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Review of Mexican species of the genus *Itoplectis* Först. (Hymenoptera: Ichneumonidae: Pimplinae) with description of four new species

Обзор мексиканских видов рода *Itoplectis* Först. (Hymenoptera: Ichneumonidae: Pimplinae) с описанием четырёх новых видов

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KEY WORDS: Ichneumonidae, Pimplinae, *Itoplectis,* Mexico, new species, taxonomy, identification key.

КЛЮЧЕВЫЕ СЛОВА: Ichneumonidae, Pimplinae, Itoplectis, Мексика, новые виды, систематика, определительный ключ.

ABSTRACT: A key to 6 Mexican species of the genus *Itoplectis* is given and illustrated. Four new species are described. New data on the distribution of *I. conquisitor* (Say, 1836) in Mexico are presented.

РЕЗЮМЕ: Дана иллюстрированная определительная таблица 6 мексиканских видов рода *Itoplectis*. Описаны четыре новые для науки вида. Приводятся новые данные о распространении в Мексике *I. conquisitor* (Say, 1836).

Introduction

Genus *Itoplectis* belongs to the tribe Pimplini (Pimplinae). It is a moderately large genus with about 35 species in World fauna [Yu & Horstmann, 1997; Gauld et al., 1998; Kasparyan & Niño, 2004]. Most of the species are in the Holarctic Region; the genus is unknown from Australia. All members of the genus are idiobiont endoparasitoids. Their usual hosts are pupae of different Lepidoptera, but for some species of *Itoplectis* parasitism in cocoons of Hymenoptera (Tenthredinoidea and Ichneumonoidea), very rare in puparia of Diptera is also known, and for *Itoplectis mexicanus* Kasparyan & Niño, 2004 parasitism in pupa of Chrysomelidae (Coleoptera) is recorded. Only two species has been recorded before for Mexico. By studying the ichneumonid collections of Texas A & M University (USA) and Universidad Autónoma de Nuevo Leon (Mexico) four new species of *Itoplectis* have been found.

The holotypes are deposited in Department of Entomology of Texas A & M University, College Station, USA.

Following abbreviations are used for collections containing types of Mexican species of *Itoplectis*:

TAMU —Texas A & M University, Department of Entomology, College Station, Texas, USA;

UAT — Universidad Autónoma de Tamaulipas, División de Postgrado e Investigación, UAM Agronomía y Ciencias, Insect Museum, Cd. Victoria, México;

UANL — Universida Autónoma de Nuevo Leon, Monterrey, Mexico;

ZISP — Zoological Institute, Russian Academy of Sciences, St.-Petersburg, Russia.

In the Material section, Spanish words are cited like in labels.

Genus ***Itoplectis*** Foerster, 1869

Townes & Townes, 1960: 282 (description; key to eight nearctic species); Porter, 1970 (review of five species of South America); Каспарян, 1973: 667 (key to 17 palaearctic species); Yu & Horstmann, 1997: 827–831 (bibliography to 30 species of the World fauna); Gauld et al., 1998: 135–136 (key to 4 species of Costa Rica).

Type: (*Ichneumon scanicus* Villers) = *maculator* Fabricius. Designated by Viereck, 1914.

Key to Mexican species of *Itoplectis*

1. Submetapleural carina distinct. Thorax entirely black 2
— Submetapleural carina absent. Thorax black, often with mesothorax predominantly red or pale 3
2. Hind tibia broadly fuscous at base and apex with about submedian 0.4 white (Fig. 11). Abdominal tergites with distinct white band on hind margin (the band brownish laterally). Ovipositor sheath about twice as long as first tergite (or about 1.1 as long as hind tibia) ..... ……. ..... 1. *I. conquisitor* (Say)
— Hind tibia predominantly white, weakly fuscous at base and apex (Fig. 12). **A**bdominal tergites with very thin pale band on hind margin. Ovipositor sheath 1.1 times as long as first tergite (or 0.67 as long as hind tibia)..... ..... 3. *I. mexicanus* Kasparyan & Niño
3. Body entirely black (thorax with hind corner of pronotum, tegulae, apex of mesepimeron, and apex of postscutellum white; in holotype apical 0.35 of scutellum reddish). Fore tarsal claws of male with a basal tooth (Fig. 9) .... 5. *I. nigrithorax* **sp. n.**

