New records of darkling beetles (tenebrionidae: coleoptera) from Maharashtra, India

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Abstract
Darkling beetles are belonging to the family Tenebrionidae. These are cosmopolitan and found in a variety of habitats. Efforts were made to identify the darkling beetles deposited in National Zoological Collection, Zoological Survey of India, Pune. Identification of beetles yielded 17 species belonging to 12 genera under 08 tribes of 04 subfamilies of family Tenebrionidae from different districts of Maharashtra state. All the species reported here are new records to the Maharashtra state.

Keywords: Darkling beetles, Maharashtra, new records

1. Introduction
The family Tenebrionidae (Darkling beetles) is the fifth largest family under the order Coleoptera and representatives of the family are found in almost all the habitats and are hard to differentiate but can be identified by these characters. Body hard, antennal insertion hidden under frons, elytra usually completely covering abdomen, abdomen with five visible sternites and first three segments conunate, front coxal cavities closed behind, heteromorous tarsi, tarsal segments and claws simple \[1\].

Even though, there are several chapters on Coleoptera in the Fauna of Maharashtra \[2\], there are no reports on the darkling beetles fauna of this state. Darkling beetles of Melghat Tiger Reserve were reported by Thakare et al. \[3\]. Hegde & Vasanthakumar \[4\], Hegde et al. \[5\] and a recent survey by the authors in Tamhini ghat parts of Pune district yielded some new records of the species to the state (communicated). While studying the beetle collections of the Western Regional Centre, Zoological Survey of India, identification of some darkling beetles yielded some new records to the state

2. Materials and Methods
The materials were sorted out, set pinned, identified and classified as per Bouchard et al. \[6\]. Distribution of some species were corrected as per present scenario. The identification is mainly based on the differences in the morphological characters and the structure of the genitalia. The species reported elsewhere (other than India) are also included in the distribution.

3. Results and Discussion
The study resulted in the identification of 17 species of 12 genera under 08 tribes of 04 subfamilies of family Tenebrionidae from different districts of Maharashtra state. All the species reported here are new records to the Maharashtra state. This paper is important because there is no consolidated information on the darkling beetle fauna of Maharashtra. Among all, the genus \textit{Platynotus} (biggest in size) is having more number of species. Most of the reported species are from Pune district and a few are from the districts like Satara, Sangli, Nashik, Dhule, Sindhudurg. Interestingly, all the districts surveyed covered under Western Ghat parts of Maharashtra state. The details of the species identified are listed below.

Subfamily Largiinae Latreille, 1825 (1820)
Tribe: Cossyphini Latreille, 1802
\textit{Cossyphus depressus} (Fabricius, 1781)
Distribution: INDIA: Tamil Nadu, Karnataka, West Bengal, Uttar Pradesh and Maharastra- Satara.

Tribe: Lupronini Ardoïn, 1958
Luprops rugosissimus Kaszab, 1980

Distribution: INDIA: Pondicherry, Manipur, Uttar Pradesh, Chattisgarh, Maharastra- Pune.
Elsewhere: Sri Lanka.

Luprops tristis (Fabricius, 1801)

Distribution: INDIA: Andhra Pradesh, Karnataka, Kerala, Sikkim, Tamil Nadu, Maharastra- Pune.
Elsewhere: Sri Lanka.

Sub Family: Pimelinae Ladreille, 1802
Tribe: Stenosini Lacordaire, 1859/ Schaum, 1859 (1834)
Stenosis srilankae Kaszab, 1980

Distribution: INDIA: Kerala, Maharastra-Pune.
Elsewhere: Sri Lanka.

Tribe: Tentyriini Eschscholtz, 1831
Spheneriospis tristis Kraatz 1865

Distribution: INDIA: Uttarakhand, Uttar Pradesh, Rajasthan, Chattisgarh, Maharastra- Pune.

Stenosida striatopunctata (Wiedemann, 1821)
Tagenia striatopunctata Wiedemann, 1821, Germ. Mag. Ent. IV. p.149.

Distribution: INDIA: Uttarakhand, Uttar Pradesh, West Bengal, Himachal Pradesh, Jharkand Maharastra- Pune.
Elsewhere: Indomalay, China (Yunnan), Nepal.

Tribe: Erodiini Billberg, 1820
Himatismus fasciculatus (Fabricius, 1798)

Distribution: INDIA: Rajasthan, Uttarakhand, Chattisgarh, Jharkhand, Uttar Pradesh, Madhya Pradesh, Maharastra- Pune.
Elsewhere: Pakistan and Sri Lanka.

Tribe: Ulomini Blanchard, 1845
Uloma rufilabris Fairmaire, 1882

Distribution: INDIA: Uttarakhand, Assam, West Bengal, Maharastra- Pune.

Sub Family: Tenebrioninae Latreille, 1802
Tribe: Pedinini Eschscholtz, 1829
Platyburak girardi (Kasza, 1975)

Distribution: S INDIA: Karnatakta, Tamil Nadu, Maharastra-Sangli.

Platyburak nervosus (Mulsant and Rey, 1853)

Distribution: INDIA: Tamil Nadu, Chattisgarh, Maharastra-Pune.

Platynotus deyrollei Mulsant and Rey, 1853

Distribution: INDIA: West Bengal, Uttar Pradesh, Chattisgarh, Maharastra- Pune.

Platynotus hieki Kaszab, 1975

Distribution: INDIA: Odisha (Koraput), Maharastra- Pune.

Platynotus perforatus Mulsant and Rey, 1853

Heterotarsus crenatus Fairmaire, 1894


Heterotarsus foveoseriatus Fairmaire, 1894


Tribe: Opatrini Brulle, 1832
Opatroides vicinus (Fairmaire, 1896)


Subfamily: Stenochiinae Kirby, 1837
Tribe: Cnodalonini Oken, 1843
Derosphaerus cribrum Fairmaire, 1896


4. Conclusion
The study of darkling beetles of Maharashtra state from National Zoological Collection, Zoological Survey of India, Pune revealed 17 species under 12 genera are new records to the state. Further explorations in other districts of Maharashtra state may yield more number of species, and we can’t deny the possibility of new species also. Seasonal surveys may be more useful in finding out the richness of darkling beetles of this state.

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6. References