

COLLECTION OF DYTISCIDAE (COLEOPTERA) FROM MADHYA PRADESH

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ABSTRACT

In connection with my studies on Indian Dytiscidae, collections were borrowed from the Central Regional Station, Zoological Survey of India, Jabalpur. It contains 37 species spread over 14 genera. These collections are mostly confined to Jabalpur and its surrounding area which appears to be quite rich in the Dytiscid fauna. The following species constitute new records from the state. Subfamily NOTERINAE—*Canthydrus laetabilis* Walker, *C. luctuosus* (Aube), *C. morsbachii* (Wehncke); Subfamily LACCOPHILINAE—*Laccophilus basalis* Motschulsky, *L. wewalkii* Vazirani; Subfamily HYDROPONINAE—*Hyphydrus flavicans* Regimbart, *Hydrovatus rufescens* Motschulsky, *H. sinister* Sharp, *Guignotus inconstans* Regimbart, *Hyphoporus severini* Regimbart, *Peschetius quadricostatus* Aube, *P. toxophorus* Guignot; Subfamily DYTISCINAE—*Hydaticus (Guignotites) incertus* Regimbart, *Rhantaticus congestus* (Klug), *Sandracottus festivus* (Illiger), *Cybister (Meganectes) concessor* Guignot, and *Cybister (Melanectes) posticus* Aube. The subfamily Colymbetinae is conspicuous by its absence and it is expected that more species will be collected in future, including this subfamily.

INTRODUCTION

This is a report on the collection of Dytiscidae received for identification from the Central Regional Station of the Zoological Survey of India, in connection with the fauna India Project. It comprises 36 species spread over 14 genera out of which 17 are being reported from Madhya Pradesh for the first time for which remarks have been given; only the material examined has been mentioned for the other species. These collections have been made over a number of years, most of which are from localities around Jabalpur and in the Districts of Narsinghpur, Mandla, Raigarh. In one case for bibliography and distribution, reference may be made to the recent Catalogue of Oriental Dytiscidae by the author (1977) the collection is from Gujarat: Broach Dist. Narbada river is the main perennial source of aquatic habitat in

the region and dispersal is presumed to be caused by its floods.

The following abbreviations have been used for the collectors.

ANTJ=A. N. T. Joseph; DKG=D. K. Ghoshal; DSM=D. S. Mathur; HK=H. Khajuria; HPA=H. P. Agrawal; HSS=H. S. Sharma; JSB=J. S. Bhatti; MLK=M. L. Koshta; NKS=N. K. Sinha; RR=Raja Ram; VSD=V. S. Durve; and VVR=V. V. Rao.

Order COLEOPTERA

Family DYTISCIDAE

Subfamily NOTERINAE

Canthydrus laetabilis Walker

Material examined: Jabalpur Dist.: 3 ex, Jabalpur, 20. i. 1967 (HK) 5 ex, Lamataghat, 11. i. 1967 (VSB); 9 ex, 7. v. 1969 (VVR), 1

ex, 14. x. 1966 (VVR); 2 ex, 14. xii. 1966 (VVR); 1 ex, Tilwaraghat, 16. iv. 1968 (HPA); 1 ex, Amkhas, 2. vi. 1971, (DKG); 20 ex, 17. ix. 1970 (VVR); 1 ex, 4. vii. 1969 (VVR); 6 ex, Shahpura, 28. i. 1967 (VSD); 1 ex, Katanga Vill., 5. ii. 1969; (HSS); 1 ex, 24. ix. 1970 (DKG); 4 ex, Bandha Vill. 3. viii. 1966 (HPA); 5 ex, Bhiloda, 13. iii. 1964 (JSB); 3 ex, Garha, 20. iv. 1966 (MLK); Suptal, 29. iv. 1968 (HPA); 3 ex, Parait nala, 31. x. 1969 (HSS); 1 ex, Panagar, 15. iv. 1968 (HPA); 2 ex, 8. i. 1969 (HPA); 1 ex, Katni road, 5. x. 1966 (VSD); 1 ex, Budagar tank, 8. x. 1974 (DSM). Mandla Dist: 1 ex, 23. x. 1963 (JSB).

Remarks: Though very common and widely distributed in India Sri Lanka, Nepal, Pakistan, Burma and Congo it is being recorded from Madhya Pradesh for the first time. Vazirani (1977: 6) has reported it from Andhra Pradesh, Assam, Bihar, Kerala, Maharashtra, Meghalaya, Gujarat, Orissa, Punjab, Rajasthan, Uttar Pradesh and W. Bengal.

