

# A review of North American species of *Messatoporus* Cushman (Hymenoptera: Ichneumonidae, Cryptini)

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A key to 18 North American species of *Messatoporus* is given. 12 new species are described from Mexico. *M. jocosus* (Provancher, 1874) is resurrected from synonymy with *M. discoidalis* (Cresson, 1872).

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The ichneumonid genus *Messatoporus* belongs to the subtribe Nematopodiina (Cryptini, Cryptinae). All members of the subtribe attack nests of different wasps that are made of mud or contain mud. The recorded hosts of *Messatoporus* are wasps of the genera *Ageniella*, *Auplopus*, *Ceropales* (Pompilidae) and *Ancistrocerus* (Eumenidae) (Townes & Townes, 1962; Yu & Horstmann, 1997). *Messatoporus* has American distribution and comprises about 15 species mostly from the Neotropical Region. Only three Nearctic species have been recorded north of Mexico (Townes & Townes, 1962), and two of them are known from Mexico. Twelve new species of *Messatoporus* are described based on the material of the ichneumonid collection of Insect Museum of UAT (Mexico, Tamaulipas, Cd. Victoria). In addition, a species from Canada and USA is resurrected from synonymy. A key to 18 *Messatoporus* species from North America is given.

The types of North American species (except for *M. nigripina* Cameron and *M. jocosus* Provancher) have been examined by the senior author. The types of new species and all the material examined (except when stated otherwise) are deposited at Insect Museum, UAT, Cd. Victoria, Tamaulipas, Mexico.

The following abbreviations are used for collections: AEI – American Entomological Institute, Gainesville, Florida, USA; BMNH – Natural History Museum, London, U.K.; ANSP – Philadelphia Academy of Natural Sciences, Philadelphia, USA; USNM – U.S. National Museum of

Natural History, Washington D.C., USA; ZIN – Zoological Institute, St.Petersburg, Russia. Other abbreviations: SMSC – “selva mediana subcaducifolia”; SMSP – “selva mediana subperennifolia”.

In the “Material”, Spanish words are cited according to labels.

## Genus *Messatoporus* Cushman, 1929

Cushman, 1929: 8; Townes & Townes, 1962: 462 (in subtribe Nematopodiina, descr., key to 3 Nearctic species); 1966: 123 (bibl. to 9 Neotropical species); Yu & Horstmann, 1997: 274 (bibl. to 13 species of the world fauna).

Type species: *Mesostenus discoidalis* Cresson, 1872, by original designation.

## Key to North American species of *Messatoporus*

1. Mesosternum entirely black; pronotum on dorsolateral margin black without white spot; first tergite entirely black except for apex (Fig. 12). Hind coxa almost completely black (except for anteriorly at base and dorsolaterally). Mesoscutum polished, with sparse hairs. Postscutellum whitish apically. Anterior half of metapleurum black; white coloration of hind half of metapleurum confluent with white lateral spots of propodeum. Posterior femur rufous with base and apex fuscous (Fig. 13) . . . . . 12. **M. mesosternalis** sp. n.  
– Mesosternum entirely or predominantly pale; pronotum on dorsolateral margin entirely or partly white; petiole of first tergite partly whitish. Other characters not exactly as above . . . . . 2
2. Mesoscutum with yellow (or whitish) spot, which is not bifurcate anteriorly along notauli . . . . . 3

- Median subcircular yellow spot of mesoscutum bifurcate anteriorly (with a pair of yellow stripes extending forward along lateral edge of median lobe – Fig. 27) . . . . . 16
- 3. Postscutellum yellow (Fig. 44). Antenna strongly compressed in apical 0.3; its first 5-7 black segments beyond white band with a whitish lateral stripe (Figs 2, 3). Hind trochanter I yellow with basal spot black; trochanter II black (with basal yellow spot ventrally). Mesoscutum polished, almost hairless on lateral lobes. Scape in female black, usually with small yellow spot ventrally . . . . . 3. **M. compressicornis** Cushman
  - Postscutellum black. Antenna usually (except for *M. grandis*) not strongly compressed apically, and black segments just beyond white band without lateral white marks (except, sometimes, for first or second segment). Hind trochanter I usually rufous, or black, or rufous with black. – Other characters partly not as above . . . . . 4
- 4. Mesopleurum under subtegular ridge with large black spot (sometimes, this spot interrupted with yellow – Figs 11, 20) . . . . . 5
  - Mesopleurum under subtegular ridge and in upper front corner entirely pale (Fig. 21). – Hind femur fuscous dorsally (Figs 45, 46) . . . . . 15
- 5. Hind tibia uniformly yellow, not blackish apically. Hind femur black, yellow ventrally and sometimes with yellow dorsal line (Figs 39-41). – Fore and middle femora black posteriorly; hind trochanters II black. Forewing 8-12.5 mm . . . . . 6
  - Hind tibia fuscous at apex (Figs 38, 47-51). Hind femur rufous or yellowish, sometimes darkened basally and apically (Figs 32, 38, 47-52) . . . . . 8
- 6. Mandible yellow (except apically). Hind femur and hind trochanters dorsally entirely black (Fig. 41). Petiole of first segment entirely black ventrally and laterally, with yellow dorsal mark. Mesepimeron black, whitish at apex and usually on hind margin. Mesoscutum more or less evenly covered with sparse hairs. Scape entirely black . . . . . 7. **M. grandis** sp. n.
  - Mandible of female black or with small yellow basal spot (Fig. 6). Hind femur and hind trochanter I dorsally partly yellow (Figs 39, 40). Petiole of first abdominal segment white in basal half. Mesepimeron entirely black (Fig. 11). Mesoscutum with polished hairless areas around central white spot. Scape with a white lateral spot . . . . . 7
- 7. Hind margin of abdominal tergites 2-4 black (Fig. 7). Hind margin of tergite 7 convex and black dorsally; tergite 8 dorsally black with yellow lateral marks (Fig. 8). Ovipositor sheath 1.7-1.8 times as long as hind tibia . . . . . 2. **M. arcuatus** Cresson
  - Hind margin of abdominal tergites 2-4 whitish yellow (Fig. 9). Hind margin of tergite 7 concave and white; tergite 8 dorsally entirely black (Fig. 8). Ovipositor sheath 1.2 times as long as hind tibia . . . . . 4. **M. covarrubiasi** sp. n.
- 8. Propodeum apically entirely black (between pleural carinae), its black apical spot transverse (Fig. 33). Pronotum, speculum and mesepimeron light yellow (Fig. 24). – Hind coxa white with a black dorsolateral spot usually widened basally and apically (Fig. 48); hind tibia rufous, whitish at base (except laterally) and fuscous in apical 0.1. Mesoscutum polished, almost without hairs. In female, only 6 apical flagellar segments black (beyond white band) . . . . . 14. **M. propodeator** sp. n.
  - Propodeum apically white with median elongate black spot (Figs 34-37). Pronotum of female at least on hind lateral margin with a black stripe; speculum and mesepimeron usually entirely or partly black (Figs 18, 22, 25). Other characters not entirely as above . . . . . 9
- 9. Hind coxa entirely reddish (“fulvous”) . . . . . 10
  - Hind coxa at least with one blackish dorsal stripe . . . . . 11
- 10. Abdominal tergites black with a broad apical white band; tergite 7 black dorsally with median yellow spot on hind margin . . . . . 13. **M. nigripina** Cameron
  - Abdominal tergites pale rufous, fuscous basally (Fig. 42) . . . . . 16. **M. rufiventris** Cushman (part)
- 11. Hind coxa with only one black stripe dorsally, without a pair of black marks basolaterally (Figs 31, 32, 42, 43, 49). Hind femur entirely red, not darkened at base and at apex. Hind tibia pale rufous, not darkened at base or very weakly darkened at extreme base . . . . . 12
  - Hind coxa with three (or more) black spots: a dorsal one and a pair of basolateral ones subventrally (on each side of coxa) (Figs 38, 47, 50) . . . . . 14
- 12. Speculum almost entirely white (mesopleural fovea and thin line on mesepimeron blackish) (Fig. 19). Hind coxa pale rufous ventrally, whitish at base and dorsally proximad of black spot; hind trochanter I entirely reddish (Figs 31, 32). Ovipositor sheath about 0.75 times as long as hind tibia . . . . . 5. **M. discoidalis** Cresson
  - Speculum mostly black; hind margin of mesopleurum widely black (Figs 22, 42). Hind coxa evenly rufous ventrally and laterally. Hind trochanter I entirely reddish in female, fuscous dorsally in male . . . . . 13
- 13. Abdominal tergites black, with white apical band. Propodeum beyond the basal transverse carina with median polished area and partly without transverse striae. Colour pattern of propodeum as in Fig. 37. Mandibles in female black, in male yellow. Ovipositor rather long, ovipositor sheath about 1.3 times as long as hind tibia. – Mexico . . . . . 17. **M. terebrator** sp. n.
  - Abdominal tergites usually light reddish, more or less banded with fuscous at base of tergites 2-4 (Fig. 42). Propodeum beyond the basal transverse carina without median polished area, covered with transverse striae. Colour pattern of body as in Fig. 42. Mandibles in female yellow. Ovipositor sheath (in type) about 0.8 times as long as hind tibia. – USA . . . . . 16. **M. rufiventris** Cushman (part)
- 14. Speculum black, without semicircular pale spot in its upper half (Fig. 18). Antenna in male entirely white in apical third, except for the last segment (Fig. 1). Hind coxa black and white, with black lateral basal spot rather strong (Fig. 38); hind femur and hind tibia reddish, with fuscous at base and at apex. In male, pronotum white; hind trochanter II fuscous; mesoscutum entirely pubescent . . . . . 1. **M. antennator** sp. n.
  - Speculum in lower half black, with semicircular or isolated circular pale spot in its upper half (Fig. 25). Antenna in male black at apex (at least 6 segments black). Hind tibia in male blackish with distinct subbasal whitish yellow to almost white band in subbasal 0.25-0.35; hind trochanters fuscous dorsally (Fig. 50) . . . . . 18. **M. tibiator** sp. n.
- 15(4). Hind femur at apex with a large white dorsal spot (Fig. 46). Mesopleurum entirely pale yellow (except for a small black spot on prepectus). Hind coxa with two dorsal fuscous marks (Fig. 46), entirely pale ventrally and laterally. Hind tibia with subbasal white band (the band is very broad in male – Fig. 51). Mandibles black in female, whitish in male. Ovipositor sheath about 1.2 times as long as hind tibia . . . . . 10. **M. maculipes** sp. n.
  - Hind femur without white apical spot, black dorsally (Figs 45, 45a). Mesopleurum on hind margin widely

- black (Fig. 21). Hind coxa in addition to dorsal black spot with a pair of lateral subbasal spots. Hind tibia pale rufous, blackish at base and at apex (Fig. 45) . . . . . 6. ***M. femorator*** sp. n.
- 16(2). Pronotum, mesopleurum and metapleurum entirely yellow (Figs 26, 27). Postscutellum yellow. Abdominal tergites predominantly reddish, weakly fuscous at base (Fig. 26) . . . . . 15. ***M. rufator*** sp. n.
- At least pronotum and mesopleurum with black hind margin (Figs 23, 25, 43). Postscutellum black. Abdominal tergites black with white posterior band (Fig. 43) . . . . . 17
17. Hind coxa with only one black spot. Colour pattern of female as in Fig. 43 . . . . . 9. ***M. jocosus*** Provancher
- Hind coxa with dorsal and large lateral black spots (Fig. 47). Colour pattern of mesopleurum as in Figs 20, 23 . . . . . 18
18. Yellow spot on subtegular ridge connected with yellow coloration of mesopleurum (Fig. 20). Propodeum without crests. Lateral spots at base of hind coxa rather large; fuscous spots on trochanters and femur reduced (Fig. 47) . . . . . 11. ***M. mesonotator*** sp. n.
- Yellow spot on subtegular ridge separated from yellow coloration of mesopleurum (Fig. 23). Propodeum with distinct crests sublaterally. Lateral spots at base of hind coxa small; fuscous spots on trochanters and femur larger (Fig. 52) . . . . . 8. ***M. jalapa*** sp. n.

