

Contribution to the knowledge of the Western Palearctic species of *Anisobas* Wesmael

(Ichneumonidae, Ichneumoninae)

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Abstract

Ten Western Palearctic species of the genus are redescribed and a key to their identification is provided. Two new species are added: *Anisobas gusenleitneri* (Turkey) and *A. maroccanus* (Morocco). *Anisobas laticeps* Berthoumieu, 1896, is considered as a new synonym of *buccatus* Kriechbaumer, 1882. *Anisobas tchischneri* Kokujev, 1924 (Rev. Russe d'Entom., p. 199.) is a synonym of *Pithotomus rufiventris* Kriechbaumer, 1888.

Introduction

The synoptic treatment of the European species of *Anisobas* Wesmael by G. V. BERTHOUMIEU, 1896, contains the descriptions of eight species of which one, *flaviger*, does not belong to *Anisobas*, while *buccatus* Kriechbaumer and *laticeps* Berthoumieu are synonyms. The remaining six represent only about two-thirds of the total palearctic species of *Anisobas*. Consequently, BERTHOUMIEU's key and specific descriptions are not sufficient to permit secure identifications. It is the aim of this paper to correct the deficiency.

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Anisobas Wesm., 1844: 145. Type species: *Ichneumon cingulatorius* Gravenhorst; designated by ASHMEAD, 1900.

This genus forms, together with *Neotypus* Foerster, *Listrodromus* Wesm., and *Lycaeniphilus* Heinrich, the tribe Listrodromini. All species of this tribe are, as far as it is known until now, parasites of Lycaenidae.

The genus *Anisobas* is Holarctic, with 5 Nearctic and 10 Western Palearctic species. The Palearctic species are discussed below.

In the western section of the Palearctic Zone, the range of the genus includes Africa north of the Sahara (not found south of the Sahara). TOWNES, MOMOI, and TOWNES (1965) list two species of *Anisobas* from Japan and one from China.

For the definition of the genus and its comparison with related genera, see HEINRICH (1962).

Key to the western Palearctic *Anisobas*

1. Femora III black or brown-black.
- Femora III predominantly or entirely red.
2. Scutellum black. Basal part of tergite II without coarse, longitudinal rugosity (North African species).
- Scutellum white marked. Basal part of tergite II with coarse, longitudinal rugosity. (Length 8-11 mm.)
3. Temple profile, in vertical view, distinctly widened behind eyes. Femora II and III uniformly deep black. Tergites I-III, and usually base of tergite IV, bright red. (Flagellum with white annulus in both sexes. Length 12 mm.)
 8. buccatus Kriechbaumer
 Tunisia, Algeria
- Temple profile, in vertical view, less strongly widened behind eyes. Femora II and III blackish-brown. Tergites I-III brown. (Flagellum with white annulus. Length 10 mm.)
 9. maroccanus, new species
 Morocco
4. Tergites V-VII with apical white bands. (Legs II and III uniformly black. Length 10 mm.)
 10. brombacheri Heinrich
 Germany
- Tergites IV-VII with apical white bands. (Legs II and III extensively red. Length 8-11 mm.)
 6. jugorum Heinrich (var.)

5. Apical margin of clypeus deeply emarginate, with a strongly projecting median tooth.

Lycaeniphilus cephalotes Kriechbaumer¹⁾

- Apical margin of clypeus only slightly, or not at all, emarginate.
6. Abdomen narrow, tergite III of female apically about twice, or a little more, as wide as long, of male not wider than long.
- Abdomen broad-oval, tergite III apically 3 times or more, as wide as long.
7. Cheek profile, in frontal view, only moderately narrowed toward mandible base, with slightly curved outline. As a rule, only tergites V-VII, rarely also tergite IV, with apical white bands. In the male, flagellum without annulus, and the facial and lower outer orbits with white lines. (Apex of pronotal ridge and the subalarum white marked. Length 8-11 mm.)

1. cingulatorius Gravenhorst
Europe, Afghanistan

- Cheek profile, in frontal view, strongly narrowed toward mandible base, with straight outline. Tergites IV-VII with apical white bands. (Apex of pronotal ridge and the subalarum without white marks. Length 8 mm.)

