

NOTES ON A COLLECTION OF LUCANIDAE (COLEOPTERA) FROM SIKKIM

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CONTENTS

	PAGE
I—INTRODUCTION	41
II—SYSTEMATIC ACCOUNT	41
III—SUMMARY	44

I—INTRODUCTION

This report is based on a small collection of Lucanidae (Coleoptera) collected by my colleague Dr. A. G. K. Menon from Sikkim in 1959.

The collection comprises four genera and eight species. Two species, though suspected to be new, have not been named or described in the present paper for want of sufficient number of examples. The following three species viz., *Cyclommatus albersi* Kraatz, *Dorcus nepalensis* (Hope) and *Calcodes baladeva* (Hope) are being recorded for the first time for Sikkim.

I am grateful to Dr. M. L. Roonwal, Director, Zoological Survey of India, for the permission, necessary facilities, etc., to work out this interesting collection. I am also thankful to my colleague, Shri K. S. Pradhan, for his helpful comments on the paper.

II—SYSTEMATIC ACCOUNT

1. *Lucanus furcifer* Arrow

1949. *Lucanus furcifer* Arrow, *Fauna of Brit. India*.....*Coleoptera, Lamellicornia*, 4, pp. 46-48, pl. iii, fig. 4, London.

Material.—Sikkim : Lachung, 2.vii. 1959, 2♂♂. Length with mandibles 57.0 and 59.5 mm., without mandibles 41.0 and 43.0 mm. respectively.

Remarks.—This species has been previously recorded from the same locality in Sikkim and also from Yunnan. The presence of a large number of serrated teeth on the inner margin of the mandibles indicates that these specimens are not in a fully grown up condition. The larger specimen has a reduced number of serrated teeth. Arrow (*loc. cit.*) has pointed out that larger specimens have the clypeal process comparatively thickened at the end and the same condition has been observed in the specimens before me, but comparatively greater downward curvature of mandibles in the larger specimens as observed by Arrow (*loc. cit.*) is not preceptible in the two specimens.

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2. *Lucanus* sp.

Material.—Sikkim Lachung, 4. vii. 1949, 1♂. Length with mandibles 42.0 mm., without mandibles 32.0 mm.

Remarks.—It is not possible to place the above specimen in any of the known species. It comes near *L. mearesi* Hope in the key to the Indo-Malayan species by Arrow (*loc. cit.*), but detailed examination revealed that it markedly differs from it in the shape of the clypeal process, which is tongue-shaped instead of being triangular and projected anteriorly as in *L. mearesi*. The posterior border of the head is also less rounded in the middle, and the anterior border less prominently straight. It also markedly differs from *L. mearesi* in the absence of the basal mandibular tooth.

3. *Cyclommatus albersi* Kraatz

1894. *Cyclommatus albersi* Kraatz, *Dtsch. ent. Z.*, Berlin, 38, p. 268.

1949. *Cyclommatus albersi* : Arrow, *Fauna of Brit. India*..... *Coleoptera, Lamellicornia*, 4, p. 66, pl. v. figs. 9 & 10, London.

Material.—Sikkim : Chungthang, 18. vii. 1959, 1♂ Length with mandibles 30.0 mm., without mandibles 22.0 mm.

Remarks.—Previously known from Manipur, Burma and Tonkin, it is now being recorded from Sikkim for the first time. The above specimen is a well-developed male, with distinct longitudinal folds on either side of the head. A closely related species *C. strigiceps* Westwood, also occurs in Sikkim. A dark lateral patch on the pronotum distinguishes this species from *C. strigiceps*. The ventral surface of the specimen is not dark green throughout, only the greater part of the pro- and meso-sternum are dark green in colour. Probably detailed study of a large number of specimens may prove that the two species are really one and the same.

4. *Dorcus ratiocinativus* Westwood

1871. *Dorcus ratiocinativus* Westwood, *Trans. ent. Soc. Lond.*, London, p. 356, pl. viii, fig. 2.

1949. *Dorcus ratiocinativus* : Arrow, *Fauna of Brit. India*..... *Coleoptera, Lamellicornia*, 4, pp. 93,94, pl. ix, fig. 12, London.

