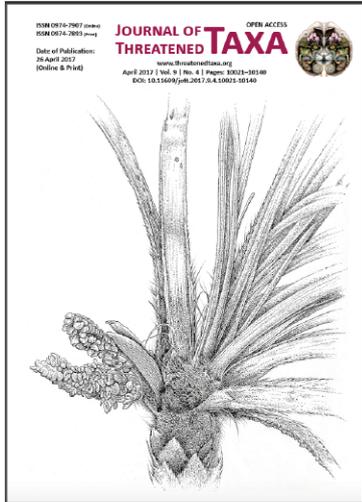


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NOTE

FIRST RECORD OF *NEOJURTINA TYPICA* FROM INDIA (HEMIPTERA: HETEROPTERA: PENTATOMIDAE)

S. Salini

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FIRST RECORD OF *NEOJURTINA TYPICA* FROM INDIA (HEMIPTERA: HETEROPTERA: PENTATOMIDAE)

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The genus *Neojurtina* Distant, 1921 was erected by Distant (1921) to accommodate the single species *Neojurtina typica* Distant, 1921 from Tonkin (Vietnam). *N. typica* is also known to occur in Borneo, China (central territory, southeastern territory, southwestern territory), Malaysia, Vietnam (Rider 2006: 328). Black (1968) described and illustrated the second species of the genus, *N. palawanica* Black, 1968, endemic to Palawan (Philippines) and provided the differential diagnosis of the new species and *N. typica*.

This genus is similar to *Bathycoelia* Amyot & Serville, 1843, but *Neojurtina* can be distinguished from the latter by the first segment of antenna passing the apex of head (Distant 1921). Hoffmann (1935) briefly studied the life history of *N. typica* from Hong Kong and recorded *Ilex cinerea* Champ. as the host plant though the species was not found feeding on it. Hsiao & Zheng (1977) included *N. typica* in their monograph of Chinese fauna. This paper records *N. typica* for the first time from India. It also aims at providing additional description to the species based on female genitalia.

Photographs were made using Leica DFC 420 camera

mounted on a Leica M205A stereozoom microscope and by using the software Automontage®. The female genitalia was dissected after boiling the whole abdomen in hot water for about 10–15 minutes with 10% Potassium Hydroxide (KOH). The internal contents were cleared after thoroughly washing it in distilled water for 2–3 times and with the help of fine forceps, the terminalia and spermatheca were detached from abdominal ventrites. All measurement are given in millimetres. The following dimensions were measured: body length (from apex of mandibular plates to apex of membrane or apex of tergite VIII, dorsal view), head length (from apex of mandibular plates to anterior margin of pronotum, anterodorsal view), head width (width of head including compound eyes, anterodorsal view), interocular width (between inner margins of compound eyes, anterodorsal view), length of each antennal segment, length of each labial segment, pronotum length (medially, from anterior to posterior margin of pronotum, anterodorsal view), pronotum width (maximum width between humeri, anterodorsal view), scutellum length (medially from base to apex, dorsal view) and scutellum width (maximum width at base between basal angles of scutellum, dorsal view). Basic terms are followed from Schuh & Slater (1995), Tsai et al. (2011) and Tsai & Rédei (2014), terms used for male and female genitalia follow Tsai et al. (2011) and those associated with metathoracic scent glands follow Kment & Vilímová (2010). The genus and species name follows David Rider's



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website (Rider 2016).

***Neojurtina* Distant, 1921**

Neojurtina Distant, 1921: 68 (original description).
Type species: *Neojurtina typica* Distant, by monotypy.

Neojurtina: Hoffmann (1932): 8 (list); Tang (1935): 339-340 (catalogue); Stichel (1962): 247 (list of species, references and distribution); Hsiao et al. (1977): 93, 102, 116 (key, description, distribution); Lin & Zhang (1993): 118 (key).