2. parviceps Thompson
Sweden

8. Only tergites V-VII with apical white bands. (Tergite IV without a white mark or band, sometimes with a small, white spot in the middle of the apical margin. Length 10-11 mm.)
- Tergites IV-VII with broad, apical white bands.

9. Scutellum extensively white. (Femora III predominantly red.)

4. seyrigi Heinrich
Spain, Peloponnes, Turkey

- Scutellum uniformly black. (Femora II and III predominantly red. Temple profile, in vertical view, not widened behind eyes. Type specimen, ♀, with white flagellar annulus on segments 5-11; flagellum of male without annulus.)

3. platystylus Thomson
Sweden

10. Entire surface of tergite II evenly and densely, finely punctured, without a trace of rugosity. (Head almost uniformly black, its white marks reduced to a rudimentary, extremely narrow, short line on temple orbits. Apex of pronotal ridge, subalarum, and scutellum white. Length 11 mm.)

5. gusenleitneri, new species
Turkey

- Sculpture of tergite II markedly coarser, between gastrocoeli usually with some longitudinal rugosity.

¹⁾ The species was separated from *Anisobas* on account of the different structure of clypeus. (HEINRICH, 1933: 158)

11. Scutellum more or less extensively white. Apex of pronotal ridge and the subalarum, as a rule, white marked. (Frontal and temple orbits with white lines. Femora III red, with black apex, in the male varying to almost entirely black. Tibiae and tarsi III black, the former in ♀ usually with red section beyond base. Length 8–11 mm.)

6. *jugorum* Heinrich

Finland to Mediterranean Islands

- Thorax, including scutellum uniformly black. (Femora III light red with black tip. Tergites II and III clear red. Length 11 mm.)

7. *hostilis* Gravenhorst

Southern Europe

1. *Anisobas cingulatorius* Gravenhorst

Ichneumon cingulatorius Gravenhorst, 1820: 309, ♂♀. Lectotype ♀: Wrocław University. In *Anisobas*: WESMAEL, 1844: 145, ♂♀; BERTHOUMIEU, 1896: 300 (396), ♂♀; HEINRICH, 1929: 317, North Iran, ♀; TOWNES, MOMCI, TOWNES, 1965: 510 (quotations).

Distribution

Widely distributed in Europe (BERTHOUMIEU, 1896); Northern Iran (HEINRICH, 1929); Turkey, Spain, Austrian Alps, Northern part of West Germany (Coll. G. Heinrich).

Systematics

This species belongs to the group with comparatively slender shape of the female abdomen, tergite II being apically about twice (or not much more) as wide as medially long. As a rule, only tergites V–VII are apically white banded, but in some fairly rare variations also tergite IV may display a restricted white band.

In general appearance similar to *parviceps* Thomson from Sweden; differs from *parviceps* mainly in the structure of the cheek profile which is, in *parviceps* (in frontal view) much stronger narrowed toward mandible base, with nearly straight outline.

Description

Female: Flagellum black, with dorsal white annulus on segments about VII, VIII, or IX to XI or XII. Head and thorax black, with the following white marks: always narrow lines on lower frontal orbits and on the orbits of temples, and the dorsal surface of scutellum; as a rule, also the posterior part of pronotal ridge and a mark on subalarum white. Tergites I–III, and often base of tergite IV laterally, red, IV–VII black, V–VII with wide apical white bands, rarely also tergite IV with apical white band. Legs predominantly red, with the following black parts: all coxae and trochanters, base of femora I and II, the end of femora III, tarsi III, and the narrow base and broad end of tibiae III, the latter sometimes predominantly black; in specimens from Turkey, the femora, tibiae, and tarsi I and II extensively infuscated. Length 8–12 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated toward apex, segment I nearly 5 times as long as apically wide.

Head: Temple profile, in vertical view, slightly narrowed behind eyes, distinctly curved. Cheek profile, in frontal view, moderately narrowed toward mandible base, slightly curved. Malar space nearly as long as the width of mandible base.

Thorax: Scutellum convex, moderately raised above postscutellum, curving down to the latter; area superomedia distinctly wider than long, arched in front, much shorter than area posteromedia.

Legs: Coxae III ventrally finely, densely punctured.

Abdomen: Tergite II apically not much wider than medially long, tergite III apically about twice or somewhat more as wide as medially long.

Male: Agrees in color pattern with the female, with the following exceptions: flagellum without white annulus, and facial orbits with a white line.

