



E-ISSN: 2320-7078

P-ISSN: 2349-6800

JEZS 2018; 6(4): 84-86

© 2018 JEZS

Received: 26-05-2018

Accepted: 30-06-2018

VD Hegde

Western Regional Centre,
Zoological Survey of India
Vidyanagar, Ravet Road,
Akurdi, Pune, Maharashtra,
India

D Vasanthakumar

Western Regional Centre,
Zoological Survey of India
Vidyanagar, Ravet Road,
Akurdi, Pune, Maharashtra,
India

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

VD Hegde and D Vasanthakumar

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 connate, front coxal cavities closed behind, heteromerous 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 *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 Lagriinae Latreille, 1825 (1820)

Tribe: Cossyphini Latreille, 1802

***Cossyphus depressus* (Fabricius, 1781)**

Cossyphus cossyphus depressus (Fabricius, 1781) Scupola (2000): 231.

Cossyphus cossyphus planus Fabricius, 1801. Scupola (2000): 231.

Correspondence

VD Hegde

Western Regional Centre,
Zoological Survey of India
Vidyanagar, Ravet Road,
Akurdi, Pune, Maharashtra,
India

Material examined: 22 exs. near Nawaja tunnel, Koyna wildlife sanctuary, Satara, 23.ii.2017, S.R. Patil and party coll. Reg. No: Ent-1/2911.

Distribution: INDIA: Tamil Nadu, Karnataka, West Bengal, Uttar Pradesh and Maharashtra- Satara.

Tribe: Lupronini Ardoin, 1958

***Luprops rugosissimus* Kaszab, 1980**

Luprops rugosissimus Kaszab, 1980, *Acta zoologica Acad. Sci. Hungaricae*, XXVI (I): 195

Material examined: 01 ex. Panshet, Pune, 09. iv.1976, M. Babu Rao coll. Reg. No: Ent-1/2668; 03 exs. Pirangut, Pune, 06.viii.1970, K.R. Rao coll. Reg. No: Ent-1/2669.

Distribution: INDIA: Pondicherry, Manipur, Uttar Pradesh, Chattisgarh, Maharashtra- Pune.

Elsewhere: Sri Lanka.

***Luprops tristis* (Fabricius, 1801)**

Lagria tristis Fabricius, 1801. *Bibliopolii Academici Novi*: 70. *Lyprops piceus* Fairmaire, 1894. *Annales de la Societe Entomologique de Belgique*.38- 24.

Material examined: 01 ex. Wagholi, Pune, 24.viii.1967, R.N. Chopra coll. Reg. No: Ent-1/2556.

Distribution: INDIA: Andhra Pradesh, Karnataka, Kerala, Sikkim, Tamil Nadu, Maharashtra- Pune.

Elsewhere: Sri Lanka.

Sub Family: Pimelinae Latreille, 1802

Tribe: Stenosini Lacordaire, 1859/ Schaum, 1859 (1834)

***Stenosis srilankae* Kaszab, 1980**

Stenosis srilankae Kaszab, 1980. *Acta Zoologica Academiae scientiarum Hungaricae*. 26:123-196.

Material examined: 01 ex. Saswad, Pune, 14.viii.1968, K.R. Rao collection. Reg. No. Ent-1/2682.

Distribution: INDIA: Kerala, Maharashtra-Pune.

Elsewhere: Sri Lanka.

Tribe: Tentyriini Eschscholtz, 1831

***Sphenariopsis tristis* Kraatz 1865**

Sphaenariopsis tristis Kraatz 1865, *Arten, Berlin*. p.176.

Material examined: 01 ex. Hanuman Tekdi, Pune, 26.vii.1963, S.V. Muley collection. Reg. No. Ent-1/1963.

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

***Stenosida striatopunctata* (Wiedemann, 1821)**

Tagenia striatopunctata Wiedemann, 1821, *Germ. Mag. Ent.* IV, p.149.

Stenosida tenuicollis Solier, 1835. *Ann.Soc. ent. France*, 4: 282.

Aprosphaena adriani Reitter, 1916. *Entomologische Blatter*, 12 (7-9): 143.

Material examined: 01 ex. Khed, Pune, 14.viii.1967, D.N. Tiwari collection. Reg. No. Ent-1/1964.