**1. *Messatoporus antennator* sp. n.**  
(Figs 1, 18, 38)

*Holotype*. ♂, **Mexico**, *Tamaulipas*, Gómez Farias, Alta Cimas, 940 m, tr. Malaise, 26.VI-3.VII.1999 (S. Hernández A.).

*Paratypes*. **Mexico**: *Nuevo León*: 4 ♂, Canyon Caballo, 19.IV and 9.VI.1984 (E. Ruíz C.); *Tamaulipas*: 1 ♂, Llera, matorral, 44 km S Cd. Victoria, tr. Malaise, 23-30.IX.2000 (Kasparyan); 35 ♂, Gómez Farias, Alta Cimas, 940 m, tr. Malaise, 20.III-28.VIII.1999 (S. Hernández A.); 1 ♀, 10 ♂, same locality, 4.VIII-14.X.2000 (D. Kasparyan); 2 ♂, Gómez Farias, Los Cedros, 300 m, tr. Malaise, 31.VII-7.VIII.1999 (S. Hernández A.).

*Description*. *Female*. Fore wing 6.0 mm. Antenna with 25 flagellar segments; about 10 subapical segments cylindrical, slightly thickened, 1.3-1.5 times as wide as basal one; two basal flagellar segments combined 1.25 times as long as maximum diameter of eye. Body smooth, with moderately sparse and rather short hairs; mesoscutum evenly covered with fine, moderately dense hairs, punctures fine and superficial. Propodeum behind basal transverse carina with transverse striae, which are weaker in anterior half (before crests); sublateral crests distinct and connected by carina. Ovipositor sheath about 0.75 times as long as hind tibia.

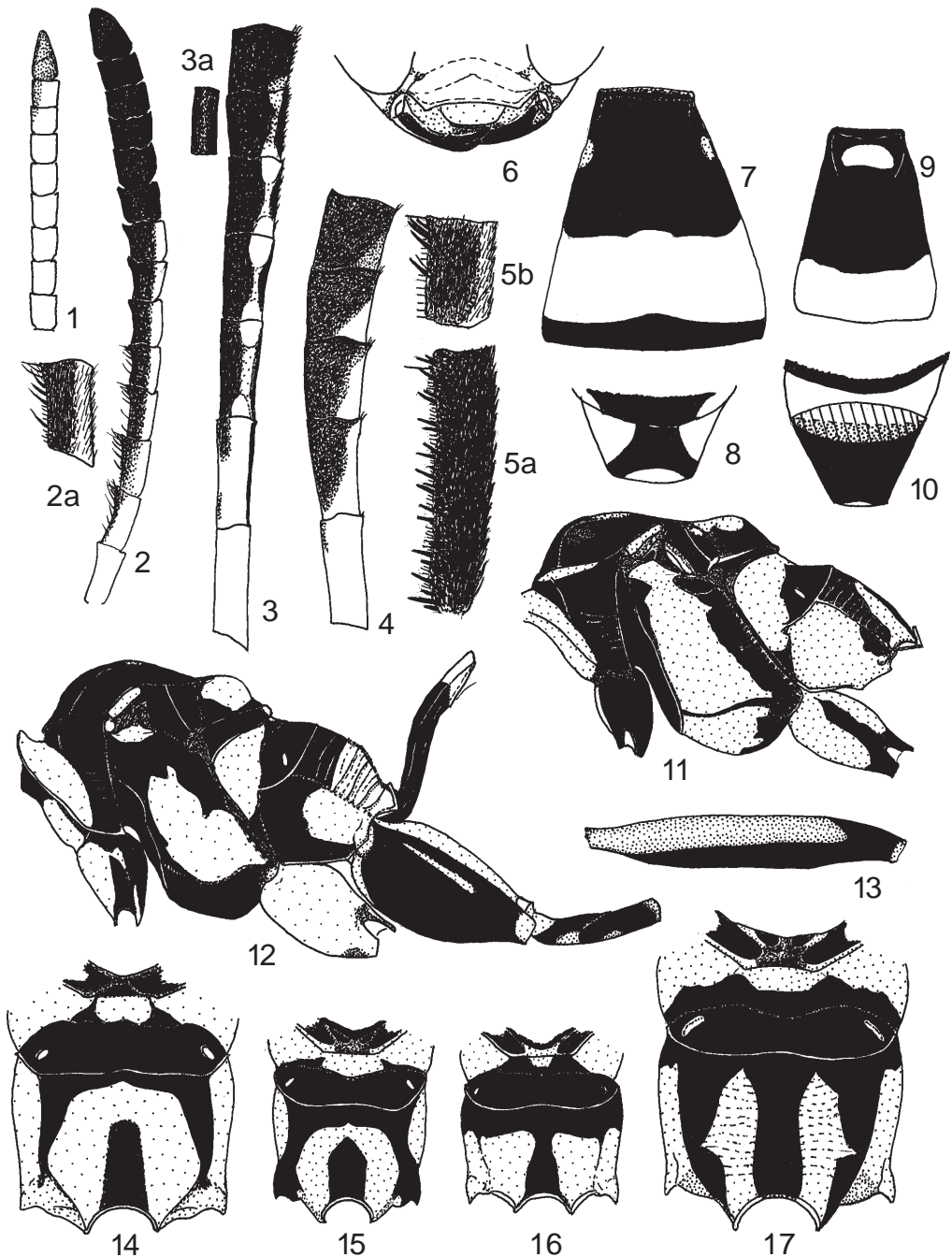
Body black with whitish spots and bands. Scape blackish brown with white spot ventrally; flagellum black with apical half of segment 7 and segments 8-14 entirely white, about 11 apical segments black. Head predominantly white, with broad median band extending from median point just above antennal sockets to occipital carina, hind half of vertex, stripe on hind margin of temples in their upper 0.5, and occiput black; mandibles with blackish teeth. Thorax coloured like

in *M. tibiator* (Figs 25, 36), but black spot on hind margin of pronotum very small, mesosternum beneath with brown stripes extending from prepectal carina to black postpectus; subcircular yellow spot in anterior part of black band above the speculum (typical of *M. tibiator*) indistinct (Fig. 18). Fore and middle coxae and fore trochanter I entirely whitish. Fore and middle femur and tibia pale reddish yellow; fore femur with narrow subbasal brown mark posteriorly and with posterodorsal weak pale brown mark in basal 0.3; fore tibia with posteroventral brownish stripe and with small dorsal brownish spot before the base; fore tarsus brownish yellow with last segment pale brown; middle tarsus entirely brown (paler ventrally). Middle tibia posteroventrally with short subbasal brownish mark. Hind coxa, trochanters and femur predominantly reddish, with blackish and white marks as in Fig. 38; posterior side of coxa with large blackish spot in basal half, this spot separated ventrally from symmetrical anterobasal black spot by ventral reddish line. Trochanter I slightly brownish dorsally; trochanter II reddish ventrally. Pterostigma brownish with dark brown margins. Abdominal segment 1 yellowish white, black at extreme base and dorsally in median third. Segments 2-6 black with apical half light yellow; lateral margins of tergites 5-8 light yellow; tergites 7 and 8 light brownish dorsally in basal 0.4 with apical part pale.

*Male*. Fore wing 5.5-7.5 mm. Antenna with 25-26 flagellar segments; segments 1-9(10) black, succeeding segments white except for two apical segments light greyish (Fig. 1). Coloration more or less similar to that in female, but pronotum completely light yellow, prepectus yellow with short black lateral areas before its upper ends. Black transverse band of propodeum (very narrow in female) in male rather broad and covers 20-30% of distance to apex. Fore femur with short dorsoposterior brownish mark at base. Middle tarsus light brown with segments 3 and 4 whitish. Black dorsal band on hind coxa wider than in female; hind trochanters blackish, partly reddish yellow; hind femur red with black dorsolateral spot at base (0.2-0.25 of femur length) and at apex (0.15), extreme base of femur reddish yellow at apex and ventrally. Hind tibia reddish, more distinctly darkened at base (0.12) and at apex (0.25).

*Comparison*. The males of *M. antennator* can be immediately recognized as they have the apical part of antenna almost entirely white, only one or two apical segments are slightly infuscate (Fig. 1). The female is very similar to that of *M. tibiator*, but differs in the black hind trochantelli, black hind margin of mesopleurum without distinct subcircular yellow spot above speculum (Fig. 18), and rather sharp crests of propodeum.

*Distribution*. Mexico: Nuevo León, Tamaulipas.



**Figs 1-17.** *Messatoporus*, male (1, 2, 2a, 5) and female (3-4, 6-17). 1-5, flagellar segments: 1, *M. antennator*; 2, 3, *M. compressicornis* (2a, segment 13); 4, *M. grandis*; 5, *M. femorator* (5a, segment 2; 5b, segment 15); 6-8, *M. arcuatus* (7, 8, holotype): 6, lower part of head; 7, tergite 2; 8, tergite 8 and posterior part of tergite 7; 9-11, *M. covarrubiasi* (holotype): 9, tergite 2; 10, tergite 8 and posterior part of tergite 7; 11, thorax with front and middle coxae; 12-13, *M. mesosternalis*: 12, thorax with base of legs and of abdomen; 13, hind femur; 14-17, propodeum and postscutellum, dorsal view: 14, *M. arcuatus*; 15, *M. covarrubiasi*; 16, *M. mesosternalis*; 17, *M. grandis*.

## 2. *Messatoporus arcuatus* (Cresson, 1873) (Figs 6-8, 14, 39, 39a)

Cresson, 1873: 156, ♀ [*Mesostenus* (*Mesostenus*). Type: ♀, Mexico, Orizaba]; Townes, 1946: 32 (*Messatoporus*).

**Material. Mexico:** Veracruz: type (ANSP); *Tamaulipas*, Gómez Farias: 1 ♂, Los Cedros, 300 m, Malaise trap, 18-19.VII.1994 (J.B. Woolley); 3 ♀, Alta Cimas, 900 m, Malaise trap, 17-24.IV.1999 and 19-26.VIII.2000 (S. Hernández A. and D. Kasparyan); *Yucatán*: 1 ♀, Sudzal Chico (SMSP), Febrero 1999 (Hugo Delfin).

**Male (nov.)** coloured similar to female, but mandibles yellow, white band covers flagellar segments 9-17(18) (in female, segments 7-12 white), and abdominal tergites 1-7 with black hind margins.

**Comparison.** *M. arcuatus* is the only Mexican species with black apical margins of tergites (1)2-4(5) in female (Fig. 7) (in male, all tergites with black hind margins); mandibles black in female, yellow in male; fore femora blackish posteriorly. Ovipositor sheath 1.7-1.8 times as long as hind tibia. In coloration of thorax and legs (Figs 14, 39). *M. arcuatus* is rather similar to *M. grandis*; it differs from *M. grandis* in the characters given in the key.

**Distribution.** Mexico: Tamaulipas, Veracruz, Yucatán.

## 3. *Messatoporus compressicornis* Cushman, 1929 (Figs 2, 3, 44)

Cushman, 1929: 12, ♀, ♂ [type: ♀, USA, Pennsylvania, Inglenook]; Townes & Townes, 1962: 467 (key, descr.; = *major*); Yu & Horstmann, 1997: 274 (bibl.); Ruiz-Cancino et al., 2002: 641 (Mexico). – *major* Cushman, 1929: 13, ♀ [type: ♀, USA, Florida, Orlando].

