Three new Blacus Nees, 1818 species from India (Hymenoptera, Braconidae: Blacinae)

by J. PAPP, Budapest

Abstract—Descriptions of three new species of Blacus as well as their specific differences are given (Blacus imitator sp. n., B. turbidus sp. n. and B. votrus sp. n.). The types of the new species are deposited in the Hungarian Natural History Museum, Budapest. A short historical review of the Blacus species of the Eastern Palaearctic and the Indo-Australian Regions is compiled. With 15 figures.

Introduction — Up to now no Blacus species has been reported from India. Four species of Blacus have recently been described by ACHTERBERG (1976) from Nepal. Zoogeographically Nepal is situated on the southern border-zone of the Palaearctic Region, consequently the species found in this country are rather of Palaearctic distribution. In the Indo-Australian Region, on the other hand, two Blacus species were listed from Java (Indonesia) as new to science (ACHTERBERG i.e.)

In the Braconid material of the Hungarian Natural History Museum originating from India, I have found three new Blacus species which I herewith describe under the names as follows: Blacus (Blacus) imitator sp. n. ♀, B. (Ganychorus) turbidus sp. n. ♀ and B. (Tarpheion) votrus sp. n. ♀. The Braconid material indicated was collected by my colleague and friend, Dr Gy. Topál, Mammalogist of the above museum, during his two visits and collecting trips to India in the years 1967 and 1980, respectively. His endeavour to collect Hymenoptera besides his own research interest is highly appreciated and I avail myself of this opportunity to express my warm thanks to him.

Below I enumerate the Blacus species distributed in the Eastern Palaearctic Region (26 species) and in the Indo-Australian Region (3 species):

Blacus Nees, 1818

Eastern Palaearctic species:
achterbergi HAESELBARTH, 1976: Europe, Korea
ambulans macropterus HAESELBARTH, 1973: western Palaearctic Region, Mongolia
apaches ACHTERBERG, 1976: Nepal
apicalis ACHTERBERG, 1976: Nepal
applicatus PAPP, 1985: Korea
armatulus RUTHE, 1861: Palaearctic Region
artomandibularis ACHTERBERG, 1976: Nepal
capeki HAESELBARTH, 1976: Central Europe, Korea
chinensis WATANABE, 1980: China (Shansi)
conifer TOBIAS, 1977: Mongolia
diversicornis (NEES, 1834): Palaearctic Region
dolosus PAPP, 1985: Korea
exilis (NEES, 1812): Palaearctic Region
flicornis HAESELBARTH, 1973: Europe, USSR (Kazakhstan), Mongolia
glabrum ACHTERBERG, 1976: Nepal
humilis (NEES, 1812): Palaearctic Region
imitator sp. n.: India (Jammu and Kashmir)
Blucus (Blucus) imitator sp. n. ♀
(Figs. 1–4)

♀. Body 2.1 mm long. Head in dorsal view (Fig. 1) subcubic, 1.55 times broader than long, temple slightly longer than eye, former strongly rounded. Malar space about as long as basal width of mandible. Entire head polished. Frontal suture hardly distinct before anterior ocellus, otherwise indistinct. In lateral view eye 1.6 times higher than wide and only somewhat wider than temple (Fig. 2). Ocelli small, POL 1.7 times longer than greatest diameter of a hind ocellus, OOL nearly twice as long as POL. Antenna with 17 joints; first flagellar joint one-sixth longer than second joint; first flagellar joint four times, second flagellar joint three times longer than apically broad, further joints gradually shortening and slightly attenuating so that penultimate two joints subcubic, i.e. only somewhat longer than broad (5 : 4, ×100).

Mesosoma in lateral view distinctly 1.4 times as long as high. Pronotum rugo-rugulose, broad along its upper margin, smooth to polished. Propodeum rather transversely rugulose, with a weak and medio-longitudinal carina. Sternalix rugose-rugulose. Scutellum smooth and margined. Notaulix evenly deep and with very fine crenulation. Otherwise mesosoma smooth and shiny. Hind femur distinctly 5.5 times as long as broad. Claws 1–2 without blackish bristles.

Fore wing about as long as body. Pterostigma (Fig. 3) issuing radial vein from its middle; r1 as long as width of pterostigma, r2 almost straight and reaching tip of wing. DI wide, 1.5 times wider than high (Fig. 3, see arrows), widely truncate at parastigma. Subdiscal (or brachial) vein faintly pigmented.

