

Koleopterologische Rundschau, Band 56, (1982)

RESULTS OF THE AUSTRIAN-INDIAN HYDROBIOLOGICAL MISSION 1976, TO
THE ANDAMAN ISLANDS

PART IX, DYTISCIDAE (COL.)

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Manuscript received on 7.11.1981

The hydrobiological mission 1976 of the Zoological Institute of the University of Vienna, headed by Univ. Prof. Dr. F. Starmühlner, explored freshwaters in the Andaman Islands. The collection contains more than 1100 specimens of *Dytiscidae* assigned to 14 species. Many of the specimens have been collected at lights. Exact descriptions of the collection-stations and general remarks on the mission are given by STARMÜHLNER 1977. I would like to thank Prof. Dr. F. Starmühlner for leaving the collection to me. Records of some additional specimens collected by Dr.G.Osella, in the Andaman Islands have been communicated to me by F. Angelini (Brindisi) and are included in the paper. For some of the species mentioned here, also new records are given for other countries.

VAZIRANI (1970 and 1972) published results of collections of *Dytiscidae* from the Andaman Islands and summarized earlier records. Including data given by VAZIRANI 1977, altogether 15 species of *Dytiscidae* were known. From the collection now published 10 species can be added, bringing the total number of species, known from these islands, to 25. However, the knowledge of *Dytiscidae* fauna of the Andaman Islands is still incomplete and the discovery of more species can be expected.

The following species have been included in the collection:

Hydrovatus confertus SHARP

Hydrovatus confertus SHARP, 1882, Sci. Trans.Roy Dublin Soc.2(2):329; REGIMBART, 1899, Ann. Soc. Ent.Franc. 68:237; VAZIRANI,1970, Orient. Ins. 4:93-129; SATO, 1972, Ann.hist.-nat.Mus,natn.Hung, 64 :145; ROCCHI, 1976, Boll.Soc.ent.It. 108:179; VAZIRANI, 1977, Rec. zool. Surv. India, Occ.Paper 6:27.

Location: South-Andaman, swamps near Tayaledrabad south of Port Blair, 7.12.1976, S-And/9c, singled in pools, 2 specimens. South-Andaman,

swamps near street to Mithakrai-Creek northwest of Port Blair, 18. 12. 1976, S-And/14a, singled in pool, 1 specimen. South - Andaman, near Bimblton, 22.12.1976, S-And/20, at lights near a brook and a ricefield, 76 specimens.

H. confertus is widely spread in the oriental region and is now recorded in the Andaman Islands for the first time.

Distribution: Vietnam, Cambodja, Thailand, Indonesia: Sumatra, Java, Borneo; Burma, China: Yunnan; Nepal (new record), Bangla Desh, India, Andaman Islands (new record), Sri Lanka, Pakistan (new record).

Hydrovatus acuminatus MOTSCHULSKY

Hydrovatus acuminatus MOTSCHULSKY, 1859, Etud. Ent. 8:42, SHARP, 1882, Sci.Trans.Roy.Dublin Soc. 2(2):326; REGIMBART, 1899, Ann.Soc.Ent.Fr. 68:235; VAZIRANI, 1970, Orient.Ins. 4:103; SATO, 1972, Ann.hist.-nat. Mus.natn.Hung. 64:145; VAZIRANI, 1977, Rec.Zool.Surv.India, Occ.Paper 6:25.

Hydrovatus badius CLARK, 1863, Trans.ent.Soc.Lond.(3) 1:424.

Hydrovatus malaccae CLARK, 1863, Trans.ent.Soc.Lond.(3) 1:425.

Hydrovatus consanguineus REGIMBART, 1880, Notes Leyden Mus. 2:212.

Location: South-Andaman near Bimblton, 8.12.1976, S-And/10b, brook near ricefield, 1 specimen; 22.12.1976. S-And/20, at lights near a brook and a ricefield, 13 specimens.

This species is common and is widely spread in the oriental region; it is now recorded in the Andaman Islands for the first time.