— At least mesothorax predominantly pale (red or pale brownish yellow) 4

4. Thorax and propodeum very pale brownish yellow (Fig. 1). Abdominal tergites 1 and 2 predominantly black with pale yellowish pattern, subsequent tergites reddish brown with whitish yellow pattern (Fig. 1) ..... 4. *I. multicolor* **sp. n.**

— Mesothorax predominantly red (Figs 2, 3). Abdominal tergites black with white hind margin 5

5. Mesopleurum red with black mesepimeron (Fig. 2). Tergites 2 and 3 almost impunctate on median elevation. Tergite 7 laterally with reddish mark in the male (Fig. 5)..... 2. *I. gonzalezi* **sp. n.**

— Mesopleurum red with black speculum and mesepimeron white at least at apical 0.25 (Fig. 3). Tergites 2 and 3 with moderately dense and rather coarse punctures on median elevation. Tergites 2–6 with white epipleurae, lateral parts of tergites 6–8 brownish red..... 6. *I. specularis* **sp. n.**

1. *Itoplectis conquisitor* (Say, 1836)
Fig. 11

Say, 1836: 232, ♀ [*Cryptus*; type: ♀, USA, Indiana (destroyed)]; Morley, 1914: 32 (*Apechtis*; key, description, ♀ ♂; Mexico: Omiltemi at 8000 ft); Townes, 1940: 319–320 (biology summarized); Townes & Townes, 1960: 282, 287, 621 [*Itoplectis*; key, description, distribution, synn., fig.; hosts (about 60 spp., mainly Lepidoptera); Townes & Townes, 1966: 22 (bibliography); Ruiz et al., 2002: 645 (Mexico).

MATERIAL. Mexico, Tamaulipas: El Carmen, 11 X 1985 (R.A. Domínguez), 1 ♀; Guemez, CNIEC, naranja-follaje, 18 I 1991 (E. & J. Ruiz C.), 1 ♂(UAT). USA: New York (Shokan, Horton, Hancock etc.) 13 VII–4 VIII 1935 & 1936 (H.K. Townes), 3♀ 1♂; McLean Bogs Reserve, 8–16 VII 1939 (J.G. Franclemont), ♂; R.I., Westerley, 1VIII 1936 (M. Chapman), ♂ (ZISP).

2. *Itoplectis gonzalezi* Kasparyan, **sp.n.**
Figs 2, 4–7

MATERIAL. Holotype: ♀, México, Chiapas, San Cristobal, Res. Cerro El Huitepec, tr. Malaise, 7900 ft, N 16°46′06″, W 92°41′04″, 2–14 VIII 1997, CIB 97–072 (A. Gonzalez Hdz.) (TAMU). Paratype: 1 ♂ with same data as holotype (paratype in UANL).

DESCRIPTION. *I. gonzalizi* differs from other species with pale mesothorax in having entirely black mesepimeron and almost impunctate tergites 1–3 or sparsely punctate (tergite 3).

