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South American *Oxybelus* III. The *uniglumis* and *scutellatus* groups (Hymenoptera, Sphecidae).

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Abstract

Twenty-four of the larger species of *Oxybelus* occurring in South America (except Chile) are recognized. A key is given and illustrations are provided of the critical thoracic projections: metanotal squamae and propodeal mucro. New species described and their type localities are: *aganis* (Paraguay), *cyaneus* (Colombia), *decoris* (Brazil), *fraternus* (Argentina), *frontis*, (Argentina), *huae* (Ecuador), *napoensis* (Ecuador), *osteni*, (Argentina), *peruensis* (Peru), *peruvicus* (Peru), *plaumanni* (Brazil), *roraimae* (Brazil), *scutellatus* (Argentina), *tartagalae* (Argentina) and *willinki* (Argentina).

Introduction

In previous papers the *Oxybelus* of Chile have been treated (Bohart 1992), synonymy of described South American species has been given (Bohart 1993a), and the *emarginatus* group has been treated (Bohart 1993b). This leaves only 15 undescribed species for the present paper. Of these 14 are in the *uniglumis* group exemplified by *uniglumis* Linnaeus 1758, a holarctic species. They are characterized by the male median clypeal lobe, which has a grayish beard that overhangs three stout teeth (fig. 14). Females of the group have the median clypeal carina produced into a tooth before the apex (fig. 15). Also, the species are larger on average than those of the *emarginatus* group, with body length mostly 5-7 mm (male) and 5-8 mm (female). One additional species described herein, *scutellatus*, is relatively large (7.5 mm long in male), but its unique characters place it outside the *uniglumis* group and closer to the *chilensis* group from Chile.

Characters of specific taxonomic importance are found in the squamae-mucro complex (projections of the metanotum and propodeum). These are figured for each new species. Also, the nature and extent of pubescence and punctation are useful. Breadth of the frons, at least in females, differentiates some species. Finally, markings must be considered. They are particularly significant on the terminal male flagellomere (fig. 14), female legs, and terga of both sexes.

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Terms in the keys and descriptions which may need explanation are: LID, least interocular distance; greatest single eye breadth, as seen directly in front of face; MOD, median ocellus diameter; T-I, T-II, etc., terga after propodeum, PD, puncture diameter.

Key to the *Oxybelus uniglumis* group in South America

Males (7 visible terga)

1. Mucro expanded and convex medially, large, unusually flattened, often marked with yellow or red, apex usually with an acute notch (about as in fig. 19), T-VII and often VI all or partly red, post-tegula red 2
   Mucro not as above, apical notch obtuse or roundly emarginate, (figs. 2, 9) T-VI-VII various 3

2. Legs with extensive yellow and red markings, hindfemur often mostly red ..... *americanus* Spinola (1841)
   Legs with extensive yellow and black markings, hindfemur mostly black ..... *paraguayensis* Brèthes (1909)

3. Flagellomere XI similar in color to those preceding, or even lighter (side view) 4
   Flagellomere XI black or brown and distinctly darker than those preceding (fig. 14) 11

4. Squamal point plainly projecting posteriorly beyond undeveloped inner lobe (fig. 11), legs rather reddish, mesopleuron with small to moderate punctures of which many are one PD or more apart 5
   Squamal point not plainly projecting posteriorly beyond inner lobe (as in fig. 9), other characters various 7

5. Post-tegula red, scape orange and yellow, pygidium reddish, legs extensively red ..... *argentinus* Brèthes (1913)
   Post-tegula black, scape not orange and yellow, pygidium brown or black, leg coloration various 6

6. Tergal markings white, antenna black ..... *napoensis* Bohart
   Tergal markings yellow, scape often yellow in front, antennal apex sometimes not all black ..... *peruvicus* Bohart

7. Forewing costa often extensively whitish; mesopleuron with close, moderate punctation usually obscured by dense, silvery pubescence; LID quite narrow; tergal punctation coarse; propodeal side completely covered with longitudinal ridging; tarsi mostly pale yellowish; pygidium reddish ..... *fraternus* Bohart
   Forewing costa not extensively whitish, propodeal side not completely ridged, other characters various 8

8. Flagellum all black, T-VI laterally tufted, pygidium black ..... *andinus* Brèthes (1913)
   Flagellum not all black, T-VI not laterally tufted, pygidium various 9

9. Pygidium dark brown to black .. *tartagalae* Bohart
   Pygidium red 10

10. Upper mesopleuron with fine punctures, many 3 or more PD apart; mucro marked with whitish or pale yellow, midtibia and hindmetatarsus yellow outwardly; post-tegula yellow and red ..... *willinki* Bohart
    Upper mesopleuron with medium coarse punctures, mostly 1-2 PD apart; mucro dark except for narrow translucent edges; hindmetatarsus and post-tegula black ..... *plaumanni* Bohart

11. Squamal point slightly but definitely posterior to inner lobe (about as in fig. 7); tergal markings whitish, interrupted medially; post-tegula red and white; mesopleural punctures fine and 1-2 PD apart ..... *decoris* Bohart
    Squamal point not posterior and/or tergal bands mostly complete, other characters various 12

12. Tergal pale bands mostly complete, mesopleural punctation fine to moderate and rather close 13
    Tergal pale bands, if any, not mostly complete, mesopleural punctation close or rather widely spaced 18

13. Midtarsus mostly pale ..... *roraimae* Bohart
    Midtarsus mostly or all dark 14

14. Mesopleuron with a spot of micropunctation between close punctures, post-tegula red ..... *osteni* Bohart
    Mesopleuron polished between close punctures, post-tegula various 15

15. Squama long oval (about as in fig. 1), post-tegula red 16
    Squama short and broad, post-tegula various .. 17

16. Midleg and hindleg mostly dark, mesopleural punctation moderate, face (fig. 14) .... *platensis* Brèthes (1901)
Midleg and hindleg extensively yellow, mesopleural punctation fine ..... *frontis* Bohart

17. Mucro moderately stout and flaring so that apex is 3 MOD wide (about as in fig. 9), post-tegula black *or* (var.) red ..... *marginatus* F. Smith (1856)
Mucro slender, sides nearly parallel, apex about 2 MOD wide; post-tegula black . *peruensis* Bohart

