

GROUND BEETLES (INSECTA . COLEOPTERA :
CARABIDAE) OF SILENT VALLEY
(KERALA, INDIA)

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(With one Text-figure)

INTRODUCTION

The present study is based on a small collection of carabid beetles made by four successive surveys led by Dr. R. S. Pillai (April, 1979), Dr. S. K. Bhattacharya (January-February, 1980), Dr. R. S. Pillai (December, 1980) from the so far unexplored area, the Silent valley, Kerala. The specimens are mainly collected from leaf litter and from foliage where as the majority of the carabid beetles are found under stones and logs. The material comprising of 30 examples belonging to 16 species under 13 genera and nine tribes of the subfamily Carabinae. One species is described as new to science and ten species are first time recorded from Kerala of which three species are first time recorded from South India. Six genera are first time recorded from Kerala of which one genera is first time recorded from South India.

SYSTEMATIC ACCOUNT

Subfamily CARABINAE

Tribe SCARTIINI

Genus *Oxylobus* Chaudoir

1885. *Oxylobus* Chaudoir, *Bull. Soc. Imp. Nat. Moscou*, 1 : 5.

The representatives of this genus are distributed in South India, extending northwards to Maharashtra and eastwards to Orissa and Bihar, and Ceylon. Three species including a new one, of this genus are recorded from Silent Valley. The black colour, oval, convex and subcylindrical body render the genus easily recognizable.

1. *Oxylobus quadricollis* Chaudoir

1855. *Oxylebus quadricollis* Chaudoir, *Bull. Soc. Imp. Nat. Moscou*, 1 : 7.

Material examined : 3 exs., Kerala : Silent Valley, January, 1980, S. K. Bhattacharya.

This species is easily recognised by its head with sinuate frontal impressions reaching the neck constriction which is very faint and the sides behind are distinctly straight and punctate. This species can only be compared with *O. asperulatus* Chadhoir but the latter is distinguished by the head with short diverging frontal impressions, the sides behind the eyes with few coarse punctures and the eyes and genae rather flat, the left mandible in ♂ is strongly dilated at base and sharply bent upwards and inwards.

Distribution : INDIA : TAMILNADU : Nilgiri Hills, Oucherlony valley, Coonoor, Gudalur ; KERALA : Malabar and as above.

2. *Oxylobus monatus* Andrewes

1929. *Oxylobus monatus* Andrewes, *Fauna Brit. India including Ceylon and Burma*, Coleoptera : Carabidae, Vol. 1 - Carabinae, p. 315.

Material examined : 2 exs., KERALA : Silent Valley, Valiapara Thodu, 25. v. 1980, R. S. Pillai ; 1 ex., Silent Valley, Jan.-Feb., 1980, S. K. Bhattacharya.

This species can be recognised by its smaller size (12.5 mm.—14.5 mm.) and the head with frontal impressions deep and diverging posteriorly and reaching the neck constriction which is shallow and the elytra with the striae rather shallowly punctate.

Distribution : INDIA : TAMILNADU : Anaimalai Hills, 4000 ft. (Type-locality) ; KERALA : as above.

