

## REDESCRIPTION OF GENUS *BARIMONONYCHUS* PAJNI & KOHLI, 1982 (COLEOPTERA: CURCULIONIDAE) FROM INDIA

**B. Ramesha\* and V. V. Ramamurthy\***

\* Division of Entomology, Indian Agricultural Research Institute, New Delhi, 110012, INDIA. E-mails: rameshakau@rediffmail.com; vvrento@gmail.com

[Ramesha, B. & Ramamurthy, V. V. 2011. Redescription of genus *Barimononychus* Pajni & Kohli, 1982 (Coleoptera: Curculionidae) from India. *Munis Entomology & Zoology*, 6 (2): 925-928]

ABSTRACT: *Barimononychus* redescribed for its essential generic characters along with the lone species known viz., *B. kazirangensis* with the addition of genitalia structures and morphometry.

KEY WORDS: *Barimononychus*, Baridinae, redescription, India.

Genus *Barimononychus* is represented from India with only one species. Pajni & Kohli (1982) described it from India, and it differs from all other genus of Baridinae: with the head separated from rostrum by a transverse depression, frons between eyes a little narrower than the base of rostrum; antennae with seventh segment of funicle completely annexed to club; all femora sulcate beneath, tarsi with a single claw; prosternum depressed longitudinally in the middle, prosternal process as broad as a coxa, mesosternal process depressed or oblique. Voucher specimens are available with the National Pusa Collection, Division of Entomology, Indian Agricultural Research Institute, New Delhi.

### MATERIALS AND METHODS

The material for the study is from the National Pusa Collection (NPC), Division of Entomology, Indian Agricultural Research Institute, New Delhi. All the taxonomic characters, except genitalia studied in intact specimens. For genitalia, specimens were processed following Supare et al. (1990), and taxonomic characters and genitalia studied using Leica M205FA Leica MZ16A Wild stereozoom microscopes. Photographs were captured using software Leica application Suit ver. 2.8.2 on a Leica DFC290 camera mounted on Leica MZ16A stereozoom microscope. Illustrations were made using a drawing tube fitted with camera lucida and scales of magnification provided in the illustrations. The body size given in the descriptions is excluding rostrum, as regards total length; and length from anterior margin of pronotum to end of pygidium in case of standard length.

### *Barimononychus* Pajni & Kohli, 1982

*Barimononychus* Pajni & Kohli, 1982: 366. Type species: *Barimononychus kazirangensis* Pajni & Kohli, 1982: 367; gender: Musculine.

General colour black. Head 1.2x as broad as long, separated from the rostrum by a deep transverse incision, frons narrower than base of rostrum (Fig. 1). Rostrum 0.58x as long as head and pronotum combined, curved, narrowed dorsoventrally from base to apex and then gradually widened at apex (Fig. 2). Eyes 2.3x as wide as long. Antennae inserted at 0.54x of length from base of rostrum, scape slender, 5x as long as broad, almost impunctate, funicle widening distally, funicular segment seven continuous with the club (Fig. 3). Prothorax bisinuate at posterior margin, broadly truncate at anterior margin, not produced

over the head when viewed in profile, as broad as long (Fig. 4). Scutellum generally transverse, 0.62x as broad as long. Elytra oblong, 0.7x as wide as prothorax, deeply striate (Fig. 5). Sternum with prosternum longitudinally impressed in middle, procoxae as wide as its intercoxal process, hind margin of the prosternum produced in the middle, mesosternum transversely impressed, its intercoxal process 1.7x as broad as a coxae; metasternum elongate, 1.7x as long as median coxae, episterna not much narrowed in the middle, their upper basal angle almost rectangular. Venter with the pygidium transverse, dorsally not visible. Legs with the femora weakly clavate, unarmed, sulcate beneath (Figs. 6, 7), tibiae slightly widened distally, each with oblique mucro at inner angle and long curved uncus at external angle, with outer setose fringe of corbel incomplete and inner absent, tarsi with joint 3 broadly lobate, with single claw (Fig. 8).

