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COLYDIID BEETLES OF HAWAII, WITH THE DESCRIPTION OF A NEW SPECIES

(Coleoptera : Colydiidae)

By **E. J. Ford, Jr**[1].

The Colydiidae are poorly represented in Hawaii as shown by Sharp (1913, *Fauna Hawaiiensis* **3** (4) : 429) who listed only 4 species now included in this family. He considered *Antilissus aper* Sharp and *Derolathrus atomus* Sharp as probably endemic. The others, *Euxestus erithacus* Chevrolat (as *E. minor*) and *Colobicus parilis* Pascoe, are apparently recent introductions. There are now 7 known species of Colydiidae in Hawaii.

KEY to the HAWAIIAN COLYDIIDAE

1. Less than 1 mm ; pronotum without side margins ..... **Derolathrus atomus** Sharp
   More than 1 mm ; pronotum with side margins 2
2. Body oval, convex ; elytra without striae or costae ..... **Euxestus erithacus** Chevrolat
   Body elongate ; elytra with striae, costae, or both 3
3. Head and prosternum excavated to receive antennae 4
   Head and prosternum not excavated to receive antennae 5
4. Less than 3 mm ; dorsal setae obsolescent ; entire length of elytral epipleura broadly exposed. ..... **Archaeoglenes nemoralis** n. sp.
   More than 3 mm ; dorsal setae prominent ; posterior half of elytral epipleura narrowly exposed ..... **Antilissus aper** Sharp
5. Pronotal disc strongly transverse and explanate at sides ..... **Colobicus parilis** Pascoe
   Pronotal disc not strongly transverse and explanate at sides 6
6. Pronotum with longitudinal median depression ; elytra feebly costate ..... **Neotrichus latiusculus** Fairmaire
   Pronotum and elytra strongly costate ..... **Bitoma** sp. nr **parallela** (Sharp)

Genus **Archaeoglenes** Broun

Archaeoglenes Broun, 1893, Ann. Mag. Nat. Hist. ser 6, **12** : 161-95. Type-species : *Archaeoglenes costipennis* Broun ; New Zealand.

Until now this genus has been known only from the type-species.

Archaeoglenes nemoralis Ford, new species Fig. 2 A & B.

Body small, subcylindrical, testaceous, shining, with large punctures each set with a minute

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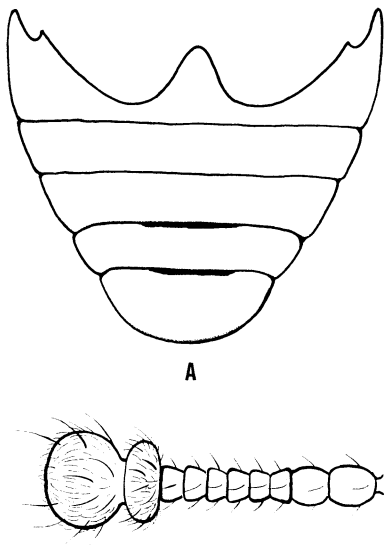

Fig. 1. A, *Archaeoglenes nemoralis* Ford venter; B, *A. nemoralis*, antenna.