2. *Anisobas parviceps* Thomson

Anisobas parviceps Thomson, 1888: 122, ♀. Holotype ♀: Entomological Museum, Lund; BERTHOUMIEU, 1896: 300–301 (396–397), ♀.

Distribution

Sweden.

Systematics

A second species with slender abdomen of the female and consequently closely related to the type species of the genus, *cingulatorius* Gravenhorst. Morphologically, however, clearly distinguished as a different species by the cheek profile, which is in frontal view rather strongly narrowed toward the mandible base, with nearly straight outline. Differs from *cingulatorius* in color by the absence of white marks on the end of pronotal ridge and on subalarum, and by the presence of an apical white band also on tergite IV (which, however, occasionally also occurs in *cingulatorius*).

Description

Female: Flagellum black, with dorsal white annulus on segments IX–XI. Head and thorax black, with the following white marks: a short, narrow line on frontal and on temple orbits and a large mark on scutellum. Tergites I–III red, IV–VII black, with apical white bands. Legs as in *cingulatorius*.

3. *Anisobas platystylus* Thomson

Anisobas platystylus Thomson, 1888: 122, ♂♀. Lectotype ♂: Entomological Museum, Lund. Bears a very large, red label "Lectotypus *Anisobas platylabus* Thoms., J. F. Aubert, 1959" and a large white label "*Amblyteles platylabus* Thoms. 1888. Lectotype ♂, det. M. S. FITTON, 1978". BERTHOUMIEU, 1896: 301 (397), ♂♀.

Distribution

Sweden.

This species is closely related to *seyrigi* Heinrich, agreeing in structure as well as in the restriction of white bands to the tergites V-VII in both sexes. It differs from *seyrigi*, in both sexes, by black scutellum, and in female in addition by a markedly more extensive, dorsal, white annulus of the flagellum, reaching from the flagellar segments V to XI.

Description

Female: Flagellum black, with dorsal white annulus on segments V-XI. Head and thorax almost uniformly black, with only a short, narrow, white line on temple orbits. Legs predominantly red, except: all coxae and trochanters black; tip of femora III, narrow base and broad apex of tibiae III, and the tarsi III infuscated. About apical half of postpetiole and the tergites II and III red, the third tergite medially extensively infuscated; rest of segment I and the basic color of tergites IV-VII black, tergites V-VII with wide, apical, white bands, the one on tergite V laterally abbreviated. Length 10-11 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated toward apex, segment I about 6 times as long as apically wide, the XVth approximately square. (The ends of both flagella lacking).

Head: Temple profile, in vertical view, barely widened behind eyes, strongly curved. Cheek profile, in frontal view, moderately narrowed toward mandible base, distinctly curved. Apical margin of clypeus slightly emarginate.

Thorax: Mesoscutum very densely punctured; scutellum strongly raised above post-scutellum, dorsally evenly convex, punctured, laterally not carinate. Propodeum moderately abbreviated, the area posteromedia somewhat more than twice as long as the horizontal part medially; area superomedia twice as wide as long.

Legs: Coxae III ventrally finely, evenly, and densely punctured.

Abdomen: Broad. Second tergite apically wider than medially long, the third tergite apically 4 times as wide as medially long. Tergites II and III densely and fairly strongly punctured, the puncturation on tergite III evenly distributed and without rugosity, on tergite II irregular and running into rugosity, between gastrocoeli coarsely, longitudinally rugose.

Male: Head and thorax, including scutellum, black. In addition to the short, white line on temple orbits (as in female) white are: about lower half of frontal orbits narrowly and the facial orbits more broadly, and a small mark on subalarum. Tegulae and apical part of pronotal ridge red-brown. Legs predominantly red, except black parts as in female. Color of abdomen and sculpture of anterior tergites as in female, except only tergite III which is more extensively blackish infuscated, with only the base and lateral edges narrowly red and the red, narrow, apical margin. Tergites V-VII, as in female, with apical white bands. Length 11 mm.

4. *Anisobas seyrigi* Heinrich

Anisobas seyrigi Heinrich, 1933: 158-159, ♀♂. Holotype: ♀; Institute of Zoology, Polish Academy of Sciences. Sierra Morena, Spain, 24. IV. 1927, leg. A. Seyrig.

Distribution

Spain, Greece, Sicily, Turkey.