Metasoma as long as mesosoma. First tergite (Fig. 4) almost twice longer than wide at hind, and parallel-sided (i.e. indistinctly broadening posteriorly); its anterior half smooth to uneven, its posterior half rugose; its pair of basal keels extending to half of tergite and here merging into rugosity. Further tergites polished. Ovipositor sheath long, one-fifth longer than hind tibia.


♂ and host unknown.

Locality—Holotype ♀: “India, Jammu & Kashmir, Srinagar, 1500 m” (first label), “No. 405, 26 V 1967, leg. Topál” (second label).

Holotype is deposited in the Hungarian Natural History Museum, Budapest; Hym. Typ. No. 7017.

The new species, Blucus (B.) imitator sp. n., is related to B. (B.) instabilis Ruthe, 1861 (Palaearctic Region), and they are clearly differentiated by the following features:

B. imitator sp. n.

1. DI widely truncate apically at parastigma. Metacarp distinctly longer than pterostigma. Nervulus issuing from proximal third of d (Fig. 3).

B. instabilis Ruthe

1. DI pointed apically at parastigma. Metacarp at most slightly longer than pterostigma. Nervulus issuing from middle or near to middle of d (Fig. 6).
2. In lateral view temple almost as wide as eye (Fig. 2).
3. Ovipositor sheath long, one-fifth longer than hind tibia.
4. First tergite parallel-sided (Fig. 4).
5. Ground colour of body brown.

Blacus (Ganychorus) turbidus sp. n. ♀

(Figs. 8 and 10)

♀. Body 2–2.1 mm long. Head in dorsal view subcubic, 1.6 times broader than long, temple longer than eye, former strongly rounded. Malar space distinctly 1.5 times longer than basal width of mandible. Entire head polished. Frontal suture hardly distinct before anterior ocellus, otherwise indistinct. In lateral view eye as wide as temple, eye relatively large, 1.75–1.8 times higher than wide. Ocelli small. POL one-fifth longer than greatest diameter of an ocellus, OOL twice as long as POL. Antenna with 21–22 joints; first flagellar joint long, 1.6 times longer than second joint; first flagellar joint 4.5 times, second flagellar joint 2.7 times longer than apically broad, further joints gradually shortening so that penultimate 2–3 joints 1.5 times longer than broad.

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Mesosoma in lateral view 1.4 times as long as high. Pronotum smooth to polished. Propodeum with a medio-longitudinal and a transverse carinae, former divided posteriorly and forming a narrow area. Areolae of propodeum uneven to smooth, shiny. Sternalulix narrow and uneven to subcrenulated. Scutellum uneven to smooth, shiny, distinctly margined, apically margin spiniform protruding. Notaulix evenly deep and with very fine crenulation. Otherwise mesosoma smooth to polished. Hind femur distinctly five times longer than broad. Claws 1–2 with blackish bristles.

Fore wing somewhat longer than body. Pterostigma (Fig. 10) issuing radial vein from its middle; r1 longer than width of pterostigma, r2 straight and reaching tip of wing. D1 wide, 1.45 times wider than high (Fig. 10, see arrows), truncate at pterostigma, latter medium-sized. Subdiscal (or brachial) cell closed though second section of submedian vein distally effacing.

Metasoma as long as mesosoma. First tergite 3.8–3.9 times longer than wide at hind, parallel-sided and somewhat broadening at its hind end; its surface rugose, pair of basal keel merging anteriorly into rugosity, less distinct than usually. Further tergites polished. In lateral view hypopygium distinct, posteriorly truncate; ovipositor sheath straight and short, one-fifth shorter than hind basitarsus.

Head, mesosoma, and first tergite black or brownish black, rest of metasoma yellowish brown to brown, hind margin of tergites 2–7 dark. Mandible yellow, palpi pale yellow. Scape brown, pedicel yellowish, flagellum distally lightening yellowish brown. Tegula brown of yellowish brown. Legs yellow, fore and middle femora basally brownish, hind femur and tibia dark brown, former apically with rusty tint. Wings hyaline, pterostigma and veins with opaque yellowish brown pigmentation.

♀ and host unknown.


Holotype and 1 paratype are deposited in the Hungarian Natural History Museum, Budapest; Hym. Typ. No. 7018 (holotype) and 7019 (paratype).

The new species, *B. (Ganychorus) turbidus* sp. n., closely resembles *B. (G.) tripudians* HALIDAY, 1835 (Europe) in its (sub-)parallel-sided first tergite: the two species are, however, clearly different from each other in the following features:

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**B. turbidus** sp. n.

