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New *Phycitiplex* Porter (Hymenoptera, Ichneumonidae) from
Subandean Desert in northwest Argentina

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Abstract. Six new species of *Phycitiplex* (*P. obscurior*, *P. tricinctus*, *P. unicinctus*, *P. peralta*, *P. trichroma*, and *P. lepidus*) are described from material taken by Malaise trap in a humid ravine at Santa Vera Cruz in the Subandean Desert (Monte) of La Rioja Province (Argentina). These are keyed along with several closely related described species. Except for *P. eremnus* from central Chile, this genus is known only from the semiarid Chaco and Subandean biogeographic provinces in the northern half of Argentina. The only available host record is of *Phycitiplex doddi* (Cushman) reared from larvae of *Cactoblastis cactorum* (Berg), a phycitid moth that attacks prickly pear cacti.

Resumen. Se describen seis especies nuevas de *Phycitiplex* (*P. obscurior*, *P. tricinctus*, *P. unicinctus*, *P. peralta*, *P. trichroma*, y *P. lepidus*). Todas fueron coleccionadas en una trampa Malaise colocada en una quebrada húmeda cerca de Santa Vera Cruz en el Desierto Subandino (Monte) de la Provincia de La Rioja (Argentina). Se proporciona una clave de éstas junto con varias especies descritas muy afines. Aparte de *P. eremnus* en Chile central, este género se conoce sólo de las provincias biogeográficas semiáridas del Chaco y Desierto Subandino en la mitad norte de la Argentina. *Phycitiplex doddi* (Cushman) parasita larvas de *Cactoblastis cactorum* (Berg) que viven en cactáceas del género *Opuntia*.

Introduction

Phycitiplex Porter is a rather large genus of small, usually red, black and white cryptine ichneumonids found in semiarid habitats (Pampa, Chaco, Subandean Desert and Prepuna) in central and northern Argentina and Aconcagua Province of Chile (Cabrerá and Willink 1973). Specimens are most often captured in Malaise traps or sometimes by sweeping in undergrowth of spiny thickets. *Phycitiplex doddi* (Cushman 1927) has been reared from larvae of *Cactoblastis cactorum* (Berg) (Lepidoptera, Phycitidae) in joints of prickly-pear cacti (Cactaceae, *Opuntia* Mill.) and the other species of *Phycitiplex* also probably attack small moth larvae. Herewith I describe six new species of this genus, all of which were collected by Malaise trap in the Sierra de Velasco of La Rioja Province as part of a collaborative project between the Centro Regional de Investigaciones de La Rioja (CRILAR), an institute of the Argentine National Science Foundation (CONICET), and the research associate program of the Florida State Collection of Arthropods (FSCA).

Phycitiplex, which is closely related to the Holarctic genus *Cryptus* Fabricius, may be recognized by the following combination of characters: flagellum with a white band; head and mesosoma black usually with more or less extensive red and white markings; legs usually red (sometimes mostly blackish or brownish); gaster red or red and black, or black throughout, with white apical bands on some or all tergites, that on fourth tergite often the best developed; female flagellum quite long and slender, not flattened below toward apex; apical margin of clypeus without a median tooth; pronotum with submarginal groove weak and narrow or often almost absent; epomia not turned mesad at its upper end; malar space 0.44-0.80 times as long as basal width of mandible; notauli weak or sometimes fine and sharp, reaching 0.5-0.8 times length of mesoscutum; mesoscutal surface dully shining or mat with small, well defined adjacent to subadjacent punctures or more shining with larger and sharper equally dense punctures; areolet large with intercubiti strongly to very strongly convergent above; no carina on prepectus opposite lower hind corner of pronotum; discocubitus weakly angled or sometimes almost evenly arched; mediella slightly to gently arched; propodeal spiracle 1.1-2.3 times as long as wide; apical trans-carina of propodeum weak or irregularly traceable throughout, its cristae little elevated, tubercular, crescentic or very short subligulate to subcuneate; no lateral projection at base of petiole; female postpetiole 1.1-2.0 times as wide apically as long from spiracle to apex; female second gastric tergite mat to somewhat shining with more or less granular micro-reticulation, and abundant obscure to well defined small punc-

tures emitting short setae that often approach or a little exceed the length of their interspaces; sheathed portion of ovipositor 0.3-0.8 times as long as forewing, straight to decurved, dorsal valve with a gently convex to straight taper between notch and apex.