18. Mesopleural punctures rather evenly distributed and close (one PD apart or less), post-tegula black, squama long oval (about as in fig. 8) 19
Mesopleuron with polished spaces of 1-3 PD or more between punctures, other characters various 20

19. Mesopleural punctures (fine) and scutal punctures (moderate) contiguous, appearance dull, tergal bands whitish yellow ..... *aganis* Bohart
Mesopleural and scutal punctures close but interspaces a little shiny, tergal bands yellow .. .. *brethesi* Bohart

20. Upper mesopleural area with fine punctures only, post-tegula black, tergal markings whitish .... *huae* Bohart
Upper mesopleural area with some coarse punctures, at least on prepectus; other characters various 21

21. Legs mostly dark, tergal markings absent or few to many but yellow, post-tegula black, scape almost always black .. *catamarcensis* (Schrottky) (1909)
Legs extensively yellow and often partly red, tergal markings usually whitish and narrow but interrupted medially on T-I-II, post-tegula black or sometimes red, scape usually yellow in front ... . *aurifrons* F. Smith (1856)

Key to the *Oxybelus uniglumis* group in South America

Females (6 visible terga)

1. Mesopleuron extensively polished, *or* at least with significant impunctate areas (more than a PD) among moderate to coarse punctures, *or* quite closely and coarsely punctate 2
Mesopleuron with punctures moderate and close (mostly a PD or less apart), *or* with dense silvery pubescence which obscures punctation, *or* with punctation quite fine 16

2. Mucro heart-shaped and nearly flat (fig. 19), pygidial plate noticeably convex laterally, LID equal to or slightly more than eye breadth, post-tegula red 3
Mucro not heart-shaped and flat, pygidial plate nearly straight laterally, LID considerably greater than eye breadth (fig. 15), post-tegula various 4

3. Legs extensively reddish including femora and tibiae ..... *americanus* Spinola (1841)
Legs with little red .... *paraguayensis* Brèthes (1909)

4. Mesopleuron with coarse and close *or* rather evenly distributed punctures, *or* with impunctate areas restricted mainly to lower part of prepectus and adjacent mesepimeron 5
Mesopleuron extensively polished overall 7

5. Mesopleural punctures close and rather evenly distributed; clypeal ridge produced into a prominent and thumblike tooth (fig. 15); post-tegula black; facial pubescence light golden, individual setae short (fig. 15); pygidial plate red .... *plaumanni* Bohart
Mesopleural punctures separated by 1-3 PD impunctate areas, clypeal ridge prominent but not produced into a thumb-like tooth, post-tegula, facial pubescence, and pygidial plate various .. 6

6. Lower part of prepectus and associated area on mesepimeron with a spot of micropunctation between larger punctures, post-tegula red, facial pubescence silvery and quite short .... *osteni* Bohart
Lower part of prepectus and rest of mesopleuron with punctures 1-3 PD apart and distributed rather evenly, interspaces between punctures polished, post-tegula black, facial pubescence whitish to golden but not unusually short .... *catamarcensis* (Schrottky) (1909)

7. Hindtibia extensively maculate 8
Hindtibia not maculate 9

8. Mucro dark and rather narrow (fig. 7), facial pubescence yellowish to golden, scape white in front, pygidial plate dark, tergal bands whitish and interrupted medially ..... *decoris* Bohart
Mucro yellow-marked and broad, apex roundly incised, points sharp (fig. 2); facial pubescence silvery and dense; scape dark, pygidial plate red; tergal bands yellow and mostly complete .... *willinki* Bohart

9. Terga II-IV strongly bluish but without pale markings, squama broader than long and inner lobe weakly developed (fig. 6), facial pubescence a little yellowish ..... *cyaneus* Bohart
Terga without a bluish luster, other characters various 10

10. Squamal point plainly reaching posterior to weakly developed inner lobe (figs. 17, 18) 11
Squamal point not plainly reaching posterior to well developed inner lobe (figs. 3, 4) 13

11. Thoracic markings white, post-tegula black, lateral spot of T-I narrow, pygidial setae dark reddish ..... *napoensis* Bohart
Thoracic markings yellow, pygidial setae pale golden, other characters various 12

12. Post-tegula red, lateral spot of T-I globular ..... *argentinus* Brèthes (1913)
Post-tegula black, lateral spot of T-I narrow ..... *peruvicus* Bohart

13. Facial pubescence silvery white, T-I to V usually yellow marked, pygidial plate black or red, mucro with sides narrowly translucent (fig. 3) ..... *tartagalae* Bohart
Facial pubescence golden or yellowish, mucro black, not at all translucent (fig. 4), other characters various 14

14. Pygidial plate red, middle of mesepimeron with well spaced but numerous moderate punctures, T-I-III or I-IV usually with narrow light yellow bands, interrupted medially ..... *aurifrons* F. Smith (1856)
Pygidial plate black, middle of mesepimeron with widely spaced and minute punctures, T-III-IV usually black 15

15. Thoracic markings white, midleg black ..... *huae* Bohart
Thoracic markings yellow, midleg somewhat brownish red ..... *andinus* Brèthes (1913)

16. Tergal yellow or whitish bands broken medially, post-tegula and pygidial plate black 17
Tergal yellow or whitish bands complete, rarely slightly broken but at least not on T-III, band on T-I nearly always connected medially; post-tegula and pygidial plate various 18

17. Mesopleuron and scutum with fine to moderate punctures contiguous, surface dull; hindtibia all black; pubescence of frons off-silvery above, tergal markings whitish yellow ..... *aganis* Bohart
Mesopleuron and scutum with punctures close but a little shiny between, hindtibia yellow toward base, pubescence of frons silvery, tergal markings yellow ..... *brethesi* Bohart

18. Hindtibia dark, pygidial plate dark 19
Hindtibia maculate, at least near base; pygidial plate various 20

19. Squama long oval with point obscure from above, femora without an apicoventral yellow spot, tergal bands on I-IV only, post-tegula red, facial pubescence silvery ..... *platensis* Brèthes (1901)
Squama about as broad as long, point lateral and visible from above (fig. 9), fore and midfemora nearly always with an apicoventral spot, tergal bands usually on I-V, post-tegula black or red, facial pubescence usually off-silvery above ..... *marginatus* F. Smith (1856)