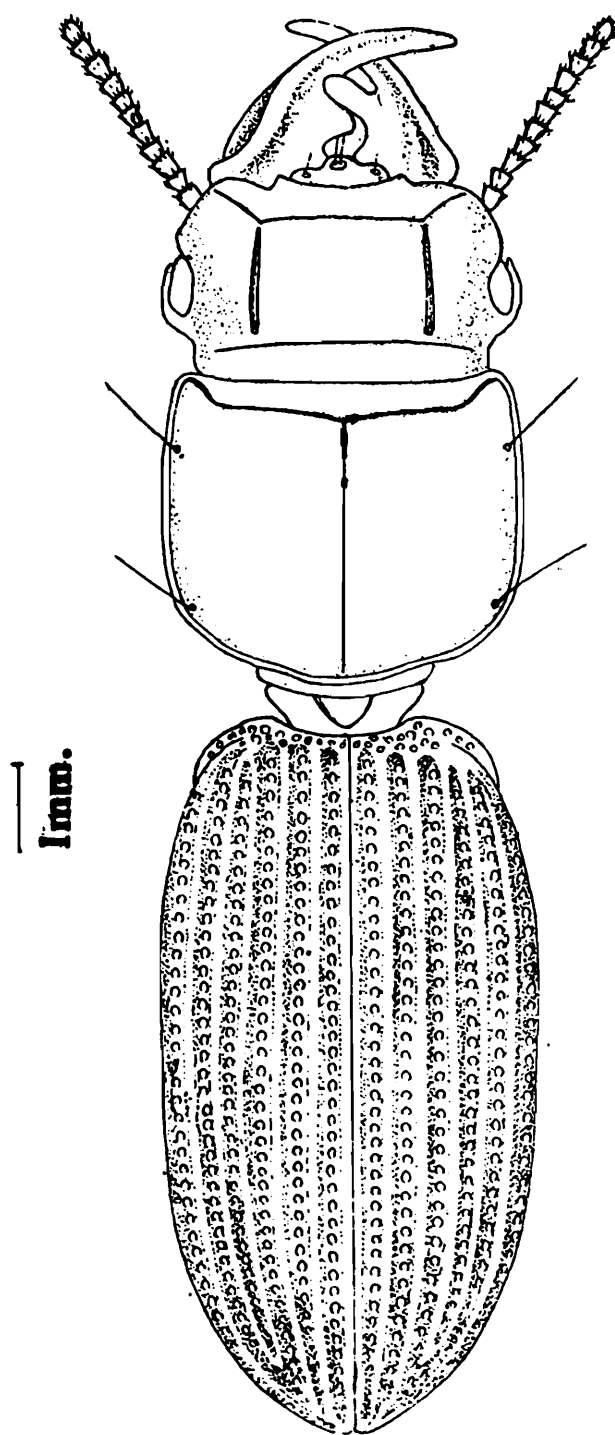
This species was so far known only from its type-locality. Now this is first time recorded since its description.

3. *Oxylobus silenticus* sp. nov.

(Text-figure 1)

Head wide and smooth, a few short and deep striae intermingled with coarse punctures extending along the sides of neck constriction just outside the frontal impressions ; frontal impressions deep and parallel, continued in front to chypeal suture but posteriorly not reaching the neck constriction which is deep and prominent ; labrum with median lobe truncate and well advanced, bearing a single pore ; chypeus with well developed tooth on each side of labrum, clypeal

suture distinct on middle and faint at extreme sides ; left mandible in ♂ dilated at base and little upwards ; eyes flat and conspicuously enclosed in genae. Prothorax (3.25 mm. x 4.50 mm.) a little wider than head and a little more than one and one-third wider than long, sides parallel, a single setae on each side in front placed on inner edge of the border without breaking it ; median line deep, basal favae obsolete, lateral channel deep and moderately rounding the front angles without forming, front angles moderately rounded,



Text-fig 1. Dorsal view of *Oxylobus silenticus* sp. nov., Holotype

transverse impressions rather shallow. Elytra (7.25 mm. x 4.50 mm.) as wide as prothorax and one and three-fifth longer than wide, 7-striate, with trace of another stria within marginal channel near apex, striae deep, strongly punctate, punctures not increasing in size near apex, striae 1, 2 and 5 free at base, 3 joining 4; intervals convex, 5 and 6 carinate on inner margins, 7 fine and strongly carinate, not reaching the base and joining 6 behind, 3 with a setiferous pore near the apex; epipleurae strongly punctate. Prosternum moderately punctate on sides, metepisterna strongly punctate bordered on outer margin; basal abdominal segments with scattered punctures, last three segment with a row of punctures on sides and smooth on middle.

Length : 15.5 mm.

Holotype : ♂, INDIA : KERALA : Silent valley, January-February, 1980, S. K. Bhattacharya, deposited in the National Zoological Collection of Zoological Survey of India, Calcutta,

This species is near to *O. quadricollis* Chaudoir and can be easily separated from the latter by its smaller size and parallel frontal impressions not reaching the neck constriction which is deep throughout.