Distribution: Taiwan, China, Philippines, Vietnam, Thailand (new record), Malaysia, Indonesia: Sumatra, Java, Borneo, Celebes, Timor (new record); Burma, India, Andaman Isl. (new record).

Hydrovatus ferrugatus REGIMBART

Hydrovatus ferrugatus REGIMBART, 1877, Ann. Soc. Ent.Fr., Bull, p.79; SHARP, 1882, Sci.Trans.Roy.Dublin Soc. 2(2):814; REGIMBART, 1899, Ann. Soc. Ent. Fr. 68:232; VAZIRANI, 1970, Orient.Ins. 4:104; SATO, 1972, Ann. hist.-nat.Mus.natn.Hung. 64:145; ROCCHI, 1976, Boll.Soc.ent.It. 108:179; VAZIRANI, 1977, Rec.Zool.Surv.India, Occ.Paper 6:27.

Hydrovatus elevatus SHARP, 1882, Sci.Trans.Roy.Dublin Soc.2(2):328.

Location: South-Andaman near Bimblton, 22.12.1976, S-And/20, at lights near a brook and a ricefield, 7 specimens; Chizgiatappu, 2.1.1979, leg. Osella, 1 specimen.

This species is widely spread in the oriental region and is now recorded in the Andaman Islands.

Distribution: New Guinea, Philippines, Vietnam, Thailand (new record), Indonesia: Java, Celebes, Lombok; Burma, Bangla Desh, India, Andaman Islands (new record), Sri Lanka.

Hydrovatus fuscus SHARP

Hydrovatus fuscus SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2): 326; REGIMBART, 1899, Ann. Soc. Ent. Fr. 68:233; VAZIRANI, 1970, Orient. Ins. 4:106; ROCCHI, 1976, Boll. Soc. ent. It. 108:179; VAZIRANI, 1977, Rec. Zool. Surv. India, Occ. Paper 6:28.

Location: South-Andaman, near Bimblton, 22.12.1976, S-And/20, at lights near a brook and a ricefield, 9 specimens.

This is the first record of this species in the Andaman Islands. It is widely spread in the oriental region.

Distribution: Formosa, China, Indonesia: Celebes, Sumbawa, Timor; Burma, Nepal, Bangla Desh, India, Andaman Islands (new record), Sri Lanka, Pakistan.

Guignotus orientalis (CLARK)

Hydroporus orientalis CLARK, 1863, Trans. ent. Soc. Lond. (3) 1:427.

Bidessus orientalis, SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2):358; REGIMBART, 1899, Ann. Soc. Ent. Fr. 68:226.

Guignotus orientalis, GUIGNOT, 1954, Ark. zool. (N.S.) 6:563; VAZIRANI, 1969, Orient. Ins. 2(1968):316; VAZIRANI, 1970, Orient. Ins. 4:178; SATO, 1972, Ann. hist.-nat. Mus. natn. Hung. 64:147; VAZIRANI, 1975, Bull. Indian Mus. 7 (1972):17; ROCCHI, 1976, Boll. Soc. ent. It. 108 : 179; VAZIRANI, 1977, Rec. Zool. Surv. India, Occ. Paper 6: 35; BRANCUCCI, 1980, Ent. Basiliensia 5:167.

Location: South-Andaman, swamp near the street to Mithakrai-Creek, 18.12.1976, S-And/14a, singled in pool, 1 specimen; near Bimblton 22.12.1976, S-And/20, at light near a brook and a ricefield, 52 specimens.

This species is widely distributed in the oriental region and was recently recorded in the Andaman Islands by VAZIRANI (1970).

Distribution: China, Vietnam, Thailand, Indonesia: Java, Sumatra, Sumbawa; Burma, Bangla Desh, India, Andaman Islands.

Guignotus inconstans (REGIMBART)

Bidessus inconstans REGIMBART, 1892, Ann. Soc. Ent. Fr. 36:119; BALFOUR-BROWNE, J., 1936, Ent. mon. Mag. 72 (6):129.