Additional description: Structure: Head (Images 3–4) slightly sloping downwards, nearly as long as width across compound eyes; lateral margins more or less straight, not reflexed. Mandibular plates nearly as long as or slightly shorter than clypeus, apex of mandibular plates rounded; dorsoposterior surface of head between ocelli and base of clypeus slightly gibbose. Compound eyes large, rounded, protruding out of head outline in most of their width. Ocelli small, situated posteriorly behind eyes. Antenniferous tubercles indistinct, scape visible from above. Antennae slender and 5-segmented, antennal segments from shortest to longest: I<IIa<IIb≤III>IV; antennal segment I cylindrical, shortest and stoutest, nearly as long as apex of head (Image 3); antennal segments IIa–IV, cylindrical and slender. Bucculae short, rounded anteriorly, partially covering anterior three-quarters of labial segment I. Labrum narrow and elongate (Image 4). Labial segment I stout, slightly surpassing posterior margin of bucculae; apex of labium reaching abdominal ventrite II.

Pronotum (Image 1). Anterior pronotal margin deeply concave; anterolateral angles rectangular to acutangular, with minute laterally directed tooth; lateral margins nearly straight. Humeri angulate; posterolateral margin of pronotum sinuate, posterolateral angles of pronotum nearly rounded; posterior margin of pronotum slightly concave medially. Anterior part of pronotal disc slightly sloping downwards, without median ridge; posterior part of pronotal disc horizontal and slightly convex.

Scutellum (Image 1) roughly triangular, longer than wide at base; lateral sides slightly incised at apices of frena (at third from apex); apex of scutellum not surpassing outer distal angles of corium, widely rounded. Disc of scutellum slightly gibbous at anterior two thirds.

Hemelytra. Clavus narrow and elongate and roughly triangular and uniformly punctate. Corium with inner distal angles arcuately rounded, outer distal angles acutely extending downwards and outlining anterior half of membranous region. Membrane translucent, widely rounded apically, surpassing apex of abdomen. Membrane bearing 8–9 nearly parallel and simple veins, without reticulate venation.

Thoracic pleuron and sternum (Image 2). Procoxae placed close to each other; meso- and metacoxae remote from procoxae; mesosternum with narrow, median, longitudinal carina (Image 5); metasternum with prominent median, longitudinal carina, grooved and in apposition to extreme apex of tubercle on abdominal ventrite III, metasternal carina acutely produced downwards laterally. Ostiole semiovalate, accompanied with elongate, semispindle-shaped peritreme of the ruga shape sensu Kment & Vilímová (2010) (Image 6); evaporatorium large, well developed on metapleuron, metathoracic spiracle long, distinctly visible in ventral view.