**Material. USA:** Pennsylvania, type of *M. compressicornis* (USNM), and Florida, type of *M. major* (USNM). **Mexico:** *Nuevo León*: 2 ♂, Canyon Caballo, 9.IV and 9.VI.1984 (E. Ruiz C.); 2 ♀, 1 ♂, Canyon Presa La Boca, Santiago, Tr. Mc Phail, 20.VIII and 31.X.1987 (H. Sosa B.); *Tamaulipas*: 1 ♀, Cd. Victoria, canyon Novillo, 2.VI.1983 (S. Arrambide); 1 ♀, same locality, 6.X.1984 (S. Hierba); 1 ♀, 4 ♂, same locality, 27.IV-13.VII.1985 (A. del Valle); 1 ♀, Cd. Victoria, canyon La Libertad (Troncones), 10.XI.1988 (I. Reyes S.); 4 ♀, 2 ♂, Llera, 44 km S Cd. Victoria, matorral, 29.X-4.XI.2000 (Kasparyan); 7 ♀, Llera, El Encino and El Roble, Tr. Mc Phail, 28.VII-3.XI.1988 (N. Reyes M.); 1 ♂, Gómez Farias, Los Cedros, 300 m, Malaise trap, 18-19.VII.1994 (J.B. Woolley); 4 ♀, 13 ♂, same locality, 27.II-17.VII.1999 (S. Hernández A.); 3 ♀, 11 ♂, Gómez Farias, Alta Cimas, 940 m, Malaise trap, 8.V-7.VIII.1999 (S. Hernández A.); *Veracruz*, Tuxpan: 1 ♀, Ojite, citricos, 10.IV.1996 (M. Molina); 1 ♀, Tihuatlan, citricos, 10.IX.1995 (R.C. Azuara); *Yucatán*: 1 ♀, 9 km N Teyo Pueblo, 29.IX.1999 (D. Burgos).

**Comparison.** *M. compressicornis* (Fig. 44) can be easily distinguished from other North American species by the yellow postscutellum, reddish

femora, and strongly compressed apical part of flagellum. The only other Mexican species with yellow postscutellum are *M. mesosternalis* and *M. rufator*; the first differs from *M. compressicornis* in the entirely black mesosternum and partly black femora, the second, in the antennae almost cylindrical, prothorax entirely light yellow, and median yellow spot of mesoscutum bifurcate anteriorly and running along notauli to front margin of mesoscutum.

**Variability.** The Mexican specimens a little differ from specimens from USA in the lateral white spots at apex and base of five black submedian flagellar segments (about 10 to 14), which are wider and confluent (Fig. 3) in female; in the type of *M. compressicornis*, these spots are present only at apex and base of three segments and separated. In females from Mexico, fore and middle coxae are usually entirely white ventrally; hind femur with fuscous ventroapical stripe (femur entirely rufous in the type); two first flagellar segments combined 1.25-1.45 times as long as maximum diameter of eye (1.23 in the type).

**Distribution.** USA, Mexico (Nuevo León, Tamaulipas, Veracruz, Yucatán).

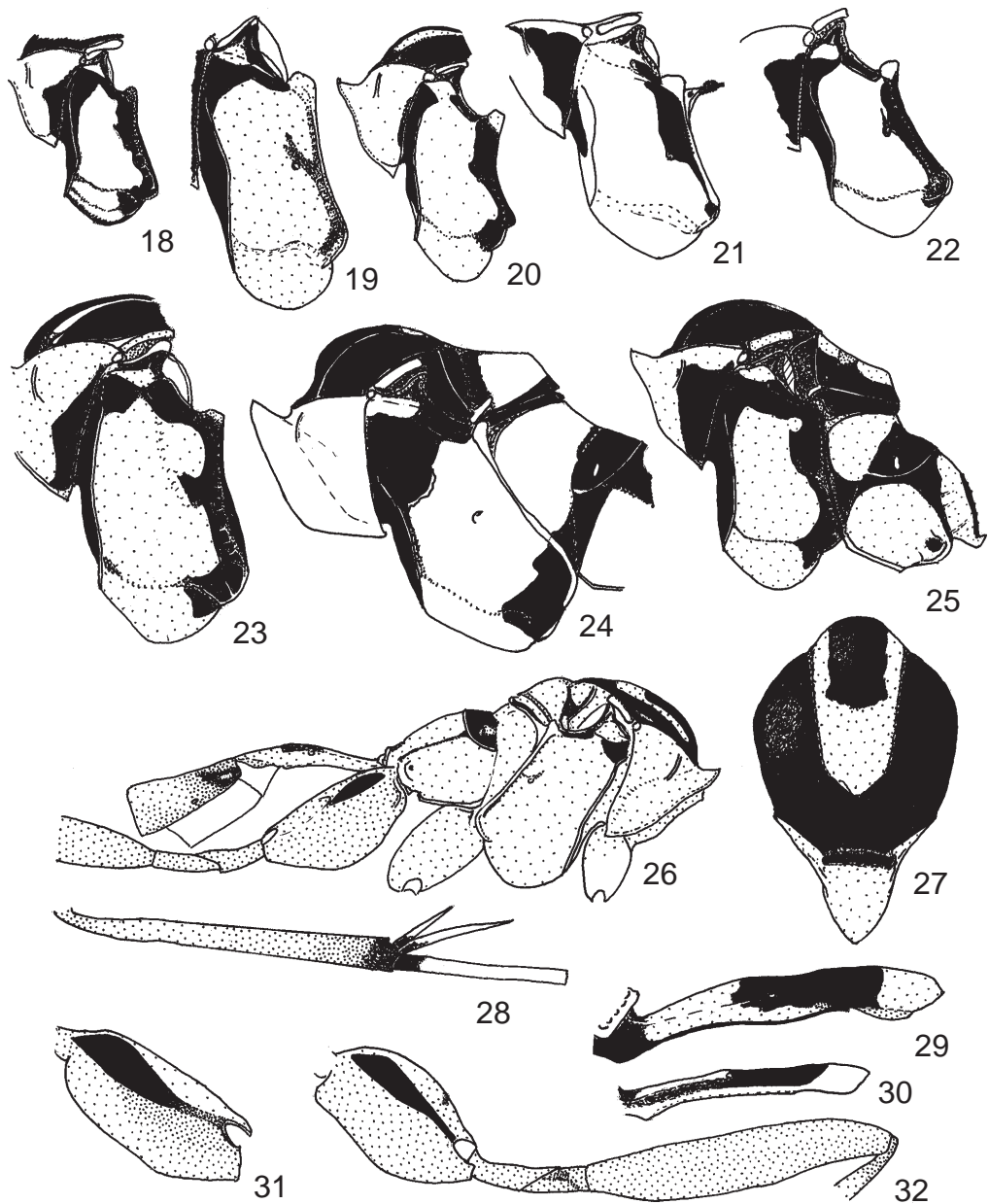
## 4. *Messatoporus covarrubiasi* sp. n. (Figs 9-11, 15, 40)

**Holotype.** ♀, **Mexico**, *Tamaulipas*, Gómez Farias, Alta Cima, 900 m, tr. Malaise, 19-26.VIII.2000 (Kasparyan).

**Paratype.** ♀, same locality as in holotype, 29.V-5.VI.1999 (S. Hernández A.) (at ZIN).

**Description. Female** (holotype). Fore wing 9.1 mm. Antenna with 23 flagellar segments; 8-10 subapical segments distinctly compressed, subquadrate, about twice as wide as basal flagellar segment in the middle; two basal flagellar segments combined 1.38 times as long as maximum diameter of eye. Body polished, without distinct punctures and with fine and sparse hairs; mesoscutum without hairs in its posterior 0.66; hairs moderately long (longer on propodeum and shorter on anterior part of mesoscutum). Propodeum behind basal transverse carina with distinct transverse striae; crests very weak and obscured by adjacent striae. Ovipositor sheath about 1.2 times as long as hind tibia.

Body black with yellowish spots and bands. Scape and pedicel black; flagellum black, with segments 7-11 entirely white. Head predominantly whitish; face in lower half with a pair of submedian vertical black stripes; apical margin of clypeus, wide median band on frons from upper margin of antennal sockets to occipital carina, and hind part of vertex and temples to level of lower 0.2 of eye black; hind orbits yellow, very narrow in upper part and broadened to cheeks; occiput black except for yellow on postgenae; mandibles completely black. Thorax



**Figs 18-32.** *Messatoporus*, colour pattern, female (18-28) and male (29, 30). 18-22, mesopleurum (with hind part of pronotum): 18, *M. antennator*; 19, *M. discoidalis* (type); 20, *M. mesonotator*; 21, *M. femorator* (type); 22, *M. terebrator* (type); 23-25, part of thorax, lateral view: 23, *M. jalapa*; 24, *M. propodeator*; 25, *M. tibiator*; 26-28, *M. rufator*: 26, thorax with base of legs and base of abdomen; 27, mesonotum; 28, hind tibia; 29-30, abdominal segment 1, lateral view: 29, *M. femorator*; 30, *M. tibiator*; 31-32, *M. discoidalis*: 31, hind coxa, dorsolateral view (type); 32, basal part of hind leg.

with black and yellow marks (Fig. 11); mesosternum yellow, with black posteriorly and on prepectus, separated from mesopleurum by black sternaulus. Mesoscutum black with median subcircular yellow

lowish spot. Scutellum yellow dorsally; hind edge of mesonotum yellow except for apex of scutellum. Propodeum with postmedian arched yellow spot (Fig. 15).

Fore and middle coxae (Fig. 11) and fore trochanters predominantly light yellow; fore coxa black dorsally and posteriorly; middle coxa posteriorly black, with dorsal black longitudinal band; trochanters with black posterior marks. Fore and middle legs beyond trochanters yellowish; femora blackish posteriorly, except for extreme apex and base; 5th tarsal segment brownish. Hind coxa, trochanters and femur with black and yellow marks as in Fig. 40; coxa posteriorly entirely black; trochanter I with large posterior black spot; femur dorsoposteriorly black, with narrow dorsal yellow line. Hind tibia, spurs and hind tarsus uniformly yellowish (tarsus slightly paler). Pterostigma yellowish brown, with dark brown margins. First abdominal segment light yellow, with broad transverse black band behind spiracles and with blackish narrow line ventrally. Second tergite black, with subbasal median yellow spot and with broad apical yellow band (Fig. 9). Other tergites black, with similar yellow apical band, which widens laterally and on tergites 6 and 7 becomes rather narrow dorsally; tergite 8 entirely black dorsally (Fig. 10) and yellow laterally; sternites light yellow, narrowly blackish at base.

*Comparison.* *M. covarrubiasi* belongs to the group of Mexican species with uniformly yellowish hind tibia, predominantly black hind femora, and fore and middle femora blackish posteriorly. *M. covarrubiasi* can be easily distinguished from most of these species by the mandibles entirely black (similar to these in females of *M. maculipes* and *M. terebrator*). In this character, it is also similar to *M. arcuatus*, but differs in the shorter ovipositor, petiole black ventrally, and posterior part of tergites 1-5 without black on hind margin.

*Distribution.* Mexico: Tamaulipas.

##### 5. *Messatoporus discoidalis* (Cresson, 1872) (Figs 19, 31, 32)

Cresson, 1872: 162, ♀ [*Mesostenus*; type: ♀, USA, Texas, Bosque Co.].