Bidessus intermixtus SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2):358; REGIMBART, 1899, Ann. Soc. Ent. Fr. 68:227.

Guignotus inconstans, FERNANDO, 1963, Bull. Fish. Res. Stn. Ceylon 16(1):26; VAZIRANI, 1969, Orient. Ins. 2(1968):322; VAZIRANI, 1969, Spolia zelan. 31:401; ROCCHI, 1976, Boll. Soc. ent. It. 108:179; VAZIRANI, 1977, Rec. Zool. Surv. India, Occ. Paper 6:33; BRANCUCCI, 1980, Ent. Basiliensia 5:176.

Bidessus fulvescens ZIMMERMANN, 1923, Ent. Blätt. 19:34 (nov. syn.).

Guignotus fulvescens, VAZIRANI, 1969, Orient. Ins. 2 (1968):323; VAZIRANI 1970, Orient. Ins. 4:180; VAZIRANI, 1977, Rec. Zool. Surv. India, Occ. Paper 6:33.

Location: South-Andaman, near Bimblton, 22.12.1976, S-And/20, at lights, near a brook and a ricefield, 43 specimens.

Guignotus inconstans has been recorded in the Andaman Islands (1 ♀) by VAZIRANI (1970) as *Guignotus fulvescens*. He had suggested that this name might be a synonym for *G. inconstans*. The comparison of the type specimens of *Bidessus fulvescens* ZIMMERMANN (lectotype ♂: "Lille Nicobar", Small Nicobars, Galatea expedition, 3 paralectotypes from the same locality, 5 paralectotypes "Kar Nicobar", and 1 paralectotype "Calcutta" - all Zool. Museum Copenhagen) with several specimens of *G. inconstans* from India, Ceylon, Nepal and Sumatra revealed no substantial differences in physical appearance and in genital characteristics. Therefore I treat *B. fulvescens* as a synonym for *G. inconstans*.

However, between various populations of *G. inconstans* there exist differences; e.g. in elytral markings and in size. The population in the Andaman Islands has pale to grey elytra which are slightly darkish along the suture and the subapical area. Their mean length is $1,67 \pm 0,06$ mm (n = 17) and the shape of the body is rather narrow. The specimens from the Nicobar Islands (types of *B. fulvescens*) have brownish elytra almost without dark markings. The mean length is $1,9 \pm 0,07$ mm (n = 9) and the shape of the body is broader. In contrast, in a population from Nepal the elytra are predominantly dark brown with yellow spots. The mean length is $1,82 \pm 0,9$ mm and the body is quite broad. These differences seem to justify the name "inconstans".

Distribution: Malaysia, Indonesia: Sumatra, Java; Burma, Bhutan, Nepal, Bangla Desh, India, Andaman Islands, Nicobar Islands, Sri Lanka.

Uvarus livens (REGIMBART)

Bidessus livens REGIMBART, 1982, Ann. Soc. ent. Belg., 36 : 120; REGIMBART, 1899, Ann. Soc. Ent. Fr. 68:230.

Uvarus livens, VAZIRANI, 1967, Orient. Ins. 1:107; VAZIRANI, 1967, Orient. Ins. 2 (1968):332; ROCCHI, 1976, Boll. Soc. ent. It. 108:179; VAZIRANI, 1977, Rec. Zool. Surv. India, Occ. Paper 6:42.

Location: South-Andaman, near Bimblton, 22.12.1976, S-And/20, at lights near a brook and a ricefield, 18 specimens.

This species is known in the western oriental region and is now recorded in the Andaman Islands.

Distribution: Bangla Desh, India, Andaman Islands, Sri Lanka.