1. Scutellum apically spiniform protruding (Fig. 8).
2. D1 wide, 1.45 times wider than high (see arrows in Fig. 10); pterostigma usual in form, i. e. not widening distally (Fig. 10).
3. Hind femur relatively thick, five times as long as broad, its colour dark brown.
5. In lateral view ovipositor sheath short, shorter than hind basitarsus.
6. Pterostigma yellowish brown, antenna distally lightening yellowish brown.

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**B. tripudians** HAL.

1. Scutellum apically less protruding spiniform (Fig. 9).
2. D1 high, its width equal with height (see arrows in Fig. 11); pterostigma unusually widening distally (Fig. 11).
3. Hind femur relatively thin, seven times as long as broad, its colour yellow.
4. Antenna with 19 joints.
5. In lateral view ovipositor sheath long, as long as hind basitarsus.
6. Pterostigma opaque yellow, antenna distally darkening blackish.

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**Blacus (Tarpheion) votrus** sp. n. ♀

(Figs. 12–15)

♀. Body 2 mm long. Head in dorsal view (Fig. 12) less transverse, 1.75 times broader than long, temple rather constricted, eye one-third longer than temple. Malar space slightly longer than base of mandible. Entire head polished. Frontal suture indistinct. In lateral view eye less elliptic, only 1.3 times higher than wide, temple half as wide as eye (Fig. 13). Ocelli small, POL one-quarter longer than greatest diameter of a hind ocellus, OOL twice as long as POL. Antenna with 20 joints. First flagellar joint 1.35 times longer than second joint; first flagellar joint 7 times, second joint 5 times longer than apically broad, further joints gradually shortening and slightly attenuating so that penultimate joint twice longer than broad.

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Mesosoma in lateral view 1.6 times as long as high. Pronotum uneven to rather weakly rugose, its upper lateral side smooth and shiny. Propodeum carinated (see Fig. 126 in ACHTERBERG 1976: 268), areolae smooth (at most uneven) and shiny. Sternauli smooth and shiny, distinctly margined. Notaulii evenly deep and with very fine crenulation. Otherwise mesosoma smooth and shiny. Hind femur 8 times longer than broad distally. Claws 1–2 without bristles.

Fore wing somewhat longer than body. Pterostigma issuing radial vein distally from its middle; \( r_1 \) minutely longer than width of pterostigma, \( r_2 \) slightly arched and reaching tip of wing. \( DI \) 1.45 times wider than high, less widely truncate at parastigma, latter medium-sized. Subdisal (or brachial) cell open below, i.e. distal half of second section of submedian vein effaced (Fig. 14).

Metasoma as long as mesosoma. First tergite (Fig. 15) almost thrice as long as broad at hind, with subparallel sides (i.e. first tergite very weakly broadening posteriorly); its surface antero-posteriorly with strengthening sculpture, i.e. uneven to rugose; pair of basal keels merging about middle into sculpture. Second tergite almost entirely and rather longitudinally rugose, further tergites polished. Ovipositor sheath short, somewhat shorter than hind basitarsus.

Body brown to light brown. Clypeus and mandible yellow, palpi pale yellow. Antenna, tegula and legs yellow, distal half of hind tibia and entire hind tarsus greyish fumous. Wings hyaline, pterostigma and veins with opaque yellowish pigmentation.

\( \sigma \) and host unknown.

Locality—Holotype ♀: "India, W Bengal, Darjeeling Distr., Ghum Senchal Res. Forest, 7000 m" (first label); "No. 772, 7 X 1967, leg. Topáí" (second label).

Holotype is deposited in the Hungarian Natural History Museum, Budapest; Hym. Typ. No. 2020.

The new species, \( B. (Tarpheion) votrus \) sp. n., resembles \( B. (T.) \) apicalis ACHTERBERG, 1976 (Nepal), the distinctive features between them are tabulated below:

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<tr>
<th>( B. votrus ) sp. n.</th>
<th>( B. apicalis ) ACHT.</th>
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<tr>
<td>1. Temple in dorsal view somewhat less constricted (Fig. 12).</td>
<td>1. Temple in dorsal view somewhat more constricted (Fig. 125 in ACHTERBERG 1976: 268).</td>
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2. First tergite almost thrice as long as broad at hind (Fig. 15).
3. First flagellar joint 1.35 times longer than second flagellar joint.
4. Flagellum entirely yellow.
5. In dorsal view middle lobe of mesonotum anteriorly convex.
6. Third femur 8 times longer than broad.

References


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