Canthydrus luctuosus Aube

Material examined: Jabalpur Dist: 3 ex, Lamataghat, 11. i. 1967 (VSD); 3 ex, 14. xii. 1966 (VVR); 9 ex, 7. v. 1969 (VVR); 3 ex, Bilpather, 26. iii. 1964 (JSB); 1 ex, Madan Mahal, 3. v. 1966 (HPA); 2 ex, Katangi, 5. x. 1966 (VSD); 1 ex, Parait tank, 31. x. 1969 (HSS); 2 ex, Padaria, 14. x. 1970 (VVR); 1 ex, Garha, 20. iv. 1966 (MLK); 4 ex, Bhita, 27. xi. 1964 (RR); 3 ex, Panagar, 19. vi. 1968 (HPA); 1 ex, Amkhas, 8. v. 1968, (HPA); 4 ex, Shahpura, 28. i. 1968 (VSD); 1 ex, Tewar, 3. xi. 1966 (HSS); 2 ex, Jabalpur-Mandla road, 6. ii. 1965, (HPA).

Mandla Dist: Koschia, 28. x. 1966 (JSB); 4 ex, Garakhpur, 23. x. 1963 (JSB).

Remarks: This species is quite common in the plains of India and extends in the west to Iran and in the South to Sri Lanka. In India it is so far known from Andhra Pradesh, Bihar, Kerala, Maharashtra, Tamil Nadu, Goa, Karnataka, Orissa & W. Bengal. (*Vide* Vazirani 1977: 6). It is now being reported from Madhya Pradesh for the first time.

Canthydrus morsbachi Wehncke

Material examined: Jabalpur Dist: 6 ex, Tilwara ghat, 16. iv. 1963 (HPA).

Remarks: Though very widely distributed from Congo to Indonesia it is not so common as the other 2 species of this genus recorded above. The author (1977: 7) records its Indian distribution as Kerala, Tamil Nadu, Maharashtra, Goa & Orissa. Subsequently Vazirani (in press) has recorded it from Gujarat. It is thus being now reported from Madhya Pradesh for the first time.

Laccophilus basalis Motschulsky

Material examined: Jabalpur Dist: 1 ex, Budagar tank 17. iv. 1971 (VVR); 1 ex, Shahpura, 28. i. 1967 (VSD); 1 ex, Tilwara ghat, 3. ii. 1966 (HSS); 1 ex, Panagar tank, 8. i. 1969 (HPA); 1 ex, Baleha tank, 30. xii. 1969 (HPA); 1 ex, Madan Mahal, 17. ii. 1967 (HK).

Remarks: This species is known from India: W. Bengal, Andaman Islands, Punjab, Uttar Pradesh; Sri Lanka; Indonesia: Sumatra (*vide* Vazirani 1977: 10, 94) Vazirani in press a, b, has reported it from Maharashtra and Gujarat respectively. It is thus being now reported from Madhya Pradesh for the first time, indicating that it more widely distributed in India than known earlier.

Laccophilus ellipticus Regimbart

Material examined : Jabalpur Dist : Budagar tank, 20. xii. 1969 (HPA).

Laccophilus flexuosus Aube

Material examined : Jabalpur Dist : 25 ex, Lameta ghat, 6. i. 1967 (HSS) ; 12 ex, 14. xii. 1966 (VVR) ; 20 ex, 30. i. 1967 (VVR) ; 1 ex, 11. i. 1967 (VSD) ; 8 ex, 18. x. 1966 (VSD) ; 1 ex, 16. vii. 1966 (VVR) ; 2 ex, 14. x. 1966 (VVR) ; 1 ex, 14. xii. 1966 (VVR) ; 9 ex, Amkhas, 19. viii. 1966 (HPA) ; 12 ex, Madan Mahal, 17. ii. 1967 (HK) ; 60 ex, 20. x. 1964 (HPA) ; 5 ex, Patan Vill. 26. vii. 1966 (HPA) ; 2 ex, Bilpather, 18. iii. 1967 (VSD) ; 6 ex, Heron, R., 5. x. 1966, (VSD) ; 5 ex, Gandhigram, 5. viii. 1966 (VVR) ; 7 ex, Shahpura, 28. i. 1961 (VSD) ; 1 ex, 8. iii. 1968 (VSD) ; Jabalpur, 29. iv. 1970 (VVR) ; 2 ex, Budagar tank, 20. xii. 1969 (HPA). Raigarh Dist : 1 ex, Malwara, 17. ii. 1971 (DKG).

