

SCORPIONS (ARACHNIDA)

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INTRODUCTION

The Himalaya, a young tertiary mountain system as a whole, serves very wide distributional ground for two families of scorpions namely CHAERILIDAE and VAEJOVIDAE. (Tikader and Bastawade, 1983). These two families are almost restricted to the high altitude habitats and thus too for their limited speciation. Studies on the scorpion collection from Namdapha, reveal following three species belonging to above mentioned two families. All the collections were made in December 1983—January 1984 in Namdapha area.

Key to the Families

1. Carapace narrowed in front and anterior margin transversely truncated. A pair of lateral eyes with an amber coloured spot on ventro-lateral portion. Trichobothrial pattern on pedipalp of 'B' Type CHAERILIDAE
2. Carapace not narrowed in front and anterior margin with a deep median notch and not truncated. Generally three pairs of lateral eyes without an amber coloured spot on ventrolateral portion. Trichobothrial pattern on pedipalp of 'C' type. VAEJOVIDAE

SYSTEMATIC ACCOUNT

Family I : CHAERILIDAE

Characters : Carapace narrowed in front with transversely truncated anterior margin. A pair of lateral eyes provided with an amber coloured spot on ventrolateral portion. Movable and immovable fingers of chelicera provided with minute teeth on ventral inner margins. Trichobothrial pattern on pedipalp is of 'B' Type, i.e. femur with 9 trichobothria, patella with 14, manus with 7 and immovable finger with 7 trichobothria. Maxillary processes of 1 pair of legs expanded on anterior margin. Vesicle without any annular ring at the base of aculeus.

There are seven species so far reported from whole of Himalayan ranges out of which only three have been recorded from Eastern part

of Himalaya. Namdapha represents this family with the only record of *Chaerilus tricostatus* Poc. from Miao Reserve Forest, Tirap District, Arunachal Pradesh.

Chaerilus tricostatus Pocock

1899. *Chaerilus tricostatus* Pocock, *J. Bombay nat Hist. Soc.*, 12 : 266.

1983. *Chaerilus tricostatus* : Tikader and Bastawade, *Fauna of India, Scorpions*, : 320

Characters : Reddish brown scorpion of medium body size ranging from 45 mm to 60 mm in length. Body surface entirely granular and more coarsely granular on carapace. A pair of lateral eyes provided with much prominent ambar-coloured spot on ventro-lateral portion. Median eyes situated anteriorly in the ratio 1 : 1.8-1.9. Both the cheliceral fingers provided with minute dentition on ventral surface, arranged in series. Pedipalp elongated with manus twice as long as wide, six carinae, out of which three carinae placed on dorsal surface. Dentition on movable finger with 10-11 teeth in outer row. Trichobothrial pattern on pedipalp of 'B' type. Legs smooth. Pectinal teeth well developed and 5/5 in number. Cephalothoracic sternum pentagonal.

Tergites granular with weak lateral carinae. Sternites smooth.

Cauda four times as long as carapace. All carinae granular, segment V slightly shorter than carapace, anal rim of this segment granular. Telson longer than carapace and vesicle more than twice as long as aculeus.

Distribution : India : Sadiya, Assam, Khanna hills, Meghalaya and Miao, Tirap Dist., Arunachal Pradesh.

Family II : VAEJOVIDAE

Characters : Carapace with a deep median notch on anterior margin and provided generally with three pairs of lateral eyes without an ambar coloured spot on ventro-lateral portion. Immobile finger of chelicera without any tooth on ventral surface. Trichobothrial pattern on pedipalp of 'C' type, i.e. femur with 3 trichobothries. Patella with 28-47, manus with 16-24 and immobile finger with 8 trichobothria. Vesicle provided with a depression or an annular ring at the base of aculeus.

Under this family one sub-family, two genera and three sub-genera have been reported from India. The sub-genus *Euscorpions* has restricted only to NE India i.e. Assam, Meghalaya and Arunachal

Pradesh. The following two species have been reported from Namdhapa, Arunachal Pradesh.