Female (holotype). Fore wing 6.8 mm long. Antenna with 22 flagellar segments; first and second segments combined about 0.95 times as long as maximum diameter of eye; flagellum apically incrassate, subapical segments about 1.3 times as long as wide and 1.7 as wide as first segment centrally (Fig. 4). Temples almost flat, strongly narrowed behind the eyes, about 0.6 as long as eye in profile. Posterior ocellus separated from eye by the distance of 0.3 times of its own diameter. Frons weakly concave, polished, almost impunctate, slightly convex before front ocellus. Face convex, evenly covered with moderately coarse and moderately sparse setiferous punctures. Clypeus in profile with upper 0.33 convex and punctate, the lower part flat, polished, impunctate, slightly concave before sharp apical margin, and with separate punctures on this concavity. Mandible strongly narrowed to apex, with upper tooth slightly longer than lower tooth. Mesoscutum, scutellum and mesopleurum highly polished with very fine and sparse setiferous punctures. Notauli absent. Upper ends of prepectal carina lying almost on the level of lower corner of pronotum. Metapleurum polished, impunctate, except for some anterior fine setiferous punctures in upper corner and along the boundary with propodeum; hairs denser and longer on upper division of metapleurum; submetapleural carina absent. Propodeum with very fine and sparse punctures and with rather long hairs; its median dorsal carinae entirely absent. All tarsal claws with distinct basal tooth (Fig. 2). First tergite distinctly convex, polished and almost impunctate; its dorsomedian carinae absent, dorsolateral carinae distinct only at extreme base and at apical 0.3. Third tergite 0.7 times as long as wide; tergites 2 and 3 with moderately coarse but very sparse punctures on median elevation, all tergites polished and with very fine and sparse punctures approximately in posterior 0.4. Ovipositor sheath about 1.0 as long as hind tibia.

Head black, palpi white. Antenna blackish-brown dorsally, brownish ventrally; scape black, pedicel and flagellomeres 1–3 reddish-brown ventrally. Thorax red and black as on Fig. 2. Prothorax black with lower margin of propleurum and dorsolateral margin of pronotum whitishyellow; tegula white with posterior 0.4 brown; prescutellar groove entirely red. Mesepimeron, metapleurum and propodeum entirely black. Fore and mid coxae and trochanters whitish yellow; fore and mid femora and fore tibia reddish yellow; fore tarsus dirty whitish. Mid tibia dirty reddish with dirty whitish elongate posterior spot, fuscous at extreme apex and with blackish median spot dorsally; mid tarsus dirty whitish yellow with all tarsal segments brownish at apex (wider ventrally). Hind coxa, trochanters and femur reddish with yellowish marks, hind tibia and tarsus dirty whitish with fuscous marks as on Fig. 2. Pterostigma brown with blackish brown margins. Abdominal tergites black, tergite 1 with small pale apical median spot, tergites 2–7 with white band at their apical 0.15–0.20. Sternites 2–5 white with large median and two lateral brown spots; hypopygium completely brown.

Male. Fore wing 6 mm long. Antenna as long as fore wing, with 22 flagellar segments. Tarsal claws simple, without basal tooth (Fig. 7). Structurally and chromatically very similar to female, but fore and mid legs paler: coxae, trochanters entirely, femora and tibiae anteriorly white; femora and fore tibia posteriorly yellowish; mid tibia white with small subbasal fuscous dorsal spot and fuscous dorsally at apical 0.35; hind trochanters yellow, trochanter I blackish dorsoposteriorly at basal 0.6. Tergites elongate, third tergite 1.2 times as long as wide. Median part of tergite 7 laterally with reddish spot (Fig. 5).