Laccophilus inefficiens Walker

Material examined : Jabalpur Dist : Lamata ghat, 31. ii. 1967 (VVR) ; 2 ex, 6. i. 1967 (HSS) ; 4 ex, 11. i. 1967 (VSD) ; 3 ex, 14. xii. 1966 (VVR) ; 1 ex, Parait Nala, 15. i. 1970 (HPA) ; 1 ex, Madan Mahal, 17. ii. 1967 (HK) ; 2 ex, Patan, 26. vii. 1966 (HPA) ; 3 ex, Bhita, 27. xi. 1964 (RR) ; 1 ex, Tilwara ghat, 16. iv. 1969 (HPA) ; 1 ex, Jabalpur-Mandla road, 6. ii. 1965 (HPA) ; 1 ex, Bilpather, 18. iii. 1967 (VSD) ; 10 ex, Shahpura, 28. 1. 1967 (VSD) ; 1 ex, Bangar, 8. i. 1969 (HPA).

Narsinghpur Dist : Barman Bridge, 16. xii. 1966 (HK).

Raigarh Dist : 2 ex, Malwara, 17. ii. 1971 (DKG).

Laccophilus parvulus Aube

Material examined : Jabalpur Dist : 2 ex, Jabalpur, 20. i. 1967 (HK) ; 3 ex, Panagar, 20. ii. 1968 (HPA) ; 4 ex, 8. i. 1969 (HPA) ; 1 ex, 19. vi. 1968 (HPA) ; 4 ex, Patan, 26. vii. 1968 (HPA) ; 1 ex, Lamata ghat, 6. i. 1967 (HSS) ; 1 ex, 14. xii. 1966 (VVR) ; 1 ex, 11. i. 1967 (VSD) ; 1 ex, Parait Nala, 15. i. 1970 (HPA) ; 1 ex, Shahpura, 28. i. 1967 (VSD) ; 5 ex, Madan Mahal, 17. ii. 1969 (HK) ;

Mandla Dist : 2 ex, Garakhpur, 23. x. 1963 (JSB).

Raigarh Dist : 13 ex, Malwara, 17. ii. 1971 (DKG)

Laccophilus sharpi Regimbart

Material examined : Jabalpur Dist : 1 ex, Jabalpur, 20. i. 1967 (HK) ; 1 ex, Budagar tank, 14. iv. 1970 (VVR) ; 2 ex, Shahpura, 28. i. 1967 (VSD) ; 1 ex, Lamata ghat, 16. vii. 1966 (VVR) ; 1 ex, 11. i. 1967 (VSD) ; 2 ex, Bilpather, 18. iii. 1967 (VSD) ; 1 ex, Amkhas, 2. vi. 1971 (DKS) ; 2 ex, Baleha tank, 30. xii. 1969 (HPA) ;

Raigarh Dist : 18 ex, Malwara, 17. ii. 1971 (DKG).

Laccophilus wewalki Vazirani

Material examined : Jabalpur Dist : 2 ex, Parait R., 5. x. 1966 (VSD) ; 1 ex, Bangar Vill., 8. i. 1969 (HPA).

Remarks : Recently described by the author (1974 : 487), it is so far known only from its Types locality Goa. The present record indicates its wider distribution in India.

Neptosternus circumductus Regimbart

Material examined : Jabalpur Dist : 35 ex, Parait R., 5. 10. 1966 (VSD).

Subfamily HYDROPORINAE

Hyphydrus (Apriophorus) renardi Severin

Material examined : Jabalpur Dist : 1 ex, Jabalpur, 20. i. 1967 (HK) ; 8 ex, 28. iv. 1966 (HK) ; 1 ex, Jabalpur, Heron R., 13. iii, 1964 (JSB) ; 1 ex, Tilwara ghat, 16. iv. 1968 (HPA) ; 1 ex, Budagar tank, 17. i. 1970 (HSS) ; 1 ex, 20. xii. 1969 (HPA) ; 2 ex, Bhita, 27. xi. 1966 (VVR) ; 4 ex, Lamata ghat, 14. x. 1966 (VVR) ; 2 ex, 15. vi. 1966 (VSD) ; 2 ex, Bheraghat, 23. iv. 1970 (HPA) ; 1 ex, Panagar, 19. vi. 1968 (HPA) ; 7 ex, 8. i. 1969 (HPA) ; 29 ex, 20. ii. 1968 (HPA) ; 1 ex, Madan Mahal, 17. ii. 1967 (HK) ; 3 ex, 20. x. 1964 (HPA) ; 1 ex, Bilpather, 26. iii. 1964 (JSB) ; 8 ex, Shahpura, 18. iii. 1967 (VSD) ; 1 ex, Parait R., 5. x. 1966 (VSD) ; 4 ex, Amkhas, 19. viii. 1966 (HPA) ; 1 ex, Gandhigram, 7. ii. 1968 (VVR).

