

CONTRIBUTIONS TO THE STUDY OF AQUATIC
BEETLES (COLEOPTERA) 11. ON A COLLECTION OF
GYRINIDAE, DYTISCIDAE, AND HYDROPHILIDAE
FROM ANDAMAN ISLANDS

By

T. G. VAZIRANI

Zoological Survey of India, Calcutta

(With 1 Text-figure)

INTRODUCTION

This is a report on the collection of Gyrinidae, Dytiscidae and Hydrophilidae made by my colleague Shri T. D. Soota, at Port Blair, during 1969. The present collection comprises 10 species—Gyrinidae (1 sp.), Dytiscidae (7 spp.) and Hydrophilidae (2 spp.).

Among the Dytiscidae, except one species viz., *Hydaticus leechi* Sato, all other species have been reported from Andaman Islands, in an earlier paper (Vazirani, 1970); only selected references and material examined have been listed under these species, while references and remarks have been given for species belonging to the other two families.

SYSTEMATIC ACCOUNT

Order COLEOPTERA

Suborder ADEPHAGA

Family GYRINIDAE

Subfamily GYRININAE

1. *Gyrinus smaragdinus* Regimbart

1891. *Gyrinus smaragdinus* Regimbart, *Ann. Mus. Civ. Genova*, (2) 10: 547.

1930. *Gyrinus smaragdinus*: Orchymont, *Cat. Indian Ins.*, pt. 19: 8.
Material.—1 ex., Port Blair, 1.iv.1969.

Remarks.—This species is known from the Eastern Himalayas, Khasi Hills, Shillong, etc. Its distribution extends to Burma, Yunnan, and Indo-China. It is now being reported from the Andaman group of Islands for the first time.

Family DYTISCIDAE
Subfamily LACCOPHILINAE

2. *Laccophilus parvulus* Aube

1838. *Laccophilus parvulus* Aube, in Dejean's, *Species Coleopteres*, 6: 429.
1969. *Laccophilus parvulus*: Vazirani, *Oriental Ins.*, 2: 247.
Material.—3 ex., Port Blair, 1.iv.1969.

3. *Laccophilus basalis* Motschulsky

1859. *Laccophilus basalis* Motschulsky, *Etud. Ent.*, 8: 45.
1969. *Laccophilus basalis*: Vazirani, *Oriental Ins.*, 2: 242.
Material.—4 ex., Port Blair, 1.iv.1969.

4. *Laccophilus sharpi* Regimbart

1889. *Laccophilus sharpi* Regimbart, *Ann. Soc. ent. Fr.*, (6) 9: 151.
1969. *Laccophilus sharpi*: Vazirani, *Oriental Ins.*, 2: 249.
Material.—1 ex., ♀, Port Blair, 1.iv.1969.

Subfamily DYTISCINAE

5. *Eretes sticticus* (Linnaeus)

1767. *Dytiscus sticticus* Linnaeus, *Systema Naturae*, Holmiae, ed. 12, 1(2): 666.
1969. *Eretes sticticus*: Vazirani, *Oriental Ins.*, 2: 255.
Material.—1 ex., Port Blair, 1.iv.1969.

6. *Hydaticus fabricii* Macleay

1833. *Hydaticus fabricii* Macleay, *Annulosa Javanica*: 136.
1969. *Hydaticus fabricii*: Vazirani, *Oriental Ins.*, 2: 266.
Material.—4 ex., Port Blair, 1.iv.1969.

