INSECTS OF MICRONESIA
 Coleoptera: Cryptophagidae and Mycetophagidae

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Although many species of the families Cryptophagidae and Mycetophagidae are known from various areas of the world, not a single species has ever been recorded from Micronesia.


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I wish to express my gratitude to Dr. J. L. Gressitt of Bishop Museum and Professor K. Yasumatsu of Kyushu University who kindly gave me an opportunity to become a research fellow of Bishop Museum. Further thanks are due to Dr. Carl M. Yoshimoto, Mr. G. Allan Samuelson, Miss Setsuko Nakata, Miss Amy Suehiro, and Mrs. Carol Y. Higa for their kind help.

KEY TO SUBFAMILIES OF CRYPTOPHAGIDAE

1. Antennae inserted under acutely margined sides of front and remotely separated at base, maxillary palpus elongate and slender, segment 4 elongate and more or less acuminate towards apex, labial palpus short, with apical segment enlarged, more or less secuniform; pronotum generally bifoveolate near base; anterior
**Family Cryptophagidae**

**Distribution of Micronesian Cryptophagidae**

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<tr>
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<th>Micronesian Island Groups</th>
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<th>Other Localities</th>
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<tbody>
<tr>
<td></td>
<td>Seneisen</td>
<td>Mikrones</td>
<td>Caroline</td>
<td>Tahiti</td>
<td>Yal</td>
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<tr>
<td>1. Hapalips samoensis</td>
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<td>x</td>
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<td>Samoa</td>
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<td>2. H. taprobanae</td>
<td>x</td>
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<td>x</td>
<td>Ceylon</td>
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<tr>
<td>3. Toramus taprobanae</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>Ceylon, New Guinea</td>
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</table>

coxal cavity broadly and completely opened behind................................................ 2

Antennae inserted on front and more or less approximate at base, palpus short, stout and acuminate, apical segment small, narrow, and securiform; pronotum never bifoveolate at base while generally impressed; anterior coxal cavity always widely opened behind, tarsi invariably simple and filiform; eyes always basal, abdominal segment 1 never with radiating lines................................. **Atomariinae**

2. Tarsi pentamerous in both sexes, with segment 4 small, 3 strongly, 2 less strongly or obsolescently, lobed beneath, lobes narrow and pubescent; eyes always basal; antennal segment 1 relatively small; last segment of labial palpi usually flattened, obtusely truncate or securiform; mesosternum flat or feebly concave between coxae............................................. **Telmatophilinae**

Tarsi always filiform, simple and never lobed beneath, pentamerous in female and heteromerous in male, penultimate segment similar in form to the preceding; last segment of labial palpi oval, convex, narrowly truncate at tip; abdominal sutures straight throughout width; prosternal process acute, feebly passing over mesosternum which is generally concave; eyes variable in position; elytra never margined at base and never having distinctly-serial punctuation...... **Cryptophaginae**

All cryptophagid species which I examined belong to the Telmatophilinae. As cryptophagids are worldwide, I think that two other subfamilies, Cryptophaginae and Atomariinae will be found in this area in the future. The Micronesian Telmatophilinae are divided into two genera as follows.

**Key to Micronesian Genera of Telmatophilinae**

Suboval, short, convex, much smaller, pronotum transverse rectangular, with long, striate and erect hairs on elytra, tarsi slender................................. **Toramus**

Elongate, subparallel-sided, subdepressed, much wider and longer, pronotum longitudinally rectangular, with very short rowed-pubesence on elytra, tarsi thick and stout .............................................. **Hapalips**

**Genus Hapalips** Reitter

KEY TO SPECIES OF HAPALIPS

Antennae reaching base of pronotum, pronotum transversely rectangular, scutellum transverse, very short pubescence on elytra, elytra a little wider than pronotum, front coxal cavity narrowly opened behind............................................................ samoenis

Antennae not reaching base of pronotum, pronotum longitudinally rectangular, scutellum triangular, long hairs in row on elytra, elytra as wide as pronotum, front coxal cavity widely opened behind............................................................ taprobanae

1. **Hapalips samoensis** Arrow (fig. 1, a, b).
   *Hapalips samoensis* Arrow, 1927, Insects of Samoa 4 (1): 53, 1 fig. (Samoa).
   DISTRIBUTION: S. Mariana Is., Caroline Is., Samoa.
   S. MARIANA IS. GUAM: One, Nov. 1947, Dybas.
   PALAU. KOROR: One, Nov. 1947, Dybas.
   CAROLINE ATOLLS. ULITHI: One, Nov. 1947, Dybas.
   PONAPE. One, June-July 1950, Adams.

2. **Hapalips taprobanae** Grouvelle (fig. 1, c, d).
   DISTRIBUTION: S. Mariana Is., Ceylon.
   S. MARIANA IS. SAIPAN: Two, Jan. 1945, beating vegetation, Dybas; 26, May 1945, in dry fibrous fruit stalk of *Pandanus*, Dybas; two, June 1945, beating vegetation, Dybas.
   On this species, N. Bruce published his opinion (1953, Ann. Mag. Nat. Hist. VI, 12 (70): 782) as follows: "The species *spegazzini* and *taprobana* now included in *Hapalips* should be transferred to the Diphyllinae in view of the structure of the aedeagus." But if his "Diphyllinae" is a misprint for Biphyllinae, *H. taprobanae* may not be a member of the Biphyllinae, because this species has completely opened front coxal cavities and does not have any fine longitudinal ridges along the side edges of the pronotum which is the most remarkable specific character of this group.