Key to the Subandean species of *Phycitiplex*

1. Hind face of propodeum entirely black; ovipositor 0.3-0.6 times as long as forewing 2
- Hind face of propodeum with a broad white band on each side from crista, inclusive, to hind margin; ovipositor 0.6-0.8 times as long as forewing 5

- 2(1). Front tibia stout and inflated; ventral valve of ovipositor on tip with well spaced vertical ridges; gaster with dorsally complete or nearly complete white apical bands on tergites 4-7 *Phycitiplex eugrammus* (Porter)
- Front tibia stout but not inflated; ventral valve of ovipositor on tip with inclivously oblique ridges; gaster with white on dorsum of tergite 4 but on 5-7 with white only ventro-laterally 3

- 3(2). Notauli weak, 0.5 times or less length of mesoscutum; mesoscutum with fine micro-reticulation, its punctures adjacent to confluent; scutellum wider than long; wing membrane with a large hairless area beneath pterostigma; gaster black except white on tergite 4 *Phycitiplex eremnus* (Porter)
- Notauli fine but traceable 0.7-0.8 times length of mesoscutum; mesoscutum shining with sharp, mostly subadjacent to adjacent punctures; scutellum as long as or longer than wide; wing membrane mostly setose beneath pterostigma; gaster black and red or sometimes black with white on much of tergite 4 and less extensively on 5 4

- 4(3). Humeral margin of pronotum white; legs mostly red; malar space 0.80 times length of basal width of mandible; ovipositor 0.8 times as long as forewing *Phycitiplex doddi* (Cushman)
- Humeral margin of pronotum black, sometimes with a little white anteriorly; legs mostly black; malar space 0.50-0.60 times as long as basal width of mandible; postpetiole shining with delicate micro-aciculation; ovipositor 0.6-0.7 times as long as forewing *Phycitiplex obscurior* Porter

- 5(1). Ovipositor straight 6
- Ovipositor decurved 7

- 6(5). Gaster with a white apical band on tergites 1-3 but without white on 4; white blotch in lower front quadrant of mesopleuron; upper metapleuron pure white; coxae red and white; postpetiole 1.8-2.2 times as wide at apex as as long from spiracle to apex; tergite 2 with dense but not confluent, sharply defined, medium sized punctures *Phycitiplex tricinctus* Porter
- Gaster with a white band only on tergite 4; no white markings on lower mesopleuron or on upper metapleuron; coxae red; postpetiole 1.5 times as wide at apex as long from spiracle to apex; tergite 2 with many small, faint punctures *Phycitiplex unicinctus* Porter

- 7(5). Postpetiole 1.6-2.0 times as wide at apex as long from spiracle to apex; ovipositor 0.4-0.5 times as long as forewing 8
- Postpetiole 1.2-1.7 times as wide at apex as long from spiracle to apex; ovipositor 0.6 times as long as forewing 9

- 8(7). Gaster with a complete subapical white band on tergite 2; second gastric tergite with numerous medium sized very shallow but well defined punctures *Phycitiplex peralta* Porter
- Gaster often without white on tergite 2 or with a dorsally incomplete white band; tergite 2 with sparser, smaller, very obscure punctures *Phycitiplex charieis* (Porter)