Systematics

Among all the species with broad-oval abdomen of the female (tergite III being apically 3 times or more as wide as long) and occurring north of the Mediterranean Sea, this is the only one without apical white band on tergite IV.

Description

Female: Flagellum black, with dorsal white annulus on segments VII or VIII-X or XI, in one specimen from Turkey on segments IX-X only. Head and thorax black, with only the scutellum and a narrow stripe on temple orbits white. All coxae and trochanters, the apices of femora III and of tibiae III, and the entire tarsi III, black; entire femora, tibiae and tarsi I and II, and the rest of femora III and of tibiae III, red. Abdomen tricolored: tergites I-III and the anterior, lateral corners of tergite IV, red; base of petiole and tergites IV-VII black, tergites V-VII with broad, apical, white bands; sometimes tergite IV with white spot in the middle of its apical margin. Length 10-11 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated toward apex, with 27-29 segments, segment I about 5 times as long as apically wide, segment XI square.

Head: Temple profile, in vertical view, barely widened behind eyes, strongly curved. Cheek profile, in frontal view, moderately narrowed toward mandible base, slightly curved. Apical margin of clypeus slightly emarginate.

Thorax: Mesoscutum very densely punctured. Scutellum strongly raised above post-scutellum, dorsally convex, laterally not carinate. Propodeum moderately abbreviated, the area posteromedia about twice as long as the horizontal part medially, the area superomedia twice as wide as medially long.

Legs: Coxae III ventrally fairly finely and very densely punctured.

Abdomen: Broad; tergite II apically wider than medially long, tergite III apically about 4 times as wide as medially long. Tergites II and III evenly and rather strongly and densely punctured, without rugosity between gastrocoeli.

Male: Flagellum uniformly black. Head black, with only a short, narrow white line on temple orbits. Color of thorax, legs, and abdomen as in female.

5. *Anisobas gusenleitneri*, new species

Holotype: ♀, "Turkey, Meram Konya, 14. VI. 1968, leg. J. Gusenleitner". Coll. G. Heinrich, Dryden, Maine, USA.

Systematics

This species is distinguished from all others of the genus by very fine puncturation on tergites II and III and by reduction of the white markings of the orbits to a rudimentary line on temples; the line is so short and narrow that it can be easily overlooked.

Description

Female: Flagellum black, with dorsal white annulus on segments VI-XI. Head and thorax black, the former with only a rudimentary white line on temple orbits, the latter with the following white marks: apical fourth of pronotal ridge, subalarum, and scutellum. All coxae and trochanters, the base of femora I and II, and the extreme apex of femora III, black; the first trochanters I with narrow, apical white margin, rest of all femora red. The narrow base and broad apex of tibiae III and the tarsi III black, tibiae III dark reddish between black basal and apical section. Tibiae and tarsi I light red, tibiae I ivory on ventral side; tibiae II red, infuscated dorsally and apically. Tarsi II infuscated-red. Tergites II and III, and the sides of tergite IV red, tergite I and the basic color of tergites IV-VII black; tergites IV-VII with broad, apical white bands. Length 11 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated toward apex, with 28 segments, segment I about 5 times as long as apically wide.

Head: Temple profile slightly widened behind eyes, strongly curved. Cheek profile, in frontal view, moderately narrowed toward mandible base, slightly curved. Apical margin of clypeus straight.

Thorax: Mesoscutum very densely punctured. Notauli indicated at the base. Scutellum moderately raised above postscutellum, with vertical apical slope, dorsally convex, laterally not carinate. Area superomedia twice as wide as long.

Legs: Coxae III finely and extremely densely punctured.

Abdomen: Broad-oval, tergite III apically more than 3 times as wide as medially long, tergite II apically twice as wide as medially long. Tergites II and III finely, evenly, and densely punctured, completely without rugosity between gastrocoeli.

Etymology

Named after Dr. J. Gusenleitner, Linz, Austria, who collected the holotype.

6. *Anisobas jugorum* Heinrich

Anisobas hostilis jugorum Heinrich, 1949: 59, ♂. Holotype: ♂; Berchtesgaden, 1800 m, 25. VII. 1947. Coll. G. Heinrich. Allotype: ♀; Kaernten (Austria), Mauthen, 10-25. VI. 1943, leg. Michalk. Coll. G. Heinrich. First description.