*Material.* USA: Texas, type (USNM). Mexico: Nuevo León: 1 ♀, Chipinque, 23.VI.1984 (E. Arrambide); 1 ♀, Chipinque, Garza García, 22.VII.1985 (S. Arrambide); Tamaulipas: 1 ♂, Hidalgo, Río Blanco, Ej. El Chorrillo, 11.III.1995 (C. Covarrubias D., S. Hernández A.); 1 ♂, Victoria – Soto la Marina, km 68, 11.V.1985 (J. Ruíz C.); 1 ♂, Victoria, Cañon Novillo, 13.VII.1985 (Serna); 1 ♀, 1 ♂, 28 km SSW Victoria, Madroño, 1200 m, 25.V.1985 (J. et E. Ruíz C.); 3 ♂, Gómez Farias, tr. Malaise, Los Cedros, 300 m, 20.III-10.IV.1999 (S. Hernández A.); 5 ♀, 7 ♂, Gómez Farias, Alta Cima, 900 m, 8.V-28.VIII.1999 (S. Hernández A.) (2 ♀, 3 ♂ deposited at ZIN).

*Description.* *Female* (holotype). Fore wing 6 mm. Antenna with 26 flagellar segments; apical black segments subcylindrical, not compressed,

weakly enlarged, about 1.5 times as wide as basal segments; two basal flagellar segments combined 1.15 times as long as maximum diameter of eye. Body smooth, covered with rather short, moderately dense hairs. Propodeum behind basal transverse carina with sharp transverse striae and with a pair of sublateral crests (remains of apical carina). Ovipositor sheath about 0.9 times as long as hind tibia.

Body black, with whitish and yellowish spots and bands. Antennae black; scape white ventrally; flagellar segments 8-17 white; about ten apical segments black. Head predominantly white, except for wide median band on frons from upper margin of antennal sockets to occipital carina and hind half of temples to level of upper 0.4 of eye; occiput black, except for white postgenae; mandibles with blackish teeth. Prothorax white, with triangular black spot based on its hind margin and with top on epomia. Mesoscutum black, with subcircular median spot and lateral prescutellar spots yellow. Scutellum light yellow, with black hind margin. Both pairs of tegulae yellow. Mesopleurum (including speculum) whitish yellow with black marks as in Fig. 19. Postscutellum black. Dorsal part of metathorax beyond postscutellum and metapleurum yellow, except for 2 black spots anteriorly on transverse suture and before hind coxa. Propodeum before basal transverse carina and carina black; a small yellow spot present just before each spiracle; longitudinal pleural carinae blackish; median black spot on apical area extends from apex to 0.66 of distance to basal carina. Fore and middle coxae and trochanters whitish yellow, with weak pale brown marks on coxae dorsoapically and on fore trochanter I dorsally. Fore femur and tibia whitish anteriorly, with pale brownish mark postero-dorsally; fore tarsus pale yellow, with last segment brown. Middle femur and tibia reddish yellow, paler anteriorly; tarsus pale brownish, paler ventrally, with segment 5 entirely brown. Hind coxa, trochanters and femur predominantly reddish, with blackish and white marks as in Figs 31, 32; hind tibia yellowish, slightly reddish at base and blackish in apical 0.15; spurs rufous, blackish at base; hind tarsus white, with segment 1 black in basal 0.2. Pterostigma brownish yellow. Abdominal segment 1 white, with black median third, its dorsolateral margins from spiracles to base blackish; segments 2-7 black about in basal 0.6-0.7 and white apically; tergites 5-8 with white lateral margins; tergite 8 entirely black dorsally (except for narrow white hind margin).

*Male.* Fore wing 7-8 mm. Flagellum 27-30-segmented; segments 11-19(20) white; 7-10 apical segments black. Body and legs coloured like in female, except fore and middle coxae and trochanters I, which are entirely white or whitish

yellow, and 2nd tergite sometimes with basal median white spot.

**Variability.** Fore wing 6.5-8.3 mm; ovipositor sheath 0.8-0.9 times as long as hind tibia. In one male, yellow spot on propodeum before spiracle is absent.

**Comparison.** *M. discoidalis* resembles *M. rufator* sp. n. in some important patterns of coloration (pale speculum, small yellow spot on propodeum just before spiracles, tricolor hind coxa with only one black mark – Figs 31, 32). It differs from *M. rufator* in the black marks on pronotum, black postscutellum, and subcircular yellow spot of mesoscutum (spot bifurcate anteriorly in *M. rufator*).

**Distribution.** USA (Texas), Mexico (Nuevo León, Tamaulipas).

#### 6. *Messatoporus femorator* sp. n. (Figs 5, 21, 29, 45)

**Holotype.** ♂, Mexico, Tamaulipas, Gómez Farias, Alta Cimas, 940 m, tr. Malaise, 3-10.VII.1999 (S. Hernández A.).

**Description. Male** (holotype). Fore wing 8.1 mm. Antenna with 26 flagellar segments; about 10 subapical segments about 1.3 times as long as wide and slightly compressed; two basal flagellar segments combined 1.2 times as long as maximum diameter of eye; all segments (except for the apical one) covered ventrally with sparse erect coarse setae and dense perpendicular microtrichia (Fig. 5). Body smooth; dorsolateral parts of pronotum, speculum and hind half of mesoscutum without hairs and polished. Propodeum behind basal transverse carina with rather dense and coarse transverse striae; crests not distinct, obscured by striae.

Body black with yellowish spots and bands. Scape black, with small ventral whitish spot; flagellum black, segments (10)11-15(16) white, with ventral brownish black stripe interrupted in the middle part of segments 12 and 13. Head predominantly white, except for black wide median band on frons from upper margin of antennal sockets to occipital carina, hind part of vertex and of temple in its upper 0.3; just behind the top of eye, yellow band on orbits rather narrow; occiput black in upper half; mandibles with blackish teeth. Prothorax and mesopleurum predominantly yellow with black spots as in Fig. 21. Mesoscutum black, with a median subcircular yellowish spot. Scutellum yellow dorsally; hind edge of mesonotum yellow, except for black apex of scutellum. Metapleurum yellow, except for black suture between its upper and lower parts and black spot in its hind corner above base of hind coxa. Propodeum with arched postmedian yellow spot similar to that of *M. arcuatus* (Fig. 14). Fore and middle coxae and trochanters light

yellow with dorsoposterior stripe on middle trochanters I and posterior spot at base of middle trochanter II black. Fore and middle femur and tibia yellowish; femur dorsoposteriorly with brown stripe, which is darker on middle femur; fore and middle tibiae with posteroventral brownish stripe in basal 0.3-0.5; fore tarsus pale yellow, with last segment brown; middle tarsus entirely brown (paler ventrally). Hind coxa and trochanter I yellow, with blackish and white marks as in Fig. 45; hind femur, trochanter II and tibia reddish with black; hind tarsus whitish with black (Fig. 45); posterior side of hind coxa with large blackish spot in basal 0.6. Pterostigma brownish with dark brown front margin. Abdominal segment 1 yellowish white dorsally and laterally, with black median third dorsally, black at extreme base and ventrally (Fig. 29). Segments 2-7 black, with broad yellow apical band; parameres black dorsally in basal 0.55, yellow apically and ventrally.

**Comparison.** *M. femorator* can be recognized by the combination of the entirely yellow front corner of mesopleurum (Fig. 21), extensively dark hind femur (Fig. 45) and black ventrally petiole (Fig. 29).

**Distribution.** Mexico: Tamaulipas.

#### 7. *Messatoporus grandis* sp. n. (Figs 4, 17, 41)

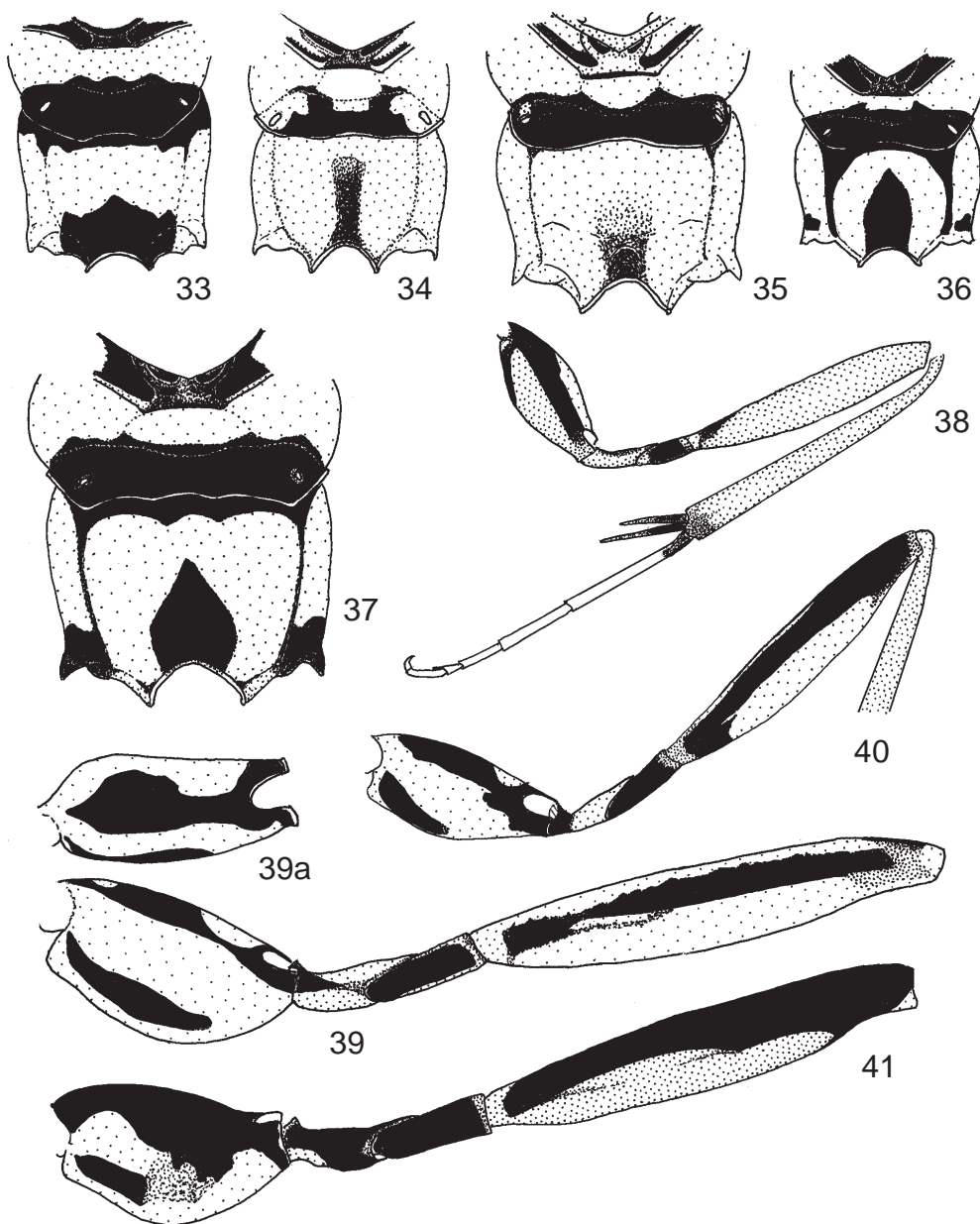
**Holotype.** ♀, Mexico, Tamaulipas, Gómez Farias, Alta Cima, 900 m, tr. Malaise, 9-16.IX.2000 (Kasparyan).

**Paratypes.** Mexico: 2 ♂, same locality as in holotype, 29.V-19.VI.1999 (S. Hernández A.); 3 ♀, 2 ♂, same locality, 4.VIII-16.IX.2000 (Kasparyan) (1 ♀, 1 ♂ are deposited at ZIN).