**Genus Toramus** Grouvelle


3. **Toramus taprobanae** Grouvelle (fig. 1 e, f).
   *Toramus taprobanae* Grouvelle, 1919, Mém. Ent. 2: 142 (Ceylon).—Schenkling, 1923, Coleopt. Cat. 76: 14 (Ceylon).
   S. MARIANA IS. SAIPAN: Two, Jan. 1945, beating vegetation, Dybas;

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*This species name seems to be a misprint of *taprobanae*.  
*This subfamily name seems to be a misprint of Biphyllinae.*
eight, Feb. 1945, beating vegetation, Dybas; 39, Feb. 1945, Dybas; 119, May 1945, beating vegetation, Dybas; 41, June 1945, beating vegetation, Dybas.

TINIAN: Nine, Mar. 1945, beating vegetation, Dybas; eight, Apr. 1945, beating vegetation, Dybas; 11, Apr. 1945, Dybas; three, Oct. 1945, Dybas.

GUAM : 120, May 1945, beating vegetation, Dybas; 21, May 1945, Bohart and Gressitt; three, May 1945, at light, Bohart and Gressitt; 45, June 1945, beating vegetation, Dybas; one, June 1945, Bohart and Gressitt; seven, June, 1945, Dybas; four, Nov. 1945, Dybas; three, May 1948, Maehler; one, Oct. 1952 Krauss.


ANGAUR: two, Feb. 1948, in crown of dead Pandanus, Dybas; one Feb. 1948, Dybas; seven, Aug. 1945, Dybas.

PELELIU: seven, July 1945, sweeping air at dusk, Dybas; 13, Aug. 1945, beating vegetation, Dybas; one, Aug. 1945, sweeping air at dusk, Dybas; 11, Aug. 1945, Dybas.

NGERGOI (Garakayo): three, Aug. 1945, beating vegetation, Dybas.


TRUK. One, Dec. 1952, light trap, Gressitt.

PONAPE. One, Jan. 1953, Gressitt.
Until now this species has been known only from of Ceylon (by A. Grouvelle), but in the collection of Bishop Museum there are many specimens of this species collected in Micronesia and New Guinea. This species seems to be widely distributed in the oceanic islands.

**FAMILY MYCETOPHAGIDAE**

**Distribution of Micronesian Mycetophagidae**

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<thead>
<tr>
<th>Micronesian Island Groups</th>
<th>Caroline</th>
<th>Other Localities</th>
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<tr>
<td>Volcano</td>
<td>S. Mariana</td>
<td>Palau</td>
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<tr>
<td>Litargus T-littera</td>
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<tr>
<td>L. vestitus</td>
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<tr>
<td>Typhaea stercorea</td>
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**KEY TO MICRONESIAN GENERA OF MYCETOPHAGIDAE**

Parallel-sided, clypeal suture distinctly impressed, apical segment of labial palpus oblong-oval, dorsum not maculate, tarsus flat and broad...................Typhaea

Oblong-oval, clypeal suture obsolete or nearly so, apical segment of labial palpus secundiform, dorsum maculate, tarsus slender......................Litargus

Genus **Litargus** Erichson


1. **Litargus T-littera** Grouvelle (fig. 2, a, b).


   DISTRIBUTION: S. Mariana Is., New Caledonia.


   This species is very easily distinguished from *L. vestitus* by the T-shaped yellow macula on the elytra.

2. **Litargus vestitus** Sharp (fig. 2 c, d).

   Litargus vestitus Sharp, 1879, Ent. Soc. London, Trans., 88 (Hawaii).—Scott,
1908, Fauna Hawaïensiis 3 (5) : 419 (Hawai).—Zimmerman, 1939, Hawaiian Ent. Soc., Proc. 10 (2) : 324, 1 fig. (Hawaii; Samoa).


**Figure 2.**—a, Litargus T-littera (2.7 mm); b, wing venation. c, L. vestitus (2.0 mm); d, wing venation. e, Typhaea stercoraria (2.8 mm); f, wing venation.


TRUK. Two, Feb. 1949, under bark, Potts; two, Apr. 1949, at light Potts; one, Aug. 1949, Mead.


KUSAIE. Three, Jan, 1953, light trap, Gressitt; three, Jan. 1953, Clarke; three, Feb. 1953, light trap, Clarke; 15, Mar. 1953, beating, Clarke; 10, Apr. 1953, light trap, at light, beating dead branches, Clarke.


This species is much smaller than Litargus T-littera Grouvelle and the maculae on the elytra are variable.

Genus Typhaea Stephens


3. Typhaea stercorea Linnaeus (fig. 2 e, f)


Typhaea variabilis Herbst, 1792, Kaf. 4 : 141, pl. 41, fig. 5.


DISTRIBUTION: Cosmopolitan; Volcano Is., S. Mariana Is., Caroline Is.,
Marshall Is.

VOLCANO IS. IWOJIMA: Two, Sept. 1945, Dybas.
PONAPE. One, Aug. 1945, Dybas.
MARSHALL IS. ENIWETOK: Five, Nov. 1944, in decaying coconut fruit, Edgar.