



AQUATIC BEETLES OF NAYACHAR ISLAND, EAST MIDNAPORE DISTRICT, WEST BENGAL, INDIA

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INTRODUCTION

The present account is based on a collection of Coleoptera (Gyrinidae, Dytiscidae and Hydrophilidae) obtained from Nayachar Island of West Bengal which includes the report of 7 species under 6 genera of 3 families. The diagnostic characters and detailed distribution of each species are provided. Nayachar is an island located at the confluence of the Hooghly River and the Haldi River at the northern extent of the Bay of Bengal in the East Midnapore district of West Bengal state of India. It is a small island with an area of 64 square kilometers located at 22°02' N 88°04' E coordinates.

SYSTEMATIC ACCOUNT

Order COLEOPTERA

Family GYRINIDAE

Subfamily ENHYDRINAE

Genus : *Dineutus* Macleay, 1825

1825. *Dineutus* Macleay, *Annulosa javanica* ed., 1: 30.

1. *Dineutus (Protodineutus) indicus* Aube, 1938

1938. *Dineutus indicus* Aube, *Species coleopteres*, 6: 772.

Material examined : India: West Bengal, East Midnapore district, Nayachar Island, 18.VIII.1993, S.C. A.K. Hazra & Party, 3ex.

Diagnosis : Elytra without any spines-epipleural or parasutural.

Distribution : India (Andhra Pradesh, Assam, Bihar, Kerala, Madhya Pradesh, Maharashtra, Manipur, Orissa, Pondicherry, West Bengal), Pakistan.

Family DYTISCIDAE

Subfamily DYTISCINAE

Tribe ACILIINI

Genus : *Rhantaticus* Sharp, 1882

1882. *Rhantaticus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2: 691.

2. *Rhantaticus congestus* (Klug, 1833)

1833. *Hydaticus congestus* Klug, *Symb. Physicae, Insectes Madagascar*, p. 48.

2012. *Rhantaticus congestus*, Ghosh & Nilsson, *Skorvonnoparn supplement*, 3: 18.

Material examined : India : West Bengal, East Midnapore district, Nayachar Island, 18.VIII.1993, S.C. A.K. Hazra & Party, 2ex.

Diagnosis : Middle femora with short thorn-like bristles usually reaching one fourth the length of the tronchanters.

Distribution : India (Andhra Pradesh, Arunachal Pradesh, Delhi, Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Orissa, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal), Bangladesh, Nepal, China, Japan, Madagaskar, Philippines, Saudi Arabia, Sunda Islands, Taiwan, Afrotropical region, Australian region, North Africa.

Genus *Sandracottus* Sharp, 1882

1882. *Sandracottus* Sharp, *Sci. Trans. R. Dublin Soc.*, 2: 672.

3. *Sandracottus mixtus* (Blanchard, 1843)

1843. *Hydaticus mixtus* Blanchard, *Atlas d'histoire naturelle zoologie*, pl. 4.

Material examined : India : West Bengal, East Midnapore district, Nayachar Island, 18.VIII.1993, S.C. A.K. Hazra & Party, 2ex.

Diagnosis : Middle femora with few long ciliae not or scarcely shorter than trochanters. Elytra reddish yellow, with brown markings on each elytron essentially consisting of two transverse black bands.

Distribution : India (Andhra Pradesh, Nagaland, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal), Myanmar, China, Indonesia, Japan, Vietnam.

Tribe **HYDATICINI**

Genus *Hydaticus* Leach, 1817

1817. *Hydaticus* Leach, *zool. Miscell.* **3**: 69.

4. *Hydaticus (Prodaticus) mexaformis*

Wewalka, 1979

1979. *Hydaticus mexaformis* Wewalka, *Koleopterologische Rundschau*, **54**: 129.

2012. *Hydaticus (Prodaticus) mexaformis*, Ghosh & Nilsson, *Skorvopparn supplement*, **3**: 26.

Material examined : India : West Bengal, East Midnapore district, Nayachar Island, 19.VIII.1993, S.C. A.K. Hazra & Party, 1ex.

Diagnosis : Head brown with transverse black band on the posterior border of vertex, pronotum similarly with a transverse median black band along the posterior cornea.

Distribution : India : Delhi.

Remarks : This species is first time reported from West Bengal.

5. *Hydaticus (Prodaticus) satoi satoi*

Wewalka, 1975

1975. *Hydaticus satoi* Wewalka, *Koleopterologische Rundschau*, **52**: 91.