Narsinghpur Dist : Barman Bridge, 16. xii. 1966 (HK).

Hyphydrus (Apriophorus) flavicans Regimbart

Material examined : Jabalpur Dist : 1 ex, Jabalpur, 20. i. 1967 (HK) ; 9 ex, Madan Mahal, 1. iv. 1966 (HPA) ; 1 ex, Amkhas 19. viii. 1966 (HPA).

Remarks : It is known from India : Bihar, New Delhi, Punjab, Uttar Pradesh, Tamil Nadu, Orissa, Rajasthan, Gujarat ; Pakistan (*vide* Vazirani 1977 : 21,95). It is now being reported from Madhya Pradesh for the first time.

Hydrovatus rufescens Motschulsky

Material examined : Jabalpur Dist : 1 ex, Tilwara ghat, 16. iv. 1969 (HPA) ; 4 ex, Gwari ghat, 23. iv. 1966 (HK).

Remarks : Vazirani, 1975 records it from New Delhi. Earlier no definite locality was reported from India. This constitutes its

first record from Madhya Pradesh. It is also known from Burma (Pegu).

Hydrovatus sinister Sharp

Material examined : Jabalpur Dist : 2 ex, Gwari ghat, 23. iv. 1966 (HK).

Remarks : The author (1977 : 30) has reported it from India : W. Bengal ; Sri Lanka ; Indonesia : Borneo. Its present record fills the gap between W. Bengal & Sri Lanka.

Guignotus flammulatus (Regimbart)

Material examined : Jabalpur Dist : 1 ex, Jabalpur, 20. i. 1967 (HK) ; 1 ex, Panagar, 8. i. 1969 (HPA) ; Jabalpur-Mandla road, 6. ii. 1965 (HPA).

Raigarh Dist : Malwara, 6. ii. 1965 (HPA).

Guignotus inconstans (Regimbart)

Material examined : Jabalpur Dist : 1 ex, Jabalpur, 17. v. 1970 (VVR) ; 2 ex, Bhelawadari, 13. iii. 1964 (JSB).

Mandla Dist : 4 ex, Korhia 28. x. 1963 (JSB) ; 2 ex, Garakhpur, 23. x. 1963 (JSB).

Raigarh Dist : 1 ex, Malwara, 17. ii. 1971 (DKG).

Remarks : This species is quite widely distributed between India & Indonesia. The author 1977 : 33,97 records it from India : Bihar, Orissa, Rajasthan, Maharashtra, Goa, Tamil Nadu and Karnataka. It is being reported from Madhya Pradesh for the first time. It has also been recorded from Gujarat by the author (in press).

Guignotus pendjabensis Guignot

Material examined : Jabalpur Dist : 1 ex, Tilwara ghat, 16. iv. 1968 (HPA) ; 1 ex, Heron R., 13. iii. 1964 (JSB)

Raigarh Dist : 1 ex, Malwara, 17. ii. 1971 (DKG).

Hyphoporus severini Regimbart

Material examined : Jabalpur Dist : 13 ex, Jabalpur, 23. ii. '71 (HK) ; 13 ex, Bhera ghat 23. iv. 1970 (HPA) ; 5 ex, 28. iv. 1970 (HPA) ; 1 ex, Devas, 5. i. 1966 (HK) ; 3 ex, Shahpura, 10. v. 1968 (VSD) ; 1 ex, Lamata ghat 14. x. 1966 (VVR) ; 1 ex, i. iv. 1966 (HPA) ; 1 ex, 18. iii. 1967 (VSD) ; 1 ex, Jabalpur, 29. iv. 1970 (VVR) ; 1 ex, Katangi, 15. vi. 1966 (HSS) ; 1 ex, Heron R., 13. iii. 1964 (JSB) ; 10 ex, Gwari ghat, 23. iv. 1966 (HK).

