



## NEW RECORDS OF BLATTODEA (INSECTA) FROM JHARKHAND, INDIA

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### INTRODUCTION

The present communication is based on a survey conducted by the author in June-July, 2014, from Barkhela, Kolhan Forest Range, Chaibasa district of Jharkhand state. The Jharkhand state is very rich in biodiversity and is the part of the Chhotanagpur plateau, province of the peninsula biogeographic zone. It is situated between 23.3500° N Latitude and 85.3300° E Longitude. The recorded forest area is 2.36 million hectares, which constitutes 29.61% of the geographical area of the state. Reserve forests constitute 18.59%, protected forests 81.27% and unclassed forest a mere 0.14%, there are three types of forest viz., Tropical moist deciduous, Tropical dry deciduous and Subtropical broad leaved hill forests.

Cockroaches are one of the oldest insect orders with a fossil history extending back more than 300 million years. They are pests because they destroy food and contaminate it with their smelly excreta. There are about 5000 known species under 398 genera of 28 families from the world (Roth, 1999 & 2003). About 186 species under 58 genera of 12 families & 4 subfamilies were reported from India (Mandal, S.K., 1995 & 2007). Identification of specimens is followed after Rehn (1951) and Princis (1960).

### SYSTEMATIC ACCOUNT

Family BLATTELLIDAE  
Subfamily BLATTELLINAE  
Genus *Blattella* Caudell, 1903

1. *Blattella germanica* (Linnaeus, 1767)  
1767. *Blatta germanica* Linnaeus, *Syst. Naturae* 1(2) (ed. 12): 688.  
1893. *Ischnoptera parallela* Tepper, *Trans. R. Soc. S. Austral.*, 17: 53.  
1895. *Phyllodromia germanica* Tepper, *Trans. R. Soc. S. Austral.*, 19: 150.  
1908. *Blattella germanica shuguroffi* Karny, *Denkschr. Med.-naturw. Ges. Jena*, 13: 377.  
1925. *Phyllodromia cuneivittata* Hanitsch, *Sarawak Mus. J.*, 3: 77.  
1969. *Blatta germanica* Princis, *Orthopt. Catalog.* Part 13: 807-823.

*Material examined:* Barkhela, Kolhan Forest Range, Chaibasa distt., Jharkhand, 21.vi.2014, Coll. G.P.Mandal, 5 exs., altitude: 348 meters, coordinates, Latitude: 22°33'2.4" N and Longitude: 85°40'3.5"E, habitat: under leaf litter and dried wooden logs.

*Diagnosis:* Small in size. Head with vertex exposed. Pronotum transeverse, gradually rounded laterally. Tegmen relatively elongated, the subcosta is shorter than anal field, discoidal vein forked before median point. 2 to 7 abdominal tergites with latero-caudal portion produced as lobes, 7 and 8 tergites narrowly visible. Supra anal plate semi circular or subtriangular, with lateral margin moderately convergent, weakly convex at the posterior region. Subgenital plate with posterior margin forming a large broad rounded lobe.

*Distribution:* Cosmopolitan

*Remarks:* First time recorded from the state of Jharkhand.

2. *Blattella humbertiana* (Saussure, 1863)

1863. *Polyzosteria humbertiana* Saussure, *Mem. Soc. Geneve*, **17**: 131.
1904. *Phyllodromia humbertiana* Kirby, *Syn. Cat. Orth.*, **1**: 90.
1960. *Blattella humbertiana* Princis, *Ark. Zool.*, (2) **1**: 27.
1969. *Blattella humbertiana* Princis, *Orthopt. Catalog. Part* **13**: 842-843.

*Material examined*: Barkhela, Kolhan Forest Range, Chaibasa distt., Jharkhand, 21.vi.2014, Coll. G.P. Mandal, 3 exs., altitude: 348 meters, co-ordinates, Latitude: 22°33'2.4" N and Longitude: 85°40'3.5" E, habitat: under leaf litter and dried wooden logs.

*Diagnosis*: Male: Body small size; Head with vertex exposed. Cerci slender. Supra anal plate strongly transverse, with distal margin broadly convex. Sub genital plate symmetrical. Female plate simple, free margin broadly convex and distinctly concave below cerci.

*Distribution*: India (Jharkhand, West Bengal, Tripura Karnataka, Meghalaya, and Arunachal Pradesh), widely distributed in the world.

*Remarks*: First time recorded from the state of Jharkhand.