Material.—Sikkim : Bichu, 14. vii. 1949, 1♂. Length with mandibles 31.0 mm., without mandibles 26.0 mm.

Remarks.—It is already known to occur in Sikkim and Tibet. In the present specimen the scutellum is punctate only in the anterior half : the scutellum may be smooth or punctate as stated by Arrow *loc. cit.* The anterior angles of the pronotum are obliquely truncate as usual, but the truncation is slightly concave in the present specimen.

5. *Dorcus nepalensis* (Hope)

1831. *Lucanus nepalensis* Hope, in Gray's, *Zoological Miscellany*, p. 22.

1949. *Dorcus nepalensis* : Arrow, *Fauna of Brit. India*..... *Coleoptera, Lamellicornia*, 4, p. 161, pl. xiii, figs. 1-3, London.

Material.—Sikkim : Lachung, 6. vii. 1959, 1 ♀. Length 44.0 mm., breadth 19.0 mm.

Remarks.—This species has a wide distribution in W. Pakistan (old N. W. Frontier Province and Murree Hills), India (Uttar Pradesh, Panjab, Assam) and Nepal. It is now recorded from Sikkim for the first time.

6. *Dorcus prox. fulvonatus* Parry¹

Material.—Sikkim : Nanga, 2. viii. 1952, 1 ♀. Length 23.5 mm., breadth 9.0 mm.

Remarks.—The above specimen comes near *D. fulvonatus* Parry, but is somewhat larger and has a single orange coloured median and subapical spot on each elytron, as against a curvilinear orange streak near the extremity almost reaching the suture or sometimes continued in a straight line to near the shoulders but more often interrupted in the middle and reappearing behind the shoulder as in *D. fulvonatus*. On the pronotum also there is a single small, median lateral orange spot on each side. The clypeal process is tongue-shaped and not transversely rounded as in *D. fulvonatus*. It, however, agrees with *D. fulvonatus* in having a minute spine on the meso- and meta-tibiae; such spines are absent in *D. bisignatus* (Parry¹), another closely related species.

7 *Calcodes castanopterus* (Hope)

1831. *Lucanus castanopterus* Hope, in Gray's, *Zoological Miscellany*, p. 22.

1949. *Calcodes castanopterus* : Arrow, *Fauna of Brit. India*....., *Coleoptera, Lamellicornia*, 4, pp.197-199, pl .xxi, figs. 5, 6, London.

Material.—Sikkim : Nanga, 2. viii. 1959, 3♂♂, 1♀. Length of males with mandibles 34.0 and 30.0 mm., of female, 26.0 mm.

Remarks.—This is a widely distributed species and is known from Nepal, Sikkim, India (North Bengal, Assam, Manipur) and Burma. In all the four examples the antennae are with 3-segmented club and there is no tendency towards the 4-segmented club as observed by Arrow (*l.c.*) in some Burmese examples. The specimens are darker than those from Mungphu, E. Himalayas and Shillong present in the collections of the Zoological Survey of India.

8. *Calcodes baladeva* (Hope)

1843: *Odontolabis baladeva* Hope, *Trans. Linn. Soc. Lond. (Zool.)*, London, 9, p. 105.

1949. *Calcodes baladeva* : Arrow, *Fauna of Brit. India*. *Coleoptera, Lamellicornia*, 4, pp. 204-206, pl. xxi, figs. 1-3, London.

Material.—Sikkim : Gangtok, 17. viii. 1959, 1 ♂. Length with mandibles 52.5 mm., without mandibles 49.5 mm.

Remarks.—It is so far known from India (North Bengal, Assam, Manipur, Naga Hills) and Burma. It is now being recorded from

¹ 1863. Parry, *Proc. ent Soc, Lond.*, p. 111.

Sikkim for the first time. The above specimen does not represent the fully grown up condition since it lacks the carina on the dorsal surface of the mandible, and the inner margins of mandibles are serrated.

III—SUMMARY

The small collection of Lucanidae, (Coleoptera) from Sikkim that has been examined by me comprises four genera and eight species. Two of the species, though suspected to be new, are not named or described for want of sufficient number of examples. The species *Cyclommatus albersi* Kraatz, *Dorcus nepalensis* (Hope) and *Calcodes baladeva* (Hope) have been recorded from Sikkim for the first time.