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On four new species of *Telenomus* Haliday 1833 (Hymenoptera Scelionidae) collected in Sicily, re-description of *Telenomus minutus* (Westwood) 1833, notes about *Rachelia robertae* Mineo 2004 and on *Gryon* Haliday 1833 of *fulviventre*-subgroup (*)

Abstract - Four new species of Scelionid wasps (Hymenoptera) are described, all of them from Rhopalid (Heteroptera) bugs collected in Sicily: *Telenomus foveatus* n. sp., and bred from an unidentified species of Rhopalid, *Telenomus liorhyssi* n. sp. from *Liorhyssus hyalinus* F., *Telenomus eleuterus* n. sp. from *Stictopleurus punctatonervosus* (Goeze), and *Telenomus inulae* n. sp. from an unidentified Rhopalid. *Telenomus minutus* (Westwood) is re-described and new data is given about *Rachelia robertae* Mineo and *Gryon* nr. *gnidum* (Nixon).

Riassunto - *Descrizione di quattro nuove specie di* Telenomus *Haliday 1833 (Hymenoptera Scelionidae) raccolte in Sicilia con ridescrizione di* T. minutus *(Westwood) 1833, note su* Rachelia robertae *Mineo 2004 e sul sottogruppo* fulviventre *di* Gryon *Haliday 1833.*

Sono descritti quattro nuovi Telenomini allevati da specie di Ropalidi (Heteroptera) raccolti in Sicilia: *Telenomus foveatus* n. sp. (da Ropalide indeterminato), *Telenomus liorhyssi* n. sp. da *Liorhyssus hyalinus* F., *Telenomus eleuterus* n. sp. da *Stictopleurus punctatonervosus* (Goeze), *Telenomus inulae* n. sp. (Ropalide sconosciuto). Viene ridescritto *Telenomus minutus* (Westwood), e si da notizia su nuovi ritrovamenti di *Rachelia robertae* Mineo e di *Gryon* prope *gnidum* (Nixon).

Key words: Telenomini, new species, Rhopalidae.

INTRODUCTION

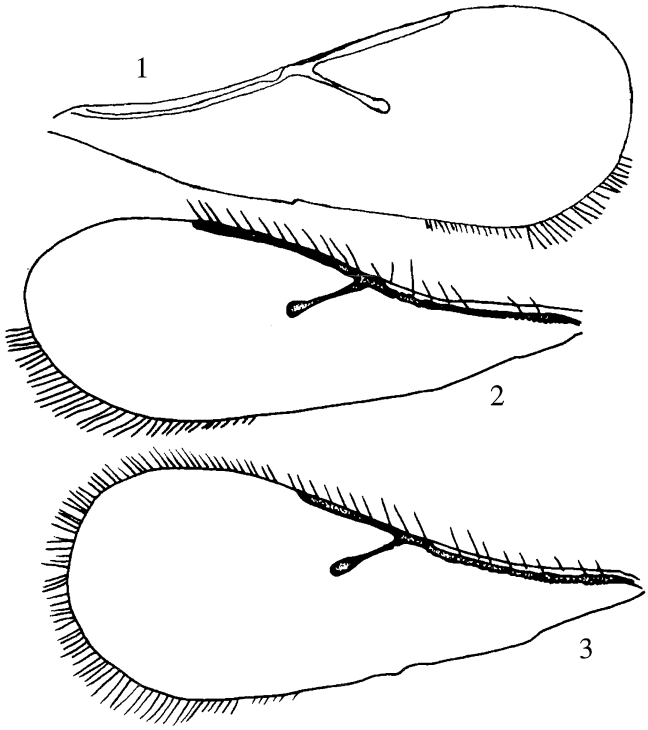
The material discussed in this paper was mostly bred from hosts infesting spontaneous and horticulture plants. The re-description of *Telenomus (Hemisius) minutus* (Westwood) was necessary because the previous Authors that dealt with it gave not sufficient respects to identify this taxon.