Amroti Dist : 1 ex, Chikhaldia, 22. ii. 1971 (HK).

Remarks : As shown by the author (1977 : 47, 97), this species occurs from Afghanistan to Bangla Desh. In India it is so far known from Bihar, Rajasthan, New Delhi, and Uttar Pradesh. It has subsequently been recorded from Maharashtra (Vazirani in press). It is thus being reported now from Madhya Pradesh for the first time.

Hyphoporus sp.

Material examined : Jabalpur Dist : 1 ex, Madan Mahal, 11. ii. 1967 (HK) ; 1 ex, Budagar, 21. xi. 1974 (DSM) ; 1 ex, Panagar 15. iv. 1968 (HPA) ; 1 ex, Bandha, 3. viii. 1966 (HPA).

Herophrus musicus (Klug)

Material examined : Jabalpur Dist : 1 ex, Budagar, 16. xii. '69 (HSS) ; 1 ex, 12. v. 1970 (VVR) ; 1 ex, Bhera ghat, 24. ix. 1976 (HPA).

Peschetius quadricostatus Aube

Material examined : Jabalpur Dist : 1 ex, Shahpura, 8. iii. '68 (VSD) ; 2 ex, 18. iv. 1968, (VSD).

Remarks : It is so far known in India from, Bihar, New Delhi, Maharashtra, Goa, Kerala, Tamil Nadu, Gujarat, Orissa and

Uttar Pradesh. It is now being reported from Madhya Pradesh for the first time.

Peschetius toxophorus Guignot

Material examined : Amroti Dist : 1 ex, Chikhaldia, 22. ii. 1971 (HK).

Remarks : So far recorded in India from, Bihar, Orissa, Rajasthan, Gujarat, Karnataka, Kerala & Tamil Nadu, it is now being reported from Madhya Pradesh for the first time.

Subfamily DYTISCINAE

Evetes sticticus (Linnaeus)

Material examined : Jabalpur Dist : 10 ex, Panagar, 27. ii. '68 (HPA) ; ex, Jabalpur, 29. iv. 1970 (VVR) ; 3 ex, 20. iv. 1966 (MLK) ; 5 ex, 6. vii. 1966 (HPA) ; 5 ex, 29. iv. 1970 (VVR) ; 2 ex, Lamata ghat, 14. x. 1966 (VVR) ; 2 ex, Patan, 26. vii. 1966 (HPA).

Amroti Dist : 1 ex, Chikhaldia, 22. ii. 1971 (HK).

Hydaticus (Guignotites) incertus Regimbart

Material examined : Jabalpur Dist : 1 ex, Devas, 5. i. 1966 (HK) ; 1 ex, Budagar, 16. xii. 1969 (HSS) ; 1 ex, Amkhas, 16. iv. 1966 (HPA), 2 ex, Baleha tank, 30. xii. 1969 (HPA).

Remarks : This species is very common & widely distributed in India, Pakistan & Nepal, Sri Lanka, Thailand, Malaysia. It is replaced to the west by *H. ponticus* Sharp and to east by *H. fabricii* Macleay & *H. rhantoides* Sharp. In India it is reported from Assam, Bihar, New Delhi, Himachal Pradesh, Tamil Nadu, Gujarat, Maharashtra, Goa, Orissa, Punjab, Rajasthan, W. Bengal, Manipur & Sikkim. It is now being reported from Madhya Pradesh for the first time.

Hydaticus (G.) luczonicus Aube

Material examined : Jabalpur Dist : 2 ex, Shahpura, 10. v. 1968 (VSD) ; 4 ex, Bhita, 27. xi. 1964 (RR) ; 1 ex, Tamar R., 26. vii. 1972 (NKS) ; 1 ex, Lamata ghat, 31. i. 1967 (VVR).

Mandla Dist : 2 ex, Kisli market Road, 18. ii. 1974 (NKS).

Hydaticus (G.) vittatus (Fabricius)

Material examined : Jabalpur Dist : 4 ex, Shahpura, 10. v. 1968 (VSD).

Rhantaticus congestus (Klug)

Material examined : Jabalpur Dist : 1 ex, Panagar, 8. i. 1967 (HPA) ; 1 ex, Patan, 26. vii. 1969 (HPA) ; 1 ex, Madan Mahal 20.x 1964 (HPA) ; Garha Vill., 20. iv. 1966 (MLK).

