of metasternal suture ..... 10
9. Axillary line straight, forming large axillary space ..... *Carpophilus marginellus*
- Axillary line curved to mark off rather small space ..... *Carpophilus davidsoni*
10. Prosternum with sides and disc densely punctate, punctures larger and shallower toward sides ..... *Carpophilus mutilatus*
- Prosternum with sides almost impunctate, disc punctate anterior to process but punctations not reaching to anterior margin of prosternum ..... *Carpophilus maculatus*
11. Pronotum with hind angles prominent, acute, projecting backwards ..... *Carpophilus nigricans*
- Pronotum with hind angles retracted, obtuse or rounded .... 12
12. Pronotum longer than wide, anterior tibiae armed on outer edge with several teeth ..... *Carpophilus tenuis*
- Pronotum transverse, anterior tibiae unarmed ..... 13
13. Eyes prominent, coarsely faceted; surface of pronotum very finely lightly reticulate ..... *Carpophilus schiodtei*
- Eyes normal, finely faceted; surface of pronotum strongly reticulate ..... 14

14. Head, scutellar region, and tip of elytra dark; body length about 1 mm. .... *Carpophilus frivolus*  
 — Dorsum testaceous, elytra somewhat paler; body length .67 — .75 mm. .... *Carpophilus inconspicuus*
15. Dorsum glabrous ..... 16  
 — Dorsum pubescent ..... 17
16. Club of antenna compact, symmetrical ..... *Cyllodes fauveli*  
 — Club of antenna with segments projecting asymmetrically ....  
 ..... *Parametopia bosschae*
17. Elytra irregularly punctate, without striae ..... 18  
 — Elytra serially punctate, setose, or striate ..... 36
18. Sides of prothorax and elytra ciliate ..... 19  
 — Sides of prothorax and elytra without outstanding ciliae .... 20
19. Color black; Pronotum with vague longitudinal sulcae, disc little shining; elytra fringed with short ciliae . *Amphicrossus bouchardi*  
 — Color brown; pronotum shining and without sulcae; elytra fringed with long ciliae ..... *Amphicrossus oblongus*
20. Body large, hind tarsi simple, labial palpi filiform ..... 21  
 — Body small, hind tarsi dilated, terminal segment of labial palpi hemispherical ..... 24
21. Labrum nearly semicircular, feebly bilobed; third antennal segment as long as next three together ..... 22  
 — Labrum deeply bilobed; third antennal segment somewhat longer than fourth ..... *Trimenus adpressus*
22. Body elongate oval, moderately shining; pronotum transverse and quadrate with anterior angles three-fourths as far apart as posterior angles; elytra with four spots . *Prometopia quadrimaculata*  
 — Body broadly oval, shiny; prothorax narrowed anteriorly with anterior angles less than two-thirds as far apart as posterior angles; elytra with two spots or none ..... 23
23. Body depressed, pubescent, piceous; prothorax anterior angles reaching nearly past eyes; anterior angles one-half as far apart as hind angles; elytra without spots ..... *Prometopia rhombus*  
 — Body convex, nearly glabrous, black; prothorax anterior angles reaching to middle of eyes; anterior angles nearly two-thirds as far apart as hind angles; elytra with spots anterior to middle ....  
 ..... *Prometopia bisignatus*
24. Temples present behind eyes ..... 25  
 — Temples absent, eyes occupying hind angles of head ..... 30
25. Prothorax with surface of disc smooth between punctures ..  
 ..... *Haptoncus opacus*  
 — Prothorax with surface of disc transversely alutaceous ..... 26
26. Prothorax apex emarginate ..... *Haptoncus albertisi*  
 — Prothorax apex nearly straight ..... 27
27. Prothorax sides narrowly margined ..... *Haptoncus luteolus*  
 — Prothorax sides explanate ..... 28
28. Elytra unspotted ..... *Haptoncus flavidus*  
 — Elytra with maculae ..... 29
29. Body oval, posterior prothoracic angles rectangular, submentum strongly reticulate ..... *Haptoncus ocularis*  
 Body oblong, posterior prothoracic angles obtuse, submentum smooth and shining ..... *Haptoncus barbulus*

