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DESCRIPTIONS OF NEW CHILEAN ANT TAXA (HYMENOPTERA: FORMICIDAE)

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DESCRIPTIONS OF NEW CHILEAN ANT TAXA (HYMENOPTERA: FORMICIDAE)[1]

By ROY R. SNELLING[2]

ABSTRACT: One new species of *Solenopsis*, *dysderces*, is described. Two species, *bidentatus* Mayr and *denticulatus* Mayr, are removed from the genus *Nothidris*. A new species of *Nothidris*, *cekalovici*, is described and *Megalomyrmex bicolor* Ettershank is transferred to *Nothidris*. A key is given for the known species of *Nothidris*. A new genus, *Antichthonidris* (type species: *Monomorium denticulatum* Mayr 1887), is proposed for the two species removed from *Nothidris*.

The status of the two genera *Dorymyrmex* and *Araucomyrmex* is briefly discussed. A new species, *agallardoi*, of *Dorymyrmex* is described from Santiago Province. The following new species of *Araucomyrmex* are described: *hunti* (Antofagasta Prov.), *hypocritus* (Santiago Prov.), *incomptus* (Coquimbo Prov.), *pappodes* (Valparaiso Prov.) and *pogonius* (Ñuble Prov.).

All new taxa are illustrated. Primary types of new species are in the Natural History Museum of Los Angeles County (LACM), with paratypes of most in the Museo Nacional de Historia Natural, Santiago, and Universidad de Concepción, Concepción.

INTRODUCTION

A general taxonomic and ecological review of the ant fauna of Chile is now nearing completion. The following new taxa are described in order that the names may be available for use in that study in which all new and old taxa in the Chilean fauna will be separated by keys.

Most of the material for the present paper was collected by J. H. Hunt and deposited in the Natural History Museum of Los Angeles County (LACM). Important material from the collections of the Museo de Historia Natural de Santiago (MSTO) and from the collection of T. Cekalovic, Universidad de Concepción, Concepción (UCON), was also available. These institutions graciously have assented to deposit of primary types, based on their material, in the LACM; paratypic material will be deposited in all three collections.

The descriptions which follow utilize morphological terminology conventional in formicid taxonomy. The number in parenthesis following a measurement or index indicates the appropriate figure for the holotype or, in one case, the allotype. All measurements are in millimeters.

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MYRMICINAE

SOLENOPSIS Westwood

Solenopsis dysderces new species

Figures 1-2

Diagnosis. Worker: Size minute, HL less than 0.5 mm; apical antennomere longer than segments 2-8 combined; eye a single unpigmented facet; frontal punctures fine, sparse. FEMALE and MALE unknown.

WORKER. *Measurements*. HL 0.40-0.44 (0.44); HW 0.31-0.32 (0.32); SL 0.28-0.31 (0.30); WL 0.44-0.46 (0.45); PW 0.19-0.21 (0.20).

Head (fig. 1). Distinctly longer than broad, CI 70-76 (73), sides approximately parallel, slightly convergent above, occipital margin slightly concave. SI 87-98 (94), apex of scape short of occipital margin by about twice maximum diameter of scape; apical antennomere 1.20-1.30 (1.27) times combined lengths of segments 2-8. Eye unpigmented and barely discernible, consisting of a single facet. Clypeus with distinct carinal and paracarinal teeth projecting beyond apical margin. Mandibular formula 1+3, basal tooth distinctly displaced basad on upper margin.

Thorax (fig. 2). Slender, PW 0.44-0.46 (0.45) x WL. Thoracic dorsum, in profile, flattened; metanotal groove distinctly and sharply impressed. Propodeum, in profile, without differentiated basal and posterior faces.

Petiole, in profile, robust, anterior peduncle short; anteroventral tooth present, but small. Postpetiole, in profile, with node low, rounded. In dorsal view, nodes of petiole and postpetiole about equally broad.

Vestiture. Head, thorax and petiole with sparse, irregularly spaced erect hairs of variable length. Scape and tibiae with conspicuous short erect to suberect hairs.

Integument. Smooth and shiny. Frons with scattered fine punctures, separated by 4 x or more, a puncture diameter, hardly exceeding in diameter the hairs arising from them. Frontal lobe without conspicuous striae. Clypeus with bicarinate median lobe, otherwise unsculptured. Mandible with sparse fine punctures. Mesopleura without punctures or striae. Side of propodeum with two or three inconspicuous fine striae below.

Color. Pale yellowish, mandibular teeth, clypeal margin and thoracic sutures reddish.

FEMALE and MALE unknown.

Type Material. Holotype and five worker paratypes: CHILE, Prov. Aconcagua: ca. 3 km north of Zapallar, 28 Oct. 1972 (J. H. Hunt, #JHH 958). All type material in LACM.

Etymology. Gr., *dysderkes*, hardly seeing, so named because of the reduced, unpigmented eye.

Ecology. The few specimens known were removed from a small cell about 15 cm below the surface of the soil, while excavating a colony of *Araucomyrmex*.

The depigmentation, reduced eyes and minute size suggest that this species is probably entirely subterranean and may be associated with other ant species through cleptobiosis.

Discussion. This ant belongs to the group recognized formerly as the sub-

genus *Diplorhoptrum*, synonymized recently with *Solenopsis* by Ettershank (1966). Its affinities are uncertain, but the minute size, elongate tenth antennomere and reduced eye are suggestive of *S. pygmaea* Forel, an Antillean species. The latter ant is known to me only from the original description, which is sufficiently imprecise that no clear-cut distinction can be made at this time. I consider it unlikely, however, that the two are the same and have elected to describe the Chilean species as new.

The only other Chilean *Solenopsis* in which the tenth antennomere exceeds the combined lengths of segments 2-8 is *S. helena* Emery. In that species the eye is pigmented and consists of three or four facets. The punctures on the frons are two to three times the diameter of the hairs arising from them and are separated by two to three times their own diameter. The median clypeal lobe is more abruptly produced in *S. helena* and the node of the postpetiole, in profile, is more strongly elevated.

NOTHIDRIS Ettershank

Nothidris was established by Ettershank (1966) for three Chilean species assigned previously to *Monomorium*. The designated type species was *M. latastei* Emery, 1895. The two other included species were *N. bidentatus* (Mayr) and *N. denticulatus* (Mayr). Ettershank was unable to study the sexual forms of any of the species. Both sexes of all three species have been available to me and I am certain, after studying these, that the genus, as orginally constituted, is an unnatural one. I am removing *N. bidentatus* and *N. denticulatus* to a new genus, described below. Further, *Megalomyrmex bicolor* Ettershank, 1965, is transferred to *Nothidris* and one new species is described here.