Raigarh Dist : Malwara, 17. ii. 1971 (DKG).

Remarks : This is very widely distributed species from Africa to Australia & in India, it is known from Andhra Pradesh, Bihar, Uttar Pradesh, New Delhi, Orissa, Rajasthan, Maharashtra and W. Bengal. The present record though first from Madhya Pradesh just fills a gap in its known distribution.

Sandracottus dejeani (Aube)

Material examined : Jabalpur Dist : 10 ex, Lamata ghat, 7. vi. 1968 (VSD) ; 14 ex, Gwari ghat, 23. iv. 1966 (HK) ; 7 ex, Anala, 14. x. 1970 (VVR) ; 5 ex, Shahpura, 10. v. 1965 (VSD) ; 11 ex, 10. v. 1968 (VSD) ; 2 ex, 18. iii. 1967 (VSD) ; 8 ex, Dagmaga, 31. v. 1965 (HPA) ; 1 ex, 31. v. 1965 (HPA) ; 1 ex, Bhita, 27. xi. 1964 (RR) ; 1 ex, Madan Mahal, 16. vii. 1965 (MLK). Amroti Dist : 1 ex, Chikhaldia, 22. ii. 1971 (HK).

Hoshangabad Dist : 14 ex, Hoshangabad, 1. i. 1966 (HK).

Narsinghpur Dist : 17 ex, Barman Bridge, 8. xii. 1964 (ANTJ).

Sandracottus festivus (Illiger)

Material examined : Jabalpur Dist : 2 ex, Panagar tank, 27. vii. 1968 (HPA) ; 2 ex, Adhartal, 19. viii. 1968 (VSD) ; 6 ex, Dogmaga 31. v. 1965 (HPA).

Remarks : It is known from India, Pakistan, Sri Lanka & China. In India it has been reported from Himachal Pradesh, Andhra Pradesh, Bihar, Orissa, Punjab and Tamil Nadu. It is less common than *dejeani* which has more or similar distribution in India but has not yet been reported from Sri Lanka or China.

Cybister (Melanectes) posticus Aube

Material examined : Jabalpur Dist : 1 ex, Budagar, 22. iv. 1968 (HPA).

Remarks : So far known only from Eastern states in India *viz.*, Himachal Pradesh, Assam, Manipur, W. Bengal and Maharashtra, the present record fills a gap in its wide range of distribution. It also occurs in Bangla Desh.

Cybister (Melanectes) sugillatus Erichson

Material examined : Jabalpur Dist : 1 ex, Budagar, 30. vii. 1969 (HSS).

Cybister (Meganectes) concessor Guignot

Material examined : Jabalpur Dist : 3 ex, Padaria Vill., 17. iv. 1965 (HPA) ; 1 ex, 23. i. 1965 (HPA).

Remarks : This is its first record since it was described from Tamil Nadu. Its male genitalia (penis) is figured here for the first time. This species is very difficult to separate from *tripunctatus asiaticus* from which it can be separated only in the male sexual characters (a) the basal segment of the mesotarsi is without sexual pubescence (b) different shape of penis.

TABLE 1.

Name of Species	ORIENTAL												REMARKS	
	ETHIOPIAN	PALAEARCTIC	Ceylonese subreg.		Indian subreg.	Indo-chinese subreg.			Malaysian subreg.					AUSTRALIAN
			Ceylon	India S. of Mysore		N. E. India	Burma	Thailand	Indo-china	Malaysia	Indonesia	Phillipine		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
NOTERINAE														
<i>Oanthhydrus laetabilis</i>	x		x	x	x	x	x							Congo
<i>O. luctuosus</i>		x	x	x	x									Iran
<i>O. morsbachi</i>	x		x		x		x		x			x		Congo
LACCOPHILINAE														
<i>Lacophilus basalis</i>			x		x							x		Andaman Islands
<i>L. ellipticus</i>			x	x	x	x	x		x					China
<i>L. inefficiens</i>			x	x	x	x				x				
<i>L. flavus</i>		x	x	x	x		x	x	x	x		x		Iran, Iraq, Hongkong, Japan
<i>L. parvulus</i>			x	x	x	x	x	x	x		x			
<i>L. sharpi</i>		x	x	x	x	x	x		x		x			x Nepal, S. China, Japan, Iraq
<i>L. wevallei</i>					x									
<i>Neptosternus circumductus</i>				x	x									
HYDROFORINAE														
<i>Hyphydrus flavicans</i>				x	x									Pakistan
<i>Hyphydrus pictus gebluendtneri</i>		x			x									Simla hills
<i>Hydrovatus rufescens</i>					x									
<i>H. sinister</i>			x		x									
<i>Guignotus flammulatus</i>		x	x		x	x	x	x	x			x		S. China, Japan
<i>G. inconstans</i>			x	x	x	x	x					x		
<i>G. pendjabensis</i>					x									Pakistan, Bangla Desh
<i>H. elevatus</i>					x									
<i>H. severini</i>			x		x									Afghanistan
<i>Herophydrus musicus</i>	x	x	x	x	x	x	x							
<i>Peschellus quadricostatus</i>					x	x								
<i>P. toxophorus</i>					x	x								