Distribution

Germany: Alps (Bavaria), Bayrischer Wald; Austria: Alps (Kaernten, Steiermark); Creta; Sicily. In Coll. G. Heinrich. Finland. Zool. Mus. Helsinki.

Systematics

This species belongs to the group with a broad female abdomen, a character less obvious in the male. The color of femora III varies in males from red with black tip to almost entirely black, with, usually, lateral dark red stripes or marks. In females, the femora III are constantly red, with black tip.

Description

Male: Flagellum black, with dorsal white annulus usually on segments VIII or IX-XIII or XIV. Head and thorax black, with the following white marks: narrow lines on lower frontal and on temple orbits, apex of pronotal ridge, subalarum and scutellum more extensively. Legs predominantly black, except tibiae I and II ivory on anterior side; femora III varying from red with black tip to predominantly black, with more or less extensive red lateral marks. Abdomen black, except apical, red band on postpetiole and red tergites II and III; tergites IV-VII with apical white bands. Length 8-10 mm.

Flagellum: With a long row of elongate-oval tyloids.

Head: Temple profile moderately curved, barely narrowed behind eyes. Cheek profile, in frontal view, moderately narrowed toward mandible base and slightly curved.

Thorax: Mesoscutum strongly and densely punctured. Notauli indicated at the base. Scutellum slightly raised above postscutellum, laterally carinate at the base. Area superomedia short, about twice as wide as long.

Legs: Coxae III and femora III strongly and densely punctured.

Abdomen: Tergite II medially about as long as apically wide, coarsely and densely punctured, longitudinally striate between gastrocoeli. Tergite III also coarsely and densely punctured, apically somewhat more than twice as wide as medially long.

Female: Flagellum black, with dorsal, white annulus on segments VIII or IX-XI. Head and thorax black, with the following white marks: narrow stripes on frontal and on temple orbits, apical part of pronotal ridge, subalarum, and scutellum. Legs predominantly red, with the following black parts: all coxae and trochanters, base of femora I, extreme end of femora III, base of tibiae III narrowly, their broad, apical section, and the tarsi III. Tergites I-III and the basal, exterior corners of tergite IV red; tergites IV-VII black, with wide, apical white bands. Length 10-12 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated toward apex, with (in allotype) 32 segments; segment I about 5 times as long as apically wide.

Head: Temple profile, in vertical view, not widened behind eyes, moderately curved. Cheek profile, in frontal view, moderately narrowed toward mandible base, rather slightly curved. Malar space about as long as width of mandible base.

Thorax: Mesoscutum very densely punctured. Scutellum moderately raised above postscutellum, dorsally convex, laterally not carinate. Area superomedia about twice as wide as medially long.

Legs: Coxae III and femora III finely and densely punctured.

Abdomen: Moderately wide; tergite II apically somewhat wider than medially long, tergite III twice as wide as long. Tergites II and III rather densely and coarsely punctured, with irregular, longitudinal rugosity on anterior part between gastrocoeli.

7. *Anisobas hostilis* Gravenhorst

Ichneumon hostilis Gravenhorst, 1820: 329, ♀; 1829: 830, ♂. Holotype: ♀; Wrocław University, Museum of Natural History, Poland. Bears red label "Holotypus" and white label "*Ichneumon hostilis* Gravenhorst, ♀, design. Oehlke, 7.65.11"; without locality label.

Anisobas rebellis Wesm., 1844: 145, ♀; 1848: 139 - 305, ♀♂. Types in Brussels, Belgium; Inst. Roy. d. Sci. Nat.

Anisobas hostilis Berthoumieu, 1896: 301 (397), ♀♂.

Distribution

According to BERTHOUMIEU (1896), "assez repandu en Europe". In Coll. G. Heinrich: one female from the Island of Krk, Yugoslavia and 3 males from Macedonia, Greece.

Systematics

Belongs to the group of species distinguished by a broad abdomen, tergite II being 3-4 times as wide as medially long, combined usually with a widened temple profile. It is distinguished by the combination of the following characters: (1) head and thorax, including scutellum, black, except only a narrow, white line on temple orbits and sometimes a small, white mark on the scutellum; (2) tergites IV-VII with wide, apical white bands; (3) femora red.