For symbols and abbreviations refer to my previous work (Mineo, 2004).

(*) Research funded by M.U.R.S.T. 60%.

Telenomus foveatus n. sp.
(Plates I-III)

DIAGNOSIS. Rather short species; head wider than long, with vertex lacking transverse keel; the upper margin of malar sulcus, just over half-way along its length, is so far from the lower margin as to delimit a sort of *fovea*[1]; lateral ocelli touching the inner orbits of eyes; frons width a little less than eye height; clypeal lamella absent; clypeal margin slightly arcuated, protruding and emarginate before reaching sides, where the lateral corners are difficult to see; labrum very narrow, its anterior margin sinuate, clavate at lateral sectors; mandibles stout, moderately long, tridentate; mesosoma not depressed with sublanceolate fore-wings; propodeal halves as the rule, *viz.* triangular



Figs 1-3 - Forewing of: *Telenomus eleuterus* n. sp. (1), *Telenomus foveatus* n. sp. (2) and *Telenomus liorhyssi* n. sp. (3).

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[1] This term is here applied in the sense that it is used for Chalcidoid wasps (cfr. Bouček, 1988): the members of the genus *Galeopsomyia* Girault (Eulophidae) are a fine example in which this morphological aspect is present (see also Schauff et *al.*, 1998). It must be stressed that a similar morphological feature appears in drawings derived from SEM photos, such as, e.g. *Telenomus calvus* Johnson, *T. exilis* Jhns., in Johnson's (1984) paper, although the author does not give any mention to it throughout the paper.

in shape; dorsellum reaching the margin above the nucha; metasoma slightly longer than wide; T1 with only one sub-lateral and lateral seta respectively.

DESCRIPTION. *Female*. Length about 0.6 mm. Body castaneous; mandibles fire-coloured; antennae brown; legs brown, except brownish apices of femora, basal sector of tibiae in fore-legs, as well as 1-4th tarsomeres in all 3 pairs of appendages.

Head wider than high (17:13), wider across genae; from above, more or less 3 times wider than long (16.5:5.6); vertex gently passing over onto the occiput; occipital carina complete, passing high over on to the occiput; the length of subocular sulcus about 1/2 that of eye height (5:9); inter-orbital space a little shorter than eye height (8:7.3); mandible with unequal teeth, the inner one the longest; genae narrowing toward temples; only parascrobal area and lower face with long, scattered setae; antenna 11-segmented; funicle 5 more or less intermediate in size between 4 and 6, so that the limits of clava are not clearly defined.

Mesosoma longer than wide (17:13), as long as high (13:13); mesoscutum slightly flattened on roughly median anterior 1/3, with anterior edge gradually dropping off to the pronotum; mesoscutal line not straight, provided with pits only at corners; the length of scutellum slightly less than that of the mesoscutum, in the form of an obtuse-angled triangle, its surface slightly declivous, terminating with a row of deep pits along apical margin; mesoscutum setose; dorsellum declivous, slightly longer medially, but not overlapping propodeum, punctate reticulate; nucha crossed by numerous strong costae; fore-wings surpassing tip of metasoma; metanotum between dorsellum and base of hind-wing without row of pits; parascutal sulci deep, well-defined; netrion smooth and distinct, surface above it in form of a deep declivity, also smooth; episternal foveae absent.

Metasoma. Relative proportions (width x length) of T1, T2, as 55 x 10, 79 x 63, and with a row of 8 and 10 deep pits on relative anterior margin of T1 and T2 respectively; very short (1/14 of tergite's length) striae on antero-median sector of T2 are visible, while on the remaining surface only one pair of long setae (one per each side on posterior sector) is present.

Male. The eggs of the cluster laid by the host were all found parasitised with females (12 in all).

In one host chorion parts of a male antennae were found, which might belong to the male of the species. However this note requires ulterior confirmation.