Although Ettershank felt *M. bicolor* to be related to such *Megalomyrmex* species as *M. goeldii* Forel, I cannot agree that this is the case. In species of that group, the median lobe of the clypeus is not bicarinate, the head is more narrowed above than below, the antepenultimate and penultimate antennomeres are much longer than wide, the propodeal profile is different and the petiolar and postpetiolar nodes are much lower in profile. In all of these characters *M. bicolor* is very similar to *N. latastei*; the undescribed female of *M. bicolor* is also very much like that of *N. latastei*. The transfer of *Megalomyrmex bicolor* to *Nothidris* is a NEW COMBINATION.

Nothidris cekalovici new species

Figures 3-4

Diagnosis. Worker: Propodeum broadly rounded, without sharp projections; head narrow, CI 82-88; malar area no longer than maximum eye length; penultimate antennomere 1.2-1.5 times longer than wide. FEMALE and MALE unknown.

WORKER. *Measurements*. HL 0.86-1.10 (1.10); HW (excluding eyes, measured at level of top of eye) 0.71-0.96 (0.92); SL 0.78-0.99 (0.97); WL 1.13-1.48 (1.48); PW 0.51-0.71 (0.71).

Head (fig. 3). Distinctly longer than broad, CI 82-88 (84); in frontal view, sides approximately parallel in middle and convergent above and below; occipital margin nearly flat. Scape short, SI 103-111 (106); penultimate antennomere 1.2-1.5 (1.3) times longer than wide. Eye large, maximum diameter about 1.5 times minimum diameter; OMD 0.79-1.00 (0.95) x EL. Clypeus weakly longitudinally sulcate, sides of median lobe weakly carinate; median setae present; one pair intercarinal setae; first pair paracarinal setae shorter; a few lateral setae present. Dental formula 1+4. Palpal formula 4, 3.

Thorax (fig. 4). Of normal worker form for this genus, PW 0.43-0.48 (0.48) x WL. Promesonotum, in profile, strongly convex, abruptly sloping behind; promesonotal suture distinct to spiracle, above which and across dorsum, it is very faint. Metanotal groove distinctly impressed dorsally and on side. Mesothoracic dorsum, seen from above, distinctly narrowed behind. Propodeum longitudinally impressed; juncture of basal and posterior faces broadly rounded, not at all angulate. Propodeal spiracle small, round. Inferior propodeal plates large, with distinct angulation above. Metapleural gland large, distinct; posteroventrally with rounded protuberance bearing gland opening.

Nodes of petiole and postpetiole high, summits rounded in profile. Anterior peduncle of petiole ventrally carinate, carina ending truncately in front. Gastric profile biconvex.

Vestiture. Head, thorax and gaster with sparse, fine, long white hairs; scape with much shorter, suberect hairs; hairs appressed to subappressed on tibial extensor surfaces.

Integument. Entire ant smooth and shiny. Median lobe of clypeus bicarinate and with 1-3 short rugulae at side; a few fine rugulae in antennal fossa; malar area with distinct, coarse rugulae; mandible coarsely rugulose; mesokatepisternum with numerous fine, diagonal striae, some faint; metapleuron with a few short, coarse rugulae.

Color. Thorax, petiole, postpetiole, and legs (except basitarsi) light yellowish to light reddish; head, gaster and basitarsi light brown. Mandibles reddish yellow, teeth blackish.

FEMALE and MALE unknown.

Type Material. Holotype and 21 worker paratypes: CHILE, Prov. Aconcagua: Carretera Panamericana, km 206, 10 km north of Pichidangui, 23 Dec. 1963 (T. Cekalovic, No. 4174). Holotype and seven paratypes in LACM; 11 paratypes in UCON: three paratypes in MSTO.

Etymology. This species is dedicated to Tomás Cekalovic K., collector of the type series and many other fine samples of Chilean ants.

Discussion. The color pattern will serve to separate *N. cekalovici* from the other described species. Four specimens from Algarrobo, Valparaiso, 21 July 1951 (Kuschel and Peña; MSTO) resemble *N. cekalovici* in color pattern. These were recorded by Kempf (1970) as *Megalomyrmex bicolor.* Aside from the dark head and slightly more angulate propodeum they are very similar to *N. bicolor* and may represent a distinctive color phase of that species. These specimens differ from *N. cekalovici* in the sharply angulate propodeum and long malar area.

The three recognized species of *Nothidris* may be separated by the following key to the workers.

1. Head concolorous with thorax, gaster darker (if head is concolorous with gaster, malar area is at least 1.10 x EL); propodeum distinctly angulate or with sharp projections 2
   Head concolorous with gaster, thorax paler; malar area 0.79-1.00 x EL; propodeum rounded, not at all angulate at juncture of basal and posterior faces ..... *cekalovici* Snelling
2. Propodeum angulate, but without sharp projections; penultimate antennomere 1.25-1.45 x longer than wide; malar area usually 1.2 or more x EL ..... *bicolor* (Ettershank)
   Propodeum at least sharply angulate, usually with distinct sharp projections; penultimate antennomere 0.77-1.20 x longer than wide; malar area usually less than 1.2 x EL ..... *latastei* (Emery)

ANTICHTHONIDRIS new genus

Diagnosis. Monomorphic: Median lobe of clypeus bicarinate, prolonged over apical margin in worker and female. Palpal formula, female and worker, 2, 2; male, 3, 2. Anterior tentorial pit about midway between antennal socket and lateral margin of clypeus. Male scape longer than third antennomere. Propodeum dentate or spinose. Promesonotum of worker, in profile, weakly convex or flattened. Mid and hind tibial spurs absent.

Type Species. Monomorium denticulatum Mayr, 1887, by present designation.