Description

Female: Flagellum black, with dorsal white annulus on segments VII-XI. Head and thorax almost uniformly black, with only a narrow, short, white line on temple orbits; sometimes the scutellum with a small white spot. All coxae and trochanters black; basic color of femora, tibiae, and tarsi red, the apex of femora III and the tibiae and tarsi III blackish infuscated; tarsi and tibiae I and II also infuscated, the ventral side of tibiae I ivory. Tergites I-III and tergite IV laterally at base, red; tergites IV-VII with wide, apical white bands. Length 11 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated toward apex, segment I about 5 times as long as apically wide.

Head: Temple profile, in vertical view, slightly widened behind eyes, strongly curved. Cheek profile, in frontal view, moderately narrowed toward mandible base, slightly curved.

Thorax: Mesoscutum very densely punctured. Notauli barely indicated at the extreme base. Scutellum very strongly raised above postscutellum, with distinct lateral carinae. Propodeum strongly abbreviated, the area posteromedial densely, transversely striate, about 5 times as long as the horizontal part medially; area superomedial nearly 5 times as wide as long.

Legs: Coxae III ventrally fairly finely, very densely punctured.

Abdomen: Broad; tergite II apically wider than medially long, tergite III apically about 4 times as wide as medially long; tergites II and III very densely punctured; punctures on median field of postpetiole and between gastrocoeli running into irregular, longitudinal rugosity.

Male: According to BERTHOUMIEU (1896) the flagellum is usually white-banded. The 3 specimens from Greece have a black flagellum without annulus.

3. *Anisobas buccatus* Kriechbaumer

Anisobas buccatus Kriechbaumer, 1882: 241, ♀. Lectotype: ♀; Zoologische Staatssammlung, Munich. Bears the following labels: (1) white label "Hispania, *Anisobas buccatus* Kriechb."; (2) white label "*Anisobas buccatus* Kriechbaumer"; (3) white label "Chichrua"; (4) red label "Lectotypus *Anisobas buccatus* Kriechbaumer, Diller 1979, Zool. Staatssammlung München". Allotype: ♂; Naturhistorisches Museum, Vienna, Austria. With label "*Anisobas buccatus* K. Schmiedeknecht" and a red label "Neallotype". First description.

Anisobas laticeps Berthoumieu, 1896: 302 (398), ♀. New synonymy. Holotype: ♀; Mus. d'Histoire Naturelle, Paris. Bears the following labels: (1) red label "Type"; (2) green label "Pic 193"; (3) white label "*Anisobas laticeps*"; (4) second white label "*Anisobas*"; (5) third white label "*laticeps*"; (6) a locality label "M. Carree (= Maison Carree, Algeria).

Distribution

Tunisia, Algeria, and (perhaps) Spain. The locality label of the type of *buccatus* Kriechbaumer indicates Spain. The locality label of *laticeps*, Algeria. In the Museum of Natural History in Vienna, Austria, are specimens from Tunisia.

Systematics

This species is distinguished in color by uniformly black legs and thorax, and also by having the white bands only on tergites V-VII; in structure by distinctly widened temples, with strongly curved outline.

Description

Female: Flagellum black, with dorsal white annulus on segments VIII-XI. Head and thorax almost uniformly black, with only a short, narrow white line on temple orbits. Legs black, except ivory ventral side of tibiae I. Tergites I-IV red; the apical part of tergite IV and basic color of tergites V-VII black, tergites V-VII with wide, apical white bands. Length 12 mm.

Flagellum: Bristle-shaped, slender, strongly attenuated at apex, segment I about 5 times as long as apically wide, segment XIV approximately square, none wider than long.

Head: Temple profile, in vertical view, distinctly widened behind eyes, strongly curved. Apical margin of clypeus straight, its lateral edges slightly upward-bent, the apical margin narrowly depressed. Malar space distinctly shorter than width of mandible base. Cheeks in lateral view wide and strongly convex.

Thorax: Scutellum convex, distinctly raised above postscutellum, laterally carinate only at the extreme base. Area posteromedial sparsely, irregularly rugose, about 3 times as long as the horizontal part medially. Area superomedial twice as wide as long.

Legs: Coxae III and femora III very densely punctured.

Abdomen: Tergites II and III not very strongly, somewhat irregularly punctured. The space between gastrocoeli longitudinally rugose. Tergite III apically nearly 3 times as wide as long.