7 *Hydaticus leechi* Sato

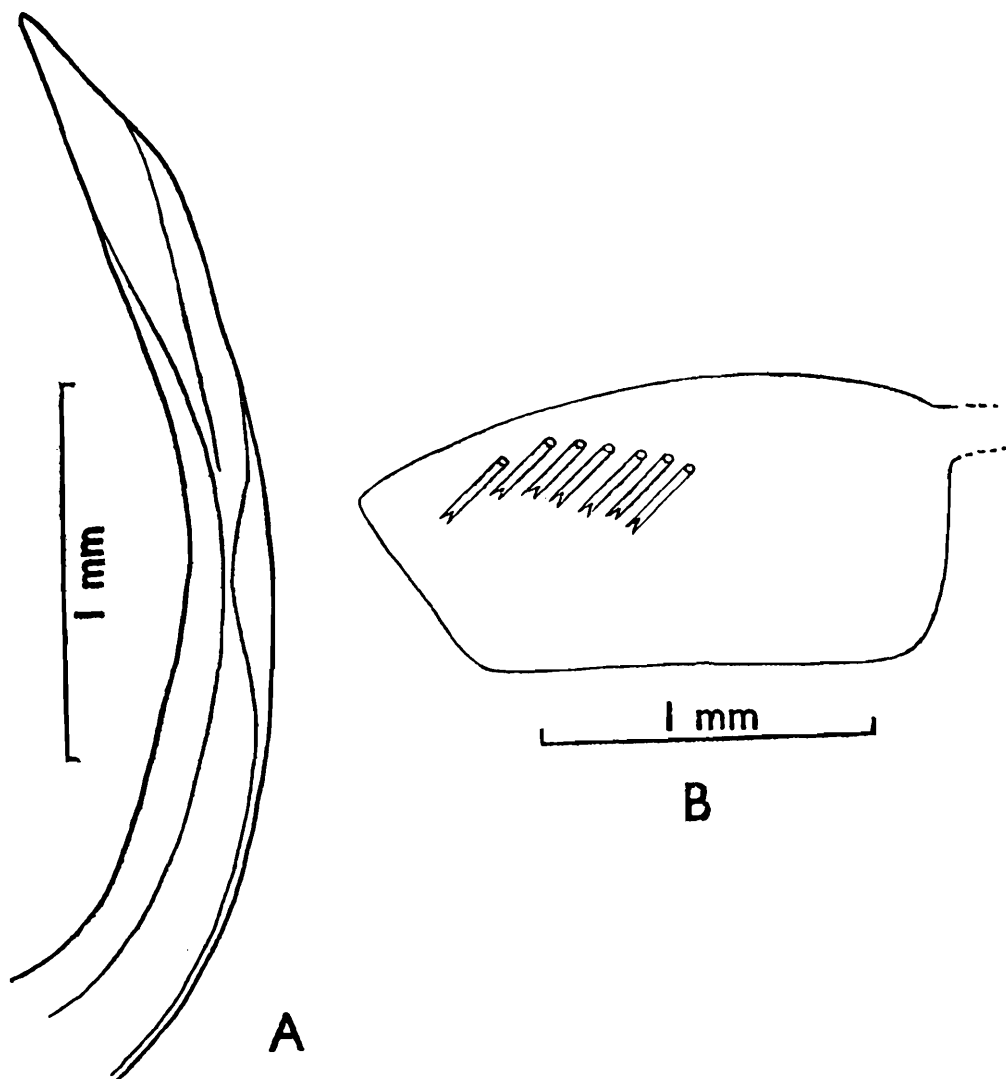
1882. *Hydaticus vittatus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2: 670 (in part).
1899. *Hydaticus vittatus* ab. *quadrivittatus* Regimbart, *Ann. Soc. ent. Fr.*, 68: 328 (in part).
1961. *Hydaticus leechi* Sato, *Trans. Shikoko Ent. Soc.*, 7(1-2): 61.

VAZIRANI, T. G. 1970. Contributions to the study of aquatic beetles (Coleoptera). 9. On a collection of Dytiscidae from S. Andaman Islands. *Oriental Ins.*, New Delhi, 4(2): 177-184.

1961. *Hydaticus leechi* form *subrutilus* Sato, *Trans. Shikoko Ent. Soc.*, 7(1-2): 61.
1961. *Hydaticus leechi celebeseanus* Sato, *Trans. Shikoko Ent. Soc.*, 7 (1-2), 62: figs. 6, 26.
1961. *Hydaticus leechi celebeseanus* form *insulans* Sato, *Trans. Shikoko Ent. Soc.*, 7(1-2), 62: fig. 7.
1961. *Hydaticus leechi celebeseanus* form *brackeli* Sato, *Trans. Shikoko Ent. Soc.*, 7 (1-2): 62, fig. 8.
1969. *Hydaticus vittatus*: Vazirani, *Oriental Ins.*, 2: 260-262 (in part). *Material*.—7 exs., Port Blair, 1.iv.1969.

Remarks.—Before Sato (1961), *H vittatus*, sensu lato, was considered to be a species of wide geographical range without any clear discontinuities in the distribution.

Sato (1961)* has named several infra subspecific categories. Even male and female from the same locality population have been assigned to different varieties and forms. Besides, these



Text-fig. 1. *Hydaticus leechi* Sato, A. lateral view of penis; B. bifid spines on the internal face of meta-tibiae.

infrasubspecific categories are no longer recognized after the publication of the International Code of Zoological Nomenclature, 1961.