20. Mesopleuron covered with dense silvery pubescence that obscures punctation, post-tegula and mucro mostly white (fig. 10), hindmetatarsus white, forewing costa white, pygidial plate red ..... *fraternus* Bohart
Mesopleuron not covered by pubescence that obscures punctation, post-tegula and mucro not mostly white, hindmetatarsus and forewing costa dark, pygidial plate dark 21

21. Mucro slender, parallel-sided or nearly so (fig. 12), longer than squamal complex; post-tegula dark *peruensis* Bohart
Mucro not longer than squamal complex (figs. 1, 5), post-tegula various 22

22. LID distinctly more than eye breadth, silvery appressed pubescence of frons nearly reaching midocellus (view from above), post-tegula red *frontis* Bohart
LID not more than eye breadth, silvery appressed pubescence of frons not nearly reaching midocellus, post-tegula partly brownish ..... *roraimae* Bohart

Oxybelus aganis R. Bohart, new species

Female holotype. Length 6 mm. Black marked with whitish yellow: basal half of mandible, pronotum laterally, squamae except narrow, median, outer apical spot on fore and midtibiae, T-I with lateral hemispherical spot, T-II to IV narrowly banded and interrupted medially, T-V with narrow complete band; brownish red are: flagellomeres IV to X beneath (distal half of X dark), wings lightly stained. Pubescence unusually short and thick; silvery to light golden on face, silvery behind eyes and on mesopleuron, bronzy on scutum, inconspicuous elsewhere. Puncta-

tion medium fine and exceptionally close on vertex, scutum, mesopleuron, and terga. Clypeal ridge strongly protruding (view laterally); LID a little greater than eye breadth; squama long, nearly triangular, point nearly hidden from above (fig. 8); mucro broad, a little shorter than squama, dark but with translucent edges, apex obtusely emarginate; pygidial plate with light golden setae, angled at 47°.

Male. Length 5 mm. Antenna with last segment black, pronotal collar black; fore and midtarsi yellow outwardly, hindtarsus likewise but sometimes only basally. Facial pubescence off-silvery above. Scutal punctation a little more coarse. LID slightly more than eye breadth; T-III to VI with small lateral spines.

Holotype female (DAVIS) and one male paratype (SACRAMENTO), Cororo-Ypane, San Pedro, Paraguay, XI-30-83 (M. Wasbauer). One male paratype (DAVIS), topotypical, XII-9-93 (M. Wasbauer).

The fine to moderate, contiguous punctation of the vertex, scutum, mesopleuron, and terga are exceptional features in this species, as is the close, almost bristly pubescence. Other features are the black post-tegula, all dark female hindleg, medially interrupted tergal bands, and rather elongate squamae (fig. 8). Somewhat similar is *tartagalae* but the much less dense punctation of that species separates them. At present, *aganis* is known only from Paraguay. The name is a noun derived from the Greek: *a* (not) and *ganos* (brightness).

Oxybelus cyaneus R. Bohart, new species

Female holotype. Length 7 mm. Black marked with yellow: mandible except apex, pronotal collar and lobe, foretibia partly; reddish are: antenna, midtibia partly; bluish are: T-II apically, T-III-IV; wings light brown. Pubescence light golden on frons, off-silvery on vertex and scutum, silvery toward apices of T-I-III; pygidial setae dark. Punctation moderate, close on vertex, slightly separated on scutum, fine and close on terga; pleuron (including propodeal side) highly polished, with very few punctures except pits along mesopleural suture. Clypeal ridge moderately developed, LID a little greater than eye breadth; genal carina weakly indicated; squama broad, point about as long as inner lobe (fig. 6); mucro longer than squama, its sides slightly diverging; pygidial plate angled at 47°.

Male. Unknown.

Holotype female (LONDON), La Chorrera, Amazonas, Colombia, VIII-24-31-1976 (M. Cooper). Paratypes, 2 females from Colombia: La Macarena, Meta, IX-18-1976 (M. Cooper, DAVIS), and Leticia, Amazonas, VIII-19-20-1974 (M. Cooper, LONDON).

The unique blue coloration of the abdomen of *cyaneus* sets it apart from all other known *Oxybelus*. Except for the color, the polished mesopleuron and black post-tegula show a relationship to *andinus* Brèthes and *tartagalae* Bohart. From the first it differs by the shorter squamal point. From the latter the shorter squama and all black mucro of *cyaneus* (fig. 6) will differentiate. The species is known only from Colombia.

Oxybelus decoris R. Bohart, new species

Female holotype. Length 6 mm. Black marked with whitish: mandible mostly, scape, pronotal collar and lobe, post-tegula, scutellar spots, metanotum, forefemur and tibia outwardly, apicoventral spot on midfemur, midtibia and hindtibia outwardly, broken bands on T-I-IV, that on I nearly complete; reddish are: flagellum mostly, tegula, legs extensively; wings lightly stained. Pubescence mostly silvery, that on frons light golden. Punctation fine and moderately close on vertex and scutum, quite fine and close on terga, mesopleuron largely polished with scattered fine punctures, pygidial setae light golden. Clypeal ridge moderately prominent, LID 1.3x as broad as eye, genal carina undeveloped, squama with point extending posteriorly about as far as inner lobe (fig. 7), mucro narrow, a little longer than squama, expanding near apex which is semicircularly incised, pygidial plate angled at 50°.

Male. Length 4.5 mm. Mandible dark basally, tarsi mostly whitish; LID equal to eye breadth; genal carina distinct; frons silvery pubescent; mesopleuron with scattered fine punctures; mucro a little longer; lateral tergal spines inconspicuous.

Holotype female (DAVIS), Surumu, Terr. Roraima, Brazil, IX-1966 (M. Alvarenga). Paratypes, male (DAVIS), 5 females (DAVIS, ITHACA, LONDON), same data as holotype.

The white markings, including the scape, polished female mesopleuron, white post-tegula, dark and nearly parallel-sided mucro, red and whitish legs, dark female pygidial plate, and medially interrupted tergal bands characterize the species, which is known only from Roraima Territory in northern Brazil.