- 9(7). Upper metapleuron pure white throughout; first flagellomere 6.6 times as long as deep at apex at apex; malar space 0.44 times as long as basal width of mandible *Phycitiplex trichroma* Porter
- Upper metapleuron entirely black or sometimes obscurely stained with brownish white; first flagellomere 4.5-5.4 as times long as deep at apex; malar space 0.66-0.75 times as long as basal width of mandible *Phycitiplex lepidus* Porter

Phycitiplex eugrammus (Porter 1986)

Relationships. This elegant red, black and white species differs from all other north Argentine members of *Phycitiplex* in its stout, inflated female front tibia and strongly compressed ovipositor with vertical ridges on the ventral valve near tip. It also has the propodeum entirely black, a feature shared only with the otherwise not closely related *P. eremnus*, *P. doddi*, and *P. obscurior*.

Habitat and geographic distribution. This species is known only from Yacochuya, a well-watered ravine at 2000 m altitude in Subandean Desert near Cafayate in Salta Province, Argentina. A closely related species, *P. euprepes* (Porter 1986), distinctive by its mostly red propodeum and thoracic pleura, has been collected in subtropical gallery woods at La Balandra and Punta Lara near La Plata, Argentina.

Phycitiplex doddi (Cushman 1927)

Relationships. *Phycitiplex doddi* (Cushman 1927; Porter 1975, 1987) much resembles the partly sympatric *P. obscurior* Porter but has the malar space longer, the postpetiole rather dully shining with more conspicuous micro-reticulation, the ovipositor longer, the white orbital band complete across top of eye, humeral margin of pronotum broadly white throughout, the fore and mid coxae red and white, and the hind coxa red throughout.

Habitat and geographic distribution. *Phycitiplex doddi* ranges throughout northwest and north-central Argentina from Tucumán, Salta, and La Rioja provinces south to Buenos Aires and adjacent Uruguay. It is recorded from semiarid habitats, mostly Subandean Desert, Chaco, and Pampa. It parasitizes larvae of *Cactoblastis cactorum* (Lepidoptera, Phycitidae) which live as gregarious borers in joints of prickly pear cacti of the genus *Opuntia* Mill.

Phycitiplex eremnus (Porter 1967)

Relationships. Melanic specimens of *P. obscurior* might be confused with the central Chilean *P. eremnus* which is black with narrow white orbital lines and white on much of scutellum and more or less broadly white on gastric tergite 4. In *P. eremnus*, however, the submarginal groove of the pronotum is weak or obsolete, the notauli are weak and visible only half the length of mesoscutum, the mesoscutum is dully shining with finely granular micro-reticulation, the scutellum is wider than long, there is a large glabrous area on forewing beneath the pterostigma, and the ovipositor is 0.80 as long as the forewing.

Habitat and geographic distribution. This species is known only from semiarid foothills on the western edge of the Andean mountains at about 33 degrees South in Aconcagua Province of north-central Chile. The vegetation here is similar to that of the Argentine Subandino with cacti of the genera *Opuntia* Mill. and *Cereus* Mill. and spiny shrubs, such as *Acacia caven* (Mot.), but very few species of insects are shared between the two countries at this latitude where the Andes are at their greatest height with many peaks above 6000 m.

***Phycitiplex obscurior* Porter, new species**

(Fig. 1)

Description. Female Holotype. Color: antenna blackish with a white band above on flagellar segments 6-9; head and mesosoma black with reddish on mandible and around clypeus, a narrow white band on facial and frontal orbits, a broad white band toward apex on vertical orbit and continued below to lower half of hind orbit, a tiny white spot in malar space, anterior margin of pronotum white only on collar, a little white anteriorly on humeral margin of pronotum, white spot on base of tegula, subalarum slightly tinged with whitish, and basal 0.6 of scutellum pure white; gaster red on first tergite, duller red on second tergite, mostly blackish on third tergite, fourth tergite black with a very broad white apical band, following tergites black with abbreviated white bands ventro-laterally on fifth and sixth; fore and mid leg with coxa black with a little white toward apex, trochanter black and white, trochantellus pale orange and whitish, femur and tibia light orange, the tarsus dull orange suffused with dusky; hind leg orange red on coxa, with trochanter black and white, trochantellus pale orange and whitish, femur and tibia light orange, and tarsus dull orange with weak blackish staining toward apices of segments 1-4 and blackish throughout on 5; wings hyaline with slight brownish staining.