seta dorsally. *Antenna* (fig. 1B) : short, compact; apical segment globose, twice as long as 9 ; 9 and 10 with numerous fine recumbent hairs and a few longer, coarser erect setae ; club as long as 4-8 combined; 1 and 2 barrel-shaped and each larger than 3-8; 2nd 3/4 as large as 1. *Head* prognathous, slightly bent downward ; front with broad deep foveae above eyes ; suture between front and clypeus arcuate, deeply indented ; clypeus truncate apically and with large punctures ; labrum subequal in size and shape to clypeus, nearly impunctate and bearing 12-14 long yellowish setae ; eyes small, round, protruding ; antennal groove beneath eyes deep and sharply carinate on both sides ; gular sutures obsolescent; mentum quadrate ; punctures on front as large as eye facets ; mandibles bi-dentate ; apical segment of maxillary palpus as long as wide and about as long as 3 preceding segments combined ; galea twice as large as apical segment of labial palpus and bearing 6 or 7 long setae. *Prothorax* transverse ; pronotum with disc convex and side margins sharply explanate ; front angles extending forward of middle of front margin ; submarginal sulci and transverse sulcus near hind margin joining at hind angles ; side margins glabrous ; front margin at middle with uniform row of short setae ; punctures of disc large, unequal, and more or less evenly spaced ; coxal cavities closed behind and separated by width of a coxa ; intercoxal piece truncate behind, reaching and overlapped by hind margin. *Mesosternum* overlapping metasternum between mesocoxae ; mesepisternum triangular. *Metasternum* transverse ; metepisternum visible from base to apex, wider behind, with large uneven punctures separated by 1 to 3 diameters of a puncture. *Scutellum* small, rounded. *Elytron* twice as long as pronotum; strongly bent downward and inward at sides and declivity : striae represented by large deep serial punctures ; intervals glabrous, 6 and 8 costate ; epipleura broadly exposed from base to apex ; side margins carinate and extending behind the declivity. *Hind wings* reduced and apparently unfit for flight. *Abdomen* (fig. 1A) with punctures more numerous near front margins of each ventrite ; 2-4 subequal in length at middle ; 3-4 with hind margins bent backward at sides. *Legs* : coxa globose in front, obliquely transverse at middle, and strongly transverse behind ; femur dilated ; tibia setose with minute apical spines ; third segment of tarsus smallest ; segment 4 subequal to length of 1-3 combined; femur grooved for reception of tibia ; tarsal claws equal and 1/3 as long as apical segment.

Length 2.8 mm, breadth 1.2 mm.

Holotype ♀ (Bishop 7011), Palolo Valley, Oahu, Hawaiian Is., alt. 450 m, from humus in rotting cavity in a living *Metrosideros collina polymorpha* (Ohia lehua), I.1953, E. J. Ford, Jr.

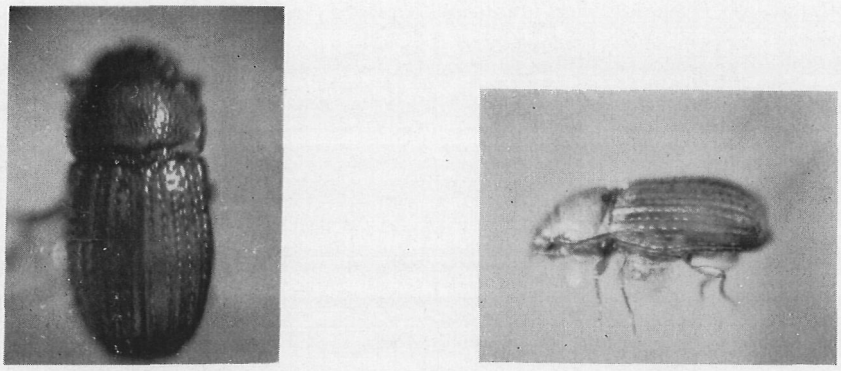

Fig. 2. A, *Archaeoglenes nemoralis* Ford, dorsum ; B, *A. nemoralis*, side view of body.

Allotype, same data as holotype. *Paratypes* : 3, Opaeula, Oahu, Hawaii, VII. 1925, O. H. Swezey, and 13 same data as holotype distributed as follows : 5 in U. S. National Mus., 8 in Bishop Mus., and 3 in my collection.

Comparative notes : *A. nemoralis* n. sp. may be separated from *costipennis* Broun by the uniform testaceous color of the pronotum which lacks a smooth area. In *costipennis* the base and sides of the pronotum are darkened and there is a smooth area on the middle of the disc. Also, the elytra of *nemoralis* have the striae represented by serial punctures, and each elytron is bi-costate. In *costipennis* the elytra are striate-punctate and each elytron tri-costate.