Male: Flagellum black, with dorsal white annulus on segments X-XIII, and with longish-oval tyloids on segments VI-XX, the longest, on segments XV-XVIII, reaching from bases to apices of segments.

Tibiae I and II ivory on anterior side. Tergite IV uniformly black. Otherwise color as in female.

9. *Anisobas maroccanus*, new species

Holotype: ♀, "Morocco, Imlif Alto Atlante, Afr., 1600 m, 14. VII. 1976, leg. Dr. Clanasso".
Coll. G. Heinrich, Dryden, Maine, USA.

Distribution

North Africa, Morocco.

Systematics

This species differs from the preceding, north African *Anisobas*, by normal, not markedly widened temples and cheeks, and by, likewise normal, not very wide clypeus with straight apical margin. Chromatically distinguished by dark brown color of anterior tergites.

Description

Female. Flagellum black, with dorsal white annulus on segments VII-XI. Head and thorax almost uniformly black, only a short, narrow white line on temple orbits. Legs black, all femora predominantly blackish-brown, tibiae I yellowish on anterior side. Tergites I-III dark brown, IV-VII black; tergite IV with narrow, abbreviated on both sides, apical white band, tergites V-VII with wide, apical white bands, covering almost the entire tergites. Length 10 mm.

Flagellum: Bristle-shaped, slender, with 28 segments, the basal segments elongate; segment I about 5 times as long as apically wide, in dorsal view, about the segment XIV square.

Head: Temple profile, in vertical view, rounded but neither widened (as in *buccatus* Kriechbaumer) nor narrowed behind eyes. Cheek profile, in frontal view, clearly narrowed toward mandible base, slightly curved. Clypeus much narrower than in *buccatus*, apically only about 4 times as wide as medially long, flattened, with almost straight outline.

Thorax: Mesoscutum densely and fairly finely punctured, glossy between punctures. Scutellum strongly raised above postscutellum, dorsally evenly convex, laterally carinate to the middle. Area superomedia about 3 times as wide as medially long.

Legs: Femora III and ventral side of coxae III evenly, very densely, and moderately finely punctured.

Abdomen: Moderately wide, tergite III only about twice as wide as medially long. Tergites II and III densely and fairly finely punctured, distinctly glossy.

10. *Anisobas brombacheri* Heinrich

Anisobas brombacheri Heinrich, 1933; Nr. 4, ♂. Holotype: ♂; Institute of Zoology, Polish Academy of Sciences. Ex *Craniophora ligustri* F., Freiburg, Germany; 2. V. 1928, leg. Brombacher.

Distribution

Germany.

Systematics

The species is characterized by black legs, in combination with restriction of white pattern on the abdomen to apical bands on tergites V-VII only.

Description

Male: Flagellum black, with dorsal white annulus on segments IX-XIII. Head and thorax black, with the following white marks: narrow lines on the upper parts of inner orbits and on temple orbits, and apical part of scutellum. Legs black, tibiae and tarsi I and II partially brown. Abdomen black; petiole and tergites II and III red; tergites V-VII with broad, apical white bands.

Flagellum: Fairly stout, slightly nodose toward apex.

Head: Temples and cheeks broad, strongly convex. Clypeus apically emarginate distinctly.

Thorax: Scutellum dorsally flat, at the base laterally carinate, steeply and deeply sloping toward postscutellum at apex.

Abdomen: Petiole narrow, postpetiole with distinct, finely rugose median field. Gastrocoeli of medium size, only slightly depressed.

Zusammenfassung

Ein Beitrag zur Kenntnis der westpaläarktischen Arten von *Anisobas* Wesm. (Hymenoptera, Ichneumonidae)

Zehn westpaläarktische Arten des Genus werden wiederbeschrieben und ein Schlüssel zu ihrer Identifikation wird vorgelegt. Zwei neue Arten werden hinzugefügt: *Anisobas gusenleitneri* (Türkei) und *A. maroccanus* (Marokko). *Anisobas laticeps* Berthoumieu, 1896, wird als neues Synonym von *A. buccatus* Kriechbaumer, 1882, betrachtet. *Anisobas tschitscherini* Kokujev, 1904 (Rev. Russe d'Entom., p. 199) ist ein Synonym von *Pithotomus rufiventris* Kriechbaumer, 1888.

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