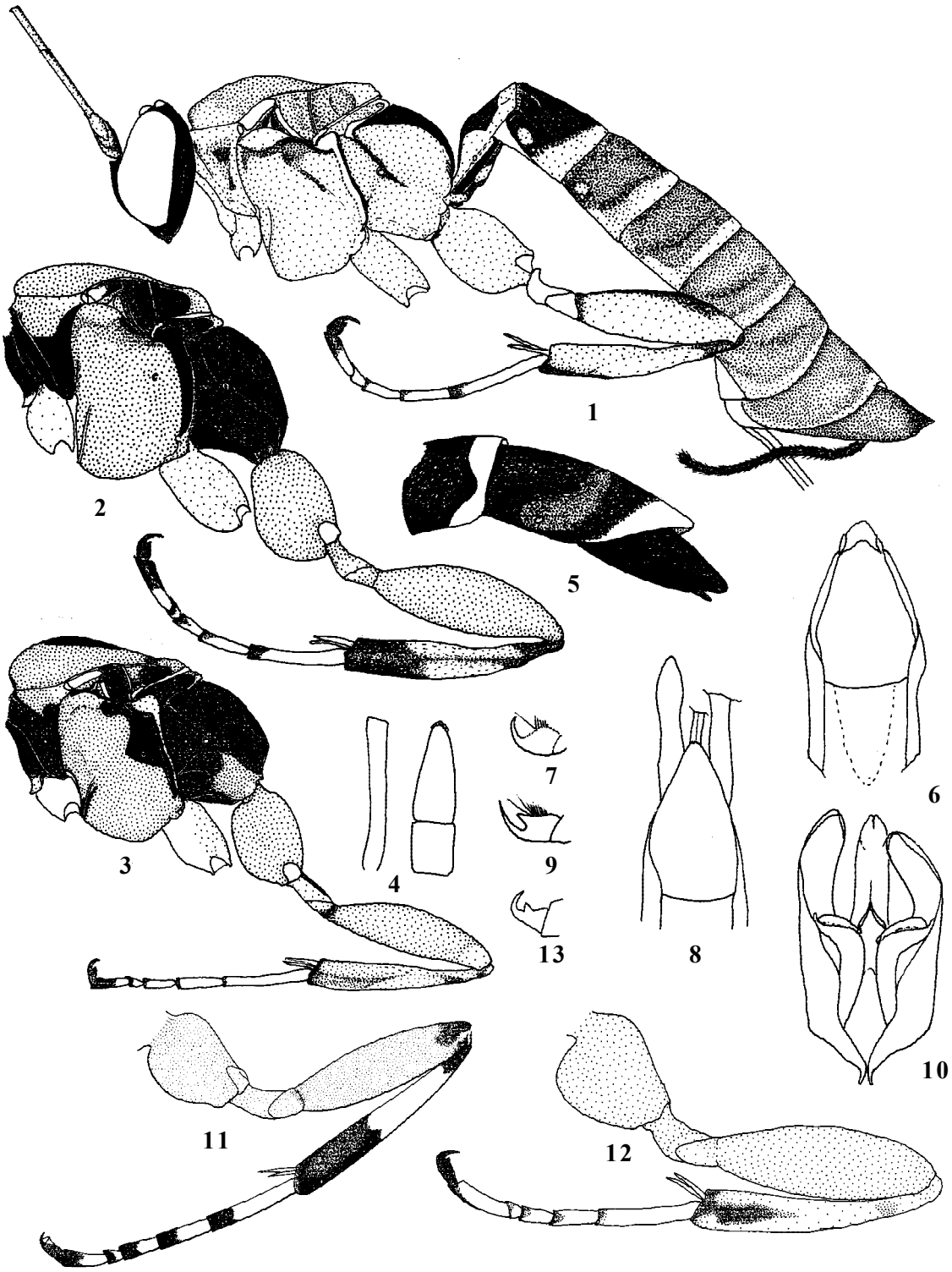
REMARKS. The species is named in honour of Dr. Alejandro Gonzalez Hernandez, entomologist of UANL, who has collected the holotype of this species and most of the material on other new Mexican species of *Itoplectis*.

3. *Itoplectis mexicanus* Kasparyan et Niño, 2004
Figs 12–13

Kasparyan et Niño, 2004, ♀ [*Holotype*: ♀, Mexico, *Tamaulipas*, municip. Hidalgo, El Chorrito, 13 X 1996, ex pupa *Coptocycla texana* (Schaeffer) (Chrysomelidae, Cassinae) living on *Ehretia anacua* (Teran et Berland) (Boraginaceae) (leg. T. Ormelas, S. Niño) (UAT)].

MATERIAL. Holotype.