contd.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
DYTISOINAE														
<i>Eretes sticticus</i>	x	x	x	x	x	x	x	x	x	x	x	x	x	Cosmopolitan
<i>Hydaticus incarpus</i>			x	x	x	x	x							
<i>H. luczonicus</i>			x		x			x	x			x		
<i>H. vittatus</i>		x	x	x	x	x	x							Kashmir
<i>Rhantaticus congestus</i>	x			x	x	x					x	x	x	
<i>Sandracottus dejeani</i>					x									
<i>S. festivus</i>			x	x	x									
<i>Cybister posticus</i>		x			x	x								
<i>C. sugillatus</i>				x	x	x	x		x	x		x		Japan, China
<i>C. concessor</i>				x	x									
<i>C. pectoralis</i>					x									
<i>C. tripunctatus asiaticus</i>		x	x	x	x	x	x	x	x	x	x	x	x	Andaman Islands.
<i>C. ventralis</i>			x	x	x	x	x							
	x	5	10	19	25	40	17	17	6	11	6 ^x	11	6	3

Cybister (Meganectes) limbatus (Fabricius)

Material examined: Jabalpur Dist: Bhera ghat, 15. v. 1969 (VSD); 1 ex, Parait, 12. vi. 1968 (HPA); 1 ex, Tilwara ghat, 12. ii. 1970 (HPA); 1 ex, Amkhas, 23. v. 1968 (HSS).

Cybister (Meganectes) tripunctatus asiaticus Sharp

Material examined: Jabalpur Dist: 1 ex, Budagar, 17. iv. 1971 (VVR); 2 ex, 12. v. 1970, (VVR); 1 ex, 4. v. 1968 (HPA); 1 ex, 14. ii. 1970 (VVR); 1 ex, 19. ii. 1970 (VVR); 7 ex, 22. iv. 1968 (HPA); 1 ex, Panager, 8. i. 1969 (HPA); 4 ex, Tilwara ghat, 17. iii. 1970 (HPA); 4 ex, 12. ii. 1970 (HPA); 1 ex, Amkhas, 6. iii. 1967 (VSD); 1 ex, 23. v. 1968 (HSS); 3 ex, Padaria, 23. i. 1969 (HPA); 2 ex, Borela tank, 29. v. 1974 (DSM).

Cybister (Meganectes) ventralis Sharp

Material examined: Jabalpur Dist.: 1 ex, Budagar, 30. viii. 1969 (HSS).

The other species reported from Madhya Pradesh but not represented in the present collections are *Hyphodrus (Apriophorus) pictus gschwendtneri* Guignot, *Clypeodytes indicus* (Regimbart), *Hyphoporus aper* Sharp, *H. elevatus* Sharp, *Cybister (Meganectes) pectoralis* Sharp, thus bringing the number of species known from the state to 40%.

GEOGRAPHICAL DISTRIBUTION

About 40 species have been reported from Madhya Pradesh to this date, constituting nearly 25% the species known from Indian subregion, excluding Ceylon and Burma. An analysis of the distribution of species shows

that 37.5% of the species extend their distribution to the Indo-Chinese/Indo Malaysian subregions, while 25% of the species extend to the Himalayan part of Palearctic region or extend further west and only 12.5% of the species extend to the Ethiopian region. The genus *Peschetius* has also Ethiopian affinities. Only two species viz., *Eretes stictictus* & *Rhantaticus congestus* are almost cosmopolitan. Thus the fauna of this area has greater affinities to the Indo-Chinese/Indo-Malaysian subregions than to the Ethiopian or Palearctic regions. 25% of the species are endemic to the area.

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