Hydrocoptus subvittulus MOTSCHULSKY

Hydrocoptus subvittulus MOTSCHULSKY, 1859, Et. Ent. p.43; WEHNCKE, 1883 Dtsch.ent.Ztschr. 27:148; REGIMBART, 1899, Ann.Soc.Ent. Fr. 68:243; FERNANDO, 1961, Bull.Fish.Res.Stn.Ceylon 16:25; VAZIRANI, 1969, Orient. Ins. 2(1968):223; SATO, 1972, Ann.hist.-nat.Mus.natn.Hung. 64 : 144; VAZIRANI, 1973, Rec.Zool.Surv.India, 67:291; VAZIRANI, 1975, Bull. Indian Mus. 7 (1972):16; ROCCHI, 1976, Boll.Soc.ent.It. 108: 179; VAZIRANI, 1977, Rec.Zool.Surv.India, Occ.Paper 6:4.

Methles sternalis SEIDLITZ, 1887, Verh.naturf.Ver.Brünn, 25:78.

Location: South-Andaman, near Bimblton, 8.12.1976, S-And/10b, brook at a ricefield, 3 specimens; 22.12.1976, S-And/20, at light near a brook and a ricefield, 769 specimens; near Asmadabad, 9.12.1976, S-And/12 b, singled in a brook, 1 specimen; near Mongelutonge at river Nayachal, 20.12.1976, S-And/18, at lights near the river, 2 specimens.

This species, known in the western oriental region, and also known as ssp. *seychellensis* PEDERZANI & SANFILIPPO in Mahé (Seychelles), is now recorded in the Andaman Islands.

Distribution: China, Nepal (new record), Bangla Desh, India, Andaman Islands (new record), Sri Lanka, Pakistan (new record).

? *Canthydrus morsbachii* (WEHNCKE)

Hydrocanthus morsbachii WEHNCKE, 1876, Berl.ent.Ztschr. 20:222.

Canthydrus morsbachii SHARP, 1882, Sci.Trans.Roy.Dublin Soc.2(2) : 276; REGIMBART, 1899, Ann.Soc.Ent.Fr. 68:247; VAZIRANI, 1969, Orient Ins. 2(1968):232; VAZIRANI, 1977, Rec.Zool.Surv.India, Occ.Paper 6:7,94.

Location: North-Andaman, 5km SW of Diglipur, 14.12.1976, N-And/4c, in river Lakshmipur, 1 ♀; Prov.Diglipur, 15.12.1976, N-And/6a, in river Durgpur, 1 ♀.

The specimens of this collection are ♀♀. Therefore, the determination of the specimens is uncertain, however, the new record fits the distribution pattern of *C. morsbachii*. This species is known from several localities in the oriental region.

Distribution: Vietnam, Thailand (new record, Cambodja, Malaysia, Indonesia: Sumatra; Burma, India, Andaman Islands (new record), Sri Lanka (new record).

Laccophilus chinensis BOHEMAN

Laccophilus chinensis BOHEMAN, 1858, Eugen Resa, p.21; SHARP, 1882, Sci. Trans. Roy. Dublin Soc.2(2):315; REGIMBART, 1899, Ann.Soc.Ent.Fr.68: 260; WEWALKA, 1975, Ent.Basiliensia 1:152.

Laccophilus chinensis ab. *inefficiens*, GUINOT, 1954, Ark.zool.6:565.

Laccophilus chinensis inefficiens, VAZIRANI, 1977, Rec.Zool.Surv.India, Occ.Paper 6:10 (partim).

Location: North-Andaman, 5 km southwest of Diglipur, 14. 12. 1976 N-And/4c, in river Lakshmipur, 4 specimens; 4 km east of Diglipur, 14.12.1976, N-And/5b, in brook between R.K.Nagar and Keralapuram, 1 specimen.

South-Andaman, near Tayaledrabad, southwest of Port Blair, 7.12.1976 S-And/9c, swamp pool, 3 specimens; near street to Mithakrai-Creek, 18.12.1976, S-And/14a, swamp pool, 1 specimen; near Bimblton, 22.12. 1976, S-And/20, at lights near a brook and a ricefield, 56 specimens; Port Blair, 15.2. - 15.3, 1915 leg. Kemp, 1 specimen (OO Landesmus. Linz).