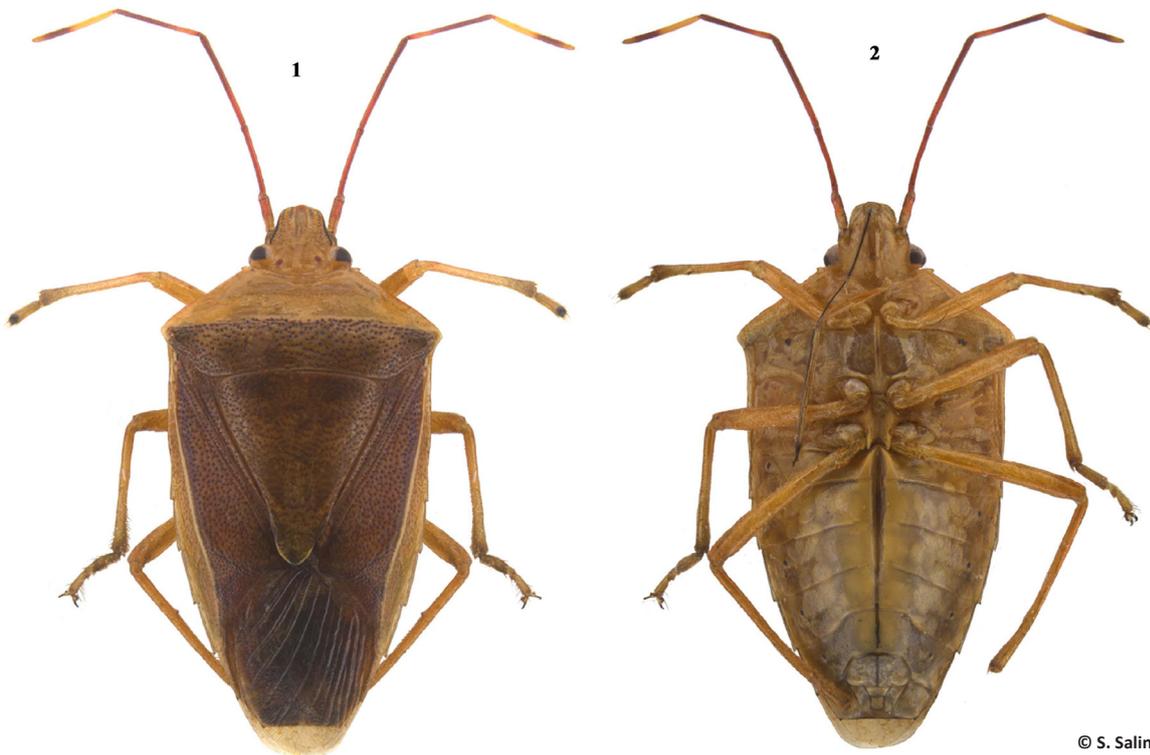
Legs (Image 2) long; profemora as long as mesofemora, metafemora longest; all femora nearly cylindrical, unarmed and rounded in cross section. All tibiae slender than appropriate femora, tibiae narrowly cylindrical and rounded in cross section, lacking dorsal longitudinal groove. All tarsi with segment II shortest, segment I longest but shorter than segment I and II combined; all tarsal segments dorsally regularly rounded, not grooved.

Pregenital abdomen (Image 2). Connexivum slightly exposed; posterolateral angles of each abdominal ventrite angulate or with minute tooth. Abdominal venter slightly convex medially, strong median longitudinal groove beginning from ventrite III–VII. Ventrite III with one strong tubercle or short angulate process possessing strong median longitudinal groove. Spiracle on ventrite II covered by metapleuron. Spiracle placed above spiracular outline on each ventrite and a pair of trichobothria situated slightly mesad to each spiracle.

Male genitalia: Unknown.

Female genitalia (Images 7–8). Terminalia (Image 8). Valvifers VIII ventrally almost meeting each other, roughly quadrangular with inner lateral margin straight; valvifers IX fused and inverted trapezoidal in shape; laterotergite IX finger-like, not reaching apex of abdomen; laterotergite VIII nearly rhomboidal with caudal margin bearing two angulate projections, laterotergite VIII dorsally encompassing laterotergite IX and segment X and medially fused. Spermatheca (Image 7). Median dilation not distinct rather with short proximal dilation; intermediate part of spermatheca short, proximal flange of same size as that of distal flange; apical receptacle small, rounded with three elongate, finger-like processes, all distinctly surpassing distal flange.

Differential diagnosis: The genus is easy to recognize by combination of the stout median tubercle on abdominal ventrite III and deep median longitudinal groove continuing from ventrite III to the rest of the abdominal ventrites up to ventrite VII, and also the strongly grooved metasternal carina in apposition to median tubercle on



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Images 1–2. *Neojurtina typica* Distant: 1 - Habitus (dorsal); 2 - Habitus (ventral).

abdominal ventrite III.

Etymology: In the original description of *Neojurtina*, Distant (1921) did not mention anything about the origin of the genus name other than remarking that this genus is allied to *Jurtina* Stål, 1868 (now junior synonym of *Bathycoelia* Amyot & Serville). The gender of the name is feminine, as it is apparent from the feminine form of the specific adjective *typica*.

***Neojurtina typica* Distant, 1921**

Neojurtina typica Distant, 1921: 4 (nomen nudum)

Neojurtina typica Distant, 1921: 68 (original description).