WORKER. Monomorphic, size variation small. Eye well developed, placed slightly below middle of side of head; ocelli absent. Antenna twelve-segmented, with well-defined three-segmented club; scape simple at base, its apex not exceeding occipital margin. Palpal formula 2, 2 (1*s*2*p*3, 1*s*2). Dental formula 1+4, mandible normal in *A. denticulatus*; modified in *A. bidentatus*; canthellus not meeting basal margin and trulleum distinct and open in *A. denticulatus,* both modified and reduced in *A. bidentatus.* Labrum cleft. Clypeus bicarinate (*A. denticulatus*) or flattened and modified (*A. bidentatus*, fig. 5.), apex of median lobe exceeding apical margin; median and paracarinal setae present. Promesonotum moderately convex (*A. denticulatus*) or flattened (*A. bidentatus*); promesonotal suture as in *Nothidris*. Metanotal groove distinct (*A. denticulatus*) or weak (*A. bidentatus*, fig. 6.). Middle and hind tibiae without apical spurs. Propodeum dentate or short-spinose. Propodeal spiracle round. Petiole distinctly pedunculate; nodes high and rounded in profile. Anterior and posterior subpostpetiolar process distinct.

FEMALE. Slightly larger than worker and similar except in possessing female thoracic segmentation. Forewing with M arising from Rs+M much anterior to r; cu-a meeting A at approximately right-angle, A continued beyond juncture.

MALE. Size similar to worker. Clypeus strongly convex. Mandible well

developed, apex bidentate (fig. 9). Antenna thirteen-segmented, scape short, little longer than third antennomere; antennomeres elongate. Palpal formula 3, 2. Vertex strongly elevated above top of eye. Notauli and parapsides present, distinct (figs. 10, 11). Wings as in female. Petiole stoutly pedunculate; petiolar and postpetiolar nodes low, rounded in profile. Genitalic capsule fully retractile; parameres thickened, rounded apically.

Included Names.

bidentatus (Mayr 1887) (*Monomorium*). Chile, Argentina.
denticulatus (Mayr 1887) (*Monomorium*). Chile, Argentina.
= *navarinensis* (Forel 1904) (*Monomorium denticulatum* var.)
= *piceus* (Emery 1905) (*Monomorium denticulatum* var.)

Etymology. Gr., *antichthon* (southern hemisphere) + *idris* (the provident one, i.e., an ant).

Discussion. The two species included in this genus were originally described in the genus *Monomorium*; Emery (1915) placed them in his subgenus *Notomyrmex*. The Old World *Notomyrmex*, including the type species, were transferred to the synonymy of *Chelaner* by Ettershank (1966) who proposed the new genus *Nothidris* for the American species. However, the two species here placed in *Antichthonidris* have little in common with the type species of *Nothidris*.

The wing venation of the sexual forms, the longer scape of the male and the presence of distinct notauli on the male scutum require that these species be removed from *Nothidris*. The correct systematic placement of *Antichthonidris* is uncertain, but it is evident that these ants do not belong among the *Monomorium-Solenopsis* series of genera, since males of these groups lack notauli. The wing venation, clypeal form, lack of apical spurs on the middle and hind tibiae, and worker habitus are suggestive of *Stenamma* in the Pheidolini, but the male habitus is quite different. It seems best to leave *Antichthonidris* unassigned until all myrmicine genera can be re-evaluated.

DOLICHODERINAE

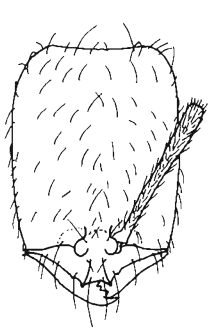
DORYMYRMEX Mayr

I am here using *Dorymyrmex* in the restricted sense suggested by Kempf (1972); i.e., the subgenera *Dorymyrmex*, *Psammomyrma* and *Spinimyrma*, but excluding *Ammomyrma*. *Ammomyrma*, ranked as a subgenus of *Dorymyrmex* by Kusnezov (1952) should, in my opinion, be transferred to *Araucomyrmex*. The latter group was also regarded as a subgenus by Kusnezov (1952), but later elevated to generic status by the same author (1959). *Ammomyrma* agrees with *Araucomyrmex* in thoracic and palpal structure.

Dorymyrmex agallardoi new species

Figures 12-13

Diagnosis. Worker with prominent, posteriorly directed propodeal spine; side of propodeum with coarse, widely spaced rugulae; occiput densely punctulate. FEMALE and MALE unknown.



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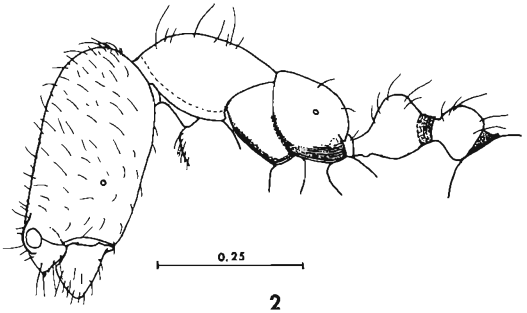

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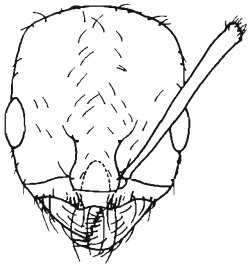

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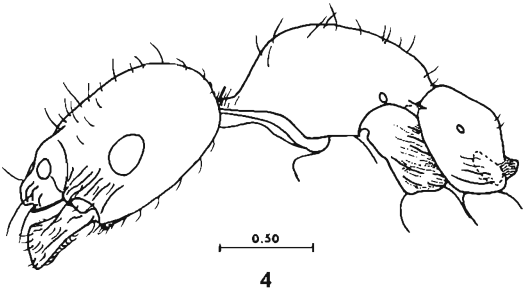

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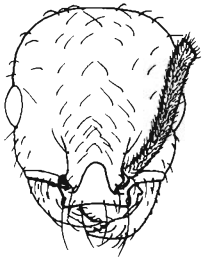

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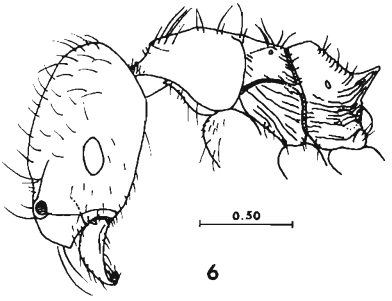

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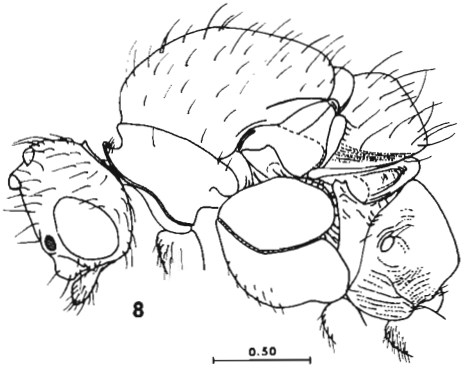
FIGURES 1-6. Head in frontal view, head and thorax in lateral view, of worker: 1-2, *Solenopsis dysderces*. 3-4, *Nothidris cekalovici*. 5-6, *Antichthonidris bidentatus*.