30. Prothorax with apex emarginate ..... 31  
 Prothorax apex nearly straight ..... 32
31. Body color pale; sides of prothorax narrowly margined; elytra tips oblique truncate ..... *Haptoncus epuraeoides*  
 — Body color dark; sides of prothorax explanate; elytra tips subtruncate ..... *Haptoncus sobrinus*
32. Prothorax with surface of disc smooth between punctures .. 33  
 — Prothorax surface of disc reticulate between punctures .... 34
33. Body color pale; hind angles of prothorax rounded; elytra tips obliquely truncate ..... *Haptoncus arcuatus*  
 — Body color dark; hind angles of prothorax obtuse; elytra tips squarely truncate ..... *Haptoncus murrayi*
34. Prothorax with sides narrowly margined, disc closely punctate ..... *Haptoncus insularis*  
 — Prothorax sides explanate, disc sparsely punctate ..... 35
35. Body oval; prothorax with hind angles obtuse; elytra coarsely sparsely punctate ..... *Haptoncus opaculus*  
 — Body elongate; prothorax hind angles rounded; elytra densely punctate ..... *Haptoncus dispersus*
36. Body elongate ..... *Megauchenia interstitialis*  
 — Body oval ..... 37
37. Claws toothed on base ..... *Macroura brunescens*  
 — Claws simple ..... 38
38. Hind tarsi simple ..... *Pocadites* sp.  
 — Hind tarsi dilated, bilobed ..... 39
39. Body broad, depressed, large (over 4 mm.) .....  
 ..... *Lasiodactylus stelidotoides*  
 — Body rather convex, small (under 3 mm.) ..... 40
40. Body color reddish testaceous; prothorax, sides of elytra, and spots paler; prothorax with sides explanate, surface rugosely punctate; elytra without spots, costae with silver hairs .....  
 ..... *Stelidota balanomorpha*  
 — Body color piceous black; prothorax with sides narrowly margined and reddish, surface closely but not rugosely punctate; elytra with numerous pale spots, costae with golden hairs .....  
 ..... *Stelidota multiguttata*

#### List of species.

##### **Haptonathus minutus** Gillogly, 1962

Bismarck Is., MUSSAU; Talumalaus, Jan. 20, 1962, caught at Mercury light, one specimen.

Distribution: Guam, Saipan.

##### **Haptonathus reticulatus** Gillogly, 1962

Philippines, PALAWAN; Uring Uring, Aug. 14, 1961, caught at Mercury light, one specimen; Pinigisan, 600 meter, Sept. 23, 1961, caught at Mercury light, one specimen; Tagabung, 1150 meter, Sept. 19, 1961, caught at Mercury light, one specimen.

Distribution: Palau, Saipan.

**Cillaeus modiglianii** Grouvelle, 1897

Bismarck Is., NEW IRELAND; Lemkamin, 900 meters, April 11, 1962, one specimen.

Distribution: Sumatra.

**Brachypeplus kusaiensis** Gillogly, 1962

Philippines, PALAWAN; Pinigisan, 600 meters, Sept. 23, 1961, one specimen.

Distribution: Eastern Caroline Islands.

**Carpophilus davidsoni** Dobson, 1952

Philippines, PALAWAN; Pinigisan, 600 meter, Sept. 10, 1961, caught at Mercury light, one specimen.

Distribution: Australia (New South Wales), Mariana Is., Caroline Is., Marshall Is., Gilbert Is.

**Carpophilus frivolus** Murray, 1864

Philippines, BALABAC; Dalawan Bay, Oct. 5, 1961, caught at Mercury light, one specimen. — TAWI TAWI; Lapid Lapid, Nov. 19, 1961, caught at Mercury light, one specimen.

Distribution: Australia, Palau Is.

**Carpophilus inconspicuus** Murray, 1864

Bismarck Is., MANUS; Lorengau, June 15, 1962, 36 specimens.

Distribution: Batchian (Batjan in Moluccas).

**Carpophilus maculatus** Murray, 1864

Bismarck Is., NEW IRELAND; Lemkamin, 900 meters, April 7, 1962, one specimen. — MUSSAU; Boliu, June 4, 1962, one specimen.

Philippines, TAWI TAWI; Tarawakan, Nov. 14, 1961, caught at Mercury light, one specimen.

Distribution: Ceylon, Polynesia, Philippine Is., Mariana Is., Caroline Is., Marshall Is., Gilbert Is.

**Carpophilus marginellus** Motschulsky, 1858

Philippines, TAWI TAWI; Tarawakan, Oct. 24, 1961, one specimen.

Distribution: West Africa, Madagascar, Ceylon, East Indies, Hongkong, Japan, Bonin Is., Caroline Is., Marshall Is., United States.