Neojurtina typica: Hoffmann (1932): 8 (list); Hoffmann (1935a): 84 (catalog); Hoffmann (1935b): 59 (catalog, notes); Hoffmann (1935c): 261–265, pl. 8, Images 1–4 (biology, life history notes, description of immature stages); Tang (1935): 339–340 (catalog); Stichel (1962): 247 (list of species, references and distribution); Yang (1962): 81, 82–83, Image 43 (key, description, distribution); Black (1968): 571, Images 3b, 4c, d, f. (differential diagnosis); Hsiao et al. (1977): 116, Image 440, pl. 15, Image 213 (description, distribution); Chen (1985): 18 (at light); Zhang (1985): 76, pl. 14, Image 31 (description, distribution); Zhang & Lin (1986): 63 (distribution, list); Zhang et al. (1987): 134 (key); Chen (1989): 150; Wu et al. (1992): 454; Zhang et al. (1992):

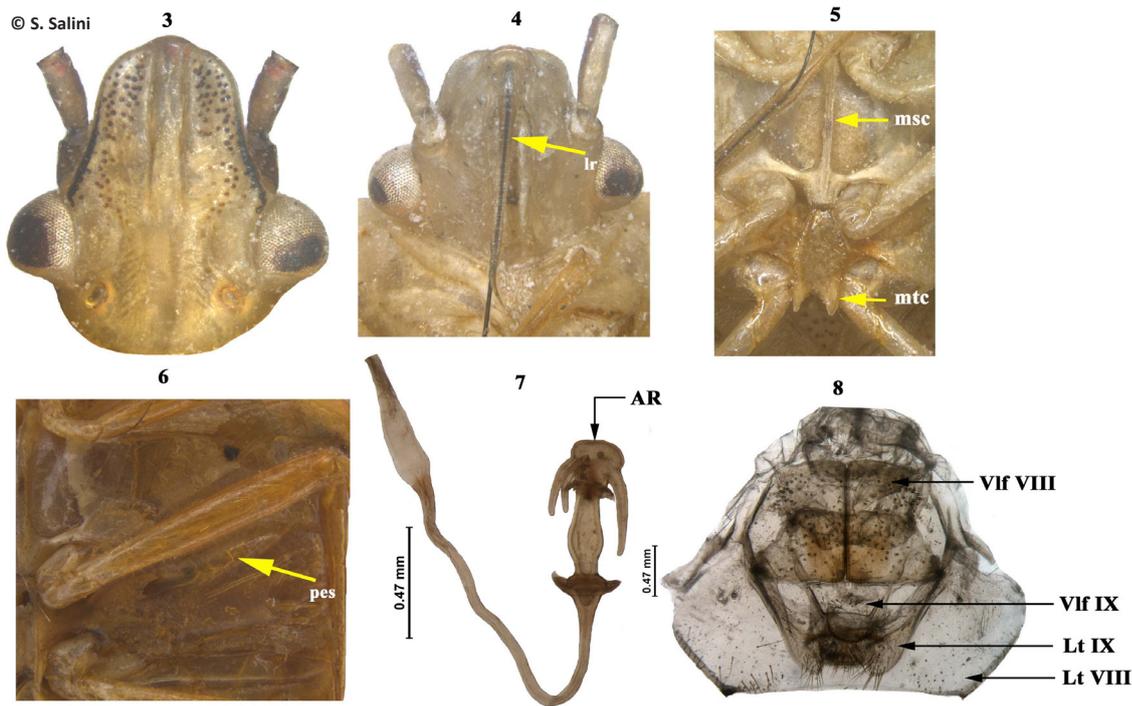
240 (description); Lin & Zhang (1993): 130 (description); Su et al. (1993): 282; Zhang (1994): 34 (catalogue); Chen & Xu (1995): 207; Wang & Zhang (1995): 282; Hua (1989): 44; Hua (2000): 177 (distribution, host); Chen et al. (2001): 46; Rider et al. (2002): 142 (Chenese distribution); Hoàng & Đàng (2013): 789.