The exact status of *Hydaticus vittatus* var. *interruptus* Regimbart (1899), known from Borneo and Nicobar Islands, is considered doubtful. No example referable to this 'var'. is present in Paris Museum and could be examined by me. Sato (l.c.) is in error to treat it as a form *H. leechi* without examination of any material. In case the two species are specifically identical, the name *interruptus* Regimbart, 1899 has priority over *leechi* Sato, 1961, and should be applied to this species. Further I am also doubtful about Sato's treatment of *H. lenzi* Schoen. Even if it be a valid species, I very much doubt its distribution, having the same range as *vittatus*. The name *leechi*, is only temporarily applied here, till a thorough revision of this complex, based on the study of 'Type' specimen of each and every 'form', 'var', etc., described is available for study, together with a series of examples from various museums. *H. leechi* Sato, may perhaps only prove to be a subspecies of *quadrivittatus* Blanchard. For the present, I am giving here a comparison of the arrangement of cupules on the male anterior tarsi; in *vittatus* 2 basal median cupules are larger than the two median cupules in the preceding row while in *leechi* (examples from Andaman Islands) the two basal median cupules are smaller than the two median cupules in the preceding row.

There are some differences in the upper margin of the penis (fig. 1A) in the single male example now before me and the figure of penis given by Sato. I consider that this difference comes within the infraspecific variations, as indeed Sato has himself shown for the species *vittatus*. Among the seven examples, there is only a single male. In two female examples, the outer yellow vitta of the elytra is conjoint with the inner vitta. In one female example, there is a reddish-yellow spot at the base of each elytron. Similar reddish spot, was observed by me, in three examples from Java, in Regimbart collection at Paris Museum and these were labelled as *H. vittatus* ab. *lenzi* Schoen. Such spots do not appear to have either any sexual or subspecific significance.

*SATO, M. 1961. *Hydaticus vittatus* (Fabricius) and its allied species (Coleoptera: Dytiscidae). *Trans. Shikoku Ent. Soc.*, 7(1-2): 54-64.

8. *Cybister tripunctatus asiaticus* Sharp

1882. *Cybister asiaticus* Sharp, *Sci Trans. R. Dublin Soc.*, 2: 731.
 1969. *Cybister tripunctatus asiaticus*: Vazirani, *Oriental Ins.*, 2: 290.
Material.—6 ex., Port Blair, 1.iv.1969.

Suborder POLYPHAGA

Family HYDROPHILIDAE
Subfamily HYDROPHILINAE9. *Sternolopus* (s. str.) *rufipes* (Fabricius)

1792. *Hydrophilus rufipes* Fabricius, *Ent. Syst.*, 1: 183.
 1928. *Sternolopus* (s. str.) *rufipes*: Orchymont, *Cat. Indian Ins.*, pt. 14: 121.
 1952. *Sternolopus* (s. str.) *rufipes*: Vazirani, *Rec. Indian Mus.*, 50: 427.
 1964. *Sternolopus* (s. str.) *rufipes*: Sato & Miyataka, *Rep. Comm. For. Sci. Res. Kyushu Univ.*, no. 2: 140.

Material.—7 ex., Port Blair, 1.iv.1969.

Remarks.—This species is widely distributed in S. E. Asia, but it is now being recorded from the Andaman Islands for the first time

10. *Regimbartia attenuata* (Fabricius)

1801. *Hydrophilus attenuata* Fabricius, *Syst. Eleuth.*, 253 (Ceylon).
 1928. *Regimbartia attenuata*: Orchymont, *Cat. Indian Ins.*, pt. 14: 138.
 1952. *Regimbartia attenuata*: Vazirani, *Rec. Indian Mus.*, 50: 428.

Material.—13 ex., Port Blair, 1.iv.1969.

Remarks.—Though widely distributed in India and S. E. Asia (including Japan) and Australia, it is now being recorded from Andaman Islands for the first time.

SUMMARY

One species of Gyrinidae, seven species Dytiscidae and two species of Hydrophilidae are reported in this paper. Four species viz. *Gyrinus smaragdinus* Regimbart, *Hydaticus leechi* Sato, *Sternolopus* (s. str.) *rufipes* (Fabricius) are being recorded from Andaman Islands, for the first time. Subspecies and forms of *leechi* named by Sato (1961), are not recognized here.