2. *Scorpiops (Euscorpiops) asthenurus* Pocock

1900. *Scorpiops asthenurus* Pocock, *Fauna Brit. India, Arachn.* 73.
 1980. *Scorpiops (Euscorpiops) asthenurus* : Vachon, *Bull. Mus. nat. Hist. nat. Paris*, 4(2) : 143.
 1983. *Scorpiops (Euscorpiops) asthenurus* : Tikader and Bastawade, *Fauna of India, Scorpions*, : 458.

Characters : Dark black scorpion of small to medium size body ranging between 30 to 50 mm in length. Entire surface of carapace coarsely granular, lateral ocular tubercles granular with three pairs of eyes. Median ocular tubercles smooth and eyes situated anteriorly in the ratio 1 : 2.25. Anterior margin deeply notched in the middle. Chelicera with six minute teeth on inner margin of movable finger. Patella thick, femur and patella longer than carapace and manus longer than femur. Manus with eight carinae. All carinae coarsely granular. Trichobothria of 'C' type and of patella provided with 9 ventral and 10-11 *estand et* trichobothries. Legs weakly granular and spine formula on I-IV : $\frac{8}{8}$, $\frac{8}{8}$, $\frac{10}{10}$ & $\frac{10}{11}$. Pectines well developed, 1.75 times longer than wide with 6/7 teeth.

Tergites granular and monocarinated. Sternites smooth except granular sternite V.

Cauda almost three times as long as carapace. All segments carinated, inferior carinae smooth, dorsal carinae II, III & IV not much elevated and ending abruptly. Segment V shorter than carapace, granular, carinated, carinae sparsely granular. Anal rim of this segment evenly crenulated. Telson longer than segment V but shorter than carapace, smooth, provided with an annular ring at the base of aculeus. Aculeus less than as long as vesicel, less curved.

Distribution : India : Kalimpong, Darjeeling Dist., West-Bengal and Tirap Dist., Arunachal Pradesh.

3. *Scorpiops (Euscorpiops) longimanus* Pocock

1893. *Scorpiops longimanus* Pocock, *Ann. Mag. nat. Hist.*, 12(b) : 326.
 1980. *Scorpiops (Euscorpiops) longimanus* : Vachon, *Bull. Mus. nat. Paris*, 4(2) : 143.
 1983. *Scorpiops (Euscorpiops) longimanus* : Tikader and Bastawade, *Fauna of India, Scorpions*, : 464.

Characters : Black scorpion of small to medium body size ranging from 35 to 50 mm in length, body granular. Carapace more thickly

granular with prominent ocular tubercles and a deep median notch in the middle of anterior margin. A pair of median eyes situated anteriorly in the ratio 1 : 2.00. Chelicera with a series of five to six minute teeth on inner margin of movable finger. Pedipalp dorso-ventrally flat, stout and elongated on manus. Femur almost longer than carapace. Patella slightly shorter than femur. Anterior or inner surface with a pair of stout, dentiform tubercles. Manus longer than femur or carapace, much flat and wide, five carinae well developed. All carinae granular. Trichobothrial pattern of 'C' type and patella with 10 ventral and 4 *est* and 4 *et* trichobothries. Legs smooth, carinated on femur and patella. Spine formula on legs I-IV : $\frac{6}{6}$, $\frac{7}{7}$, $\frac{8}{8}$ & $\frac{9}{9}$. Pectines well developed and with 7/7 teeth in male.

All tergites coarsely granular with obsolete median carina on posterior portion of I-VI. All sternites smooth except two pairs of granular carinae on sternite V.

Cauda almost three and a half times as long as carapace. Segment I-IV with granular, carinae except inferior smooth to weakly granular. Segment V shorter than carapace. Carinae granular but inferior median much granular. Anal rim of this segment evenly crenulated. Telson longer than carapace in ♂ but shorter in ♀. Vesicle elongated, longer than segment IV but shorter than segments V. Aculeus less curved, shorter than half the vesicular length in ♂ but slightly longer in ♀.

Distribution : India : Assam, Tirap Dist., Arunachal Pradesh and Bangla-Desh : Sylhet.

SUMMARY

A small collections of Scorpions from Namdapha reveals that three species are characteristically of himalayan distribution.

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