DIAGNOSIS. Female (holotype). Fore wing 7.0 mm long. Antenna with 27 flagellar segments. *Itoplectis mexicanus* may easily be distinguished from all congeners by coloration of hind leg (Fig.12), and by rather short ovipositor which is about as long as first tergite (or 0.67 as long as hind tibia). Similar short ovipositor there is also in *I. curticauda* Kriechb. (Holarctic), and in two closely related species —



Figs 1–13. *Itoplectis* spp.: 1 — *I. multicolor* **sp.n.**; 2, 4–7 — *I. gonzalezi* **sp.n.**; 3, 8 — *I. specularis* **sp.n.**; 9–10 — *I. nigrithorax* **sp.n.**; 11 — *I. conquisitor*; 12–13 — *I. mexicanus*, holotype; 1 — body and hind leg; 2–3 — mesosoma with hind leg; 4 — basal and two apical segments of flagellum, 5–6 — apical abdominal segments of male (5 — lateral view, 6 — ventral view), 7, 9, 13 — fore tarsal claw; 8 — male genital segments (aedeagus apex broken); 10 — male genitalia; 11–12 — hind leg; 1–4, 11–12 – ♀♀, 5–10 – ♂♂.

Рис. 1–13. *Itoplectis* spp.: 1 — *I. multicolor* **sp.n.**; 2, 4–7 — *I. gonzalezi* **sp.n.**; 3, 8 — *I. specularis* **sp.n.**; 9–10 — *I. nigrithorax* **sp.n.**; 11 — *I. conquisitor*; 12–13 — *I. mexicanus*, holotype; 1 — тело с задней ногой; 2–3 — мезосома с задней ногой; 4 — базальный и два апикальных сегмента флагеллума, 5–6 — вершинные сегменты брюшка самца (5 — сбоку, 6 — снизу), 7, 9, 13 — коготки передней лапки; 8 — генитальные сегменты самца (вершина эдеагуса обломана); 10 — гениталии самца; 11–12 — задняя нога; 1–4, 11–12 – ♀♀, 5–10 – ♂♂.

I. clavicornis Thoms. (Palaearctic) and *I. fustiger* Townes (Nearctic). *I. mexicanus* differs from the first (in addition to the coloration of hind tibia) by presence of distinct postmedian tooth on fore tarsal claws (Fig. 13); it differs from both these species in having weakly incrassate antenna (in *I. clavicornis* and *I. fustiger* subapical segments short, subquadrate) and longer cheeks (malar space of *I. fustiger* 0.12 as long as basal width of mandible)

4. *Itoplectis multicolor* Kasparyan, **sp.nov.**
Fig. 1

MATERIAL. Holotype: ♀, México, Chiapas, San Cristobal, Res. Cerro El Huitepec, tr. Malaise, 7900 ft, N 16°46′06″, W 92°41′04″, 2–14 VIII 1997, CIB 97–072 (A. Gonzalez Hdz.) (TAMU).

DESCRIPTION. **Female** (holotype). Fore wing 8.3 mm long. Antenna with 24 flagellar segments; first and second segments combined about 1.1 times as long as maximum diameter of eye; flagellum apically weakly incrassate, subapical segments about 1.5–1.7 times as long as wide and 1.4 as wide as first segment centrally. Temples almost flat, strongly narrowed behind the eyes, in profile about 0.3 as long as eye. Posterior ocellus separated from eye by the distance of 0.27 times of its own diameter. Frons concave, polished, almost impunctate, weakly convex before front ocellus. Face convex evenly covered with moderately coarse and moderately dense setiferous punctures. Clypeus in profile with upper 0.3 convex, the lower part flat, polished, slightly concave before sharp apical margin, and with separate punctures in this concavity. Mandible with upper tooth distinctly longer than lower tooth. Mesoscutum smooth with fine setiferous punctures, that are separated by about two their diameters and very sparse at posterior 0.3 of mesoscutum; punctures on scutellum sparser. Notauli absent. Upper ends of prepectal carina situated almost on the level of lower corner of pronotum. Mesopleurum polished, its anterior 0.6 with moderately fine setiferous punctures (punctures on its upper half sparser than in mesoscutum, and on lower half and on mesosternum a little denser), its posterior 0.4 almost impunctate. Metapleurum polished with fine setiferous punctures; hairs short, long only on boundary with propodeum and on upper division of metapleurum; submetapleural carina absent. Propodeum more or less evenly covered with moderately fine and moderately sparse punctures; its median dorsal carinae absent (only their front ends are discernible as a pair of small anterior tubercles on front border of propodeum above basal propodeal groove). All tarsal claws with distinct basal tooth (Fig. 1). First tergite distinctly convex (Fig. 1), polished and without punctures at basal half, laterally and at posterior margin; its dorsomedian carinae absent, dorsolateral carinae distinct only at extreme base and at apical 0.3. Third tergite 0.6 times as long as wide; tergites 2 to 6 with moderately strong elevations and depressions (Fig. 1). Ovipositor sheath about 1.0 as long as hind tibia.