Oxybelus fraternus R. Bohart, new species

Female holotype. Length 5 mm. Black marked with whitish: mandible mostly, pronotal collar and lobe, tegula partly, post-tegula, scutellar spots, metanotum, mucro mostly, legs including femora partly, strong bands on T-I-V and sterna I-III, band on T-I covering entire dorsum except a basomedian dark line; reddish are: flagellomeres mostly, abdominal segment VI including pygidial plate; wings water clear, veins mostly pale including costa as far as forewing stigma. Pubescence silvery, dense on head, scutum, mesopleuron, and terga. Punctation of mesopleuron close and fine to moderate, mostly obscured by pubescence; propodeal side completely covered with strong longitudinal carinae. Median clypeal ridge slightly elevated, LID greater than eye breadth, squama with lateral point (obscure from above) exceeded posteriorly by well developed inner lobe (fig. 10), mucro expanding moderately, pygidial plate angled at 50°.

Male. Length about 4 mm, antenna somewhat darker, last segment not black, pronotal collar and scutellum black, post-tegula red or reddish brown, tergal bands narrow, not always well marked toward abdominal apex, T-VII red or sometimes dark; propodeal side as in female; LID equal to or less than eye breadth; T-III to VI with slender lateral spines.

Holotype female (DAVIS), Andalgala, Catamarca, Argentina, XI-4-72 (G. E. Bohart). Paratypes, 20 males, 14 females, all from Argentine Provinces: Rio Negro (Lamarque), Mendoza (San Rafael), La Rioja (Macasin, Chilecito), Tucumán (Amaiche del Valley, Quilmes), Santiago del Estero (Los Telares), Salta (Cafayate), Catamarca (Belén, Los Nacimientos de Abajo, Andalgala, Punta de Belasto, Santa Maria). Collectors were A. Willink, L. Stange, C. & M. Vardy, L. Peña, T. Osten, Andrae, G. Bohart, and R. Bohart. Months of capture were November to March. Paratypes are deposited in museums at DAVIS, NEW YORK, TUCUMAN, WASHINGTON, SALTA, and STUTTGART.

Oxybelus fraternus is remarkable in the female for its extensive silvery pubescence, clear wings with many whitish veins, nearly all pale dorsum of T-I, mostly whitish post-tegula, and extensively carinate propodeal side. A few of the female paratypes have the pygidial plate mostly black. Males are less distinctive than females. However, the combination of red post-tegula, coarse tergal punctation, and completely ridged propodeal side simplify identification. The species name honors my brother, G. E. Bohart, who collected many Argentine bees and wasps in 1972. The species is known only from Argentina.

Oxybelus frontis R. Bohart, new species

Female holotype. Length 6.5 mm. Black marked with yellow: pronotal collar, squama, outer streaks on tibiae, apical bands on T-I to T-V, that on T-I narrow over median half; red are: mandible apically, flagellum beneath dully, tegula and post-tegula; wings lightly stained. Pubescence silvery on face, postocular area, mesopleuron (thin), off-silvery on pygidial plate. Punctation fine and close on vertex, scutum, mesopleuron, and terga. Clypeal ridge toothlike (view laterally), LID 1.3x as broad as eye, squama broad oval with point positioned well before posterior apex (fig. 1), mucro a little shorter than squama, sides diverging slightly, pygidial plate angled at 50°.

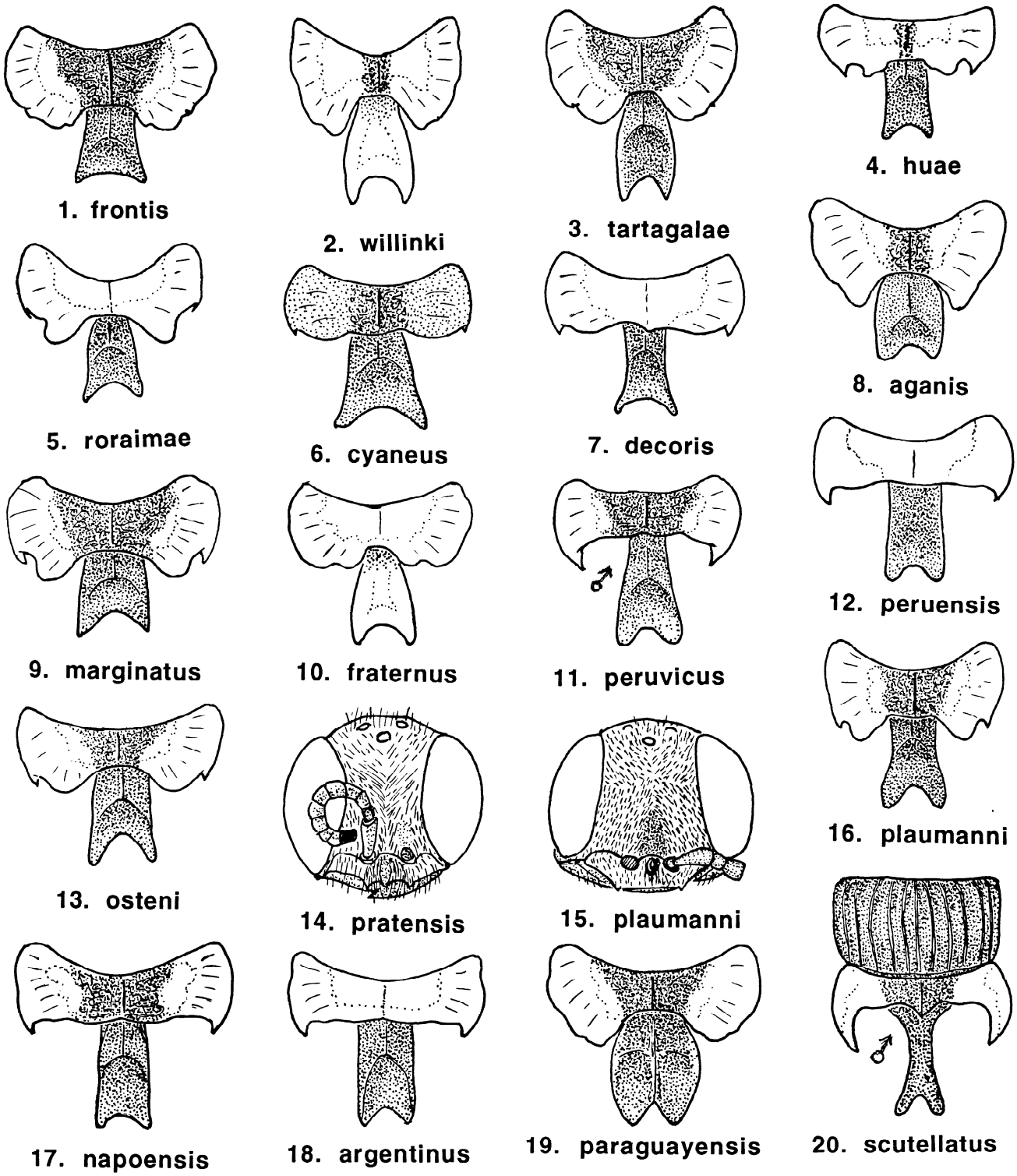
Male. Length 5-5.5 mm. Silvery pubescence of face dense and reaching almost to midocellus, last antennal article black in contrast to those preceding, midfemur with small apicoventral spot, tibiae more extensively yellow which extends onto apex of hindfemur, T-III to VI with small lateral spines.