Distribution: INDIA: Uttarakhand, Uttar Pradesh, West Bengal, Himachal Pradesh, Jharkand Maharashtra- Pune.

Elsewhere: Indomalay, China (Yunnan), Nepal.

Tribe: Erodiini Billberg, 1820

***Himatismus fasciculatus* (Fabricius, 1798)**

Himatismus fasciculatus Fabricius, 1798. *Entt. Syst. Suppl.* P.52. *Syst. El. I.*, 1801, p.160- Haag *Mon. I.* p.88; *Mon. II* p.

275,278.

Material examined: 01 ex. Saswad, Pune, 14.viii.1965, K.R. Rao coll. Reg. No. Ent-1/2173; 03 exs. Theur, Pune, 10.viii.1967, D.N. Tiwari coll. coll. Reg. No. Ent-1/2174.

Distribution: INDIA: Rajasthan, Uttarakhand, Chhattisgarh, Jharkhand, Uttar Pradesh, Madhya Pradesh, Maharashtra- Pune.

Elsewhere: Pakistan and Sri Lanka.

Tribe: Ulomini Blanchard, 1845

***Uloma rufilabris* Fairmaire, 1882**

Uloma rufilabris Fairmaire, 1882 *Notes Leyd. Mus.* IV. p. 226.

Material Examined: 01 ex. Manjalegaon, Pune, 07.vii.1972. M.B. Rao coll. Reg. no. Ent-1/2024.

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

Subfamily: Tenebrioninae Latreille, 1802

Tribe: Pedinini Eschscholtz, 1829

***Platyburak girardi* (Kaszab, 1975)**

Notocorax girardi Kaszab, 1975b: 304.

Platyburak girardi: Iwan 1990a: 127, 1997a: 266, 2002: 86.

Material examined: 01 ex. Yerala river bank, Ambegaon, Sangli, Maharashtra, 17.ix.1979, V.D. Hegde coll. Reg. No. Ent-1/2082.

Distribution: S INDIA: Karnataka, Tamil Nadu, Maharashtra- Sangli.

***Platyburak nervosus* (Mulsant and Rey, 1853)**

Notocorax nervosus Mulsant et Rey, 1853a: 275. – Kaszab 1975b: 306. *Pseudoblaps nervosa*: Gemminger and de Harold 1870: 1913; Gebien 1910b: 274, 1938b: 293. *Platyburak nervosus*: Iwan 1990a: 127, 1997a: 266, 2002: 86.

Material examined: 01 ex. Ravet, Pune, 08.x.1971, B.S. Lamba coll. Reg. No. Ent-1/2027.

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

***Platynotus deyrollei* Mulsant and Rey, 1853**

Platynotus Deyrollei Mulsant and Rey, 1853a: *Mem. Acad. Lyon*: 272. Mulsant and Rey (1853): *Opusc. Ent.* 4: 47, Pl. 1, Fig.1,7,10 – Gemminger and de Harold 1870: 1912; Gebien1910b: 273, 1938b: 293; Kaszab 1975b: 294; Iwan 1997a: 268, 2002: 91.

Material examined: 01ex. Babdev ghat, Pune, B.S. Lamba coll. 29.ix.1968, Ent-1/2674.

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

***Platynotus hiekei* Kaszab, 1975**

Platynotus hiekei Kaszab, 1975: 295. – Iwan 1997a: 268, 2002: 91.

Material examined: 01 ex Raibagh, Pune, 08.vii.1972, K.R. Rao Coll. Reg. No. Ent-1/2155.

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

***Platynotus perforatus* Mulsant and Rey, 1853**

Platynotus perforatus Mulsant et Rey, 1853a: 269. – Gemminger and de Harold 1870: 1912; Gebien 1910b: 273, 1938b: 293; Kaszab 1975b: 294; Iwan 1997a: 268, 2002: 91.

Material examined: 01 ex Sinhgad vill, Pune, 24.vii.1965, K.R. Rao Coll. Reg. No. Ent-1/2103.

Distribution: INDIA: West Bengal, Uttarakhand, Jkarkhand, Maharashtra- Pune.