Archaeoglenes nemoralis, n. sp. and *Antilissus aper* Sharp are the only colydiids in Hawaii with 10-segmented antennae and with the head and prosternum excavated to receive them, but they differ greatly in other particulars. *A. aper* is strongly setose and granulate on the dorsum, the thorax is longer than broad, the antennal club is 1-segmented, and the tarsi are 3-3-3, but *nemoralis* has a punctate dorsum, the setae are obsolescent, the thorax is transverse, the antennal club 2-segmented, and the tarsi are 4-4-4. Specimens sent to R. D. Pope in 1955 were identified as Colydiidae near a genus found only in New Zealand (*Proc. Haw. Ent. Soc.* **15** (3) : 388), but a label affixed to a specimen identified it as *Archaeoglenes* n sp. The scarcity of this species and its occurrence in a native tree in the mountains suggests a native species even though it does not belong to an endemic species complex as with most endemic Hawaiian insects. For the present it appears to be an ancient introduction of South Pacific origin with the only known affinities in New Zealand.

Hosts and Distribution of other Colydiidae found in Hawaii

Derolathrus atomus Sharp, 1914, Fauna Hawaiiensis **3** (4) : 431.

Oahu, 1908, R. C. L. Perkins ; Kokee, Kauai, under bark of *Elaeocarpus bifidus*, O. H. Swezey ; Puu Kaua, Oahu, under bark of *Pipturus albidus*, VIII. 1954, E. J. Ford, Jr. ;

Halona Valley, Oahu, under bark of *Sapindus oahuensis*, Jan. 1955, Ford. Possibly an endemic species ; known only from Oahu and Kauai.

Antilissus aper Sharp, 1859, Trans. Ent. Soc. Lond. **1859** : 86.

Oahu, Mountain localities, Rev. Blackburn ; All islands in the mountains, 1900-1910, Perkins ; Oahu, under bark of *Ilex anomala*, Swezey ; Mt Tantalus, Oahu, under bark of *Pipturus*, Swezey ; Haleauau Valley, Oahu, under bark of *Planchonella sandwicense*, Swezey ; Foot of Mt Kaala, Oahu, under bark of *Acacia koa*, April 1953, Ford ; Puu Kanehoa, Oahu, light trap, July, 1959, Ford. Possibly an endemic species ; known only from the Hawaiian Islands.

Colobicus parilis Pascoe, 1860, J. of Ent. **1** : 202.

First reported in Hawaii by Sharp in 1910, Fauna Hawaiiensis (p. 430). This is the most common colydiid in Hawaii and is frequently taken at light and under bark of various trees usually below 300 m on all the large islands. Also known from Guam and Tropical Asia.

Neotrichus latiusculus (Fairmaire), 1881, Ann. Soc. Ent. Fr. **1881** : 255 (as *Ditoma*).

Panaewa Forest, Hilo, Hawaii, under bark of dead *Pipturus*, Swezey ; Hilo, Hawaii, on *Terminalia catappa*, Nov. 1964, collected by Federal Plant Quarantine inspectors. Described from Fiji and also reported from Guam.

Euxestus erithacus Chevrolat, 1863, Ann. Soc. Ent. Fr. ser 4, **3** : 599.

Synonym of *Euxestus minor* Sharp in Hawaiian literature under Erotylidae, (for complete synonomy see Blackwelder, 1957, U. S. Nat. Mus. Bull. **185** : 474). Oahu, Blackburn ; Koolau and Waianae Mts, Oahu, 1900-1910, Perkins ; Waianae, Oahu, rotting *Carica papaya* log, Feb., 1950, Ford ; Moanalua Gardens, Oahu, under wet rotting bark of *Samanea saman*, Jan., 1955, Ford. Known also from Europe, West Indies, Mexico, and Central America.

Bitoma sp. near **parallela** (Sharp), 1885, J. Linn. Soc. Lond. **1885** : 70 (as *Xuthia*).

This species was first reported in Hawaii by Ford as *Lasconotus* (but misprinted *Tasconotus*) sp. from specimens sent to the U.S. National Museum and identified by R. H. Arnett, (1960, *Proc. Haw. Ent. Soc.* **17** (2) : 177,). Specimens were collected in 1959 at Waipio, Honolulu, and Hickam Air Force Base, Oahu in light traps operated by J. W. Beardsley, C. R. Joyce, and E. J. Ford, Jr. Specimens of *parallela* in the U. S. National Museum from Japan and the Philippines differ somewhat from the Hawaii specimens, and a detailed study of the genus would be necessary to determine specificity. Apparently this is the same species collected on Guam by K. L Maehler and identified by Arnett as *Lasconotus* sp.

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