**Carpophilus mutilatus** Erichson, 1843

Philippines, TAWI TAWI; Tarawakan, Nov. 15, 1961, caught at Mercury light, 2 specimens.

Distribution: Iraq, Philippine Is., Mariana Is., Caroline Is., Marshall Is., United States.

**Carpophilus nigricans** Grouvelle, 1897

Philippines, TAWI TAWI; Tarawakan, Oct. 20, 1961, caught at Mercury light, 7 specimens.

Distribution: Sumatra.

**Carpophilus schiodtei** Murray, 1864

Philippines, TAWI TAWI; Tarawakan, Nov. 13, 1961, caught at Mercury light, one specimen.

Distribution: Moluccas, Sumatra.

**Carpophilus tenuis** Murray, 1864

Philippines, PALAWAN; Pinigisan, 600 meters, Sept. 23, 1961, caught at Mercury light, 13 specimens.

Distribution: China, Japan.

**Haptoncus albertisi** Reitter, 1880

Philippines, TAWI TAWI; Lapid Lapid, Nov. 19, 1961, caught at Mercury light, one specimen.

Distribution: New Guinea, Mariana Is., Caroline Is., Marshall Is., Gilbert Is.

**Haptoncus arcuatus** Gillogly, 1962

Philippines, TAWI TAWI; Lapid Lapid, Nov. 19, 1961, caught at Mercury light, 4 specimens; Tarawakan, Nov. 13, 1961, one specimen; Nov. 14, one specimen, caught at Mercury light.

Bismarck Isl., MANUS; Lorengau, June 18, 1962, 2 specimens.

Distribution: Caroline Is.

**Haptoncus barbulus** Gillogly, 1962

Philippines, PALAWAN; Pinigisan, 600 meter, caught at Mercury light; Sept. 7, 1961, 2 specimens; Sept. 9, one specimen; Sept. 19, one specimen; Tagabung, 1150 meter, Sept. 17, 1961, caught at Mercury light, one specimen; Uring Uring, Aug. 14, 1961, caught at Mercury light, one specimen.

Distribution: Mariana Is., Caroline Is.

**Haptoncus dispersus** Grouvelle, 1906

Philippines, TAWI TAWI; Tarawakan, Oct. 24, 1961, 2 specimens; Nov. 25, 1961, 4 specimens, caught in Malaise trap.

Distribution: Tropical Africa, Madagascar, Palau Is., Caroline Is.

**Haptoncus epuraeoides** Grouvelle, 1908

Bismarck Is., NEW IRELAND; Lemkamin, 900 meter, April 17 and 21, 1962, caught at Mercury light, 2 specimens.

Philippines, PALAWAN; Pinigisan, 600 meter, Sept. 23, 1961, caught at Mercury light, one specimen. — TAWI TAWI; Tarawakan, Nov. 14, 1961, caught at Mercury light, 1 specimen.

Distribution: Ceylon, S. Mariana Is., Caroline Is., Marshall Is.

**Haptoncus flavidus** Fairmaire, 1849

Philippines, PALAWAN; Pinigisan, 600 meter, Sept. 18, 1961, caught in Malaise trap inside forest, one specimen.

Distribution: Tahiti.

**Haptoncus insularis** Grouvelle, 1906

Philippines, TAWI TAWI; Tarawakan, Nov. 14 and 15, 1961, caught at Mercury light, 2 specimens.

Distribution: Timor-Deli, Palau (Koror).

**Haptoncus luteolus** (Erichson, 1843)

Philippines, PALAWAN; Uring Uring, Aug. 25, 1961, one specimen, Tagabung, 1150 meter, Sept. 19, 1961, caught at Mercury light, 2 specimens.

Bismarck Is., MANUS; Lorengau, June 15, 1962, one specimen.

Distribution: Tropicopolitan.

**Haptoncus murrayi** Grouvelle, 1905

Philippines, PALAWAN; Pinigisan, 600 meter, Sept. 3, 1961, caught at Mercury light, one specimen.

Distribution: Mentawai Is. (southwest of Sumatra), Guam.

**Haptoncus ocularis** (Fairmaire, 1849)

Bismarck Is., MUSSAU; Talumalaus, Feb. 2, 1962, one specimen.

Distribution: East Africa, Madagascar, Ceylon, Indo-China, East Indies, Tahiti, Japan, Micronesia, Hawaii.

**Haptoncus opaculus** Grouvelle, 1905

Bismarck Is., MUSSAU; Talumalaus, Jan. 24, 1962, caught at Mercury light, one specimen.