Tribe CHLAENIINI

Genus *Chlaenius* Bonelli

1809. *Chlaenius* Bonelli, *Mem. Acad. Sci. Torino*, 18 : 21-78.

Representatives of this genus are distributed throughout all zoogeographical regions of the world and most common in India. So far about 125 species have been recorded from India.

4. *Chlaenius luculentus* Andrewes

1919. *Chlaenius apacipennis*, Andrewes (not Chaud.) *Ann. Mag. Nat. Hist. Soc.* (9) 4 : 11.

1920. *Chlaenius luculentus* Andrewes, *Ent. Month. Mag.*, 235 and 236.

Material examined : 1 ex., KERALA : Silent valley, April, 1979, R. S. Pillai.

Distribution : INDIA : W. BENGAL Bankura ; BIHAR :

Chapra ; U. P. : Sitapur ; MAHARASHTRA Nagpur and KERALA : as above.

This species is first time recorded from South India.

5. *Chlaenius bimaculatus* Dejean

1826. *Chlaenius bimaculatus* Dejean, *Spec. Gen. Col.*, 2 : 301. 1856. var. *lynx* Chaudoir, *Bull. Soc. Imp. Nat. Moscou*, (39) 3 : 199. 1887. var. *celebensis* Schaufuss, *Horae Soc. ent. Ross*, 21 : 105.
 1891. *Chlaenius rayatus* Bates, *Ann. Soc. ent. Belg.* 35 : 327.
 1923. *Chlaenius ocellatus* Andrewes, *Ann. Mag. Nat. Hist. Soc.*, (9) 11 : 339.
 1979. *Chlaenius bimaculatus*, Saha and Sengupta, *Proc. Symp. zool. Surv. India*, No. 2 : 28.

Distribution This species is widely distributed throughout India (except northern part of western India) and South East Asia.

This is a common and most variable species. It varies in punctuation of pronotum and colour of palpi, antennae and legs. Saha and Sengupta (1979) enumerated in details the intra-specific variation in population of different regions of this species.

Tribe PTEROSTICHINI

Genus *Diceromerus* Chaudoir

1872. *Diceromerus* Chaudoir, *Ann. Soc. ent. Belgique*, 15 : 15.

6. *Diceromerus orientalis* (Motchulsky)

1859. *Siomonaxus orientalis* Motch. *Etud. Ent.* ; 36.
 1872. *Diceromerus orientalis*, Chaudoir, *Ann. Soc. ent. Belgique*, 15 : 15.

Material examined 1 ex., KERALA : Silent valley, April, 1979, R. S. Pillai.

Distribution : INDIA, SRILANKA, BURMA, SINGAPORE, KUALALAMPUR, JAVA, SUMATRA, LAOS and HONGKONG.

Genus *Marion* Latreille

1810. *Morion* Latreille, *Tab. meth.*, 159.
 1825. *Morion* Dejean, *Spec. Gen. Col.*, 1 : 429.

This genus, represented by nine species, is distributed in South East Asia including Australia and New Guinea. Three species have been recorded from India.

7. *Morion orientale* Dejean

1825. *Morio orientale* Dejean, *Spec. Gen. Col.*, 1 : 432.

1831. *Morion orientale* Dejean, *Spec. Gen. Col.*, 5 : 511.

Material examined: 1 ex., KERALA : Silent valley 34 Km. N. W. of Mukhali, 29. i. 1980, S. K. Bhattacharya.

This is a common species and is near to another common species *M. cucujoides* Walker distributed throughout India, Ceylon and Burma.

Tribe HARPALINI

Genus *Gnathaphanus* Macleay 1

1825. *Gnathaphanus* Macleay, *Ann. Jav.*, 20.

This genus is represented by 11 species and is distributed in South East Asia and Australia and New Guinea (one species). Six species are represented in India.

8. *Gnathaphanus* sp.