Head black, palpi white. Antenna brownish; scape, pedicel and flagellar segments 1–3 yellowish ventrally; flagellum darker to apex although its last segment reddish at apical half. Thorax and propodeum predominantly very pale brownish-yellow with brown and black spots as on Fig. 1; prothorax predominantly whitish-yellow; mesoscutum brownishred with a pair of anterolateral whitishyellow spots; scutellum and postscutellum reddish, posteriorly broadly whitish. Propodeum with complete and broad median longitudinal black band. Fore and mid legs whitish yellow with posterodorsal brown line on all femora, and with blackish lateral (anterior and posterior) marks at basal 0.2 of all tibiae; mid tibia fuscous at extreme apex and dorsally at apical 0.25; all tarsal segments fuscous apically. Hind leg pale with whitish and fuscous marks as on Fig. 1; posterior side of femur with brownish dorsal stripe symmetrical to anterior one, stripes separated on dorsal surface of femur by whitish line. Pterostigma brown with front margin darker. Abdominal tergites 1 and 2 predominantly black with pale yellowish pattern, other tergites reddishbrown with whitish yellow pattern (Fig. 1). Sternites whitish yellow, sternite 6 (hypopygium) pale reddish at basal 0.7.

Male unknown.

5. *Itoplectis nigrithorax* Kasparyan, **sp. nov.**
Figs 9–10

MATERIAL. Holotype: ♂, México, Chiapas, San Cristobal, Res. Cerro El Huitepec, tr. Malaise, 7900 ft, N 16°46′06″, W 92°41′04″, 2–14 VIII 1997, CIB 97–072 (A. Gonzalez Hdz.). Paratype: 1 ♂ with same data as holotype (both in TAMU).

DESCRIPTION. *I. nigrithorax* differs from other neotropical species lacking submetapleural carina in having thorax completely black, and fore tarsal claws with basal tooth (Fig. 9).

Male (holotype). Fore wing 6.8 mm long. Antenna with 23 flagellar segments; first and second segments combined about 1.1 times as long as maximum diameter of eye; flagellum apically weakly incrassate, subapical segments about 1.1–1.2 times as long as wide and 1.5–1.7 as wide as first segment centrally. Temples weakly rounded and strongly narrowed behind the eyes, in profile about 0.6 as long as eye. Posterior ocellus separated from eye by the distance 0.5 times of its own diameter. Frons concave at lower half, polished, almost impunctate, slightly convex before front ocellus. Face convex, polished, with moderately coarse separate setiferous punctures on orbits, around epistoma (central convexity) and below antennal scrobes. Clypeus in profile with upper 0.4 convex, almost impunctate; its lower part flat and polished, impunctate, slightly concave with apical margin sharp. Mandible narrowed to apex, with upper tooth slightly longer than lower tooth. Mesoscutum and scutellum polished, with rather fine and sparse setiferous punctures; punctures denser and rather large but not deep at central parts of lateral lobes of mesoscutum. Notauli absent. Mesopleurum highly polished, with very fine and very scarce punctures (punctures under subtegular ridge and on mesosternum a little denser). Upper ends of prepectal carina situated almost at the level of lower corner of pronotum. Metapleurum polished, impunctate, except for some fine setiferous punctures on fore margine of upper corner and along the boundary with propodeum; hairs denser and longer on upper division of metapleurum; submetapleural carina absent. Propodeum with moderately dense and moderately coarse setiferous lateral punctures beyond the spiracles, with fine and sparse dorsal punctures and with long hairs; its median dorsal carinae entirely absent. Tarsal claws of anterior legs with strong basal tooth (Fig. 9); mid and hind tarsal claws simple.