Elsewhere: Myanmar, Tibet.

***Heterotarsus crenatus* Fairmaire, 1894**

Heterotarsus crenatus Fairmaire, 1894 *Ann. Soc. Ent. Belg.* XXXVIII, p.23.

Material examined: 01 ex. Wagholi, Pune, 24.viii.1967, R.N. Chopra coll. Reg. No. Ent-1/2555.

Distribution: INDIA: Jharkhand, Uttar Pradesh, Chhattisgarh, Maharashtra- Pune.

***Heterotarsus foveoseriatus* Fairmaire, 1894**

Heterotarsus foveoseriatus Fairmaire, 1894: *Annales de la Societe Entomologique de Belgique* 38: 24.

Material examined: 01 ex. Karanjali, Nashik, 26.i. 2017, V.D. Hegde coll. Reg. No. Ent-1/2804; 02 exs. Pakrun, Dhule, 19.i.2017, V.D. Hegde coll. Reg. No. Ent-1/2805.

Distribution: INDIA: West Bengal, Chhattisgarh, Maharashtra- Nashik and Dhule.

Tribe: Opatrini Brulle, 1832

***Opatroides vicinus* (Fairmaire, 1896)**

Penthicus vicinus Fairmaire, 1896, *Ann. Soc. Ent. Belg.* XL p. 21,

Opatroides vicinus Kaszab 1960, *Ent. Arb. Mus. Frey*, 11: p.158, Taf. X, Fig. 110.

Material examined: 06 exs. Kalani, Sindhudurg, 28.ix.2016, V.D. Hegde coll. Reg. No: Ent-1/3070.

Distribution: INDIA: Uttarakhand, West Bengal, Karnataka, Uttar Pradesh, Rajasthan, New

Delhi, Chhattisgarh Maharashtra- Sindhudurg.

Elsewhere: Pakistan, Afghanistan, Nepal and Arabian region.

Subfamily: Stenochiinae Kirby, 1837

Tribe: Cnodalonini Oken, 1843

***Derosphaerus cribrum* Fairmaire, 1896**

Derosphaerus cribrum Fairmaire, 1896, *Notes Leyd. Mus.* XVIII, p. 231.

Material examined: 01 ex. Karanjali, Nashik, 26. i. 2017, V.D. Hegde coll. Reg. No. Ent-1/2806; 01 ex. ZSI campus, Pune, 13. vi. 2018, V.D. Hegde coll. Reg. No. Ent-1/3200.

Distribution: INDIA: Uttarakhand, West Bengal, Chhattisgarh, Maharashtra- Nashik, Pune.

Elsewhere: Nepal.

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.

5. Acknowledgements

We are thankful to Dr. Kailash Chandra, Director, Zoological Survey of India, Kolkata for the facilities. We are indebted to

all the staff of the Western Regional Centre, ZSI, Pune for their constant encouragement.

6. References

1. Hegde VD. Checklist of Tenebrionidae (Coleoptera) of Sikkim with two new records. *Intl J. of Pure and Applied Sci. and Agri.* 2016; 2(6):170-190.
2. Director ZSI. Fauna of Maharashtra State Fauna Series, Invertebrtaes. 2012; 20(2):1-673
3. Thakare VG, Zade VS, Hegde VD. Darkling Beetles (Coleoptera: Tenebrionidae) of Melghat Tiger Reserve, Central India. *Journal on New Biological Reports.* 2012; 1(1):29-32.
4. Hegde VD, Vasanthakumar D. Rediscovery of *Penthicoides seriatoporus* Fairmaire, 1896 (Coleoptera: Tenebrionidae: Tenebrioninae) from India. *Bugs R All (Zoo's Print).* 2017; 32(9):13-16.
5. Hegde VD, Manthen SV, Kulkarni B. The genus *Gonocephalum* Solier, 1834 (Coleoptera: Tenebrionidae: Tenebrioninae) from Maharashtra with some new records *Indian Forester.* 2018; 144(5):465-470
6. Bouchard P, Lawrence JF, Davies AE, Newton AF. Synoptic classification of the world Tenebrionidae (Insecta: Coleoptera) with a review of family-group names. *Annales Zoologici.* 2005; 55:499-530.