Material examined: 4 exs., KERALA : Silent valley, 3 Km. E. of Valiapara Thodu, 930 m., 26. i. 1980, S. K. Rao ; 2 exs., Silent Valley, April, 1980, S. Biswas.

Tribe TETRAGONODERINI

Genus *Tetragonoderus* Dejean

1829. *Tetragonoderus* Dejean, *Spec. Gen. Col.*, 4 : 485.

This genus is represented by ten species and is distributed throughout South East Asia. One Species, *T. arcuatus* Dejean, is extended westwards to Egypt. All the species except *T. cursor* Bates (Burma) are represented in India.

9. *Tetragonoderous* Sp.

Material examined: 1 ex., KERALA : Silent Valley, 4. v. 1980, S. Biswas.

This is probably a new species but it is not described here as I have not yet seen two out of all described species.

Tribe LEBIINI

Genus *Microlestes* Schmdt - Goebel

1846. *Microlestes* Schm. - Goeb. *Faun. Col. Birm.*, 41.

1847. *Blechrus* Motschulsky, *Bull. Soc. Imp. Nat. Moscou.*, 2 : 219.

The representatives of this genus are distributed in most of the Zoogeographical regions. Eight species are distributed in South Asia of which five species have been recorded from India. This genus is first time recorded from the state of Kerala.

10. *Microlestes inconspicuus* Schmidt-Goebel

1846. *Microlestes Inconspicuus* Schm.-Goeb., *Faun. Col Birm.*, 41.

Material examined : 2 exs., KERALA : Silent Valley, 4. v. 1980, S. Biswas.

Distribution : INDIA : BIHAR : Chotanagpur ; BURMA Rangoon and (?) Bhamo.

Genus *Dromius* Bonelli

1810. *Dromius* Bonelli, *Mem. Acad. Sci. Terine*, 18 : 21-78.

This is a cosmopolitan genus. This genus is first time recorded from Kerala.

11. *Dromius orthogonoides* Bates

1886. *Dromius orthogonoides* Bates, *Ann. Mag. Nat. Hist. Soc.*, 205.

Material examined : 2 exs., KERALA : Silent Valley, May, 1980, S. Biswas.

Distribution : INDIA : TAMILNADU : Nilgiri Hills ; KERALA : as above ; SRILANKA : Dikoya.

This species is first time recorded from Kerala.

Genus *Coptodera* Dejean

1825. *Coptodera* Dejean, *Spec. Gen. Col.*, 1 : 273.

1843. *Belonogatha* Chaudoir., *Bull. Soc. Imp. Nat. Moscou*, 2 : 383.

This genus is represented by fourteen species distributed in South East Asia of which nine species are recorded from India.

This genus is first time recorded from Kerala.

12. *Coptodera interrupta* Schmidt-Goebel1846. *Coptodera interrupta* Schmidt - Goebel, *Faun. Col. Birm.*, 53.1846. *Coptodera elegantula* Schmidt - Goebel, *Faun. Col. Birm.*, 54

Material examined : 2 exs., KERALA : Silent Valley, 4. v. 1980, S. Biswas.

Distribution : INDIA : WEST BENGAL : Poshok, Numsoo, Nurbong and Mirik ; U. P. Dehra Dun, Kalivalley (Almora) ; TAMILNADU : Nilgiri Hills ; KERALA : As above. SRILANKA. BURMA, MALAYA PENINSULA, LAOS and SARWAK.

This species is first time recorded from Kerala.

Genus *Cymindoidea* Castlenau1832. *Cymindoidea* Castlenau, *Ann. Soc. ent. France*, 390.1837. *Philoticnus* Mann, *Bull. Soc. Imp. Nat. Moscou*, 1 : 42.

This genus represented by six species, is distributed in India, Srilanka and Burma. All the six species are recorded from India. This genus is first time recorded from Kerala.

13. *Cymindoidea* Sp.

Material examined : 1 ex., KERALA : Silent Valley, January, 1980, S. K. Bhattacharya.

This species is near to *C. indica* (Schm-Goeb.) but it could not be determined as I was not able to compare all the species.