These are the first records of this species in the Andaman Islands. The taxonomic status of *L. chinensis* BOHEMAN and the closely related *L. inefficiens* (WALKER) has been clarified recently (WEWALKA 1975a).

Distribution: Taiwan, Hong-Kong, China, Burma, Nepal (new record), India orient.?, Andaman Islands (new record).

Laccophilus parvulus AUBE

Laccophilus parvulus AUBE, 1838, Spec. Col. p. 429; SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2):312; REGIMBART, 1899, Ann. Soc. Ent. Fr. 68:257; GUIGNOT, 1954, Ark. zool. 6:565; VAZIRANI, 1969, Orient. Ins. 2(1968): 247; ROCCHI, 1976, Boll. Soc. ent. It. 108:179; VAZIRANI, 1977, Rec. zool. Surv. India, Occ. Paper 6:14, 95.

Laccophilus obtusus SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2):311.

Laccophilus orientalis AUBE, 1838, Spec. Col. p. 431; SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2):820.

Laccophilus parvulus var. *orientalis* REGIMBART, 1899, Ann. Soc. ent. Fr. 68:258; BOHEMAN, 1858, Eugen. Resa, p. 20.

Laccophilus undulifer MOTSCHULSKY, 1859. Etud. Ent. 8:44; SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2(2):312.

Laccophilus proteus REGIMBART, 1877, Ann. Soc. Ent. Fr. (5)7:358.

Location: South-Andaman, near Tayaledrabad southwest of Port Blair, 7. 12. 1976, S-And/9c, in swamp pool between ricefields, 3 specimens; near street to Mithakrai-Creek, 18.12.1976, S-And/14a, in swamp pool, 2 specimens; near Bimblton, 22.12.1976, S-And/ 20, at lights near brook and ricefield, 22 specimens; Chizgiatappu, 2.1.1979, leg Osella, 1 specimen.

L. parvulus is widely distributed in the oriental region and was first recorded in the Andaman Islands by VAZIRANI 1970.

Distribution: Vietnam, Thailand, Malaysia, Indonesia: Sumatra, Java, Sumbawa; Burma, India, Andaman Islands, Sri Lanka.

Copelatus tenebrosus REGIMBART

Copelatus tenebrosus REGIMBART, 1880, Notes Leyden Mus. 2:210; REGIMBART 1899, Ann. Soc. Ent. Fr. 68:269; VAZIRANI, 1970, Orient. Ins. 4:317; SATO, 1972, Ann. hist.-nat. Mus. natn. Hung. 64:150; ROCCHI, 1976, Boll. Soc. ent. It. 108:179; VAZIRANI, 1977, Rec. Zool. Surv. India, Occ. Paper 6:57.

Copelatus pusillus SHARP, 1882, Sci.Trans.Roy.Dublin Soc.2(2):580.

Location: South-Andaman, near the street to Mithakrai-Creek, 18.12.1976 S-And/14a, swamp pool, 1 specimen; near Bimblton, 22.12.1976, S-And/20, at lights near a brook and a ricefield, 13 specimens.

This species, known from the eastern part of the oriental region, is now recorded in the Andaman Islands for the first time.

Distribution: Vietnam, Laos, Thailand, Indonesia: Sumatra, Java, Sumbawa; Burma, Andaman Islands (new record), Bangla Desh, Sri Lanka (new record).

Hydaticus vazirani WEWALKA

Hydaticus vazirani WEWALKA, 1979, Koleopt.Rundschr. 54:126.

Hydaticus fabricii, SHARP, 1882, Sci.Trans.Roy.Dublin Soc.2(2):663 (partim); REGIMBART, 1899, Ann.Soc.Ent.Fr. 68:324 (partim); VAZIRANI, 1970, Orient.Ins.4:180; VAZIRANI, 1972, Rec.Zool.Surv.India 67:82 .