Length of forewing 4.6 mm. Flagellum long, slender, cylindric, first segment 5.0 times as long as deep at apex. Clypeus strongly nasute, basal face convexly raised in profile, the slightly shorter apical face steeply declivous and a little concave. Malar space 0.50 times as long as basal width of mandible. Fore tibia stout but not inflated. Pronotum: submarginal groove narrow but percurrent and foveolate; mesoscutum with notauli fine and sharp basally and shallower rearward but traceable 0.8 times the length of mesoscutum, surface shining with very many rather large subadjacent to adjacent or a little confluent strong, sharp punctures. Wing venation: areolet large with intercubiti strongly convergent above, second abscissa of radius 0.4 times as long as first intercubitus; second recurrent a little reclivous on lower half and slightly outcurved above. Propodeum: spiracle 3.0 times as long as wide; whole propodeum in profile strongly and smoothly sloping from base to apex, the apical face being confluent with the slightly shorter basal face; basal trans-carina fine and sharp throughout; apical trans-carina absent medially but developed laterally into low although sharp edged broadly crescentic cristae. First gastric tergite: petiole slender basad but toward apex widened into the short and broad postpetiole which is 1.2 times as wide at apex as long from spiracle to apex; surface of postpetiole shining with delicate micro-aciculation which fades out toward apex and with a few widely scattered small to moderately large, inconspicuous punctures which are most conspicuous apically. Second gastric tergite: dully shining with very fine micro-reticulation, and a few sparse, inconspicuous punctures toward apex which emit short, mostly well spaced setae. Ovipositor: sheathed portion 0.65 times as long as forewing; nodus scarcely defined, its position indicated by a tiny notch; tip 0.20 times as high at notch as long from notch to apex.

Variation. Color: may be back with no red areas and reduced white markings: no white on humeral margin of pronotum; scutellum black except tinged with brownish white on each side near base; no white on sixth gastric tergite; fore and mid legs light brownish; hind leg with coxa and trochanter black, trochantellus brownish, femur black with dull brownish orange laterally below and near base and apex. Length of forewing 4.1-4.8 mm. First flagellomere 4.8 times as long as deep at apex. Malar space up to 0.60 times as long as basal width of mandible. Wing venation: second abscissa of radius up to 0.6 as long as first intercubitus. Propodeum: spiracle 2.5 times as long as wide. First gastric tergite: postpetiole 1.3 times as wide at apex as long from spiracle to apex. Ovipositor 0.68-0.72 times as long as forewing, its tip 0.16-0.18 times as high as notch as long from notch to apex.

Type material. Holotype female, ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, X-2001, P. Fidalgo, Malaise trap [IMLA]. Paratypes: 2 females, same data as holotype [FSCA, IMLA].

Relationships. This species is related to the partially sympatric northwest and central Argentine *P. doddi* and to *P. eremnus* from central Chile. It differs from both these species in its longer notauli (0.7-0.8 times the length of mesoscutum) and additionally from *P. doddi* by its mostly black legs. Other distinguishing features are noted in the key and in the respective species descriptions.



Figure 1. *Phycitiplex obscurior*, female, paratype. Santa Vera Cruz, La Rioja, Argentina. Lateral view of entire insect.

Specific name. From the Latin comparative adjective *obscurior* (darker).