Tribe MASOREINI

Genus *Aephnidius* Macleay1825. *Aephnidius* Macleay, *Ann. Jav.*, 23.

This genus is represented by seven species, of these one species, *ruficornis* (Chaud.) is recorded from West Asia (Arabia : Syria and Kurdistan), other six species are distributed in South East Asia of which five species are recorded from India. One species, *adeloides* Macleay is extended to Japan and Austria.

14. *Aephnidius rubidus* Andrewes1922. *Aephnidius rubidus* Andrewes, *Ann. Mag. Nat. Hist. Soc.*, (9) 10 : 169.

Material examined : 1 ex., KERALA : Silent Valley, April 1980, S. Biswas.

Distribution : INDIA : MAHARASHTRA Nagpur, Khandesh, Belgaum ; TAMILNADU : Madura : KERALA : as above.

Tribe PHYSOCRATINI

Genus *Pogonoglossus* Chaudoir

1862. *Pogonoglossus* Chaudoir, *Bull. Soc. Imp. Moscou*, 2 : 304.
1846. *Liberesthis* Schm. Goeb., *Fauna Col. Birm.* (Cover), in litt.
1904. *Carpaulum* Sloane, *Proc. zool. Soc., NSW.*, 536.

This genus, represented by 12 species, is distributed in South East Asia including New Guinea (2 species) of these only one species is recorded from India.

This genus is first time recorded from India.

15. *Pogonoglossus truncatus* Andrewes

1921. *Pogonoglossus truncatus* Andrewes, *Trans. ent. Soc. London.*, 183.
1892. *Pogonoglossus validicornis* Bates (not Chaud.) *Ann. Mus. Civ. Stor. Nat. Genova*, 32 ; Andrewes, *Loc. cit.*, 148.

Material examined : 1 ex., KERALA : Silent Valley, April, 1980, S. Biswas.

Distribution : INDIA : U. P. : Kumaon (River Sarda George) ; ASSAM ; BURMA : Shewgu, Meetan ; LAOS, TONKIN and SARWAK.

The record of this species from South India is of great interest.

Tribe GRAGERINI

Genus *Melaenus* Dejean

1831. *Melaenus* Dejean, *Spec. Gen. Col.* 5 481.

This is a monotypic genus and is first time recorded from Kerala.

16. *Melaenus piger* (F.)

1801. *Brachinus piger* Fabr., *Syst. Eleuth.*, 1 : 219.

Material examined : 1 ex., KERALA : Silent Valley, Road to Valiapara Thodu, 23. iv. 1980, R. S. Pillai.

Distribution : INDIA "Bengal" ; MAHARASHTRA Nagpur, Igatpuri, Begaum, Bandra ; M. P. : Chanda, Hoshangabad, Bilashpur, Balgahat ; TAMILNADU : Tinnevalley, Kunavaram, Kurnol, Madras, Chatrapur, Notkamond ; KERALA as above. SRILANKA : Horawupotana.

SUMMARY

16, Species are recorded from the Silent Valley. One species *Oxylobus silenticus* sp. nov. is described as new to Science. Six genera viz ; *Microlestes* Schmidt - Goebel, *Dromius* Bonelli, *Cymindoidea* Castlenau, *Coptodera* Dejean *Aephnides* Macleay and *Pogonoglossus* Chandoir are first time recorded from Kerala, of which *Pogonoglossus* Chandoir is first time recorded from South India.

Ten species, viz. *Oxylobus monatus* Andrewes, *Chlaenius luculentus* Andrewes, *Morion orientale* Dejean, *Microlestes inconspicuus* Schm. - Goeb., *Dromius. orthogonoides* Bates, *Coptodera interrupta* Schm. - Goeb, *Aephruidis rubidens* Andrewes, *Pogonoglossus truncatus* Andrewes, *Melaenus piger* (F.) and *Aephnidus rubidus* Andrewes are first time recorded from Kerala of which three species, viz., *Chalaenius luculentus* Andrewes, *Microlestes inconspicuus* Schm. - Goeb. and *Pogonoglossus truncatus* Andrewes are first time recorded from South India.

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