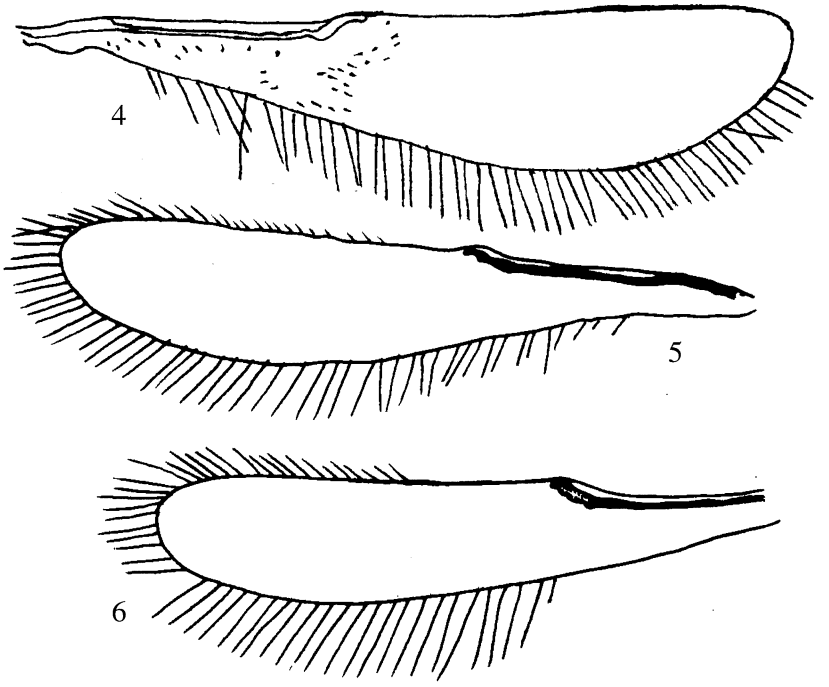
MATERIAL EXAMINED. 1 ♀ (Holotype) (Termini Imerese (Palermo), in the countryside at "Bevuto", ex egg of Rhopalid bug laid on seeds of *Malva* sp., 24.V.1981, *leg*. Mineo); antennae and body dissected, glued on white label; 9 ♀♀ (Paratypes) same data as holotype, each one within the egg chorion of the host, together on the host plant seeds; 3 ♀♀ (paratypes) dissected and glued either on labels, or slide; the parts of male antennae are also on slide. Type and paratypes in my collection.

Variability. In the 6 specimens extracted from each relative egg shell, there were no differences of note.

Host. On the same seeds of *Malva* sp. two different types of chorions belonging to two different species of Rhopalid bugs were found, although only those of one

species were parasitised. Under the stereomicroscope (x 160) the surface of the chorion of parasitised eggs appears smooth and unsculptured, whereas at SEM its background sculpture was as in Plate III, 2.

Ethology. The meconium is placed at about 1/2 of the egg's height, a little below the anterior margin of the operculum; the emergence hole of the Telenomine adult is irregular and effected on the surface of the operculum.



Figs 4-6 - Hindwing of: *Telenomus eleuterus* n. sp. (1), *Telenomus foveatus* n. sp. (2) and *Telenomus liorhyssi* n. sp. (3).

REMARKS. *Telenomus foveatus* belongs to the same species group as *Telenomus rhopali* Perkins 1913, with which it shares many characteristics, including the same type of *fovea* below the eye, as well as the coloration of both the body and appendages. It must be added that Perkins' species was bred from the eggs of *Liorhyssus (= Rhopalus) hyalinus* F. I hesitated before describing *T. foveatus*, although I can easily distinguish it from *T. rhopali* on the basis of the width of the fringe of the hind-wing: in the latter this is approximately as long as the width of the wing at the same point (5:6), while the same width of cilia on the former is much shorter (10:16), as well as the size of T2, which on *T rhopali* is about as wide as long (14:13.4).