2012. *Hydaticus satoi satoi*, Ghosh & Nilsson, *Skorvopparn supplement*, **3**: 27.

Material examined : India : West Bengal, East Midnapore district, Nayachar Island, 18.VIII.1993, S.C. A.K. Hazra & Party, 4ex.

Diagnosis : Humeral and sub marginal yellow stripes narrow and joined together posteriorly after the middle.

Distribution : India : Kerala, Sikkim, Tamil Nadu, West Bengal.

Elsewhere : Bhutan, Myanmar, Nepal, Sri Lanka; China, Indonesia, Japan, Philippines, Saudi Arabia, Taiwan, Thailand.

Family **HYDROPHILIDAE**
Subfamily **HYDROPHILINAE**
Tribe **HYDROPHILINI**

Genus : *Hydrophilus* Muller, 1764

1764. *Hydrophilus* Muller, *Fauna Ins. Fridrichsdalina*, p.16.

6. *Hydrophilus olivaceus* Fabricius, 1781

1781. *Hydrophilus olivaceus* Fabricius, *Spec. ins.*, **1**: 289.

Material examined : India : West Bengal, East Midnapore district, Nayachar Island, 18.VIII.1993, S.C. A.K. Hazra & Party, 1ex.

Diagnosis : The anterior femora only are clothed with pubescence at base. Antenna club perfoliate and asymmetrical.

Distribution : India (Andhra Pradesh, Madhya Pradesh, Maharashtra, Manipur, West Bengal).

Genus : *Sternolophus* Solier, 1834

1834. *Sternolophus* Solier, *Ann. Soc. ent. Fr.*, **3**: 302, 310.

7. *Sternolophus rufipes* (Fabricius, 1792)

1792. *Hydrophilus rufipes* Fabricius: *Entom. Syst.*, **1**: 183.

Material examined : India : West Bengal, East Midnapore district, Nayachar Island, 18.VIII.1993, Coll. A.K. Hazra & Party, 3ex.

Diagnosis : All femora clothed at base with a silky procumbent and dense pubescence. Antenna with normal club.

Distribution : India (Andhra Pradesh, Bihar, Jammu & Kashmir, Maharashtra, Meghalaya, Manipur, Punjab, Sikkim, Tripura, Uttar Pradesh, West Bengal), Sunda Is., Myanmar, Philippines, Japan, Formosa, Indonesia, Indochina, China, Sri Lanka.

SUMMARY

The paper reports of 7 species of aquatic beetles under 6 genera of 3 families, Gyrinidae, Dytiscidae, Hydrophilidae and which from first report of these taxa from Nayachar Island.

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REFERENCES

- Biwas S. & Mukhopadhyay P. 1995: Insecta: Coleoptera: *State Fauna Series, 3: Fauna of West Bengal, zool. Surv. India, 3 (6A): 1- 51.*
- D'Orchymont A. 1928: *Catalogue of Indian Insects*, Govt. of India Publication, Hydrophilidae: Coleoptera. Part 14: 1-146.
- Ghosh S.K. & Nilsson A.N. 2012: Catalogue of the diving beetles of India and adjacent countries (Coleoptera: Dytiscidae). *Skorvnopparn Supplement, 3: 1-77.*
- Knisch A. 1924: Coleopterorum Catalogus, (Schenkling edited) 14(Pars 79), 306.
- Short Andrew E. Z. & Fikacek Martin 2011: World Catalogue of the Hydrophiloidea (Coleoptera): Additions and Corrections II (2006–2010), *Acta Entomologica Musei Nationalis Pragae, 51(1): 83–122.*
- Vazirani, T.G. 1969: Contribution to the study of aquatic beetles (Coleoptera). 2. A review of the subfamilies Noterinae, Laccophilinae, Dytiscinae and Hydroporinae (in part) from India. *Oriental Insects, 2(3 & 4): 221- 341.*
- Vazirani, T.G. 1984: The Fauna of India. Coleoptera, Family Gyrinidae and Family Haliplidae; *zool. Surv. India, Calcutta, Pp. 140.*
- Wewalka G. 1975: Revision der Artengruppe des *Hydaticus vittatus* (Fabricius), (Dytiscidae, Col.). *Koleopterologische Rundschau, 52: 87-100.*
- Wewalka, G. 1979: Revision der Artengruppe des *Hydaticus* (Guignotites) *fabricii* (Mac Leay), (Col., Dytiscidae). *Koleopterologische Rundschau, 54: 119-139.*