Holotype female (SALTA), Lamarque, Rio Negro, Argentina (M. Fritz). Paratypes, 3 females, SALTA, TUCUMAN, DAVIS, topotypical, XII, I, (U. and M. Fritz). Also paratypes from Argentina: male (DAVIS), Rio Negro: Pomona (M. Fritz); male (SALTA), Buenos Aires: Mar del Plata (Kormilev), male (DAVIS), Tornquist (J. Foerster)

The combination in the female of broad LID, maculate hindtibia, red post-tegula, and light yellow markings differentiate *frontis* from other members of the *marginatus* subgroup. Males are close to those of *marginatus*, especially those with red post-tegula. In *frontis* a combination of all-silvery frontal pubescence nearly reaching the midocellus, and fine close punctation on the scutum and mesopleuron will differentiate. Also, most *marginatus* males have the LID a little less than eye breadth. In *frontis* LID is fully equal to eye breadth. The species is known only from Argentina. The name is a noun referring to the pubescence of the frons.

Oxybelus huae R. Bohart, new species

Female holotype. Length 5 mm. Black marked with whitish: mandible basally, scape in front, trace



Figures 1-20. All figures are of the metanotal squamae and propodeal mucro of females. These are comparative and not drawn to scale. Figs. 16-19, squamae and mucro. Figs. 14-15, facial view. Fig. 20, scutellum, squamae, and mucro.

on pronotal collar, pronotal lobe, scutellum, metanotum, foretibia outwardly, tiny lateral spots on T-I-II; flagellum dull whitish to dull reddish within; wings lightly stained. Pubescence golden on frons, postocular area, pygidial plate; reddish brown on vertex, and scutum; inconspicuous elsewhere. Punctation moderate and close on vertex, scutum, fine and close on terga, mesopleuron extensively polished. Median clypeal ridge prominent, LID greater than eye breadth, genal carina hardly indicated, squamal point not exceeding posteriorly well developed inner lobe (fig. 4), mucro a little longer than squama and parallel-sided, pygidial plate angled at 45°.

Male. Length 4.5 mm. Mandible dark, F-V to VIII reddish within, F-IX black, legs a little reddish, tibiae white outwardly, narrow white subapical bands on T-I to V, slightly broken medially on T-III-IV. Facial pubescence silvery to light golden above. Mesopleuron mostly polished, a few more punctures than in female. Genal carina well developed, practically no lateral tergal spines.

Holotype female (DAVIS), Huahua Sumaca, 45 km on Hallin-Loreto Road, Napo Province, Ecuador, XII-22-89 (M. and J. Wasbauer, H. Real). Paratypes (SACRAMENTO, DAVIS), 1 male, 8 females, same data as holotype but various dates in December.

The extensively polished mesopleuron allies *huae* with some 10 other South American species. Of these, only two, *aurifrons* and *huae* have the tergal bands white, inner squamal lobe well developed (fig. 9), female face golden, and male flagellum considerably pale within. In *aurifrons* the female pygidial plate is red (instead of black), and the mesopleuron is less completely polished in both sexes. The species is known only from Ecuador. The name is a noun derived from part of the holotype locality.

Oxybelus napoensis R. Bohart, new species

Female holotype. Length 7 mm. Black marked with whitish: basal half of mandible, pronotal collar and lobe, scutellar spots, squamae except medially, a basoposterior forefemoral spot, foretibia in front, lateral streaks on T-I, small ones on T-II; reddish are: median spot on mandible, flagellum mostly (brownish red), legs partly (brownish); wings rather evenly brownish. Pubescence golden on frons, mostly dark but inconspicuous elsewhere. Punctation moderate and close on vertex and scutum, fine and close on terga; mesopleuron extensively polished. Median clypeal ridge prominent, LID greater than eye breadth, genal carina hardly indicated, squamal point plainly exceeding undeveloped inner lobe (fig. 17), mucro longer than squama, parallel-sided, pygidial plate with dark setae, angled at 50°.

Male. Length 5 mm. Mandible and antenna black, pronotal collar mostly black, all tibiae maculate outwardly, T-I to IV spotted laterally. Pubescence of frons off-silvery, T-VI with dark lateral hair tuft. LID about equal to eye breadth. Genal carina and lateral spines on T-IV to VI well developed.

Holotype female (DAVIS), Huahua Sumaco (45 km on Hollin-Loreto Road), Napo Province, Ecuador, XII-22-89 (M. & J. Wasbauer, H. Real). Paratypes, 23 males, 9 females, same data as holotype but dates from XI-14 to XII-22. Paratypes are deposited in museums at DAVIS, SACRAMENTO, and with other cooperators.

The combination of all black male antenna, black post-tegula and pygidium, laterally tufted male T-VI, golden pubescent female frons, polished female mesopleuron and black female hindtibia place *napoensis* close to *andinus*. The large squamal points are found also in *peruvicus*, but the whitish markings of *napoensis* are distinctive.