DERIVATIO NOMINIS. This is explained in the text.

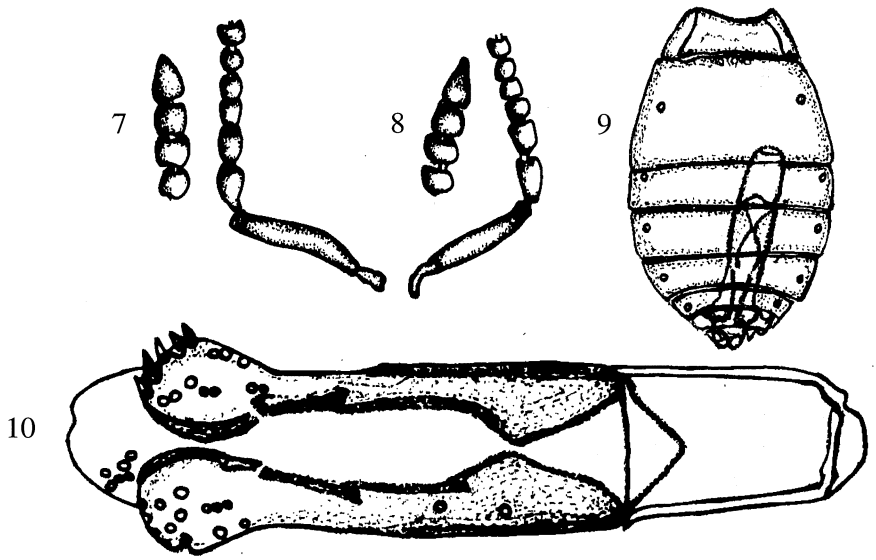
Telenomus eleuterus n. sp.
(Plates IV-VII)

DIAGNOSIS. Rather short and stout species; mesoscutum broad, weakly flat, declivous; metasoma surpassed by fore-wings by about twice its length. The abbreviated course of the occipital carina, together with the shape of the clypeus, pointed at the meson, where it is crossed by a deep, cone-shaped groove, as well as the rake-shaped mandibles, are the main characteristics for an easy identification of this telenomine.

DESCRIPTION. *Female*. Body length 1.3 mm. Uniformly black; antennae and legs dark coloured, except testaceous, dirty tarsomeres and knees; wing hyaline, venation darkish.

Head almost 3 times as wide as long (22:7); *eh* = 12; *ios* = 11; *ms* = 5 not straight; antenna with clava 5-segmented; vertex rather elevated, rounded; lateral ocellus far from the line of vertex, touching inner orbit of eye; gena about the same thickness as temple; conjunction line on hypostomal bridge visible; scrobes very shallow, housing not more than half of scape; surface above scrobes smooth and shiny, flat and without setae; the remaining surface also smooth but setose; eyes with short, scattered setae.

Mesosoma longer than wide (23:21); mesoscutum 2.4 times longer than scutellum, uniformly coriaceous, scutellum unsculptured, setose, elements rather short, smooth and shiny, setae scattered; dorsellum longest in the middle, rectangular in shape, longi-



Figs 7-10 - Female antenna of *Telenomus liorhyssi* n. sp. (7) and *Telenomus foveatus* n. sp. (8); male metasoma in ventral aspect of *T. liorhyssi* with relative size of the copulatory organ (9); copulatory organ of the same at higher magnification (10).

tudinally striate, not surpassing the very declivous propodeum at meson; halves triangular with internal vertices very distant from each other; nucha abbreviate with 8 costae on its upper half; fore-wing 2.6 time long as wide, with maximum width of marginal fringe about 1/7 that of the plan at the same point; hind-wing 2.4 times as broad as the maximum width of its marginal cilia; *mg, st, pm* in relative proportion as 6:19:32.