First tergite distinctly convex, polished and almost impunctate (with separate setiferous punctures dorsally and with a group of dorsolateral punctures before spiracles); its dorsomedian and dorsolateral carinae absent. Median elevation on tergite 2 impunctate on anterior half and dorsally, and with coarse and moderately sparse lateral punctures. Subsequent tergites coarser and denser punctured, with polished band in about posterior 0.2 and with a subapical transverse row of fine setiferous punctures. Third tergite 0.9 times as long as wide. Parameres (in paratype) rather broad (Fig. 10).

Head black, palpi white. Antenna blackishbrown dorsally, brownish ventrally; scape and pedicel black. Thorax black. Hind corner of pronotum, tegulae, apex of mesepimeron, posterior half of postscutellum whitish yellow (basal half black). Small lateral spot on mesoscutum slightly before the tegula and apical third of scutellum reddish (spot absent in paratype). Fore coxa, fore and mid trochanters whitish yellow; mid coxa, fore and mid femora reddish yellow; fore and mid tibiae yellowish; fore and mid tarsi dirty whitish, mid tarsal segments 1–4 fuscous at extreme apex dorsally and in apical 0.2–0.5 ventrally, segment 5 blackish in apical half. Hind coxa and femur red. Hind trochanter I light yellowish with black extreme base and posteriorly at basal 0.5; trochanter II whitish yellow with extreme apex fuscous. Hind tibia dirty whitish with blackish apical 0.4 and basal 0.25 laterally (as in female of *I. gonzalezi* — Fig. 2); spurs white. Hind tarsus dirty whitish dorsally, fuscous ventrally, with segment 5 fuscous (except for extreme base). Pterostigma light brown. Abdominal tergites black, tergites 2–7 with white band at their apical 0.1–0.15. Epipleura of tergites 2–6 white. Sternites 2–6 white with large median and two lateral brown spots; sternite 7 brown with anterior and posterior margins whitish; hypopygium (sternite 8) completely black.

Female unknown.

6. *Itoplectis specularis* Kasparyan, **sp. nov.**
Figs 3, 8

MATERIAL. Holotype: ♀, México, Chiapas, 4 km W San Cristobal, San Felipe, 2200 m, Oak-grass woodland, 24–28 VIII 1990 (R. Jones) (TAMU). Paratype: Chiapas, same locality as holotype, 10–13 VIII 1990 (J.B. Woolley), 90/058, 1 ♀; San Cristobal, Reserva Huitepec, tr. Malaise, 28 VIII 1990 (R. Jones), 1 ♀ (TAMU); San Cristobal, Res. Cerro El Huitepec, tr. Malaise, 7900 ft, N 16°46′06′′, W 92°41′04′′, 2–14 VIII 1997, CIB 97–072 (A. Gonzalez Hdz.), 1 ♀ (UANL). Oaxaca, Llano de las Flores, 17 & 19 VII 1987, 8900 ft (R. Wharton), 1 ♀ (TAMU). Michoacán, 6 mi north of Cheran, 28 VII 1988 (Ferreira, Schaffner), 1 ♂ (TAMU).

DESCRIPTION. *I. specularis* differs from *I. gonzalezi* (both have predominantly red thorax and entirely black propodeum) in having speculum always black and at least apical 0.25 of mesepimeron pale (whitish or yellowish); in female lateral parts of tergites (5) 6–8 reddish-brown, hind trochanter I blackish posteriorly, hind tibia lighter, and punctures on tergites 2 and 3 denser.