Location: South-Andaman, near Bimblton, 8.12.1976, S-And/20, at lights near a brook and a ricefield, 1 ♂ (paratype); South-Andaman, Chizgiatappu, 2.1.1979 leg.Osella.

In connection with a revision of the *Hydaticus fabricii*-group (WEWALKA 1979), it was discovered that specimens from the Andaman- and Nicobar Islands belong to a distinct species, *H.vazirani*, which can be differentiated from related species by the male genitals. Earlier records of *H. fabricii* (MACLEAY) from the Andaman Islands (REGIMBART 1899, VAZIRANI 1970) definitely refer to *H.vazirani*. However, this species is not endemic to these islands. Recently I have seen a specimen from Laos (Oö. Landesmus.Linz).

Distribution: Laos (new record), Andaman-, Nicobar-Islands.

Cybister tripunctatus asiaticus SHARP

Cybister asiaticus SHARP, 1882, Sci.Trans.Roy.Dublin Soc. 2(2):731.

Cybister tripunctatus var.*asiaticus*, REGIMBART, 1899, Ann. Soc.Ent. Fr. 68:352.

Cybister tripunctatus asiaticus, GSCHWENDTNER, 1938, Monogr.paläarkt.Dytiscidae 9:33; VAZIRANI, 1969, Orient. Ins. 2:290; VAZIRANI, 1970, Orient.Ins.4:180; VAZIRANI, 1972, Rec.Zool.Surv.India 67:85; WEWALKA, 1975, Ent.Basiliensia 1:165; VAZIRANI, 1977, Rec.Zool.Surv.India Occ.Paper 6:92.

Location: South-Andaman, near Bimblton, 22.12.1976, S-And/20, at lights near a brook and a ricefield, 2 specimens.

The ssp. *asiaticus* is common in the western part of the oriental region and is already known in the Andaman Islands.

Distribution: Burma, Bangla Desh, India, Andaman Islands, Nepal, Pakistan, Afghanistan, Iran.

Additional taxonomic comments

VAZIRANI (1972) recorded *Hydaticus leechi* SATO in the Andaman Islands. As he already suspected, the name *H. leechi*, proposed by SATO (1961) is invalid. Through the revision of the *Hydaticus vittaticus* - group (WEWALKA 1975b) it became evident that the correct name for the species in the Andamans is *Hydaticus bipunctatus* WEHNCKE. The distribution of this species is: Philippines, Indonesia: Borneo, Banka, Lombok, Celebes, Sumatra, Java; Burma, India: Bengal; Andaman-, Nicobar Islands.

Zoogeographical aspects

Among the 25 species known in the Andaman Islands up to this point only 1 can probably be called endemic (*Copelatus andamanicus*). Thirteen of the species, this is the majority, are represented in most or even in all subregions of the Oriental region; two of them (*Hydrovatus ferrugatus* and *Hyphydrus lyratus*) can be found also in the western part of the Australian region; another species (*Laccophilus sharpi*) reaches the palearctic region in the Near East, while *Eretes sticticus* lives as a cosmopolitan in almost all tropic and subtropic areas of the world.

Five species recorded from the Andaman Islands (*Uvarus livens*, *Microdytes maculatus*, *Hydrocoptus subvittulus*, *Hydaticus fractifer* and *Cybister tripunctatus asiaticus*) are confined to the western part of the Oriental region; *Hydrocoptus subvittulus* is known also in the Seychelles as subspecies *seychellensis* (PEDERZANI & SANFILIPPO), and *C. tripunctatus asiaticus* also extends to the palearctic region.

The other 6 species are limited to smaller areas of the Oriental region, mostly to the eastern and south-eastern parts.

The Andaman Islands together with the Nicobar Islands represent the highest areas of the submarine mountain range, which stretches from Cape Negrais in Burma to Achin Head in Sumatra. The question is raised about whether the *Dytiscidae* fauna in the Andaman group of Islands is more similar to that in Burma or to that in Sumatra. We now know that, of the 25 *Dytiscidae* species of the Andaman Islands, 16 are known in Burma and 12 in Sumatra. Eleven of these species are widely spread over the oriental region and exist in both adjoining areas. The data on hand support the theory that there is a close connection between the *Dytiscidae* fauna of the Andaman Islands and that of the Indian subregion. (Table).