Heojurtina typica (incorrect subsequent spelling): Jiang (1985): 62 (distribution).

Neojurtina typical (incorrect subsequent spelling): Ren et al. (2006): 274; Guo et al. (2007): 343; Yeh et al. (2007): 313.

Material examined: India, Meghalaya: 1 female, Ri-Bhoi, ICAR RC NEH, Umiam, 1,031m, 25°41'N & 91°55'E, 08.vi.2013, Yeshwanth, H.M. Specimen is deposited in the Department of Entomology, University of Agricultural Sciences (UAS), Bangalore.

Additional description: Colouration. Body above mostly ochraceous. Head above pale ochraceous except for black lateral margins and a few scattered fine, black spots on the mandibular plates on dorsal side. Antennae reddish except segment I, basal third of segment III and posterior half of segment IV, pale ochraceous. Anterolateral pronotal margins ochraceous suffused with red; anterior half of pronotal disc pale ochraceous and posterior half brownish. Scutellum and hemelytra concolourous to posterior half of pronotum except costal region of corium



Images 3–8. *Neojurtina typica* Distant.

3 - Head with first antennal segment (dorsal); 4 - Head with first antennal segment (ventral); 5 - Meso- and metasternum showing median longitudinal carina; 6 - External scent efferent system showing peritreme; 7 - Spermatheca; 8 - Female terminalia.

AR - apical receptacle; lr - labrum; pes - peritremal surface; msc - mesosternal carina; mtc - metasternal carina; Vlf - valvifers; Lt - laterotergite.

and membrane; costal region of corium pale ochraceous. Membrane light brown. Ventral side including legs and labium, pale ochraceous except one small, round spot on each side of mesopleuron, one spot associated with each spiracle, minute tooth at posterolateral angles of each abdominal ventrite III–VIII in the case of females, apex of labium and apical half of claws, black.

Integument and vestiture: Body surface shining, only dorsal surface of head, anterior region of pronotum and costal margin of corium matt. Posterior half of pronotum, disc of scutellum, hemelytra except costal margin covered with dense, coarse, dark brown to black punctures. Disc of head dorsally with a few small, scattered black spots on mandibular plates in front of compound eyes. Punctures on lateral margin of hemelytra colourless. Ventral side of head, thorax, abdomen and legs impunctate.

Body glabrous except antennal segments I–V with fine mat of small erect pale golden hairs and tibiae and tarsus of legs with short, erect, golden hairs.

Structure: See the generic description.

Measurements (mm): Female. Body length 16.84; head: length 2.95, width (including eyes) 3.00, interocular width 1.62; lengths of antennal segments: I – 1.15, IIa – 2.21, IIb – 2.96, III – 2.98, IV – 2.54.; length of labial segments: I – 1.64, II – 2.48, III – 2.49, IV – 1.49; pronotum:

length 3.22, width (including humeri) 8.02; scutellum: length 5.85, width (at basal angles) 5.01.

Etymology: The specific name is Latin adjective *typicus* (-a, -um), meaning typical.

Bionomics: Unknown.

Distribution: China: Fujian (Hsiao et al. 1977; Hua, 2000; Rider et al. 2002); Gansu (Wang & Zhang 1995); Guangdong (Hsiao et al. 1977; Chen, 1989; Su et al. 1993; Hua 1989 & 2000; Chen et al. 2001; Rider et al. 2002); Guangxi (Hua 2000; Rider et al. 2002); Hainan (Hua 2000); Hongkong (Hoffmann 1935a,b,c; Tang 1935; Hua 2000); Hunan (Zhang et al. 1992; Rider et al. 2002; Hua 2000); Jiangxi (Zhang & Lin 1986; Zhang & Lin 1992; Zhang 1994; Hua 2000; Rider et al. 2002); Shaanxi (Hua 2000; Ren et al. 2006; Guo et al. 2007); Yunnan (Hsiao et al. 1977; Jiang 1985; Zhang et al. 1987; Hua 2000); Zhejiang (Chen & Xu 1985; Wu et al. 1992; Hua 2000; Rider et al. 2002). India: Meghalaya (new record). Indonesia (Hsiao et al. 1977; Hua 2000). Malaysia: Sarawak (Hoffmann, 1935a,b; Rider et al. 2002; Rider 2006). Taiwan (Hoffmann 1935b; Hua 2000; Yeh et al. 2007; Rider et al. 2002). Vietnam: Tonkin (Distant 1921; Hoffmann 1935a,b; Hsiao et al. 1977; Hua 2000; Rider et al. 2002; Rider 2006; Hoàng & Đàng 2013).