7



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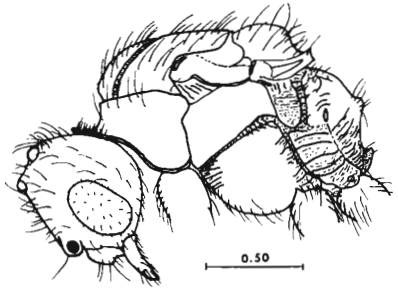

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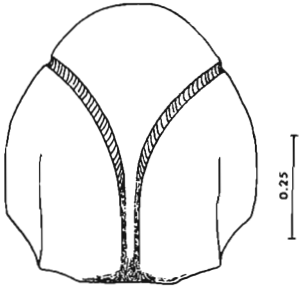


11

FIGURES 7-10. Head in frontal view, head and thorax in lateral view, of male: 7-8, *Nothidris latastei*. 9-10, *Antichthonidris bidentatus*; 11, *A. bidentatus*, mesoscutum of male.

WORKER. *Measurements.* HL 1.05-1.22 (1.19); HW 0.92-1.06 (1.04); SL 1.08-1.23 (1.17); PW 0.60-0.69 (0.69); WL 1.73-1.99 (1.98).

Head. Distinctly longer than broad, CI 87-91 (87); HL a little less than to a little more than SL; SI 110-118 (112). In frontal view, HW greatest a little below midpoint, sides of head slightly convex; occipital margin distinctly concave.

Scape extending beyond occipital margin by about one-third its length. Apical margin of clypeus gently, evenly convex in frontal view. Eye on front of head, OMD 0.97-1.04 (1.04) x EL.

Thorax. Slender, PW 0.33-0.37 (0.35) x WL. From above, pronotum about twice as wide as mesonotum, about 1.3 x propodeum. In profile, meso- and metanota forming a continuous, steep slope from pronotum to propodeum, interrupted only by sharply projecting spiracles; posterior margin of metanotum depressed well below dorsal level of propodeum, so that anterior margin of propodeum is abruptly declivitous. Propodeal spine, from above, nearly parallel-sided, apex rounded; in profile, flattened and sharp at apex, base below upper level of propodeal dorsum, directed caudad. In profile, node of petiole with anterior face nearly vertical, dorsal face convex, posterior face strongly sloping; without ventral spines or teeth.

Vestiture. Erect setae general but sparse, variable in length on head, thorax and gaster; those of scape abundant, short, fine; those of tibiae long, acuminate.

Integument. Front of head mostly moderately shiny, lightly shagreened; malar area duller, more closely shagreened; occiput and vertex dull, closely punctulate; head with scattered, setigerous punctures, more numerous on occiput. Pronotum shinier than front of head, with scattered setigerous punctures. Pronotal neck and entire meso-metanotum dull, densely punctulate. Propodeal dorsum similar, but sides slightly shiny and with widely spaced, oblique rugulae. Posterior face of node of petiole with delicate, concentric striae which may be more or less obsolete. Gaster smooth and shiny.

Color. Head and thorax dull reddish; antenna and legs medium brown; gaster blackish.

FEMALE and MALE unknown.

Type Material. Holotype and four paratype workers: CHILE, Prov. Santiago: El Alfalfal, 25 Jan. 1968 (J. Moroni); five paratype workers: CHILE, Prov. Santiago: San José de Maipo, 29 Nov. 1969 (L. Alfaro). Holotype and two paratypes in LACM; five paratypes in MSTO; two paratypes in UCON.

Etymology. This species is dedicated to the late Angel Gallardo, a pioneer in the systematics and biology of South American ants.

Discussion. This is very likely the same species that Berg (1890) recorded from Santa Rosa de los Andes, Aconcagua, Chile, as *planidens* Mayr. Although it does resemble *planidens* in stature, the distinctly rugulose propodeal sides will separate it from that species. The red color is also much less bright than in *planidens*.

ARAUCOMYRMEX

This genus, as I interpret it, includes those species listed by Kempf (1972) under *Araucomyrmex* plus most of those included in the subgenus *Ammomyrma* of *Dorymyrmex*. I have seen most of the species placed in *Ammomyrma*, including the type species, *exsanguis* Forel; they are all *Araucomyrmex*, except for *emmaericaellus* Kusnezov, which is a true *Dorymyrmex*. Those species which I have not seen appear from their descriptions to be *Araucomyrmex* also.

Araucomyrmex hunti new species
Figures 14-15

Diagnosis. Worker: Dark brown to black; upper setae of psammophore below level of occipital foramen; frons conspicuously more shiny than occiput; propodeal tubercle high, acute; CI 77-84. FEMALE and MALE unknown.

WORKER. *Measurements*. HL 0.77-0.92 (0.88); HW 0.60-0.72 (0.70); SL 0.80-0.97 (0.90); PW 0.40-0.50 (0.50); WL 1.03-1.23 (1.17).

Head. Conspicuously longer than broad, CI 77-84 (79); in frontal view, widest at eye level, usually distinctly sinuate below eye level; occipital margin evenly convex. Scape about as long as head, SI 119-133 (129); extending beyond occiput by about 0.3 x its length. Eye large, OMD 0.86-1.17 (1.17) x EL. Apical margin of clypeus, in frontal view, slightly convex, weakly emarginate in middle.

Thorax. Slender, PW 0.38-0.43 (0.43) x WL. Mesonotum, in profile, straight or slightly convex, not angulate beyond middle. Propodeum, in profile, not depressed in front of tubercle; tubercle high, acute.

Vestiture. Head with sparse, appressed, whitish pubescence; thorax and gaster with appressed pubescence longer and a little denser; some cephalic pubescence, especially on frons may be decumbent; that of scape decumbent to erect.