**Description. Female** (holotype). Fore wing 11 mm. Antenna with 24 flagellar segments; 8 subapical segments subquadrate, 2.1 times as wide as long, distinctly compressed, about twice as wide as basal ones; two basal flagellar segments combined 1.54 times as long as maximum diameter of eye. Body smooth; mesoscutum, mesopleurum and metapleurum with distinct, moderately fine and moderately dense punctures; hairs rather long and dense (longer on propodeum and sparser and shorter on lateral lobes of mesoscutum). Propodeum behind basal transverse carina with distinct transverse striae. Ovipositor sheath about 1.5 times as long as hind tibia.

Body black with yellowish spots and bands. Scape and pedicel black; flagellum black with segments 7-10 entirely white; segments 6, 11-12 and partly 13-14 white dorsally (Fig. 4). Head predominantly white, except wide median band on frons from upper margin of antennal sockets to occipital carina, hind part of vertex and temples to level of lower 0.2 of eye black; hind orbits yellow and very narrow close to top of eye;





**Figs 33-41.** *Messatoporus*, female. 33-37, propodeum: 33, *M. propodeator*; 34, *M. maculipes*; 35, *M. rufator*; 36, *M. tibiator*; 37, *M. terebrator*; 38, *M. antennator*, hind leg; 39-41, basal parts of hind leg: 39, *M. arcuatus* (39a, coxa, dorsal view); 40, *M. covarrubiasi*; 41, *M. grandis*.

occiput black except for yellow on postgenae; mandibles with blackish teeth and brown lower margins. Thorax with black and yellow marks more or less similar to those in *M. mesosternalis* (Fig. 12), but differs in propleurum entirely yellow, pronotum with yellow stripe on dorsolater-

al margin (its hind corner black), mesosternum yellow, separated from mesopleurum by black sternaulus; black spot on speculum extends below the mesopleural pit on half way to middle coxa; metapleurum black only in anterior 0.2-0.3 (at least in 50% black in *M. mesosternalis*). Meso-

scutum with median subcircular yellowish spot. Scutellum yellow dorsally, with median longitudinal black band from base to apex. Propodeum with two postmedian yellow spots (Fig. 17).

Fore and middle coxae and fore trochanters light yellow; coxae with dorsal black longitudinal band (on fore coxa the band does not extend to base of coxa). Middle trochanter I yellow anteriorly and ventrally, blackish posteriorly and dorsally; trochanter II reddish yellow. Fore and middle legs with femora, tibiae, and tarsi yellowish; femora (except for extreme apex) and tibiae in basal 0.2 blackish posteriorly; 5th tarsal segment brownish. Hind coxa, trochanters, femur and base of tibia with black and yellow marks as in Fig. 41; coxa posteriorly entirely yellow; trochanters and femur posteriorly black. Hind tibia (except for extreme base), spurs and hind tarsus uniformly yellowish (tarsus slightly paler). Pterostigma dark brown. First abdominal segment black, but yellow dorsally on petiole (from base to spiracles), and in apical half of postpetiole; other tergites black at base and light yellow in apical 0.4-0.3 and laterally (on epipleurum); sternites light yellow, each with a lateral blackish spot on each side.

*Male*. Similar to female, but flagellum 29-30-segmented, its segments (8)9-12 entirely white and segments 13-17 white dorsally. Thorax usually a little lighter than in female: prepectus may be with large yellow spots, sternaulus not darkened, scutellum sometimes entirely yellow dorsally, metapleurum only under front part of pleural carina with black spot.

*Comparison*. *M. grandis* is the largest among the Mexican species of the genus (fore wing 11-14 mm); it differs from most other species in the hind tibia uniformly yellowish (except for extreme base), hind trochanters almost entirely black and hind femora predominantly black (Fig. 41); fore and middle femora blackish posteriorly. In some of these characters, *M. grandis* is also similar to *M. arcuatus* and *M. mesosternalis*, but differs in the hind femur black dorsally (and yellowish ventrally), petiole black with dorsal yellow stripe, and yellow spots of propodeum broadened in median part (Fig. 17); from *M. mesosternalis*, it differs also in the yellow mesosternum, and from *M. arcuatus*, in yellow posterior part of tergites 1-5 (without black on hind margin).

*Distribution*. Mexico: Tamaulipas.

## 8. *Messatoporus jalapa* sp. n. (Fig. 23)

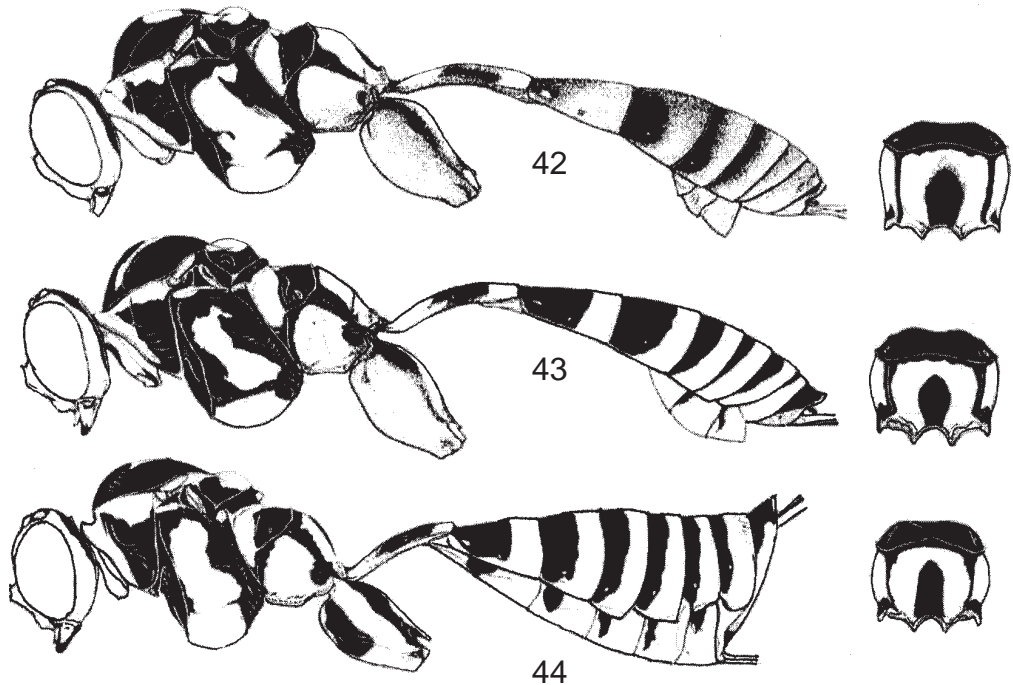
*Holotype*. ♀, Mexico, Veracruz, Jalapa, bosque, 26.X.1995 (M. Molina).

*Paratype*. ♂, Mexico, Oaxaca, Sola de Reyes, ANSP, 6.IV.1997 (A. Martínez, C. Covarrubias, S. Niño).

*Description*. *Female* (holotype). Fore wing 9.4 mm. Antenna with 27 flagellar segments; two basal flagellar segments combined 1.25 times as long as maximum diameter of eye; flagellum subcylindrical; about 10 to 23 flagellar segments slightly thickened and about 1.3-1.5 times as wide as the basal one; twelve apical segments weakly flattened ventrally. Body polished, covered with rather short dense hairs; mesoscutum, mesopleurum and metapleurum with dense, fine, distinct punctures. Propodeum behind basal transverse carina with fine and dense transverse striae and with a pair of distinct sublateral crests (transverse striae beyond the crests become stronger and sparse). Ovipositor sheath about 0.75 times as long as hind tibia.

Body predominantly yellowish, with black marks and bands. Antennae black; scape yellow ventrally; flagellar segments 7-14 (15) white. Head yellow, with black median band from inner margins of antennal sockets to occipital carina, black hind half of vertex and of upper 0.4 of temple; upper 0.7 of occiput black; mandibles with blackish teeth. Prothorax yellow, with narrow black spot on lower 0.7 of hind (vertical) margin of pronotum. Mesoscutum black, with yellow central spot bifurcate anteriorly (as in Fig. 23) and with yellow lateral prescutellar carinae; upper half of scutellum yellow, its lower half and lateral area before it black. Prepectus entirely black; upper and hind margins of mesopleurum (except for subtegular ridge) black (Fig. 23). Metanotum black, except for hind margin. Metapleurum yellow, except for black suture between its upper and lower parts and blackish spot in its hind corner (before base of hind coxa). Propodeum with colour pattern as in *M. tibiator* (Fig. 36). Fore and middle legs yellowish with brown small dorsoapical spot on coxae, dorsoposterior stripes on trochanters I and basal posterior spot on trochanters II and on femora; fore femur light brown dorsoposteriorly; segment 5 of all tarsi brown dorsally. Hind coxa, trochanters and femur (Fig. 52) reddish yellow with black spots; hind coxa posteriorly yellow with black ventral spot in basal half. Hind tibia yellowish, slightly fuscous in basal 0.1 and blackish in apical 0.22; hind spurs blackish with brownish apex; hind tarsus white with black base (0.35) of segment 1 and apical 0.6 of segment 5 dorsally. Pterostigma almost uniformly light brownish. Abdominal tergite 1 yellow, with extreme base and median 0.4 (from basal 0.35 to apical 0.75) black; sternite 1 yellow. Segments 2 and 3 black in basal half and yellow in apical half. Tergites 4-8 blackish dorsally about in basal 0.4 and yellow in apical part and laterally.

*Male*. Fore wing 8.5 mm; flagellum with 28 segments. Sculpture and coloration pattern more



**Figs 42-44.** *Messatoporus*, female, colour pattern (after Townes & Townes, 1962). 42, *M. rufiventris*; 43, *M. jocosus*; 44, *M. compressicornis*.

or less similar to those in female, except for following: scape entirely white ventrally, flagellar segments (10)11 to 19 (20) white; lateral black spots on pronotum reduced to narrow stripe on its hind margin; prepectus below yellow; black spot on hind lower corner of mesopleurum absent (but hind black band along mesepimeron similar to that in female); fore and middle coxae and trochanters entirely whitish; petiole whitish, with dorsolateral brown stripe from spiracle to base of tergite; second tergite in basal 0.3 with median white spot; parameres white. Coloration of hind legs rather similar to that of *M. tibiator* (Fig. 50), but trochanter I entirely reddish.

*Comparison.* *M. jalapa* can be easily recognized by the combination of bifurcate yellow spot of mesoscutum (similar to that of *M. mesonotator* and *M. rufator* – Fig. 27), and intensely yellow coloration of pale parts of body. *M. jalapa* resembles *M. mesonotator* in the structure and colour pattern but differs in the black spot under subtegular ridge not interrupted with yellow (Fig. 23), lateral basal black spot of hind coxa reduced, and crests on propodeum distinct.

*Distribution.* Mexico: Veracruz, Oaxaca.

**9. *Messatoporus jocosus*** (Provancher, 1874), sp. dist. (Fig. 43)

*Mesostenus ferrumequinum* Walsh & Riley, 1869: 133 [junior homonym of *M. ferrumequinum* Brullé, 1846; type: USA, Illinois?, lost].

*Mesostenus jocosus* Provancher, 1874: 300 [type: ♀, Canada, Quebec, not examined].

*Messatoporus discoidalis*: Townes & Townes, 1962: 465 (key, descr.); Yu & Horstmann, 1997: 274 (bibl.).

*Material.* USA, Texas: 4 ♀, 6 ♂, Hidalgo Co., Bensten Rio Grande Valley State Park, 1978 (C. Porter), “*Messatoporus discoidalis* Cresson” Porter det. (Texas A & M University, 1 ♂ in UAT).

*Remarks.* All the numerous records of *M. discoidalis* from the east of Canada and USA (Townes & Townes, 1962) refer to another species, for which the name *M. jocosus* is resurrected here from synonymy. This species is similar to *M. discoidalis* in the structure and coloration of legs, but distinctly differs in the coloration of mesoscutum (with bifurcate central yellow spot) and mesopleurum (see Fig. 43).