Oxybelus osteni R. Bohart, new species

Female holotype. Length 6 mm. Black marked with light yellow: pronotal collar and lobe, squamae, midfemoral spot, complete bands on T-I-V, that on I a little enlarged laterally; red are: mandible medially, flagellum within partly, tegula and post-tegula; wings slightly stained, veins black. Pubescence pale and minute on frons, weak and off-silvery on scutum, scanty on mesopleuron, not conspicuous on terga, light golden on pygidial plate. Punctation moderate and close on vertex and mesonotum; moderate on mesopleuron and slightly separated, a micropunctate spot between punctures on lower part of prepectus and adjacent area posterior to it; fine and close on terga. Median clypeal ridge moderately prominent, LID greater than eye breadth, genal carina sharp, squamal point exceeded by well developed inner lobe (fig. 13), mucro a little longer than squama, apex roundly excavated, apical points sharp (fig. 13), pygidial plate angled at 50°.

Male. Length about 5 mm. Last flagellomere black in contrast to those preceding, LID slightly greater than eye breadth, collar black, tibia usually with an

outer yellow streak, T-VI-VII black. T-III to VI with well developed lateral spines.

Holotype female (SALTA), Chicoana, Salta, Argentina, XII-1990 (M. Fritz). Paratypes, 46 males, 6 females, all collected by M. Fritz and T. Osten in Salta Province, Argentina in XII-1990: Chicoana, Sumalar, 10 K s. Rosario de Lerma. Paratypes deposited in cooperating museums including STUTTGART.

The combination of short and thick pubescence on the frons, micropunctate prepectal spot, red post-tegula, unspotted femora, and black pygidium differentiates the species. A related species is *marginatus* F. Smith which also has continuous tergal bands and black pygidium. However, the micropunctate prepectal spot of *osteni* is unique, and additional characters of difference are the red post-tegula and unspotted femora. The species is named for Till Osten who collected a majority of the paratypes. The range is limited to Argentina.

Oxybelus peruensis R. Bohart, new species

Female holotype. Length 5 mm. Black marked with yellow: pronotal collar and lobe, squamae all across, outer apical spots on fore and midfemora, outer streak on foretibia, strong and complete bands on T-I to V, those on I-II enlarged laterally; red: antenna dully toward apex within; wings lightly stained. Pubescence silvery on face, off-silvery above, reddish on scutum, silvery but not dense on mesopleuron, pygidial setae golden. Punctation fine and close on vertex and scutum, fine but a little separated on mesopleuron, fine and close on terga. Median clypeal ridge moderately prominent, LID a little more than eye breadth, genal carina moderately developed, squamal point hardly exceeding inner lobe (fig. 12), mucro parallel-sided and longer than squama, pygidial plate angled at 47°.

Male. Length 4 mm. Last flagellomere black in contrast to reddish underside of those preceding, LID equal to eye breadth, pronotal collar with 3 spots, foretibia mostly yellow outwardly, others basally spotted. Lateral tergal spines inconspicuous.

Holotype female (DAVIS), Tingo Maria, Huanuco, Peru, VI-24-82 (M. Wasbauer, J. Slansky). Paratypes, 1 female, same data as holotype; 2 males, 1 female, topotypical, VI-19-21-82 (M. Wasbauer, J. Slansky); 2 males, 2 females, Rurrenabaque, Beni, Bolivia, X-5-56 (L. Peña). Paratypes in DAVIS, SACRAMENTO, and LAWRENCE museums.

The combination of black post-tegula, closely and finely punctate mesopleuron, complete yellow tergal bands, dark pygidium, and broad squamae (fig. 12) characterize the species. Some of those features easily distinguish it from the somewhat related species, *roraimae* R. Bohart. The more slender and parallel-sided mucro (fig. 12) differentiates this smaller species from *marginatus* F. Smith. The species is known only from Peru and Bolivia.

Oxybelus peruvicus R. Bohart, new species

Male holotype. Length 6 mm. Black marked with yellow: mandible, median clypeal lobe, scape, pedicel, pronotal lobe, fore and midtibia outwardly, hindtibia basally, lateral spots on T-I to IV; reddish are: F-X-XI beneath, femora extensively (dark red). Pubescence silvery below, becoming light golden above and behind eye, brownish on scutum, silvery but sparse on mesopleuron, black on T-VI in a lateral tuft. Punctation moderate and close on vertex and terga, coarse and a little separated on notum, mostly coarse and separated by polished areas 1-3 PD on mesopleuron. LID equal to eye breadth, genal carina present, squamal point large, inner lobe quite weak (fig. 11), mucro longer than squama and diverging slightly toward semicircular apical emargination, T-IV to VI with small lateral spines.

Female. Length 5.5-6.5 mm. Antenna nearly all orange except scape mostly yellow, squamae usually yellow all across, femora and tibiae somewhat reddish brown, especially forefemur which also has a basoposterior yellow spot, T-I to II or sometimes I-IV with small yellow lateral spots, pygidial plate black. Facial pubescence golden above clypeus, brownish on lower mesopleuron, pygidial setae golden. Punctation of vertex, notum, and terga moderately fine and close, mesopleuron mostly polished. Squamal point smaller, genal carina absent.

Holotype male (SAN FRANCISCO), Tingo Maria, Peru, X-19-54 (E. Schlinger, E. Ross). Paratypes, Peru: 2 males (NEW YORK), Madre de Dios, 156 k from Puerto Maldonado (L. Peña); male (ITHACA), Rio Chanchemayo. Bolivia: male (TUCUMAN), Rio Choro, 20 k w. San Carlos (R. Roberts); male (TUCUMAN), near Buena Vista (R. Roberts); male (TUCUMAN), near Montero (R. Roberts); male (SALTA), Chapara, Chimore. Guyana: male (LONDON), Essequibo River. Colombia: male (LONDON), Meta, Cordillera Macarena (M. Cooper); female (LONDON), Arauca, Tame (M. Cooper). Ecuador: male

(LONDON), Napo, Muyuma (M. Cooper); female (WASHINGTON), Napo, 11 mi sw. Tena, V-28-77 (D. Vincent). Venezuela: female (ITHACA), San Esteban, Carabobo (P. Anduze). Paraguay: 2 females (SALTA, DAVIS), Cororo, San Pedro, Rio Ypane (M. Fritz). Argentina: 5 males (SALTA, DAVIS), Corrientes, Ituzaingo (M. Fritz); female (DAVIS), Salta, Aguas Blancas, Oran. Months of capture were II, VI, VII, IX, X, XI, XII.