Cephalic setae sparse, on face limited to clypeus and frontal lobes, none on occiput or vertex. Basalmost setae of psammophore below level of occipital foramen. Pronotum usually with a single pair of erect setae, which are shorter than apical width of scape; mesonotum and propodeum without erect setae. First gastric tergum with irregularly spaced, long, erect setae across summit of basal face and a row along posterior margin; remaining terga with sparse longer hairs. Scape without erect setae. Fore femur with three or four widely spaced setae along basal half of ventral margin; mid and hind femora without erect setae on dorsal margin; tibiae without setae.

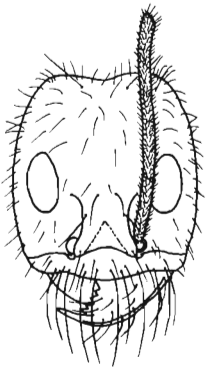
Integument. Clypeus moderately shiny, closely shagreened except along midline; frontal lobes and frons moderately shiny, lightly shagreened and with scattered micropunctures; vertex and occiput sharply duller, closely shagreened and with numerous micropunctures. Thorax similar to occiput, closely shagreened and with numerous micropunctures. Gaster moderately shiny, less closely shagreened than thorax, with numerous micropunctures and scattered coarser punctures.

Color. Dark brown to blackish; antenna and legs lighter.

FEMALE and MALE unknown.

Type Material. Holotype and 41 paratype workers: CHILE, Prov. Antofagasta: 2 km E Paposo, 300 m elev., 16 Nov. 1972 (J. H. Hunt, #994). Holotype and most paratypes in LACM; three paratypes each in MSTO and UCON.

Etymology. This species is dedicated to James H. Hunt, who collected numerous ant samples in Chile at my request.



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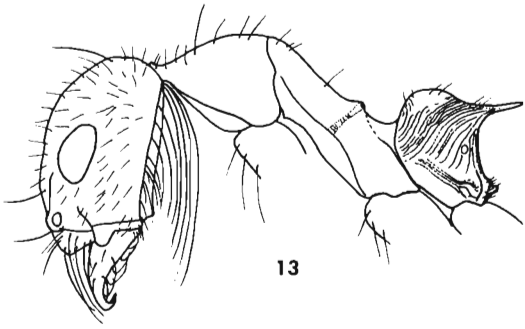

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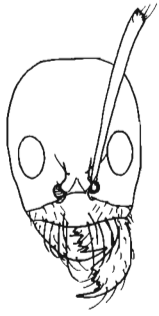

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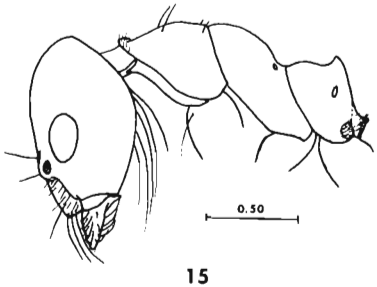

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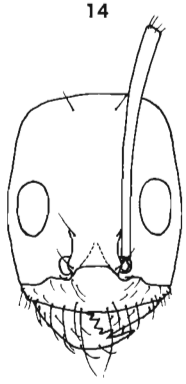

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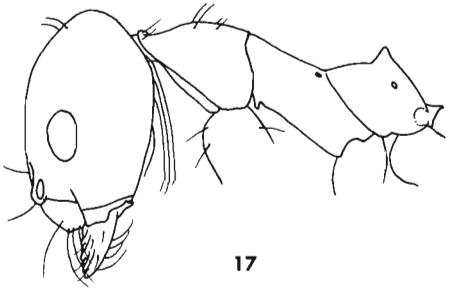

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FIGURES 12-17. Head in frontal view, head and thorax in lateral view, of worker: 12-13, *Dorymyrmex agallardoi*. 14-15, *Araucomyrmex hunti*. 16-17, *A. hypocritus*. All figures to same scale.

Araucomyrmex hypocritus new species
Figures 16-17

Diagnosis. Worker: Bicolored species with wholly ferruginous thorax; uppermost setae of psammophore below occipital foramen; occipital sculpture not sharply differentiated from that of frons; mesonotum, in profile, straight over posterior one-half; terga pubescent at sides. FEMALE and MALE unknown.

WORKER. *Measurements*. HL 1.03-1.08 (1.08); HW 0.83-0.92 (0.92); SL 1.17-1.23 (1.23); PW 0.57-0.62 (0.60); WL 1.43-1.57 (1.57).

Head. Conspicuously longer than broad, CI 81-85 (85); in frontal view, widest at eye level, slightly sinuate below eye level; occipital margin nearly flat in frontal view. Scape distinctly longer than head, extending beyond occipital margin by about 0.45 x its length; SI 134-140 (135). Eye large, OMD 1.06-1.25 (1.25) x EL. Apical margin of clypeus, in frontal view, nearly straight, with barely indicated median sinuosity.

Thorax. Slender, PW 0.38-0.41 (0.38) x WL. Mesonotum, in profile, nearly straight, not angulate beyond middle. Propodeum, in profile, not depressed in front of tubercle; tubercle high, acute.

Vestiture. Appressed pubescence short, sparse on fronsg denser on occiput; longer and denser on thorax; long and dense on gastric terga, including sides of first two segments; very scattered around antennal sockets and on sides of head; completely appressed on scape.

Clypeus with long setae on apical margin and a few on basal margin, disc with a few very short setae; frontal lobes with a seta pair near clypeal base and another at level of lower eye margin, the latter notably long; vertex with a single pair of short setae (apparently broken off in some specimens). Basalmost setae of psammophore below level of occipital foramen. Pronotum with a median seta pair and a preapical, much shorter pair; mesonotum and propodeum without erect setae. First tergum with a few scattered setae on posterior half of dorsal face; remaining terga with preapical seta row and a few, inconspicuous discal setae. Scape without setae except at apex. Fore femur with three or four setae on basal half of ventral margin; mid and hind femora without setae on dorsal margin; tibiae without setae.

Integument. Clypeus smooth and shiny along midline, closely shagreened and moderately shiny elsewhere; frontal lobes and frons slightly shiny, closely shagreened and micropunctate; vertex and occiput a little duller and more densely micropunctate, out blending into frons; malar area and gena shiny, lightly shagreened. Thorax similar to occiput, closely shagreened and moderately shiny, sides shinier. Gaster dull, very closely shagreened and with dull micropunctures.

Color. Head, including scape, and thorax bright ferruginous; gaster blackish; flagellum and legs dark brown.

FEMALE and MALE unknown.