Structurally, this species is very close to *M. rufiventris* Cushman from USA and *M. tibiator*

from Mexico. It is possible that both will be considered to be forms of *M. jocosus* in the future: a paler one (abdomen rufous and body smoother: *M. rufiventris*) and a darker one (mesoscutum without pale stripes before central yellow spot: *M. tibiator*). In the material examined from Texas, the yellow stripes on mesoscutum are very weak in some males, and these specimens are very similar to *M. tibiator*. Some females in this material were rather intermediate in coloration of abdomen between the typical form (abdomen black and white banded) and *M. rufiventris*.

*Distribution.* Eastern part of Canada and USA.

**10. *Messatoporus maculipes* sp. n.**  
(Figs 34, 46, 51)

*Holotype.* ♀, **Mexico**, *Tamaulipas*, Gómez Farias, Los Cedros, 300 m, tr. Malaise, 6-13.II.1999 (S. Hernández A.).

*Paratypes.* **Mexico**, *Tamaulipas*: 1 ♂, Llera, matorral, 44 km S Cd. Victoria, 29.X-4.XI.2000 (Kasparyan); Gómez Farias, tr. Malaise: 1 ♂, Los Cedros, 300 m, 13-20.II.1999 (S. Hernández A.); 1 ♂, Alta Cima, 900 m, 8-15.V.1999 (S. Hernández A.). (1 ♂ deposited at ZIN).

*Description. Female* (holotype). Fore wing 9.8 mm. Antenna with 23 flagellar segments; 10 apical segments subcylindrical, about 1.5 times as long as wide; two basal flagellar segments combined 1.2 times as long as maximum diameter of eye. Body smooth, mat, covered with fine, moderately dense hairs; metapleurum with fine but discernible dense punctures. Propodeum behind basal transverse carina with distinct transverse striae (Fig. 34); 3 central transverse striae coarser and posterior of them sublaterally forming distinct crests. Ovipositor sheath about 1.2 times as long as hind tibia.

Head and thorax predominantly whitish yellow, with dorsal black markings; abdomen black with white bands. Scape black, with moderately large lateral whitish spot; flagellum black, segments (6)7-12 white and 9 apical segments brownish below. Mandibles entirely, wide median band from upper margin of antennal sockets to occipital carina, hind half of vertex and of temples to level of upper 0.3 of eye – black; occiput black in upper half. Pronotum with a pair of large black spots in its dorsolateral parts, which connect on hind margin of collar; dorsolateral margins of pronotum entirely pale. Mesopleurum pale yellow, except for black subalar prominence, black concavity behind subtegular ridge, and a small fuscous spot on mesopleural pit. Mesoscutum black, with median subcircular yellowish spot. Scutellum yellow, except for black hind margin and lateral black spot at base. Metanotum yellow, except for black postscutellum. Metapleurum yellow, except for small black spot in its hind corner above base of hind coxa. Propodeum with whitish yellow and blackish markings

(see figures). Fore coxa whitish, with narrow dorsal brownish stripe; middle coxa whitish, with small dorsoapical brown spot; fore and middle legs beyond coxae yellowish; fore trochanters and femur brownish dorsally; fore tibia brownish ventrally; segment 5 of fore and middle tarsi brown; middle tarsus partly light brownish dorsally. Hind legs yellow with black, brown and white pattern as in Fig. 46. Petiole of first abdominal segment white, slightly brownish on dorsolateral margins; postpetiole in basal half (just behind spiracles) black dorsally and laterally and white posteriorly and ventrally. Tergites 2-7 black with broad apical white band, which on segments 3-7 laterally extends to base of tergites; tergite 8 black dorsally and white laterally.

*Male.* Fore wing 5-8 mm; flagellum with 24-26 segments. Sculpture and coloration similar to those in female, except for following: flagellar segments (9)10 to 15(16) white; mandibles light yellow (except for teeth); lateral black spots on pronotum not connecting on collar; prepectus and metanotum entirely or partly black; basolateral yellow spots of propodeum (typical of female) in small male almost entirely reduced; fore coxa entirely white; coloration of hind legs similar to that in female (Fig. 46), except for coloration of hind tibia (Fig. 51); base of tergite 2 with median small whitish spot; parameres entirely white.

*Comparison.* *M. maculipes* differs from all other species of the genus in the coloration of hind legs (especially in the large apical white spot on blackish dorsal surface of femur) (Fig. 46), and combination of entirely pale yellow mesopleurum with black mandibles in female.

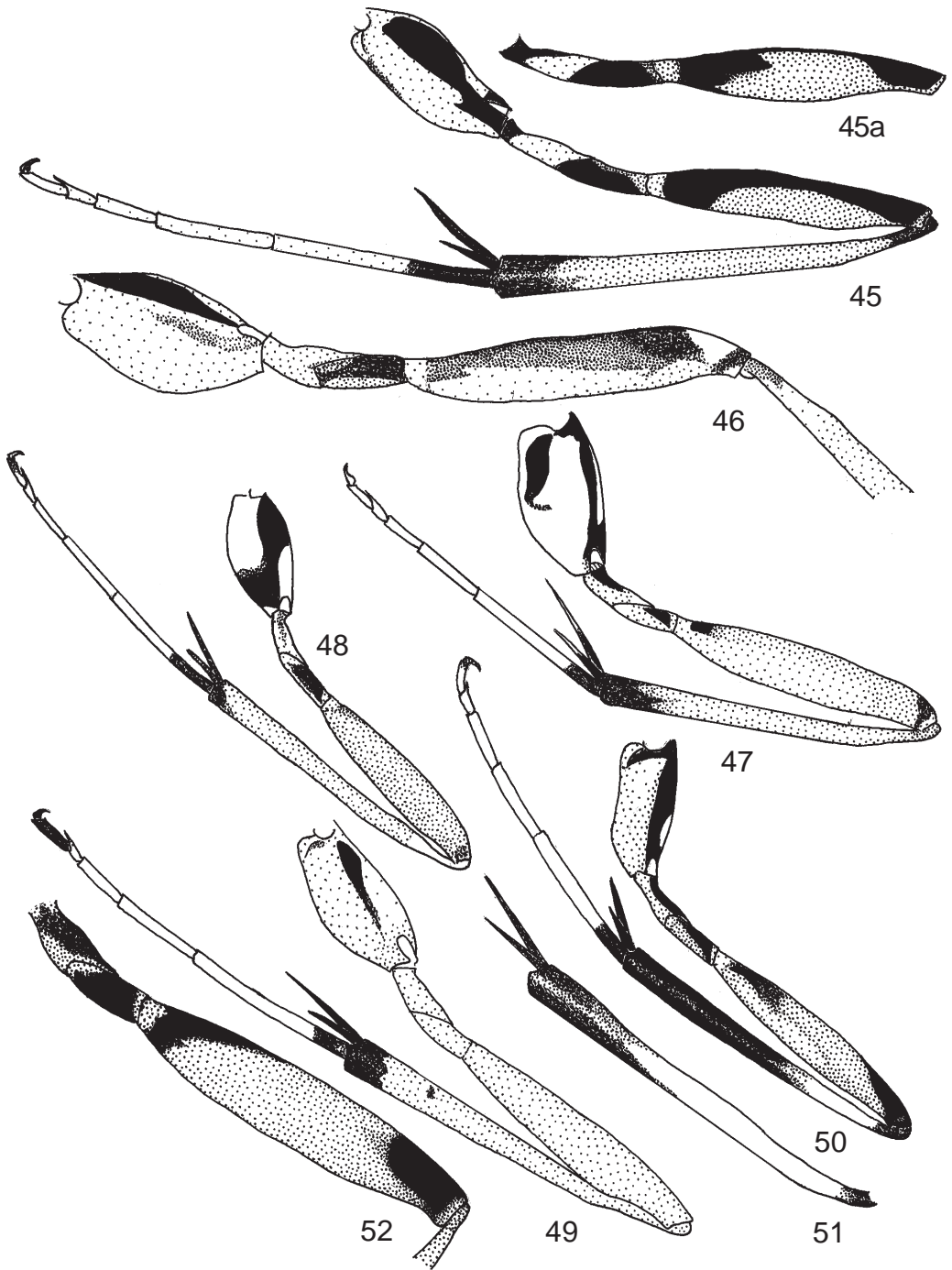
*Distribution.* Mexico: Tamaulipas.

**11. *Messatoporus mesonotator* sp. n.**  
(Figs 20, 47)

*Holotype.* ♀, **Mexico**, *Tamaulipas*, Gómez Farias, Alta Cima, 900 m, tr. Malaise, 27.II-20.III.1999 (S. Hernández A.).

*Paratypes.* **Mexico**, *Tamaulipas*: 1 ♀, Cd. Victoria, Canyon Novillo, 22.IX.1984 (E. Ruíz C.); 8 ♀, 11 ♂, Gómez Farias, Los Cedros, tr. Malaise, 300 m, 7.I-29.V.1999 (S. Hernández A.); 3 ♀, Gómez Farias, Alta Cima, tr. Malaise, 900 m, 27.II-5.VI.1999 (S. Hernández A.); *Yucatán*: 2 ♀, Sudzal Chico (SMSP), Febrero 1999 (Hugo Delfín). (2 ♂, 2 ♀ deposited at ZIN).

*Description. Female* (holotype). Fore wing 6.5 mm. Antenna with 25 flagellar segments; segments about from (11)12 to 20(22) cylindrical and thickened, 1.5-1.8 times as wide as basal one; two basal flagellar segments combined 1.17 times as long as maximum diameter of eye. Body smooth, with moderately sparse and rather short hairs; setiferous punctures in hind half of lateral lobes of mesoscutum very fine and superficial, moderately dense. Propodeum behind basal transverse carina with dense and coarse transverse stri-



**Figs 45-51.** *Messatoporus*, hind leg, male (45, 45a, 50, 51) and female (46-49, 52). 45, *M. femorator* (type) (45a, trochanters and hind femur, posterior view); 46, *M. maculipes* (type); 47, *M. mesonotator*; 48, *M. propodeator*; 49, *M. terebrator* (type); 50, *M. tibiator*; 51, *M. maculipes* (hind tibia); 52, *M. jalapa* (type) (trochanters, femur and base of tibia).

ae; sublateral crests indistinct. Ovipositor sheath about 0.85 times as long as hind tibia.

Body black, with white spots and bands. Scape white, black dorsally, its base entirely white; flagellum black with segments 8-15 entirely white, 10 apical segments black. Head predominantly white with black median band broadening from point on median line just above antennal sockets to occipital carina and covering hind half of vertex and hind part of temples in their upper 0.3; occiput black in upper half; mandibles with blackish teeth. Thorax, abdomen and hind coxa whitish and black more or less as in *M. compressicornis* (Fig. 44), but pronotum almost entirely white (except for very narrow stripe on its hind margin), mesoscutum with subcircular median yellow spot bifurcate anteriorly (as in *M. rufator* – Fig. 27), and yellow spot on subtegular ridge confluent beneath with yellow coloration of central part of mesopleurum (Fig. 20) (like in *M. covarrubiasi* – Fig. 11); scutellum paler, almost entirely white laterally, but postscutellum black (besides *M. compressicornis*, postscutellum yellow only in *M. covarrubiasi* and *M. rufator*); suture of metapleurum between its upper and lower divisions weaker infuscate than in Fig. 44; abdominal tergite 2 in basal 0.17 with median unclear pale spot. Fore and middle coxa and trochanters white; middle coxa with a pair of dorsoapical brownish spots; middle trochanters I brown posterodorsally. Fore femur, tibia and tarsus pale yellowish (paler anteriorly), femur brown posterodorsally, tibia with ventral brown mark in its basal half; tarsal segments 3 and 4 brown dorsally, segment 5 entirely brown. Middle femur and tibia reddish yellow, femur with narrow subbasal fuscous mark (except ventrally), middle tarsus dirty brownish. Hind leg with coxa, trochanters and tarsus white and black, femur and tibia reddish with black as in Fig. 47.