Metasoma 1.3 times as long as wide; T1 and T2 in the middle costate, the elements of T1 being longer and bigger than those on T2; T1 with a pair of lateral and one sublateral setae, respectively; T1 and T2 smooth and shiny, the latter also almost glabrous.

Male. Similar to the female, except for size and sexual characteristics; see Plate XI, 1 for antenna. Length about 1.2 mm.

MATERIAL EXAMINED. 1♀ (Holotype) (Bagheria, ex egg of *Stictopleurus punctatonervosus* (Goeze)) (Rhopalidae) laid on leaf of *Inula viscosa*, in countryside at "Incorvino", 26/X/04, dr S. Blando); 1♂ (Allotype), 2 ♂♂ (Paratypes), 1♀ (used for SEM micrographs), 2 ♀♀ (Paratypes), same data as holotype, but the eggs of host laid on flowers of *I. viscosa.*

REMARKS. Mostly because of certain previously-mentioned, peculiar aspects, such as shape of clypeus and mandible, as well as the course of occipital carina, I cannot find any other species of *Telenomus* with which I can compare *T. eleuterus* Mineo.

DERIVATIO NOMINIS. The name *eleuterus* (from Greek eleutheria) means freedom, liberator.

Telenomus liorhyssi n. sp.

Telenomus sp., Mineo 2004, Boll. Zool. agr. Bachic., Ser. II, 36 (2): 217.

(Plates VIII-XII)

DIAGNOSIS. Rather short species; body not depressed; fore-wings abundantly surpassing tip of metasoma; head transverse with vertex gently passing over onto the occiput; scrobes not hollowed above them, slightly convexing toward anterior ocellus; frons width about equal to eye height, but longer than malar space; *fovea* below eye about the same width across its course, percurrent, *i.e.* as long as the subocular sulcus. Clypeal lamella prominent and wide, encompassing the outer parts of the peritremes of the toruli; clypeus distinct, with anterolateral corners abbreviate, subacute; labrum stout, short and emarginate at meson; mandibles tridentate, inner tooth longest and biggest, the other two of unequal size; occipital carina complete; mesosoma moderately convex; dorsellum not overlapping propodeum, the halves of which are as usual, *viz.* triangular in shape; nucha very short. T1 with one pair of lateral and only one sublateral seta respectively.

DESCRIPTION. *Female*. Length about 0.75 mm. Body castaneous; antennae, wing venations, mandibles, legs, excluding apices of femora, tibiae and 1-4th tarsomeres brownish, also castaneous; disc of wings water-coloured.

Head. From above, about 3 times as wide as long (16:5.4), wider than high (16:14);

frons width to eye height ratio as 25:23, while eye height to subocular sulcus ratio as 23:12; antenna 11-segmented; funicle 5 more or less intermediate in size between 4 and 6, so that the limits of clava are not clearly defined; genae and temple of the same width; background sculpturing of the vertex and of frons coriaceous; occiput, vertex and frons, parascrobal and lower area, all setose.

Mesosoma. higher than wide (18:14); anterior edge of mesoscutum gradually dropping off towards the pronotum; parascutal sulci complete and distinct; mesoscutal line almost straight, deep and without row of pits, except for a few at corners; mesoscutum, at the front, coriaceous pustulate sculpturing, fading out at the back; vestiture denser than on vertex, but setae shorter; scutellum smooth, sparsely setose; netrion smooth, quite distinct from the remaining surface of pronotum, which is coriaceous sculptured; episternal foveae absent; dorsellum reticulate; metanotum between dorsellum and base of hind-wing without row of pits; apices of propodeal halves very distant; nucha, from above, crossed by a pair of costae on each side.

Metasoma. The longest costae on T1 clearly surpassing its length; T2 costate except at sides, the costae as long as the lateral carinae of T1; for other morphological features see Plate VIII, 1.

Male. In all respects, except for sexual characteristics, similar to the female. See also Plate VIII for other features and details. Length 0.70 mm about.