Remarks on the *Dytiscidae* fauna in the Nicobar Islands

Up to this point no statements can be made about the connection between the *Dytiscidae* fauna of the Andaman- and the Nicobar Islands, as very little data is available from the latter. I know of only 4 species of *Dytiscidae* from the Nicobar Islands; 3 of them - *Guignotus inconsultans*, *Hydaticus vaziranii* and *Hydaticus bipunctatus* - exist in the Andaman Islands as well. Some taxonomic remarks about the fourth species, *Clypeodytes nicobaricus* REDTENBACHER, will follow.

Table 1: Distribution of species know from the Andaman Islands

| | Oriental region | | | | Palearctic region | Madegassan subreg. | Austrian region | remarks |
|--|-------------------|----------------|----------------------|----------------------|-------------------|--------------------|-----------------|---------|
| | Ceylonese subreg. | Indian subreg. | Indo-Malayan subreg. | Indo-Chinese subreg. | | | | |
| <i>Hydrovatus confertus</i> SHARP | + | + | + | + | | | | |
| <i>Hydrovatus acuminatus</i> MOTSCH. | | + | + | + | | | | |
| <i>Hydrovatus ferrugatus</i> REG. | + | + | + | + | | | + | |
| <i>Hydrovatus fuscus</i> SHARP | + | + | + | + | | | | |
| <i>Guignotus orientalis</i> (CLARK) | | + | + | + | | | | |
| <i>Guignotus inconstans</i> (REG.) | + | + | + | + | | | | |
| <i>Uvarus livens</i> (REG.) | + | + | | | | | | |
| <i>Hyphydrus lyratus</i> SWARTZ | + | + | + | + | | | + | |
| <i>Microdytes maculatus</i> (MOTSCH.) | + | | | | | | | |
| <i>Hydrocoptus subvittulus</i> MOTSCH. | + | + | | | | + | | |
| <i>Canthydrus morsbachi</i> (WEHN.) ? | + | + | + | + | | | | |
| <i>Laccophilus chinensis</i> BOH. | | + | | + | | | | |
| <i>Laccophilus parvulus</i> AUBE | + | + | + | + | | | | |
| <i>Laccophilus basalis</i> MOTSCH. | + | + | + | + | | | | |
| <i>Laccophilus elegans</i> SHARP. | | + | + | + | | | | |
| <i>Laccophilus sharpi</i> REG. | + | + | + | + | + | | | |
| <i>Copelatus tenebrosus</i> REG. | + | + | + | + | | | | |
| <i>Copelatus andamanicus</i> REG. | | | | | | | | * |
| <i>Eretes sticticus</i> (L.) | + | + | + | + | + | + | | ** |
| <i>Hydaticus fractifer</i> WALK. | + | | | | | | | |
| <i>Hydaticus litigious</i> REG. | | | | + | | | | |
| <i>Hydaticus bipunctatus</i> WEHN. | | + | + | | | | | |
| <i>Hydaticus vazirani</i> WEW. | | | + | | | | | |
| <i>Cybister siamensis</i> SHARP | | | + | + | | | | |
| <i>Cybister tripunctus asiaticus</i> SHARP | + | + | | | + | | | |

* endemic to Andaman Islands ** cosmopolitan

Clypeodytes (Lioclypeus) nicobaricus (REDTENBACHER), comb.nov.

Hydroporus nicobaricus REDTENBACHER, 1868, Reise "Novara", Zool.Theil 2, Col.p.21.

Bidessus nicobaricus, SHARP, 1882, Sci. Trans. Roy. Dublin Soc. 2 (2): 802; REGIMBART, 1899, Ann.Soc.Ent.Fr., 68:228.

Guignotus nicobaricus, VAZIRANI, 1977, Rec.Zool.Surv.India, Occ.Paper 6:34.