***Phycitiplex tricinctus* Porter, new species**

(Fig. 2)

Description. Female Holotype. Color: scape reddish with a little white on apex and flagellum black with a white band above on segments 6 (near apex) to 10; head and mesosoma black with some reddish on mandible and clypeus and with white as follows: large blotch on mandible, most of clypeus except apically, blotch on middle of face, broad orbital band throughout except for a slight break in malar space, broad anterior margin of pronotum, humeral margin of pronotum, tegula, most of scutellum, most of subalarum, large blotch in lower front quadrant of mesopleural disc, small spot on upper end of mesepimeron, upper division of metapleuron, and a broad band on each side of hind face of propodeum from cristae (inclusive) to hind margin; gaster light red with a wide white apical band covering about 0.8 of postpetiole, and broad white subapical bands on tergites 2 and 3; fore and mid legs: coxae mostly white, variegated with dull red and black, trochanter white with darker staining, femur red, tibia and tarsus duller red with dusky apicad on tarsomeres 1-4 and throughout on 5, hind leg red with a large white blotch above on base of coxa, tibia duller red with some dusky toward apex; tarsus mostly dusky; wings hyaline.

Length of forewing: 4.5 mm. Flagellum long, slender, cylindric, its first segment 4.7 times as long as deep at apex. Clypeus strongly raised, in profile bluntly subpyramidal or nasute with apical face shorter



Figure 2. *Phycitiplex tricinctus*, female, paratype. Santa Vera Cruz, La Rioja, Argentina. Lateral view of entire insect.

than basal and strongly declivous. Malar space 0.66 times as long as basal width of mandible. Wing venation: areolet large with intercubiti very strongly converging above, second abscissa of radius 0.4 times as long as first intercubitus. First gastric tergite: postpetiole short and broad, 2.0 times as wide at apex as long from spiracle to apex, dorsal carinae obsolete, surface smooth and polished with weak micro-aciculation that fades out apicad and with a few, widely scattered, shallow, medium sized punctures. Second gastric tergite: rather mat with abundant, quite small, shallow but well defined subadjacent to adjacent punctures emitting short, mostly a little overlapping setae. Ovipositor: straight, slender, strongly compressed; 0.32 times as long as forewing; nodus weakly defined by presence of a minute notch, profile of dorsal valve between notch and apex evenly tapering, slightly convex, tip 0.18 times as high at notch as long from notch to apex.

Variation. Color: scape sometimes wholly black; white blotch on mesopleuron sometimes quite small; front trochanter may be extensively blackish; mid coxa sometimes red and white only; hind femur sometimes more or less dusky. Length of forewing 4.1-5.7 mm. Flagellum: first segment 4.7-6.3 times as long as deep at apex. Malar space 0.50-0.70 times as long as basal width of mandible. Wing venation: second abscissa of radius 0.3-0.4 times as long as first intercubitus. First gastric tergite with postpetiole 1.8-2.2 times as wide at apex as long from spiracle to apex. Ovipositor: sheathed portion 0.29-0.31 times as long as forewing; tip 0.16-0.24 times as high at notch as long from notch to apex.

Type material. Holotype female, ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, 31-I-2004, P. Fidalgo, Malaise trap [IMLA]. Paratypes: 3 females, same locality as holotype, 13-I-2005, 31-I-2004, 5-II-2005 [FSCA, IMLA].

Relationships. This species may be recognized by its straight ovipositor, unusually broad postpetiole, sharply defined punctures on the second gastric tergite, and in having a white apical band on tergites 1-3 only. Otherwise it is similar to other members of the *P. charieis* species cluster.

Specific name. From the Latin prefix *tri-* (three or thrice) and the adjective *cinctus* (girded or banded).