### ***Barimononychus kazirangensis* Pajni & Kohli, 1982**

(Figs. 1-26)

*Barimononychus kazirangensis* Pajni & Kohli, 1982:317

**General colour** black. **Head** with close punctations 1.2x as broad as long. **Rostrum** 0.58x as long as head and pronotum combined, gently curved, gradually widening, at middle 0.78x as broad as apex, 1.3x as broad as base, almost compressed laterally, without any sub basal dilation (Figs. 1, 2). **Antennae** brownish yellow, inserted at 0.54x of length from base of rostrum, scape slender, 5x as long as broad, almost impunctate; first segment of the funicle as long as second and third combined, third as long as broad, segments three to seven transverse and as long as broad, funicle 1.6x as long as club (Fig. 3). **Prothorax** as broad as long, with weak constriction at the apex, gently rounded at the sides, anterior margin broadly truncate, posterior margin bisinuate, at middle 1.6x as broad as apex, 1.05x as broad as base, dorsum gently convex longitudinally, set with close shallow punctations, not confluent in curves, with narrow smooth median line (Fig. 4). **Scutellum** strongly transverse sparsely punctuate, and 0.62x as broad as long. **Elytra** oblong, without deep subapical impressions and without large obtuse posterior calli, at middle 1.27x as broad as apex and base; striae shallow, with row of punctations upto middle, and elongated beyond it, striae 10 complete; intervals flat, 3x as broad as a striae, with a row of distant punctations carrying indistinct seta (Fig. 5). **Elytral vestiture** absent. **Legs** coarsely punctate, each punctation containing a grey seta, femur clavate (Fig. 6), unarmed shallowly sulcate beneath (Fig. 7); tibia thinner, not dilated at apex, armed with small mucro at inner angle and stout curved uncus at outer angle; tarsus thick, claw single (Fig. 8). Profemur as long as mesofemur, 0.91x as long as metafemur. Protibia 1.25x and 1.33x as long as meso and metatibia respectively. First tarsal segment 1.5x as long as broad, 1.5x as long as second, 1.2x as long as third tarsal. Third tarsal segment 1.2x as broad as long, fourth tarsal segment 3x as long as broad. **Prosternum** without deep transverse sulcus behind apex, with large round punctation, and without fovea. Procoxae as broad as its intercoxal process. **Mesosternum** plate like, shallowly depressed at base and raised at apex, its intercoxal process 1.7x as broad as mesocoxae. **Metasternum** depressed in the middle with longitudinal impressed line, intercoxal process in the metasternum 1.2x as broad as metacoxae. **Venter** black, ventrite one and two separated with distinct segmentation, strongly punctate and each with broad setae, anterior margin of first ventrite dome shaped, posterior margin shallowly sinusoidal, 2.5x as broad as long, 2x as long as second, second ventrite 4.4x as broad as long, and as long as three and four combined. Third as

long as fourth ventrite, ventrite five 2.5x as broad as long, its posterior margin rounded (Fig. 9); **Pygidium** distinctly punctate, and 2.1x as broad as long.

**Female genitalia** with spermatheca more sclerotised at distal arm, distal arm as long as proximal arm, angle between proximal and distal arms acute, nodulus small, tapering towards apex, ramus tubular, cornu bent and strongly pointed (Figs. 10, 12). **Spiculum ventrale** with shaft stump like, as long as basal plate, basal plate 1.6x as long as broad, its apical end truncate without hairs (Figs. 11, 13).

**Male genitalia** with apophyses 2.3x as long as median lobe, 1.5x as long as tegmen; median lobe moderately sclerotised, parallel sided from base to behind the middle, apex convex, at middle 1.2x as broad as apex and as broad as base (Figs. 14-19). **Tegmen** as long as manubrium, and as long as paramere, manubrium gradually tapering, its apex tubular (Figs. 20, 22). **Spiculum gastrale** uniformly thick, curved at apex, 15x as long as broad (Figs. 21, 23).

**Total length:** 2.37±0.14 mm; **Standard length:** 2.1 mm; **Breadth:** 0.98±0.10 mm.

**Specimens examined:** 7 specimens, INDIA: Assam: Kaziranga, bushes, 23.iv.1979, Coll. unknown; 5 specimens 26.iv.1978, Coll. unknown; 3 specimens, Nagaland: Rangapahar, 21.iv.1979, Coll. unknown; 1 specimen, Assam, 1976, Coll. unknown.