Type Material. Holotype and four paratype workers: CHILE, Prov. Santiago: Fundo Santa Laura, near Cuesta la Dormida, 20 Oct. 1971 (J. H. Hunt, #453), all in LACM.

Etymology. The Latin, *hypocritus*, mime or dissembler, because of the similarity to such species as *goetschi* and *tener*.

Araucomyrmex incomptus new species
Figures 18-19

Diagnosis. Worker: Blackish, head more or less ferruginous; basalmost setae of psammophore below occipital foramen; vertex and occiput dull, sharply differentiated from shiny frons; basal face of propodeum, in profile, distinctly impressed in front of low, obtuse tubercle. FEMALE and MALE unknown.

WORKER. *Measurements*. HL 0.72-0.80 (0.78); HW 0.60-0.65; SL 0.73-0.80 (0.77); PW 0.40-0.43 (0.43); WL 0.97-1.03 (1.03).

Head. Conspicuously longer than broad, CI 79-85 (81); sides, in frontal view, widest at eye level, weakly sinuate below eye level or not sinuate; occipital margin flattened or very weakly convex in frontal view. Scape about as long as head, SI 121-128 (123), extending beyond occiput by about 0.25 x its length. Eye large, OMD 1.00-1.08 (1.00) x EL. Apical margin of clypeus, in frontal view, straight or weakly concave in middle.

Thorax. Slender, PW 0.40-0.43 (0.42) x WL. Mesonotum, in profile, evenly convex, not angulate beyond middle. Propodeum, in profile, distinctly depressed in front of tubercle; tubercle low, obtuse.

Vestiture. Pubescence short, scattered on most of head, conspicuous only on vertex and occiput; thoracic pubescence a little sparser than that of occiput; that of gaster similar but a little longer, becoming very sparse on sides of terga.

Cephalic setae sparse; apical clypeal margin only, with long setae, those of disc and basal margins short; frontal lobes with seta pair near clypeal base and a longer pair at level of lower eye margin; no occipital setae; basalmost setae of psammophore below level of occipital foramen. Pronotal disc with a single, median, seta pair; mesonotum and propodeum without setae. First gastric tergum with a few setae at about midlength of dorsal face and a few in preapical row; remaining terga with scattered discal and a few preapical setae. Scape without setae except at tip. Fore femur with two or three setae on basal half of ventral margin; mid and hind femora without setae on dorsal margin; tibiae without setae.

Integument. Midline of clypeus smooth and shiny, remainder lightly shagreened and moderately shiny; frontal lobes and frons moderately to very weakly shagreened, with scattered micropunctures, moderately shiny; vertex and occiput abruptly differentiated, closely shagreened and micropunctate, barely shiny; malar area and side of head moderately shiny, weakly shagreened. Thorax and gaster closely shagreened and micropunctate, slightly shiny.

Color. Head dark ferruginous, becoming lighter at sides and toward mandible, darkest (almost dark brown) on occiput; thorax and gaster blackish. Appendages dark brownish.

FEMALE and MALE unknown.

Type Material. Holotype and 11 paratype workers: CHILE, Prov. Coquimbo: Cerro Tololo, ca. 10 km W, 3 km S of Vicuña, 16 Oct. 1971 (J. H. Hunt, #439); holotype and most paratypes in LACM; two paratypes each in MSTO and UCON.

Etymology. L., *incomptus*, unadorned or simple, because of the reduced setation.

Araucomyrmex pappodes new species
Figures 20-21

Diagnosis. Worker: Basalmost setae of psammophore above lower margin of occipital foramen; front of head with numerous erect setae of various lengths on upper half; propodeal tubercle high, sharp; thorax wholly dark brown. FEMALE and MALE unknown.

WORKER. *Measurements*. HL 0.96-1.09 (1.09); HW 0.82-0.96 (0.96); SL 1.04-1.15 (1.15); PW 0.54-1.00 (1.00); WL 1.41-1.59 (1.59).

Head. Distinctly to a little longer than broad, CI 85-90 (88); in frontal view, widest at eye level, margins not sinuate below eye level; occiput, in frontal view, flat or weakly convex. Scape distinctly longer than head, SI 118-126 (120); extending beyond occiput by about 0.3 x its length. Eye large, OMD 1.10-1.20 (1.14) x EL. Apical margin of clypeus, in frontal view, weakly subangulate in middle.

Thorax. Slender, PW 0.37-0.40 (0.38) x WL. Mesonotum, in profile, weakly angulate beyond middle. Propodeum, in profile, weakly sinuate in front of tubercle; tubercle stout, high, summit rounded, but profile acute.

Vestiture. Appressed pubescence sparse on clypeus, malar area and gena; longer, dense, and partially obscuring surface, on frontal lobes, frons, vertex and occiput, some hairs subdecumbent. Thoracic pubescence less dense than that of occiput, mostly appressed, but some decumbent to suberect, especially on dorsum. Gastric pubescence dense, but not obscuring surface, mostly appressed, but some hairs subdecumbent.

Cephalic setae abundant; apical margin of clypeus with very long setae, basal margins and disc with much shorter setae; frontal lobes with apical seta pair and another at level of lower eye margin. Frons, vertex, occiput and margins of head with numerous short, fine setae generally distributed. Basalmost setae of psammophore arising well above lower margin of occipital foramen. Pronotum with a median pair of long (subequal to MOD), slender setae and a pair of much shorter setae near posterior margin; disc with numerous fine, much shorter, setae. Mesonotum with sparse, very short, fine setae. Discs of gastric terga with generally distributed, short, fine setae and preapical row of longer setae. Scape with abundant, fine, suberect to erect, very short setae. Fore femur with short, fine, suberect to erect setae along entire ventral margin. Femora and tibiae otherwise with generally distributed very short, fine, decumbent to erect setae.

Integument. Clypeus shiny, midline smooth and polished, remainder lightly shagreened; malar area and gena moderately shiny, lightly shagreened, with scattered micropunctures and a few coarser punctures; frontal lobes, frons, vertex and occiput slightly shiny, sharply shagreened and densely micropunctate. Thorax shinier than frons, less closely shagreened, about as densely micropunctate. Gastric terga about as shiny as frons and similarly sculptured.

Color. Head brownish ferruginous on occiput, becoming progressively paler toward mandible. Pronotal neck obscurely ferruginous, thorax otherwise very dark reddish brown. Gaster blackish brown. Appendages medium brown.

FEMALE and MALE unknown.

Type Material. Holotype and 37 paratype workers: CHILE, Prov.