***Phycitiplex unicinctus* Porter, new species**

(Fig. 3)

Description. Female Holotype. Color: scape light reddish brown, flagellum black with a white band above on segments 5 (at apex) to 9; head and mesosoma with faint reddish staining on mandibles and around clypeus and with white markings as in *P. tricinctus* except no white on center of face, tegula not wholly white (brownish behind), no white blotch on mesopleural disc, scutellum white only on basal 0.6 with black toward apex, and dorsal metapleuron entirely black; gaster as in *P. tricinctus* but with a broad white apical band only on tergite 4 and with a little white in and briefly above lower hind corners of



Figure 3. *Phycitiplex unicinctus*, female, holotype. Santa Vera Cruz, La Rioja, Argentina. Lateral view of entire insect.

tergites 5 and 6; legs red but without white markings, blackish toward base anteriorly on fore and mid coxa, tibiae and tarsi dull red with weak dusky staining.

Length of forewing: 4.6 mm. Flagellum: first segment 5.2 times as long as deep at apex. First gastric tergite: postpetiole moderately expanded, 1.5 times as wide at apex as long from spiracle to apex, distinctly micro-reticulate and with many small and faint shallow punctures which are mostly sparser than subadjacent and emit short, slightly overlapping setae. Ovipositor straight, slender, strongly compressed, sheathed portion 0.50 times as long as forewing, nodus low and marked by a tiny notch, straight in profile between notch and apex, tip 0.26 times as high at notch as long from notch to apex.

Type material. Holotype female, ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, 1-15-XI-2003, P. Fidalgo, Malaise trap [IMLA].

Relationships. This species is distinctive in its sparse white markings (e.g., gaster with a white apical band on fourth tergite only), faintly punctate second gastric tergite, and long, straight ovipositor.

Specific name. From the Latin prefix *uni-* (one, once) and the adjective *cinctus* (banded).

***Phycitiplex peralta* Porter, new species**

(Fig. 4)

Description. Female Holotype. Color: scape dull reddish brown with a white spot below near apex, flagellum black with a white band above on segments 6-9; head black with slight reddish staining toward clypeus and mandibles and with the following white: large blotch on basal 0.5 of mandible, most of clypeus, broad band throughout on orbits becoming very broad in and behind malar space but with a slight break just in front of malar space, and with a large blotch that covers most of face and is partly confluent with orbital white band above; mesosoma black with white broadly on anterior and humeral margins of pronotum, weakly on prepectus dorsad, dully on subalarum, faintly on upper end of mesepimeron, conspicuously on tegula and on basal 0.6 of scutellum, dull reddish white on upper metapleuron and on apex of lower metapleuron, propodeum with the usual white bars on each side of hind face from cristae to apex; gaster light red, faintly dusky on tergites 5 and following, with a very broad white band on apex of first tergite, a narrow white subapical band on tergite 2, a very broad apical band on tergite 4, and variably developed lateral bands on tergites 5-7; fore and mid leg as in *P. tricinatus* but with tarsi generally paler and without black on last tarsomere; hind leg with a small white spot above on base of coxa, more dusky on tibia and slightly so on tarsus.

Length of forewing: 4.4 mm. Flagellum: first segment 5.1 times as long as deep at apex. Malar space 0.44 times as long as basal width of mandible. First gastric tergite: postpetiole strongly expanded, 2.0 times as wide at apex as long from spiracle to apex; dorsal carinae obsolete, surface of postpetiole shining, finely but rather strongly micro-reticulate on basal 0.6 and more weakly so toward apex and with a few very inconspicuous small, shallow punctures, especially laterad and on apical 0.3. Second gastric tergite: rather mat with fine, dense micro-reticulation and numerous small but well defined shallow punctures which are quite sparse near base but become subadjacent to adjacent rearward. Ovipositor decurved throughout, sheathed portion 0.40 times as long as forewing; nodus scarcely defined, its position indicated by a minute notch, with a long, straight taper between notch and apex, 0.14 times as high at notch as long from notch to apex.

Type material. Holotype female, ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, 31-I-2004, P. Fidalgo, Malaise trap [IMLA].

Relationships. In its decurved, relatively short ovipositor and strongly expanded postpetiole this species resembles *P. charieis* (Porter 1967) from which it differs by having a complete subapical white band and shallow but well defined punctures on the second gastric tergite.