**Distribution:** INDIA: Assam: Kaziranga; Nagaland: Rangapahar.

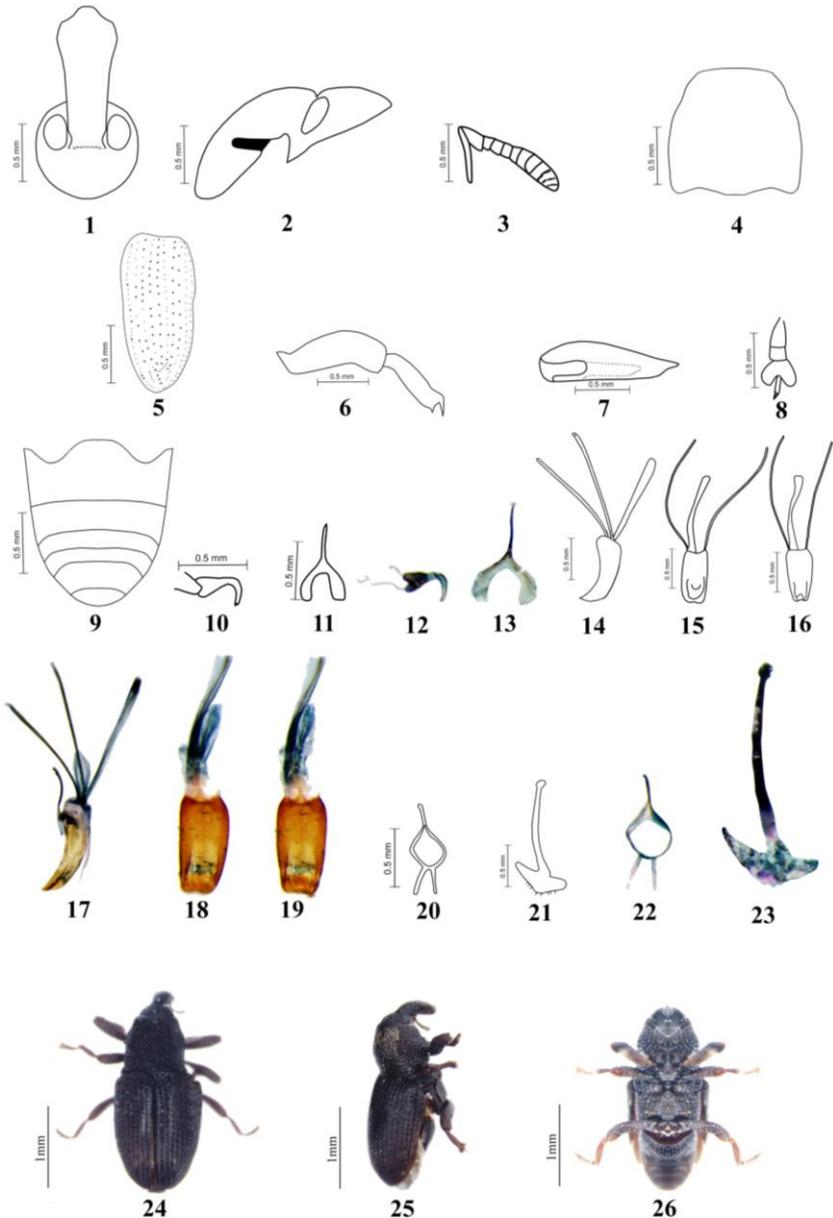
#### ACKNOWLEDGEMENTS

Senior author gratefully acknowledges the Kerala Agricultural University for providing deputation for study purpose.

#### LITERATURE CITED

**Pajni, H. R & Kohli, S. K.** 1982. *Barimononychus*, a new genus from India (Col. Curculionidae. Baridinae). The Coleopterists Bulletin, 36(2): 366-370.

**Supare, N. R., Ghai, S. & Ramamurthy, V. V.** 1990. A revision of *Tanymecus* from India and adjacent countries (Coleoptera: Curculionidae). Oriental Insects, 24: 1-126.



Figures 1-26. *Barimononychus khazirangensis*. 1. Rostrum, dorsal view; 2. Rostrum, lateral view; 3. Antennae; 4. Thorax, dorsal view; 5. Elytron, dorsal view; 6. Femur, dorsal view; 7. Femur ventral view; 8. Tarsal claw; 9. Venter; 10-13. Female genitalia: 10, 12. Spermatheca; 11, 13. Spiculum ventrale; 14-23. Male genitalia: 14-19. Median lobe, lateral, dorsal and ventral view; 20, 22. Tegmen; 21, 23. Spiculum gastrale; 24-26. Habitus: dorsal, lateral and ventral view.