Comments on tribal placement of *Neojurtina*: The genus *Neojurtina* is presently placed in the tribe

Pentatomini (see Rider 2006) but it is apparently related to *Bathycoelia* Amyot & Serville, 1843 (belonging to tribe Bathycoeliini) for its strong, medially grooved tubercle on abdominal ventrite III and the continuation of this median longitudinal groove to till the last abdominal ventrite and also for the shape of head. Tsai & Rédei (2014) elaborately discussed the characters shared by *Bathycoelia* and other genera within Pentatomini and hypothesized a possible synonymy between Bathycoeliini and Pentatomini. In this respect the present placement of *Neojurtina* in the tribe Pentatomini is justifiable but not confirmed unless a comparative study involving all the relevant genera is completed.

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***Phlomoides superba* (Royle ex Benth.) Kamelin & Makhm. from Jammu & Kashmir, India**

-- Amber Srivastava, Yash Pal Sharma, O.P. Sharma Vidyarthi & Sunil Kumar Srivastava, Pp. 10089–10095

Host specificity of some wood-decaying fungi in moist deciduous forests of Kerala, India

-- A. Muhammed Iqbal, Kattany Vidyasagaran & Narayan Ganesh, Pp. 10096–10101

New records of social wasps (Hymenoptera: Vespinae: *Vespa* and *Provespa*) from Bhutan

-- Phurpa Dorji, Thinley Gyeltshen, Wim Klein & Tshering Nidup, Pp. 10102–10108

Butterfly diversity (Lepidoptera: Rhopalocera) associated with nectar feeding on *Ziziphus mauritiana* Lamarck (Rosales: Rhamnaceae) flowers in Chuadanga, Bangladesh

-- Tahsinur Rahman Shihan, Pp. 10109–10114

First record of a Wrinkle-lipped Free-tailed Bat *Chaerephon plicatus* Buchannan, 1800 (Mammalia: Chiroptera: Molossidae) colony in Sri Lanka, with notes on echolocation calls and taxonomy

-- Tharaka Kusuminda & Wipula B. Yapa, Pp. 10115–10120

Density and obligatory feeding habits of an isolated Golden Jackal *Canis aureus* L. (Mammalia: Carnivora: Canidae) population in Pirotan Island, Gulf of Kachchh, India

-- Kamaraj Ramkumaran, Rethnaraj Chandran, Chowdula Satyanarayana, Kailash Chandra & Tikadar Shyamal, Pp. 10121–10124

Notes

The seasonal occurrence of the Whale Shark *Rhincodon typus* (Smith, 1828) (Orectolobiformes: Rhincodontidae) along the Odisha coast, India

-- Shesdev Patro, Biraja Kumar Sahu, Chandanlal Parida, Madhusmita Dash & K.C. Sahu, Pp. 10125–10129

A new record of Gunther's Waspfish *Snyderina guentheri* (Boulenger, 1889) (Scorpaeniformes: Tetrarogidae) from Visakhapatnam, India

-- Muddula Krishna Naranji & Sujatha Kandula, Pp. 10130–10132

First record of *Neojurtina typica* from India (Hemiptera: Heteroptera: Pentatomidae)

-- S. Salini, Pp. 10133–10137

***Xenomerus orientalis* Walker (Hymenoptera: Platygasteridae): a new distribution record for India**

-- Kalmesh Managanvi, A.K. Karnatak & M.A. Khan, Pp. 10138–10140