Valparaiso: Maitencillo, 30 m elev., 10 Oct. 1971 (J. H. Hunt, #424). Holotype and most paratypes in LACM; three paratypes each in MSTO and UCON.

Etymology. Gr., *pappodes*, downy, in allusion to the abundance of fine pubescence rendering to this ant its distinctive appearance.

Araucomyrmex pogonius new species
Figures 22-28

Diagnosis. Worker: Basalmost setae of psammophore above lower margin of occipital foramen; vertex without seta pair; setae of pronotal pair less than 0.5 x MOD; head ferruginous. FEMALE. Unknown. MALE. CI 97-100; SI 71-77; interocellar distance equal to ocellocular distance; scape shorter than head.

WORKER. *Measurements*. HL 0.90-0.97 (0.93); HW 0.80-0.90 (0.87); SL 0.93-1.03 (1.00); PW 0.47-0.55 (0.53); WL 1.20-1.30 (1.27).

Head. Distinctly, to a little, longer than broad, CI 88-95 (92); in frontal view, widest at eye level, margins not sinuate below eye level; occiput, in frontal view, weakly concave in middle. Scape slightly longer than head, SI 114-122 (115); extending beyond occiput by about 0.3 x its length. Eye large, OMD 1.07-1.21 (1.21) x EL. Apical margin of clypeus, in frontal view, straight or very weakly convex in middle.

Thorax. Slender, PW 0.39-0.43 (0.42) x WL. Mesonotum, in profile, slightly convex, often weakly angulate beyond middle. Basal face of propodeum distinctly sinuate in profile; tubercle high, acute.

Vestiture. Appressed pubescence short, abundant on frontal lobes, frons vertex and occiput; very sparse on gena and malar area; some hairs subappressed or subdecumbent on side, above eye and on vertex. Thoracic pubescence general, mostly appressed, but some on pronotum subappressed to subdecumbent. Gastric terga including sides of segments with abundant appressed, and some subappressed, pubescence.

Cephalic setae sparse, vertex pair absent. Long setae present on apical margin of clypeus; shorter, sparse setae on disc and along basal margin; frontal lobes with seta pair near base of clypeus and another at level of lower eye margin. Basalmost setae of psammophore above level of lower margin of occipital foramen. Pronotal disc with median seta pair, setae less than 0.5 x MOD. Mesonotum and propodeum without setae. First tergum with sparse, short setae on basal half of dorsal face and usual preapical row; remaining terga with scattered, very short, discal setae and preapical row of widely spaced setae. Scape without setae, except near tip. Fore femur with two or three setae on basal half of ventral margin. Mid and hind femora without setae on dorsal margin. Tibiae without setae.

Integument. Midline of clypeus smooth and shiny, remainder shiny and lightly shagreened; gena and malar area moderately shiny, moderately shagreened and with scattered micropunctures; frontal lobes, frons, vertex and occiput slightly shiny, closely shagreened and densely micropunctate. Thorax slightly shiny, closely shagreened and densely micropunctate. Gastric terga slightly shiny, closely shagreened and densely micropunctate.

Color. Head and thorax pale ferruginous, propodeum slightly brownish. Gaster medium to dark brownish. Antennae yellowish brown, scape paler than flagellum; legs medium brown.

FEMALE. Unknown.

MALE. *Measurements.* HL 0.57 (0.57); HW 0.55-0.57 (0.57); SL 0.40-0.43 (0.40); PW 0.73-0.80 (0.73); WL 1.43-1.50 (1.50).

Head. As long as broad to slightly longer than broad, CI 97-100 (100), broadest at upper margins of eyes; occiput, in frontal view, flat, narrowly rounded onto sides of head. Scape shorter than head length, SI 71-77 (71); apex reaching about to occipital margin. Eye large, OMD 0.25-0.27 (0.25) x EL. Apical margin of clypeus convex in middle. Mandible with cutting margin oblique, with three teeth basad of apical tooth.

Thorax. Stout, PW 0.49-0.55 (0.49) x WL. Scutellum, in profile, strongly bulging, dorsal face flat. Propodeum evenly curved in profile.

Terminalia. Apical margin of subgenital plate broadly convex to slightly concave. Genital capsule (figs. 26, 27) broader than long; digitus elongate, straplike, extending to apex of gonocoxite; ventral margin of aedeagus (fig. 28) with very coarse teeth and a few fine teeth.

Vestiture. Appressed pubescence very sparse and inconspicuous on head. Pubescence a little more abundant on thorax, but still sparse; longest and most conspicuous on propodeum. Gastric terga with evenly distributed appressed pubescence, nowhere sufficiently dense to obscure surface; sterna similarly pubescent.

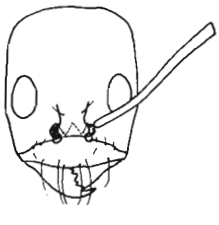
Clypeus with a few inconspicuous setae along apical margin and a longer pair on either side of median lobe; frontal lobe with a pair of very short setae a little above level of antennal sockets. Gastric sterna with a few short erect setae. Femora and tibiae without setae. Forewing without fringe hairs; hind wing with a few hairs on apical margin and a fringe on basal half of posterior margin.

Integument. Clypeus and frontal lobes shiny, lightly shagreened and with scattered micropunctures; frons, vertex and occiput less shiny, lightly shagreened, densely punctate with fine punctures of two sizes. Mesoscutum about as shiny as frons, similarly punctate anteriorly, punctures becoming coarser posteriorly; scutellum shiny between coarse, dense punctures; pleura similar to scutellum. Base of propodeum shiny, lightly shagreened and with scattered, obscure punctures which are finer than those of scutellum; sides less shiny, closely, finely punctate. Gastric terga moderately shiny, lightly shagreened, with sparse micropunctures and scattered coarser punctures.

Color. Medium brown, with anterior half of scutellum lighter; antenna and legs light brown. Wings faintly whitish, veins and stigma yellowish to brownish yellow.

Type Material. Holotype worker, allotype male, 35 worker and 17 male paratypes: CHILE, Prov. Ñuble: Termas de Chillán, 20 Sept. 1969 (T. Cekalovic; #4187). Holotype, allotype, 15 worker and 7 male paratypes in LACM; 18 worker and 9 male paratypes in UCON; 2 worker and one male paratypes in MSTO.