MATERIAL EXAMINED. 1♀ (Holotype), 1♂ (Allotype), 36 ♀♀ and 10 ♂♂ (Paratypes), all with the same data, *viz.* (Balestrate, "Sicciarotta", ex eggs of *Liorhyssus hyalinus* F. laid on flowers of lettuce – August 14th 2002, G. Mineo).

Variability. No evident variations were observed either in coloration, or in size of the body, etc.

Information regarding the host, biology and natural enemies.

Telenomus liorhyssi was bred in the summers of 2002 and 2003 in Sicily from *Liorhyssus hyalinus,* attacking both the inflorescences and seeds of lettuce (*Lactuca sativa*). From literature we know that this Rhopalid bug is very widely distributed. In fact it is mentioned, for example, by Perkins (1910) in the Hawaiiensis Islands, and by Risbec (1950) in Mauritania and Senegal, where it also infests the millet. In California it damages both the new shoots and the young fruits of the pistachio (Michailides, 1989); in Tashkent (Usbekistan) Yarkhoutov (1941) reports that, in 1932-39, *L. hyalinus*, together with other Hemipteran bugs, seriously damaged both the buds and flowers of *Hibiscus cannabina*, even causing the death of young trees; during the same period it was also observed to attack *Abutilon avicennae*. With regard to the implications of *L. hyalinus* on the seed production of lettuce in the U.S.A., these were investigated by Readio (1928) and Mc Kinney (1938; 1940), as well as by Carlson (1959). In Sicily the observations regarding its biology on lettuce were carried out in the areas of Balestrate (Palermo) and Villafrati (PA), and in 2004 also around Alcamo (Trapani) and Bagheria (PA). The first adults on the plants were registered very early in June and sightings more or less terminated in the middle part of November. The females

generally lay eggs on the bifurcations of the inflorescences, but also on the bottoms of the host plants. In June 2004 similar egg clusters of *L. hyalinus* were also found on the bottoms of both *Sonchus oleraceus* and tomato. Each cluster may comprise from 11 to 56 eggs. The percentages of offspring were always close to 100%. According to Carlson (*l.c.*) the length of life cycle varies with the temperature. From observations carried out in Sicily *L. hyalinus* produces 6 generations per year, of which: 3 from June[2] to August and the rest from September to November. With regard to its possible damage to lettuce-seeds, the economic threshold level established by Mc Kinney (*l.c.*) of about 35-50 adults per plant, was never reached in the course of our samplings, in both the two years.

As far as natural enemies are concerned, literature reports that: in Arizona only the egg predator *Spanogonicus albofasciatus* (Reut.) (Miridae) was known (Butler jr. 1965); *Telenomus rhopali* Perkins 1910 and *T. paractias* Perkins 1910 were found in the Hawaiiensis Islands, *Telenomus pylus* Nixon was bred in Senegal and in Mauritania (Risbec, 1950). However, Risbec's record needs confirmation, because the same author in a further paper (1960) also quotes it for a Pierid butterfly.

Lastly, in Sicily, in both years I observed *Telenomus liorhyssi* Mineo as the only parasite of *L. hyalinus*, on eggs laid both on lettuce (in this host it was also bred from the eggs laid on the bottoms of *Sonchus oleracea)* and tomato bottoms. The total parasitism observed on lettuce never reached above 10%. At 28°C, and on the natural host, *T. liorhyssi* produces one generation about every 12 days.