Figure 4. *Phycitiplex peralta*, female, holotype. Santa Vera Cruz, La Rioja, Argentina. Lateral view of entire insect.

Specific name. This species is named for Sr. Daniel Peralta who owns a farm at Santa Vera Cruz and in recognition of his enthusiastic help in maintaining our Malaise traps at this locality. The name is treated as a masculine Latin noun in apposition.

***Phycitiplex trichroma* Porter, new species**
(Fig. 5)

Description. Female Holotype. Color: much as in *P. peralta* except with no white below on scape, white flagellar band on segments 4-7; only a small white spot on face, white on pronotal collar and again well below on front margin of pronotum, only a narrow white band on apex of postpetiole, a little white apico-laterally on tergite 2, no white on tergites 5-7; fore and mid legs red, their coxae marked also with black and white, their trochanters, trochantelli, and femora bright red, tibiae and tarsi duller with slight dusky staining; hind leg red with a large white blotch on coxa and tibia and tarsi rather dusky.

Length of forewing 5.3 mm. Flagellum: first segment 6.6 times as long as deep at apex. Malar space 0.44 times as long as basal width of mandible. First gastric tergite: postpetiole rather weakly expanded, 1.2 times as wide at apex as long from spiracle to apex and with well developed micro-reticulation that fades out only near apex as well as with scattered faint punctures of small to medium size. Second gastric tergite: dully shining with very fine micro-reticulation throughout and with numerous obscure, well spaced medium sized to small punctures. Ovipositor: decurved, compressed, sheathed portion 0.63 a



Figure 5. *Phycitiplex trichroma*, female, holotype. Santa Vera Cruz, La Rioja, Argentina. Lateral view of entire insect.

times s long as forewing; nodus well defined, a little raised; dorsal valve in profile falling off directly from nodus to apex; tip 0.20 times as high at notch as long from notch to apex.

Type material. Holotype female, ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, I-2002, P. Fidalgo, Malaise trap [IMLA].

Relationships. This species may be recognized by its long, decurved ovipositor, relatively slender postpetiole, uniformly white upper metapleuron, and by its unusually long first flagellar segment (6.6 times as long as deep at apex).

Specific name. From the Greek prefix *tri-* (three) and the Greek noun *chroma* (color). This name is treated as a Greek neuter noun in apposition.

***Phycitiplex lepidus* Porter, new species**
(Fig. 6)

Description. Female Holotype. Color: antenna brownish black with a white band on flagellomeres 6-9; head and mesosoma black with the following white: large blotch on base of mandible, most of clypeus, large blotch on center of face, broad band on orbits except for a short break at bottom of eye, broad band on



Figure 6. *Phycitiplex lepidus*, female, holotype. Santa Vera Cruz, La Rioja, Argentina. Lateral view of entire insect.

anterior and humeral margins of pronotum, most of tegula, line on subalarum, anterior 0.5 of scutellum, and a broad band from each crista to apex on apical face of propodeum; gaster with tergite 1 dark red, 2 and 3 duller red with some dusky staining laterad, and tergites 4-8 shining black with a broad and complete apical white band on 4, and similar but dorsally much interrupted white bands on 5-7; fore and mid legs with coxa black and blotched with white, trochanter white with dorsum mostly black, trochantellus black and reddish brown, femur light orange, tibia duller orange and faintly dusky, and tarsus blackish with weak brown staining; hind leg with coxa, trochanters, and femur red to orange red, tibia duller orange with slight dusky staining and black on apical 0.1, and tarsus black with white on third segment and on basal 0.5 of fourth; wings hyaline.