## Subfamily PSEUDOPHYLLODROMIINAE

Genus *Supella* Shelford, 1911

Subgenus *Supella* Shelford, 1911

3. *Supella (Supella) longipalpa*  
(Fabricius, 1798)

1798. *Blatta longipalpa* Fabricius, *Suppl. Ent. Syst. Hafniae.*, 185.
1839. *Blatta (Phyllodromia) supellectilium* Serville, *Hist. Nat. Ins., Orth.*, 114.
1868. *Blatta extenuate* Walker, *Catalogue of the Specimens of Blattariae in the Collection of the British Museum*: 221.
1868. *Blatta incisa* Walker, *Catalogue of the Specimens of Blattariae in the Collection of the British Museum* 109.
1868. *Ischnoptera vacillans* Walker, *Catalogue of the Specimens of Blattariae in the Collection of the British Museum*, 114.
1871. *Blatta subfasciata* Walker, *Catalogue of the Specimens of Dermaptera Saltatoria in the Collection of the British Museum. V. Supplement to the Catalogue of Blattariae* : 26.

1871. *Blatta transversalis* Walker, *Catalogue of the Specimens of Dermaptera Saltatoria in the Collection of the British Museum V. Supplement to the Catalogue of Blattariae* : 25.

1969. *Supella (Supella) longipalpa* (Fabricius) Princis, *Blattariae: Subordo Epilamproidea. Fam. Blattellidae. Orthopterorum Catalogus*, **13**: 920.

*Material examined*: Barkhela, Kolhan Forest Range, Chaibasa distt., Jharkhand, 21.vi.2014, Coll. G.P. Mandal, 3 exs., altitude: 348 meters, co-ordinates, Latitude: 22°33'2.4" N and Longitude: 85°40'3.5" E, habitat: under leaf litter and dried wooden logs.

*Diagnosis*: General colour light brown. Sexes are dissimilar. Pronotum blackish brown with broad yellowish lateral margin; tegmina yellow with a large reddish brown basal spot and also a small oblique paler band. It is winged of a brown colour with varied dark markings. Near the apex of the anal fields a broad pale coloured band crosses the tegmina. Based on the colour pattern it is commonly called as brown banded cockroaches. Because of its light body it flies rapidly.

*Distribution*: India (Jharkhand, West Bengal, Karnataka and Tamilnadu).

*Remarks*: First time recorded from the state of Jharkhand. A fairly well distributed species throughout the tropical regions.

## Family BLATTIDAE

## Subfamily BLATTINAE

Genus *Blatta* Linnaeus, 1758

4. *Blatta orientalis* Linnaeus, 1758

1758. *Blatta orientalis* Linnaeus, *Systema Naturae*, **1**(10<sup>th</sup> ed.) *Holmiae*: 424.
1851. *Blatta castanea* Blanchard, *In Gay. Hist. fis. Polit. de Chile, Zool.* 6, Paris 18.
1863. *Blatta badia* Saussure, *Mem. Soc. Geneve*, **17**: 150
1909. *Stylopyga orientalis spontanea* Semenov-Tian-Shansky, 205.
1966. *Blatta orientalis* Princis, *Fam. Blattidae, Nocticolidae. Orthopterorum Catalogus*, **8**: 475-492.

*Material examined*: Barkhela, Kolhan Forest Range, Chaibasa distt., Jharkhand, 21.vi.2014, Coll. G.P. Mandal, 4 exs., altitude: 348 meters,

co-ordinates, Latitude: 22°33'2.4" N and Longitude: 85°40'3.5" E, habitat: under leaf litter and dried wooden logs.

*Diagnosis:* The oriental cockroach is a large species of cockroach. It is dark brown to black in colour and has a glossy body. Male head with vertex exposed. Tegmina and wings reduced, covering only about two third of abdominal terga. Antero-ventral margin of front. Subgenital plate obtusely rounded at apex. In female cockroach antero-ventral margin of front femur with strongly spined. Tegmina short. Hind wings absent. Supra anal plate with medio-longitudinal ridge, posterior margin angulate emerginate. Subgenital plate triangular, lateral margin a little concave. It has a wider body than the male.

*Distribution:* First time recorded from the

state of Jharkhand. Widely distributed species throughout the Globe.

#### SUMMARY

The present paper is new record of 4 species under 3 genera of 2 families of Blattodea from Kolhan Forest Range, Chaibasa district of Jharkhand state.

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