Distribution: Timor, Palau Is.

**Haptoncus opacus** (Grouvelle, 1897)

Philippines, PALAWAN; Pinigisan, 600 meter, Sept. 7, 1961, caught at Mercury light, 4 specimens. — TAWI TAWI; Tarawakan, Oct. 25, 1961, caught in Malaise traps, 2 specimens.

Distribution: Sumatra, Caroline Is.

**Haptoncus sobrinus** (Grouvelle, 1894)

Philippines, TAWI TAWI; Tarawakan, Oct. 20, 1961, caught at Mercury light, one specimen.

Distribution: Bourbon (Reunion), Seychelles, Madagascar, Caroline Is.

**Amphicrossus oblongus** Grouvelle, 1897

Bismarck Is., NEW IRELAND; Lemkamin, 900 meters, April 21, 1962, one specimen; April 12, 1962, one specimen; April 15, 1962, 26 specimens, caught at Mercury light.

Philippines, TAWI TAWI; Lapid Lapid, Nov. 21, 1961, 3 specimens.

Distribution: Burma, Sumatra.

**Amphicrossus bouchardi** Grouvelle, 1897

Philippines, TAWI TAWI; Lapid Lapid, Nov. 21, 1961, at sap flow on tree trunk, 6 specimens.

Distribution: Sumatra.

**Cyllodes fauveli** Grouvelle, 1903

Bismarck Is., NEW IRELAND; Danu, Kalili Bay, April 30, 1952, one specimen.

Distribution: New Caledonia.

**Lasiodactylus stolidotoides** Olliff, 1883

Bismarck Is., NEW BRITAIN; Valoka, July 8, 1962, 2 specimens.

Distribution: Ceram (Serang in Moluccas), Celebes.

**Macroura brunnescens** Reitter, 1875

Bismarck Is., MANUS; Lorengau, June 25, 1962, one specimen.

Distribution: Australia.



**Megauchenia interstitialis** (Reitter, 1880)

Bismarck Is., NEW IRELAND; Lemkamin, 900 meter, April 15, 1962, one specimen.

Distribution: East Indies.

**Parametopia bosschai** Grouvelle 1892

Philippines, TAWI TAWI; Tarawakan, Nov. 12, 1961, caught in Malaise trap, one specimen.

Distribution: Borneo.

**Pocadites** sp.

Philippines, PALAWAN; Pinigisan, 600 meter, Sept. 4, 1961, caught in Malaise trap, one female specimen.

**Prometopia bisignata** Grouvelle, 1906

Bismarck Is., DYAUL; Sumuna, March 4, 1962, caught at Mercury light, one specimen.

Distribution: Ternate (Moluccas).

**Prometopia quadrimaculata** Motschulsky, 1863

Philippines, PALAWAN; Uring Uring, Aug. 31, 1961, caught in Malaise trap, one specimen; Sept. 17, 1961, one specimen.

Distribution: Ceylon, India, Burma, East Indies, Christmas Is., Guam.

**Prometopia rhombus** Olliff, 1883

Philippines, TAWI TAWI; Tarawakan, Nov. 11, 1961, one specimen; Nov. 14, 1961, one specimen, caught at light trap.

Distribution: Borneo.

**Stelidota multiguttata** Reitter, 1877

Bismarck Is., NEW IRELAND; Lemkamin, 900 meter, April 15, 1962, one specimen.

Distribution: India, Japan.

**Stelidota balanomorpha** (Montrouzier, 1860)

Philippines, PALAWAN; Tagabung, 1150 meter, Sept. 20, 1961, caught in Malaise trap, one specimen.

Distribution: New Caledonia.

**Trimenus adpressus** Murray, 1864

Philippines, TAWI TAWI; Tarawakan, Oct. 20 and 21, 1961, caught at Mercury light, 2 specimens; Lapid Lapid, Nov. 21, 1961, caught at Mercury light, 2 specimens. Bismarck Is., MANUS:

Lorengau, June 15, 1962, caught at Mercury light, 5 specimens.

Distribution: India, Burma, Malay archipelago, Japan.

### **Cryptarcha maculata** Reitter, 1873

Philippines, TAWI TAWI; Lapid Lapid, Nov. 21, 1961, at sap flow on tree trunk, 10 specimens.

Distribution: Moluccas.

### Summary

41 species of 16 genera are recorded; 30 from the Philippines and 17 from the Bismarck Islands. The records represent considerable extensions to the previously known distribution of many of the species. A key to the species is presented.

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