Characteristics of this wide-ranging species are the squamal point exceeding hind margin of metanotum (fig. 11), yellow markings including the scape, black pygidium, mostly polished (female) or partly polished (male) mesopleuron, closely punctate terga, tufted T-VI in the male, mostly or all dark male flagellum, golden female face, and basoposterior forefemoral spot in the female.

The polished female mesopleuron and tufted T-VI in the male place this species in the *andinus* subgroup. It differs from other members of the subgroup by the strong posterior point of the squama (fig. 11) along with the yellow markings. The yellow male scape is striking, but it is occasionally present in *andinus* Brèthes. The basoposterior spot of the female forefemur is found also in *napoensis*, which has whitish markings. This species occurs also in Costa Rica.

Oxybelus plaumanni R. Bohart, new species

Female holotype. Length 5.5 mm. Black marked with yellow: mandible mostly, pronotal collar and lobe (4 spots), scutellar spots, squamal spot, forefemur and midfemur spotted, foretibia outwardly, narrow tergal bands on I-IV broken medially; reddish are: flagellum beneath, pygidium and T-V apically; wings very lightly stained. Pubescence of face quite short (fig. 15) and light golden. Punctation moderate and fairly close on vertex and scutum, fine and a little separated on terga, moderate and mostly separated by a PD on mesopleuron. Median clypeal ridge or tooth thrust forward prominently, LID greater than eye breadth (fig. 15), genal carina sharp, squamal point exceeded by well developed inner lobe (fig. 16), mucro a little shorter than squama, apical points not sharp and translucent, pygidial plate angled at 55°.

Male. Length 5-5.5 mm. Mandible sometimes dark, last flagellomere reddish like those preceding, LID slightly greater than eye breadth, T-VII and apex of VI red. Mesopleuron with moderate punctures about 1.1 PD apart. Facial pubescence silvery to off-silvery. Lateral tergal spines well developed on T-III to VI.

Holotype female (DAVIS), Nova Teutonia, Santa Catarina, Brazil, I-31-57 (F. Plaumann). Paratypes; Brazil: male (DAVIS), Teodoro Sampaio, São Paulo; female (SAO PAULO), Ibitinga, São Paulo; female (ITHACA), same data as holotype; female (LAWRENCE), Solidade, Paraiba; 2 females (SAO PAULO, DAVIS), Três Lagoas, Mato Grosso. Other paratypes; Argentina: male (SALTA), Ituzaingo, Corrientes; male (DAVIS), Belén, Catamarca; female (SACRAMENTO), Rosario de Lerma, Catamarca; male (NEW YORK), Santa Maria, Catamarca; male (DAVIS), Rincon, Tucumán; male (TUCUMAN), El Solidad, Tucumán; male (SAO PAULO), Santiago de Los Tigres, Santiago del Estero; female (ITHACA), La Rioja; female (TUCUMAN), Ciudad de América, Cordoba; other paratypes from Bolivia: 2 females (SALTA, DAVIS), San Antonio, Cordillera. Collection dates were November to February. Collectors were M. Alvarenga, R. Bohart, M. Fritz, P. Gelbach, F. Giacomelli, K. Lenko, L. Peña, F. Plaumann, A. Silva, L. Stange, M. Wasbauer, and A. Willink.

The combination of black post-tegula, red pygidium, partly polished mesopleuron, squamal point exceeded by inner lobe, partly translucent mucro, spotted midfemur, broad female frons (fig. 15), and protruding female clypeal tooth distinguish *plaumanni* from other species in the group. The short, almost beadlike pubescence of the female frons is quite unusual. The species is named for the prodigious collector of Brazilian insects, Fritz Plaumann. This species ranges from central Argentina north to Bolivia and eastern Brazil.

Oxybelus roraimae R. Bohart, new species

Female holotype. Length 6 mm. Black marked with whitish yellow: mandible except apex, pronotal collar and lobe, scutellar spots, metanotum all across, forefemur with apicoventral spot, midfemur likewise, all tibiae outwardly, foretarsus mostly, T-I-V with complete bands that are narrow except incorporated lateral spots on T-I; reddish are: distal half of antenna, post-tegula except for brownish median blotch, wings slightly stained. Pubescence silvery, that on face reaching up beyond middle of eye, pygidial setae silvery. Punctation moderate and close on vertex and scutum, fine and 1 PD apart or less on mesopleuron and terga. Median clypeal ridge weakly developed, LID less than eye breadth, genal carina strong above polished area, squamal point surpassed by large inner lobe (fig. 5), mucro flaring slightly, pygidial plate angled at 45°.

Male. Length about 5 mm. LID less than eye breadth, last flagellomere black in contrast to those preceding; post-tegula mostly reddish, T-VI with narrowly pale apex, T-VII brown to reddish brown. Lateral tergal spines undeveloped.

Holotype female (DAVIS), Surumu, Terr. Roraima, Brazil, IX-1966 (M. Alvarenga). Paratypes, 43 males, 35 females, same data as holotype.

The combination of reddish post-tegula (partly brownish in female), close punctation, moderately narrow frons, broad squama with large inner lobe fig. 5), complete but narrow whitish tergal bands, and extensively whitish tibiae characterize the species. Also, the female pygidial plate is black. About half the female paratypes and most of the males have the squamae narrowly black medially. A related species is *marginatus* F. Smith but that usually has the post-tegula black and the legs are much darker. The species is presently known only from northern Brazil. The name is a noun based on the Territory of Roraima.