Lectotypus ♂: Nicobar Islands, Fauji; 1 ♀ Paralectotypus from the same locality (Nat.-hist.Museum, Vienna).

The study of the type-specimens made it evident that this species is a *Clypeodytes*, very close related to *C. orissaensis* VAZIRANI. I did not find significant differences between these two species in size, form, or punctuation and marking of the surface. However, in male genitals, there are characteristic differences; the clearest of which are in the apices of the parameres (fig. 1c, 1d, 2c, 2d). The differences in the median lobes (fig. 1a, 1b, 2a, 2b) are slight but also significant.

C. nicobaricus has also been found in Thailand (Bangkok, 10. 4. 1976, leg. Heiss) and probably has a wider distribution.

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Summary:

The collection of *Dytiscidae* of the Andaman Islands contains 14 species; 10 of them are recorded on these islands for the first time. Zoogeographical aspects show a close connection between the *Dytiscidae* fauna of the Andaman Islands with that of the Indian subregion. *Guignotus fulvescens* (ZIMMERMANN) is recognized as synonym of *G. inconstans* (REGIMBART). The examination of the type specimens of *Hydroporus nicobariensis* REDTENBACHER showed that this species belongs to the genus *Clypeodytes*. It is closely related to *C. orissaensis* VAZIRANI.

Zusammenfassung:

Resultate der Österreichisch-indischen hydrobiologischen Expedition, 1976, auf den Andamanen-Inseln, Teil IX, *Dytiscidae*. Die Aufsammlungen umfassen 14 Arten von *Dytiscidae*, 10 davon werden erstmals auf den Andamanen nachgewiesen. Die Dytisciden-fauna der Andamanen zeigt enge Beziehungen zu jener der Indischen Subregion. *Guignotus fulvescens* (ZIMMERMANN) wird als Synonym zu *G. inconstans* (REGIMBART) gestellt. Die Untersuchung der Typen von *Hydroporus nicobariensis* REDTENBACHER zeigte, daß diese Art in die Gattung *Clypeodytes* gehört. Sie ist nahe verwandt mit *C. orissaensis* VAZIRANI.

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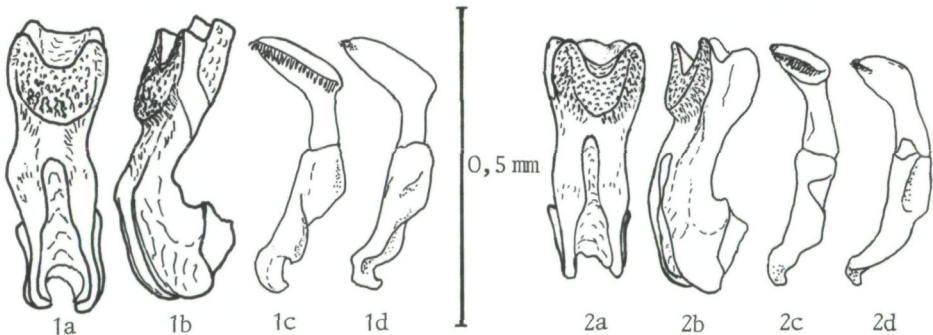


Fig. 1 and 2: male genitalia; a: median lobe, ventral view; b: median lobe, lateral view; c: left paramere, medial view; d: right paramere, lateral view.

Fig. 1: *Clypeodytes nicobariensis* (REDTENBACHER), lectotypus.

Fig. 2: *Clypeodytes orissaensis* VAZIRANI, India, Tamil Nadu, Karikal.

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Zeitschrift/Journal: [Koleopterologische Rundschau](#)

Jahr/Year: 1982

Band/Volume: [56_1982](#)

Autor(en)/Author(s): Wewalka Günther

Artikel/Article: [Results of the Austrian-Indian Hydrobiological Mission 1976, to the Andaman Islands Part IX, Dytiscidae \(Col.\). 115-125](#)