Length of forewing 5.0 mm. Flagellum with first segment 4.5 times as long as deep at apex. Malar space 0.66 times as long as basal width of mandible. Wing venation: intercubiti well convergent above but second abscissa of radius 0.7 times as long as first intercubitus. First gastric tergite: postpetiole nearly parallel-sided, only 1.2 times as wide at apex as long from spiracle to apex, dorsal longitudinal carinae defined but not sharp toward apex on petiole and basally on postpetiole. Ovipositor: decurved, sheathed portion 0.56 times as long as forewing and tip 0.27 times as high at notch as long from notch to apex, with a somewhat convex taper in profile from notch to apex.

Female. Paratype. Color: second gastric tergite with a narrow whitish apical band, white bands on other tergites broad but developed only for a short distance ventrolaterally, that on 7 developed throughout laterally but not reaching onto dorsum; hind tarsomeres 3 and 4 white.

Length of forewing 3.1 mm. Flagellum: first segment 5.4 times as long as deep at apex. Malar space 0.75 times as long as basal width of mandible. Wing venation: second abscissa of radius 0.6 times as long as first intercubitus. First gastric tergite: postpetiole 1.1 times as wide apically as long from spiracle to apex.

Type material. Holotype female, ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, 15-31-XII-2003, P. Fidalgo, Malaise trap [IMLA]; Paratype female, same as holotype except 1-15-XI-2003 [IMLA].

Relationships. In its long decurved ovipositor and slender postpetiole this species resembles *P. trichroma* from which it differs in some details of coloration (upper metapleuron wholly white) and in such structural details as its longer malar space (0.66-0.75 basal width of mandible).

Specific name. From the Latin adjective *lepidus* (neat, elegant).

Phycitiplex charieis (Porter 1967)

Relationships. In its long, decurved ovipositor and considerably broadened postpetiole this species resembles *P. peralta*, but differs in its obscurely punctate second gastric tergite with a dorsally incomplete, or sometimes even more reduced, white subapical band; and in its shorter malar space (0.50-0.60 as long as basal width of mandible).

Material examined. ARGENTINA, La Rioja Province, Sierra de Velasco, Santa Vera Cruz, 1700 m, 3 females, 31-I-2004, 1 female, 10-II-2004, 1 female, 28-II-2004, 2 females, 31-X-2001, 1 female, XII-2000, P. Fidalgo [AEIC, FSCA, IMLA].

This species was described by Porter (1967) from material collected near La Plata in Buenos Aires Province and at "Cabanas" in Córdoba Province. More recently (Porter 1975) six specimens were taken by Malaise trap in Subandean Desert at 1500 m altitude at Los Nacimientos de Abajo in Catamarca Province.

Collections

AEIC. American Entomological Institute. 3005 S.W. 56th Ave, Gainesville, Florida 32608.

FSCA. Florida State Collection of Arthropods, Florida Department of Agriculture and Consumer Services, P.O. Box 147100, Gainesville, Florida 32614-7100.

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Literature Cited

Cabrera, A. L., and A. Willink. 1973. Biogeografía de América Latina, Organización de los Estados Americanos, Serie de Biología. Monografía No. 13. Washington, D.C. 120 p.

Cushman, R. A. 1927. Miscellaneous Notes and Descriptions of Ichneumon-flies. Proceedings of the United States National Museum 72(2709): 1-22.

Porter, C. C. 1967. A Revision of the South American Species of *Trachysphyrus* (Hymenoptera, Ichneumonidae). Memoirs of the American Entomological Institute 10: 368 p.

- Porter, C. C. 1975.** Relaciones Zoogeográficas y Origen de la Fauna de Ichneumonidae (Hymenoptera) en la Provincia Biográfica del Monte del Noroeste Argentino. *Acta Zoologica Lilloana* 31(15): 125-252.
- Porter, C. C. 1986.** A Revision of the *euprepes* Species Group of *Cosmiocryptus* (Hymenoptera, Ichneumonidae). *Journal of the New York Entomological Society* 94: 467-471.
- Porter, C. C. 1987.** A Revision of the Chilean Mesostenini. (Hymenoptera, Ichneumonidae). *Contributions of the American Entomological Institute* 23(3): 1-164.

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