*Male*. Fore wing 5.5-7 mm. Antenna with 25-27 flagellar segments. Flagellar segments 1-10 black, succeeding segments (11)12-18(19-20) white, and 6-7 apical segments black. Coloration more or less similar to that in female, but pronotum sometimes entirely whitish, prepectus entirely pale beneath (between front ends of sternauli), middle coxa and trochanters sometimes entirely white, brownish marks at base and apex of hind femur and tibia broader.

*Comparison*. *M. mesonotator* can be easily distinguished from most of the Mexican species by bifurcate central yellow spot of mesoscutum (as in Fig. 20, 27); from Mexican species *M. jalapa* and *M. rufator* and from the Nearctic *M. jocosus*, having similar spot on mesoscutum, *M. mesonotator* differs in the coloration of mesopleurum (Fig. 20) and hind legs (Fig. 47).

*Distribution*. Mexico: Tamaulipas, Yucatán.

## 12. *Messatoporus mesosternalis* sp. n. (Figs 12, 13, 16)

*Holotype*. ♀, **Mexico**, Tamaulipas, Gómez Farias, Alta Cima, 900 m, tr. Malaise, 7-14.X.2000 (Kasparyan).

*Paratypes*. **Mexico**, Tamaulipas, Gómez Farias, tr. Malaise: 1 ♀, 1 ♂, Los Cedros, 300 m, 13-20.II.1999 (S. Hernández A.); 1 ♀, 1 ♂, Alta Cima, 900 m, 12-19.VIII.2000 (Kasparyan) (1 ♀ at ZIN).

*Description*. *Female* (holotype). Fore wing 8.3 mm. Antenna with 21 flagellar segments; 10 apical segments subquadrate, distinctly compressed, about 2.5 times as wide as basal ones; two basal flagellar segments combined 1.44 times as long as maximum diameter of eye. Body polished, with rather long sparse hairs almost absent on dorsolateral parts of pronotum and on lateral lobes of mesoscutum. Propodeum behind basal transverse carina with distinct transverse striae (Fig. 12). Ovipositor sheath about 1.25 times as long as hind tibia.

Body black, with whitish and yellowish spots and bands. Scape and pedicel black; flagellum black with apical half of segment 5, basal half of segment 10 and segments 6-9 entirely white. Head predominantly white, except for blackish malar space, wide median band on frons from upper margin of antennal sockets to occipital carina and hind half of temples to level of lower margin of eye; occiput completely black; mandibles with blackish teeth and blackish lower margin. Thorax, coxae, hind trochanters, femur and first tergite marked with black and whitish yellow as in Figs 12, 13, 16. Propleurum in basal 0.3 and laterally black. Mesoscutum with median subcircular yellowish spot. All coxae posteriorly (on inner side) black. Fore and middle trochanters I whitish; trochanters II yellowish. Fore and middle legs with femora, tibiae, and tarsi yellowish; femora with blackish brown ventral stripe, which on fore femur does not extend to base; 5th tarsal segment brownish. Hind trochanter I with yellow stripe dorsally; hind femur yellow, blackish ventrally and in apical 0.2 (Fig. 13); hind tibia uniformly yellowish (slightly paler in basal 0.6), spurs brownish yellow; hind tarsus whitish yellow, basal 0.3 of 1st segment reddish yellow, segment 5 white. Pterostigma dark brown. First abdominal segment black, except for yellow apical half of postpetiole (Fig. 12); other tergites black at base and light yellow in apical half and laterally (on epipleurum); sternites light yellow with black base of sternites 2-4(5).

*Male*. Fore wing 5-6 mm; flagellum with 23-24 segments; second abdominal segment about 3 times as long as wide posteriorly (about 0.7 times in holotype, female). Sculpture and coloration similar to those in female, except for following: flagellar segments (9)10-14 (15) white; propleurum, fore and middle coxae and trochant-

ers entirely white; whitish median spot of mesopleurum confluent posteroventrally with white coloration of middle coxa; mesepimeron white; median black spot in apical area of propodeum weak and anteriorly not connecting distinctly with basal black transverse band; front and middle femora not darkened ventrally; hind femur reddish with apical 0.2 black; hind tibia yellowish with apical 0.35 blackish; hind spurs and basal 0.4 of basitarsus blackish.

*Comparison.* *M. mesosternalis* is the only known species from Mexico with black mesosternum (Fig. 12); the following characters of coloration are unusual: black dorsal margin of pronotum in female, completely black petiole of abdominal segment 1, predominantly black hind trochanters, and uniformly yellowish hind tibia of female.

*Distribution.* Mexico: Tamaulipas.

### 13. *Messatoporus nigrispina* (Cameron, 1885)

Cameron, 1885: 223, ♀ [*Mesostenus*; type: ♀, Mexico, Valladolid in Yucatán (BMNH), not examined]; Townes & Townes, 1966: 123 (*Messatoporus*).

*Comparison.* *M. nigrispina* differs from other Mexican species with reddish hind legs (hind tarsus white with base of basitarsus black) in the “coxa entirely reddish” and “the apices of the hind femora, tibiae and tarsi black”. The postmedian black central mark of propodeum (confluent with basal black part of propodeum) “becomes narrow to apex”. “Body 11 mm, terebrae 4 mm” (ovipositor sheath 0.36 times as long as body).

*Distribution.* Mexico: Yucatán.

### 14. *Messatoporus propodeator* sp. n. (Figs 24, 33, 48)

*Holotype.* ♀, Mexico, Yucatán, Sudzal Chico (SMSP), Diciembre 1998 (Hugo Delfín).

*Paratypes.* Mexico: Tamaulipas: 2 ♂, Cd. Victoria – Soto la Marina, km 68, 14.VI.1987 (S. Arrambide); 2 ♂, Llera, 44 km S Cd. Victoria, matorral, 19.VIII-9.IX.2000 (Kasparyan); 1 ♀, 3 ♂, Gómez Farias, Los Cedros, 300 m, tr. Malaise, 13 III-12 VI 1999 (S. Hernández A.); 4 ♂, 1 ♀, Gómez Farias, Alta Cima, 940 m, 26.VI-28.VIII.2000 (Kasparyan), (1 ♀, 1 ♂ at ZIN); Yucatán: 2 ♀, 4 ♂, Sudzal Chico (SMSP), II-VI.1999 (Hugo Delfín); 1 ♀, Corral (SMSC), I.1999 (Hugo Delfín).

*Description.* *Female* (holotype). Fore wing 5.3 mm. Antenna with 21 flagellar segments; about 10 subapical segments cylindrical, slightly thickened, 2-2.5 times as wide as basal ones; two basal flagellar segments combined 1.21 times as long as maximum diameter of eye. Body polished, with sparse, moderately long hairs almost absent on dorsolateral parts of pronotum and on mesoscutum (except for scarce hairs along sutures). Propodeum behind basal transverse carina with fine, dense transverse striae, which be-

come coarser to apex. Ovipositor sheath 0.82 times as long as hind tibia.

Body black, with whitish spots and bands. Scape and pedicel white, pedicel brownish dorsally, scape with fuscous stripe at dorsoapical margin; flagellum black with apical 0.2 of segment 8 and segments 9-15 entirely white, six apical segments black. Head predominantly white, except for wide median band extending from lower 0.3 of frons to occipital carina and then along occipital carina as narrow black stripe to upper 0.5 of temples; occiput in upper half black; mandibles with blackish teeth. Prothorax completely white. Mesoscutum black with subcircular median spot, scutellum (except for hind margin) and tegulae white. Mesopleurum, metapleurum and propodeum marked with white and black as in Figs 24, 33. Fore and middle coxae and trochanters white; middle trochanters I with fuscous stripe posteriorly; middle trochanters II fuscous in basal 0.5. Fore femur yellowish white, brownish dorsoposteriorly in basal 0.7; fore tibia whitish, brownish dorsally and ventrally; fore tarsus dirty whitish with fuscous segment 5. Middle femur and tibia yellowish rufous; femur with brownish posterior spot in subbasal 0.3 (extreme base yellow); tibia paler anteriorly, on lower side with long brownish stripe from base to apical 0.6; middle tarsus brownish. Hind coxa and trochanters I predominantly white with black marks as in Fig. 48 (trochanter I also with similar fuscous stripe on posterior side); hind trochanter II predominantly brown with extreme base and apex yellow; hind femur and tibia yellowish rufous marked with fuscous above, tibia with subbasal pale spot (Fig. 48); hind tarsus white with basal 0.4 of segment 1 and apical 0.3 of segment 5 blackish. Pterostigma dark brown. Abdominal segment white with black dorsolateral spot in median 0.3 just beyond the spiracles. Tergites 2-5 (6-7) brownish black with white apex; white apical band on tergites 2 and 3 rather wide (about 0.4 times as long as tergite length), band on succeeding tergites narrow (in some paratypes, 3-4 apical tergites become ochraceous in apical part and light brown basally); tergite 8 brownish dorsally and brownish yellow laterally.

*Male.* Fore wing 4-6 mm; flagellum with 24 segments (in 6 measured specimens); flagellar segments (9-10)11-14(15-17) white; 7-8 apical segments black. Other characters of coloration are similar to those in female (Figs 24, 33, 48), but hind trochanter I, apex of hind tibia and basitarsus usually darker, and hind tarsus with segment 5 completely white.

*Comparison.* *M. propodeator* can be easily distinguished from other Mexican species by the unusual form of black apical spot of propodeum, which is short and wide (Fig. 33); other noticea-

ble character of coloration is the entirely white pronotum (Fig. 24).

*Distribution.* Mexico: Tamaulipas, Yucatán.

**15. *Messatoporus rufator* sp. n.**  
(Figs 26-28, 35)

*Holotype.* ♀, **Mexico**, *Tamaulipas*, Llera, Rio Guayalejo, 11.VIII.2000 (Kasparyan).

*Paratype.* ♀ with the same data as in holotype.

*Description. Female* (holotype). Fore wing 6.2 mm. Antenna with 25 flagellar segments; two basal flagellar segments combined 1.25 times as long as maximum diameter of eye; about flagellar segments 13 to 21 thickened, 1.8-2.0 times as wide as the basal one; ten subapical segments weakly flattened ventrally. Body polished, covered with rather short, moderately sparse hairs; mesoscutum with rather sparse, moderately fine punctures. Propodeum behind basal transverse carina with fine transverse striae and with a pair of weak sublateral crests (remains of apical carina). Ovipositor sheath about 0.85 times as long as hind tibia.

Body predominantly yellowish with black and brownish marks as in Figs 26, 27, 35. Antennae black; scape light brown dorsally, white at base and ventrally; pedicel brown with whitish ventral spot; flagellar segments 8-14 white. Head light yellow with thin median stripe on upper half of frons, ocellar area and vertex (except for wide orbits) black; upper half of occiput black except for small median yellow spot just behind occipital carina; mandibles with blackish teeth. Prothorax entirely light yellow. Scutellum yellow, with yellowish brown hind margin. Postscutellum yellow, partly brownish on margins. Fore and middle legs pale yellow, with last segment of tarsi brown and middle tarsus fuscous dorsally. Hind leg reddish yellow, with dorsobasal spot on coxa black (Fig. 26), apex of tibia, base of spurs fuscous (Fig. 28); spurs (except for base) whitish; tarsus white with base of segment 1, apex of segment 5, and claws brownish. Pterostigma yellowish. Abdominal segment 1 light yellow with two dorsolateral marks just behind the spiracles black (Fig. 26), space between these marks light reddish brown. Second segment predominantly light reddish brown in basal half with blackish around thyridia, and yellowish in apical part (Fig. 26); tergites 3-8 blackish brown about in basal 0.4 and reddish yellow in apical part with median reddish brown transitional zone.