Oxybelus tartagalae R. Bohart, new species

Female holotype. Length 6 mm. Black marked with yellow: mandible base dully, foretibia and basitarsus outwardly, lateral spots on T-I-V, nearly joined on II-IV; reddish are: mandible partly, flagellum mostly, foretarsus partly, post-tegula except median dark blotch. Mucro with turned up translucent sides. Wings lightly and evenly brownish. Pubescence on frons, postocular area, pygidial plate (setae well separated) silvery; on scutum dark reddish. Punctation moderate and close on vertex, punctures a little larger and with a few polished areas on scutum, coarse and well separated on scutellum, fine and close on terga; mesopleuron extensively polished, some moderate punctation toward posterior margin. Median clypeal ridge prominent, LID greater than eye breadth, genal carina hardly indicated, squamal point exceeded by large inner lobe (fig. 3), mucro convex in lateral view, points sharp, flanking nearly semicircular emargination, pygidial plate angled at 60°.

Male. Length about 4.5-5.5 mm. Last flagellomere reddish like those preceding, LID equal to eye breadth, genal carina weakly indicated, pronotal lobe yellow, forefemur and midfemur spotted, midtibia and hindtibia yellow basally, T-VI-VII black. Mesopleuron with scattered moderate punctures, some separated by 3 PD of polished surface. Lateral tergal spines weakly developed except on T-VI.

Holotype female (SALTA), Tartagal, Salta, Argentina, XI-1971 (M. Fritz). Paratypes, 14 males, 5 females from Argentine Provinces: Chaco: San Bernardo; Salta: Tartagal, Carapari, Pocitos; Catamarca: Arroyo de Infanzon, Río Andalgala; Tucumán: Los Puestos, Cadillal; Santiago del Estero: Río Hondo; La Rioja. Also, 2 female paratypes from Paraguay: Caaguazu; 2 male paratypes from Bolivia: Santa Cruz: Santa Cruz, Roberí; and 3 male paratypes from Brazil: São Paulo: São Carlos; Santa Catarina: Nova Teutonia. Collecting dates were October through April. Paratypes deposited in museums: SALTA, DAVIS, TUCUMAN, LAWRENCE, LONDON, ITHACA.

The combination of polished mesopleuron (especially in female), translucent mucro edges, non-yellow squama with short point (fig. 3), and yellow markings on T-I-V separate *tartagalae* from other medium-sized *Oxybelus*. The dark post-tegula and pygidial plate in the female are subject to some variation. The post-tegula in the Carapari and San Bernardo females (above) is red. Also, the pygidial plate of the San Bernardo female is mostly red; this occurs also in one Tartagala paratype. The range includes southern Brazil, Bolivia, Paraguay, and Argentina. The name is a noun based on the holotype locality.

Oxybelus willinki R. Bohart, new species

Female holotype. Length 6.5 mm. Black marked with yellow: mandible mostly, pronotal collar and lobe (not connected), post-tegula, scutellar spots, squamae (narrowly divided), mucro mostly, distal femoral spots, tibiae outwardly, broad bands on T-I-V, those on I-II emarginate in front. Red are: flagellum dully, tarsi (foretarsus yellowish, others more brownish), pygidial plate. Wing membrane slightly yellow. Pubescence silvery, dense on face to shortly below midocellus, moderate on scutum and pygidium, inconspicuous elsewhere. Punctation fine on vertex and scutum but slightly separated, fine and close on terga, mesopleuron extensively polished with a slight sprinkling of fine punctures. Median clypeal ridge prominent, LID greater than eye breadth, genal carina distinct, squama broadly oval, point exceeded by large inner lobe (fig. 2), mucro deeply emarginate, leaving sharp lateral points (fig. 2), pygidial plate angled at 60°.

Male. Length 4-5 mm. Pronotal ridge black, post-tegula red but yellow laterally, T-VII and apex of VI red, last antennal segment a little darker than those preceding, basitarsi yellow. LID about equal to eye

breadth; mesopleuron with fine and widely separated punctures.

Holotype female (DAVIS), Buenos Aires, Buenos Aires Province, Argentina, XII-30-67 (G. E. Bohart). Paratypes, 7 males, 26 females, all from Buenos Aires Province, Argentina: San Clemente del Tuyu, Ensenada. Months were I to III. Collectors were Casal, Kormilev, Foerster and M. Sankute. Paratypes are deposited in cooperating museums.

The deeply emarginate and mostly yellow mucro is unique (fig. 2). Otherwise, *willinki* belongs in the group with polished female mesopleuron and yellow to red post-tegula. From these it differs by a combination of silvery face, complete yellow tergal bands, and nearly obscured squamal point (fig. 2). Most females have a light red pygidial plate but in some it is dark red. The species is named for my friend, A. Willink, of the Miguel Lillo Institute in Tucumán, Argentina. He has sent me a large number of *Oxybelus*, many collected personally. This species is known only from Buenos Aires Province in Argentina.

Oxybelus scutellatus R. Bohart, new species

Male holotype. Length 7.5 mm. Black marked with yellow: tegula partly, post-tegula and wing base, squama, lateral spots on T-I and trace on T-II; reddish are F-V to XI beneath, T-V apically; brownish is apex of mucro; reddish yellow are T-VI-VII; wings lightly stained. Pubescence silvery on lower face, scutum, and (weakly) on T-I-III; no clypeal beard. Punctation coarse on vertex, scutum, and terga; quite coarse on mesopleuron. Median clypeal ridge strong, apex of median lobe triangulate but not tridentate, LID greater than eye breadth, genal carina present, scutellum without punctures but with 11 strong longitudinal ridges (fig. 20), squamae crescentic and separated by sharp ridge (fig. 20), mucro narrow but expanding apically, and obtusely emarginate, propodeal side coarsely and longitudinally ridged, T-II to VI with tooth-like lateral projections.

Female. unknown.

Holotype male (SALTA), Piedra Aguila, Neuquen, Argentina, XI-25-89 (M. Fritz). Paratype, male (DAVIS) El Chocon, Rio Negro, Argentina, XII-8-87 (M. Gentili).

This is one of the largest species of *Oxybelus* that I have seen. The male paratype is stout and 9 mm long. In addition to its size, other features are the black head, pronotum, and legs, and the unusually coarse and close punctation. Some of these features and the orange last three abdominal segments are reminiscent of Chilean species, such as the *chilensis* Reed group. Two unique characters of *scutellatus* are the longitudinally multicarinate scutellum and the crescentic squamae (fig. 20) which seem to warrant its placement in a separate group. These should make recognition of the female a simple matter. The species is known only from western Argentina.

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