Etymology. Gr., *pogon*, *-os*, beard, hence bearded, *pogonius*, in allusion to the long psammophore on the ventral surface of the worker head.



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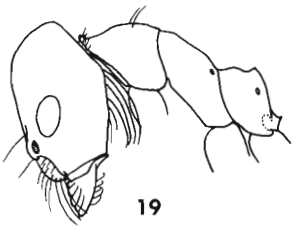

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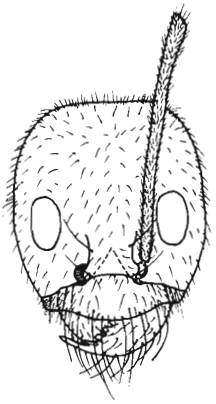

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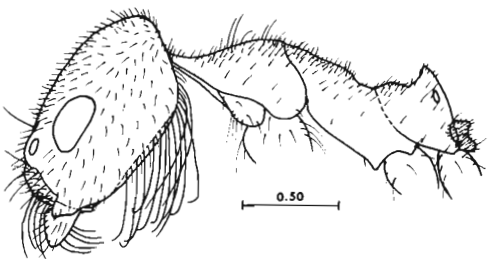

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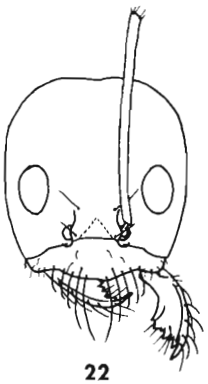

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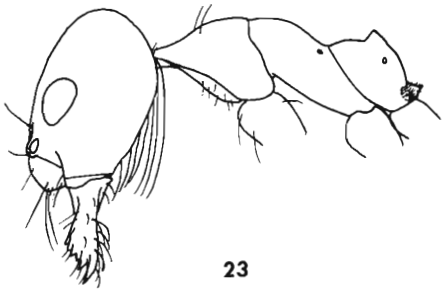

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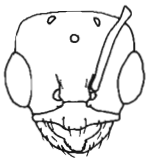
FIGURES 18-23. Head in frontal view, head and thorax in lateral view, of worker: 18-19, *Araucomyrmex incomptus*. 20-21, *A. pappodes*. 22-23, *A. pogonius*. All figures to same scale.



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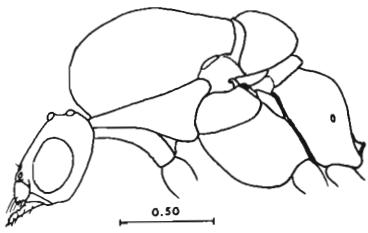

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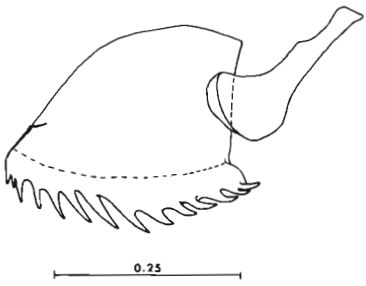

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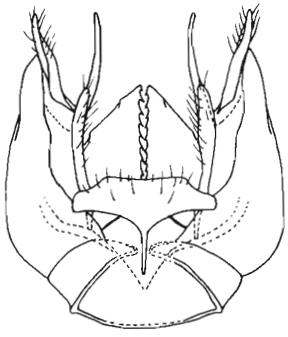

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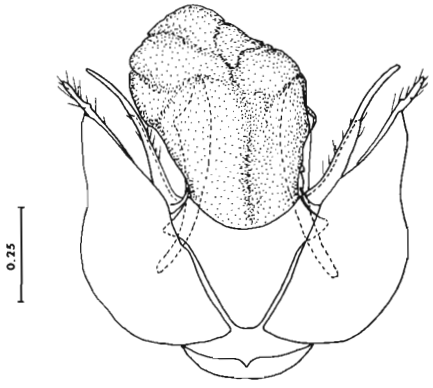

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FIGURES 24-28. *Araucomyrmex pogonius*, male. 24, head in frontal view; 25, head and thorax in lateral view; 26, genital capsule, ventral view, with attached subgenital plate; 27, genital capsule, dorsal view, with inflated penis; 28, aedeagus, lateral view.

RESUMEN

Se describe una nueva especie de *Solenopsis*, *dysderces*. Una nueva especie de *Nothidris*, *cekalovici*, es descrito y *Megalomyrmex bicolor* Ettershank es trasladado a *Nothidris*. Se presenta un clave para las especies conocidas de *Nothidris*. Dos especies, *bidentatus* Mayr y *denticulatus* Mayr, son transferidos a un nuevo género, *Antichthonidris*, con *denticulatus* como la especie típica.

El estado de los dos géneros *Dorymyrmex* e *Araucomyrmex* es tratado en breve. Una nueva especie, *agallardoi*, de *Dorymyrmex* es descrito de la Provincia de Santiago. Las nuevas especies siguientes de *Araucomyrmex* son descritas: *hunti* (Prov. Antofagasta), *hypocritus* (Prov. Santiago), *incomptus* (Prov. Coquimbo), *pappodes* (Prov. Valparaiso) y *pogonius* (Prov. Ñuble).

Todas las nuevas taxas son ilustradas. Los tipos primarios de las nuevas especies están depositados en el LACM, con los paratipos de la mayoría en el Museo Nacional de Historia Natural de Santiago, y Universidad de Concepción, Concepción.

LITERATURE CITED

BERG, C. 1890. Los formicidios argentinos, chilenos y uruguayos. Soc. Cient. Argent., An. 29:5-43.

EMERY, C. 1915. Noms de sous-genres et de genres proposés pour la sous-famille des Myrmicinae. Modification à la classification de ce group. Soc. Entomol. France, Bull. pp. 189-192.

ETTERSHANK, G. 1966. A generic revision of the world Myrmicinae related to *Solenopsis* and *Pheidologeton*. Austr. Jour. Zool. 14:73-171.

KEMPF, W. W. 1970. Catalogo das formigas do Chile. Papeis Avulsos Zool., S. Paulo 23:17-43.

_____. 1972. Catalogo abreviado das Formigas da Região Neotropical. Studia Entomol. 15:3-344.

KUSNEZOV, N. 1952. El estado real del grupo *Dorymyrmex* Mayr. Acta Zool. Lill. 10:427-448.

_____. 1959. Die Dolichoderinen-Gattungen von Sud-Amerika. Zool. Anz. 162:38-51.

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