*Comparison.* *M. rufator* can be easily recognized by the combination of bifurcate yellow spot of mesoscutum (Fig. 27), entirely yellow pronotum, yellow postscutellum, very light coloured mesopleurum and metapleurum, and entirely reddish yellow hind trochanters and femur (Fig. 26).

*Distribution.* Mexico: Tamaulipas.

**16. *Messatoporus rufiventris* Cushman, 1929**  
(Fig. 42)

Cushman, 1929: 11, ♀ [type: ♀, USA, Maryland (USNM), examined]; Townes & Townes, 1962: 462, 463, 561 (key, descr., distr., fig.).

*Material. USA: Maryland:* type (USA, Maryland); *Texas* ("Messatoporus rufiventris Cushman", Porter det.): 7 ♀, 6 ♂; Anderson Co., Salmon, IV-V and IX-XI.1975, Malaise trap (M.R. Burke); 1 ♂, Brazos Co., College Station, Malaise trap, 6.IV.1975 (P.H. Thompson); 2 ♂, Kerr Co., Kerrville Dam Guadeloupe River, 21.VII.1974 (H. Greenbaum) (Texas A & M University; 1 ♀ in UAT).

*Diagnosis.* The species can be easily distinguished from Mexican species (except for *M. rufator*) by predominantly rufous coloration of abdomen and characters given in Fig. 42. From *M. rufator*, it differs in characters given in the key. *M. rufiventris* structurally (and in coloration of mesopleurum) is closely related to *M. tibiator* and differs in coloration of abdomen and of hind tibia of males. The type has hind coxa entirely reddish, without black dorsal stripe as in Fig. 42.

*Distribution.* Southern part of Canada, USA from Atlantic to Pacific coast (including Florida, Texas and Arizona on the southern boundary of the range). No records for Mexico.

**17. *Messatoporus terebrator* sp. n.**  
(Figs 22, 37, 49)

*Holotype.* ♀, **Mexico**, *Tamaulipas*, Gómez Fariás, Los Cedros, 300 m, tr. Malaise, 16-23.I.1999 (S. Hernández A.).

*Paratypes. Mexico: Nuevo León:* 1 ♂, Cola de Caballo, 9.VI.1984 (E. Ruíz C.); 1 ♀, Allende, tr. McPhail, 28.I.1987 (M.R. Cantú); *Tamaulipas*, Gomez Farias, tr. Malaise: 1 ♂, Alta Cimas, 1-8.V.1999 (S. Hernández A.); 1 ♀, Los Cedros, III.2002 (D. Kasparyan). (2 ♀, 1 ♂ deposited at ZIN).

*Description. Female* (holotype). Fore wing about 8 mm. Antenna with 23 flagellar segments; apical black segments subcylindrical, not compressed, weakly enlarged, about 1.6 times as wide as basal ones; two basal flagellar segments combined 1.25 times as long as maximum diameter of eye. Body smooth, covered with rather short, moderately dense hairs; lobes of mesoscutum beyond the middle polished and impunctate, except for margins. Propodeum behind basal transverse carina with very superficial transverse striae, at centre polished and without striae (on black median spot); sublateral crests absent. Ovipositor sheath about 1.3 times as long as hind tibia.

Body black, with whitish and yellowish spots and bands. Antennae black; scape with weak sub-basal whitish spot ventrally; apical half of flagellar segment 8 and segments 9-14 entirely white; nine apical segments black. Head predominantly white; mandibles black; wide median band on frons from upper margin of antennal sockets to occipital carina, hind half of vertex, and hind



margin of temples to level of lower 0.4 of eye black; occiput black, except for white on postgenae. Prothorax white, with moderately large triangular black spot on pronotum; base of this spot located on lower 0.6 of hind margin and top, on lower end of epomia. Mesoscutum black, with subcircular median spot and lateral prescutellar spots yellow. Scutellum light yellow, its hind margin black. Both pairs of tegulae yellow. Mesopleurum whitish yellow with black marks as in Fig. 22. Postscutellum black. Metapleurum predominantly yellow. Propodeum black and yellow as in Fig. 37. Fore coxa and trochanters whitish, with small pale brown marks on coxa dorsoapically and on fore trochanter I dorsally in basal 0.6. Fore femur and tibia whitish yellow anteriorly and with pale brownish mark posterodorsally on femur and ventrally on tibia; fore tarsus pale yellow, with last segment brown. Middle legs reddish yellow; middle coxa with large white dorsal spot bordered anteriorly in apical half with brown; middle tarsus pale brownish, paler ventrally, segment 5 entirely brown. Hind legs light reddish, with blackish brown and white marks as in Fig. 49; hind coxa, trochanters and femur without any fuscous marks on posterior side. Pterostigma brownish yellow. Abdominal segment 1 white, with black median third and black at extreme base dorsally; segments 2-7 black about in basal 0.5-0.7 and white apically; tergites 4-8 with white lateral margins; tergite 8 entirely dark brown dorsally with transitional yellowish zone between its dorsal and lateral parts.

*Male.* Fore wing 6.8 mm; flagellum 24-segmented; scape entirely white ventrally; flagellar segments (9)10-16(17) white, 7-8 apical segments black. Male similar in main structural characters and chromatically to female, but slender, mandibles, fore and middle coxae and trochanters whitish yellow, hind tarsus white, except for segment 1 black in basal 0.2.

*Comparison.* *M. terebrator* resembles *M. discoidalis* in many characters; it can be distinguished from *M. discoidalis* and other species with reddish hind femur by its black mandibles, polished posteromedian part of propodeum without transverse striae, rather long ovipositor (about 1.3 times as long as hind tibia), and coloration of mesopleurum (Fig. 22).

*Distribution.* Mexico: Tamaulipas, Nuevo León.

### 18. *Messatoporus tibiator* sp. n. (Figs 25, 30, 36, 50)

*Holotype.* ♂, Mexico, Tamaulipas, Gómez Farias, Alta Cimas, 940 m, tr. Malaise, 26.VI-3.VII.1999 (S. Hernández A.).

*Paratypes.* Mexico: Tamaulipas: 2 ♀, Hidalgo, Ej. El Chorrito, Río Blanco, veg. Galería, tr. agua, 12.III.1995 (S. Hernández A.); 1 ♀, Hidalgo, Conrado Castillo, bosque

pino, 8.IX.1995 (C. Covarrubias D.); 1 ♀, Cd. Victoria, 10.XI.1985 (Briceño); 1 ♂, 1 ♀, Cd. Victoria, Canyon Novillo, 11.V and 21.VI.1985 (A. del Valle); 3 ♀, 28 km SSW Cd. Victoria, 1200 m, 23.III-15.VI.1985 (E. and J. Ruíz C., S. Arrambide); 1 ♂, Jaumave, Río Nogales, tr. agua, 22.I.1995 (S. Hernández A.); 13 ♀, 28 ♂, Gómez Farias, Alta Cimas, 940 m, tr. Malaise, 20.III-28.VIII.1999 (S. Hernández A.); 1 ♀, 4 ♂, same locality, 4.VIII-21.X.2000 (D. Kasparian); 1 ♂, Gómez Farias, Canindo, 1400 m, tr. amarilla, 12.III.1995 (J. Coronado et al.); Coahuila: 1 ♂, Arteaga-Jame, Bosque pino, 2.800 m, 11.VII.2000 (C. Covarrubias D. and S. Hernández A.); Nuevo León: 1 ♀, Pesquería, tr. Malaise, 17-21.IX.1983 (M.R. Cantú); Zacatecas: 1 ♀, Zac. P. Arroyo de La Plata, herbaceo, 13.VII.1996 (E. Ruíz C.).

*Description. Female.* Fore wing 5-7.5 mm. Antenna with 25-27 flagellar segments; about 10 subapical segments cylindrical, slightly thickened, 1.5 times as wide as basal ones; two basal flagellar segments combined 1.15 times as long as maximum diameter of eye. Body smooth, with moderately sparse and rather short hairs; punctures on lateral lobes of mesoscutum fine but discernible, moderately dense. Propodeum behind basal transverse carina with dense and coarse transverse striae; sublateral crests absent or weak and obscured by striae. Ovipositor sheath about 0.7-0.85 times as long as hind tibia.

Body black, with whitish spots and bands. Scape white, black dorsally; flagellum black with apical half of segment 7 or 8 and segments (8)9-14 entirely white, about 12 apical segments black. Head predominantly white, except for broad black median band extending from upper margin of antennal sockets to occipital carina and hind half of vertex and hind part of temples to level of middle of eye; occiput black, except for white postgenae; mandibles with blackish teeth. Thorax light yellow and black as in Figs 25, 36. Mesoscutum with subcircular median yellow spot. Sometimes, median apical spot of propodeum extends to basal transverse carina. Typical of the species is a subcircular yellow spot, which penetrates above the speculum in black band covering hind margin of mesopleurum; this spot sometimes separated anteriorly by black from yellow median part of mesopleurum. Fore and middle coxae and trochanters whitish yellow, usually with dorsoapical brown marks on coxae and on trochanters I posterodorsally. Fore and middle femur and tibia pale reddish yellow; fore femur with posterodorsal pale brown mark (about in basal 0.7); fore tarsus pale yellow with last segment brown. Middle tarsus reddish yellow or brownish, paler ventrally, segment 5 entirely brown. Hind coxa, trochanters and femur predominantly reddish with blackish and white marks as in Fig. 50 (male), but fuscous pattern on trochanters and femur reduced and sometimes trochanters and femur entirely reddish; posterior side of coxa with large blackish spot in basal half;

trochanter I usually with dorsoposterior brown spot; hind tibia reddish yellow, slightly paler sub-basally, blackish at extreme base and in apical 0.15; spurs blackish with reddish brown apical 0.3; hind tarsus white with segment 1 black in basal 0.3-0.4 and segment 5 brown. Pterostigma brownish yellow, darker on margins. Abdominal segment 1 white, dorsally black in median third, and black at extreme base (Fig. 30). Segments 2-7 black with apical half white; lateral margins of tergites 5-8 also white; tergite 8 brownish dorsally, except for narrow white hind margin and sometimes median longitudinal pale band.

*Male.* Fore wing 4.2-7.0 mm. Antenna with 24-27(28) flagellar segments; segments 1-10 and about nine apical ones black, segments 11-16(17-18) white. Coloration of body more or less similar to that in female, but black spot on hind margin of pronotum smaller, prepectus black between front ends of sternauli, and with small black lateral areas above these ends, second tergite at base with a median white spot. Black transverse band of propodeum (which is very narrow in female) in male usually broader and covers about 20% of distance to apex. Fore and middle coxae and trochanters entirely whitish. Hind legs reddish with black and white pattern as in Fig. 50.

*Comparison.* The males of *M. tibiator* can be immediately recognized by the hind tibia strongly infusate (almost black) with broad white ring in basal half (Fig. 50). The female is similar to the female of *M. antennator*, but differs in the entirely reddish hind trochantelli (sometimes with blackish dorsoposterior spot), distinct subcircular yellow spot above speculum on black hind margin of mesopleurum (Fig. 25); crests of propodeum absent or very indistinct; ovipositor sheath 0.7-0.85 times as long as hind tibia. Structurally, *M. tibiator* is clearly related to *M. rufiventris*, but differs in the coloration of abdomen and legs.

*Distribution.* Mexico: Coahuila, Nuevo León, Tamaulipas, Zacatecas.

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