Female (holotype). Fore wing 7.5 mm long. Antenna with 23 flagellar segments; first and second segments combined about 0.97 times as long as maximum diameter of eye; flagellum apically incrassate, subapical segments about 1.4 times as long as wide and 1.5 as wide as first segment centrally. Temples almost flat, strongly narrowed behind the eyes, in profile about 0.66 as long as eye. Posterior ocellus separated from eye by half of its own diameter. Frons concave, polished, almost impunctate, with convexity before front ocellus. Face convex, evenly covered with moderately coarse and moderately sparse setiferous punctures. Clypeus with upper half slightly convex and punctate, the lower part slightly concave, impunctate, with sharp apical margin. Mandible short, with upper tooth slightly longer than lower tooth. Mesoscutum and scutellum smooth, with fine and rather sparse setiferous punctures which are more sparse or entirely absent in the hind part of lateral lobes. Notauli absent (hardly discernible as very superficial short impressions). Mesopleurum highly polished, with very fine and very sparse punctures (punctures a little denser on front and lower parts of mesopleurum). Upper ends of prepectal carina situated slightly lower than the level of lower corner of pronotum and far from anterior margin of mesopleurum (Fig. 3). Metapleurum polished, impunctate, with very fine setiferous punctures only in upper 0.4 (along the boundary with propodeum); hairs on upper division of metapleurum denser and longer; submetapleural carina absent. Propodeum without carinae, with distinct moderately sparse punctures, rather long hairs, and impunctate median longitudinal band. All tarsal claws with strong basal tooth (Fig. 3). First tergite strongly convex mediodorsally, its basal half and dorsal median band polished and impunctate; its dorsal carinae absent, dorsolateral carinae distinct only at extreme base and at apical 0.3. Third tergite about 0.75 times as long as wide; tergites 2–5 with rather coarse and moderately dense punctures, with sharp oblique furrow from spiracle to base, and with postmedian transverse impression; all tergites approximately polished in posterior 0.25 and with very fine and sparse punctures. Ovipositor sheath about 1. 65 times as long as first tergite and 0.95 as long as hind tibia.

Black. Scape with small apical pale spot; pedicel dark brown; flagellum reddish brown ventrally (paler to base) and blackish brown dorsally. Palpi white, labium whitish. Thorax black and red with a few whitish yellow spots as on Fig. 3 (speculum black); propleurum black, mesoscutum with at posterior 0.8 with broad median longitudinal black band, prescutellar groove blackish. Fore and mid coxae and trochanters white; mid coxa dorsoposteriorly partly yellow; femora yellowish with base and apex whitish; fore and mid tibiae and tarsi dull whitish. Hind coxa and femur light reddish (femur brownish at extreme base and whitish yellow at apex); hind trochanters white with trochanter I reddish brown posteriorly; hind tibia and tarsus dirty whitish with dark marks (Fig. 3). Pterostigma light brown. Abdominal tergites black, tergite 1 with small apical median spot, tergites 2–6 with white epipleurae and narrow apical white band (at their apical 0.1–0.15); hind margin of tergite 7 only dorsally white. Lateral parts of tergites (5) 6–8 brownish red. Sternites 2–5 white with 3 brown spots (a central one and two lateral); hypopygium brownish with anterior and posterior margins whitish.

Male is similar to female in main details of coloration, but its apical tergites black laterally. Tarsal claws of anterior legs with basal tooth (as in *I. nigrithorax* — Fig. 9), claws of mid and hind legs simple. Tergite 3 about 0.9 as long as wide; parameres long and narrow (Fig. 8)

VARIATION. Speculum always black and apex of epimeron always pale. Black elongate spot on mesoscutum sometimes absent, and prescutellar groove sometimes red. Posterior dark spot on hind trochanter I varies from reddish brown to black.

DISTRIBUTION. Mexico: Michoacán, Oaxaca, Chiapas

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