REMARKS. From the features described above it is very difficult to consider *T. liorhyssi* as belonging to the species group, proposed by Johnson (1984), in which he includes both *T. nigrocoxalis* Ashmead, 1894, and *T. aberrans* Kozlov, 1967. On the other hand, on the basis of figures shown by Johnson (*l.c.*) in his paper, derived from species belonging to the "*nigrocoxalis* species group", it may be observed that, either through the absence of the *fovea* or through the type of male copulatory organ, it can be excluded that *T. liorhyssi* or *T. foveatus* belong to the above-mentioned species-group. On the contrary, on the holotype of *T. rhopali,* along the subocular sulcus, there is a very similar *fovea* to the one observed on *T. foveatus* - further confirmation that the two species are very closely allied. Recently I submitted several specimens of both sexes of *T. liorhyssi* to Dr S.V. Kononova, and her response was merely that "it resembles *T. aberrans*". In this latter species, apart from other morphologically different features such as, for example, the proportions of the veins on the fore-wing, the course of the mesoscutal line, etc., there is no mention of the presence of the *fovea*, either in the original description, or in the subsequent one by Kozlov & Kononova (1983).

The above elements therefore seem to consider *T. liorhyssi, T. foveatus* and *T. rhopali* as belonging to the same species group, with the latter as leader species.

DERIVATIO NOMINIS. It refers to its host.

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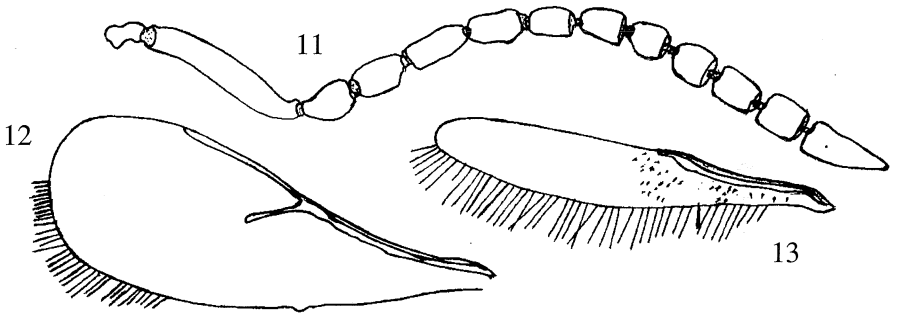
[2] The first egg clusters were found from 4th of June onwards and the first newly hatched larvae from 13th of same month.

Telenomus inulae n. sp.

DIAGNOSIS. Rather short species with wings surpassing tip of metasoma by twice their length; vertex falling roundly on to the occiput; lateral ocelli almost touching inner orbits of eyes; horizontal branches of occipital carina, after crossing by very little the occiput above foramen magnum, bend up obliquely toward the back of vertex, each one remaining separated from the other; mandible thin, bidentate teeth thin, strongly acute, the outer one weakly curving; clypeus small, strip-like with antero-lateral corners strongly protruding, blunt. Mesoscutum convex; dorsellum not surpassing propodeum in the middle; halves triangular with their internal vertices very acute and each very distant from the other.

DESCRIPTION. *Male*. Length 0.8 mm. Coloration of body, appendages, mandibles, wing venations and discs as those observed in *Telenomus eleuterus* Mineo.

Head W16xH14xL4; *eh* = 8; *ms* = 4.5; *ios* = 8.5; scrobes very weak and short; surface above inter-antennal process for the approximate length of scape and para-scrobal area smooth and shiny, glabrous; eyes with short, scattered setae; genae of about the same thickness as temple; antenna see Fig. 11.



Figs 11-13 - *Telenomus inulae* n. sp. (♂): antenna (11), fore (12) and hindwing (13).

Mesosoma W13xL20; mesoscutum to scutellum length ratio as 10:3.5; wings as in Figs 12-13; scutellum triangular in scape; mesoscutum reticulate sculptured, elements minute, vestiture dense but with very short setae, scutellum smooth but with longer setae; dorsellum longest at meson, punctate reticulate.

Metasoma 15Lx10W; T1 to T2 length ratio as 3:10; costae on T1 not reaching about half length of tergite, whereas the lateral ones are percurrent; one pair and one lateral and sublateral setae respectively; those on T2 of about same length as lateral ones of T1; the remaining surface of both tergites smooth and shiny.

MATERIAL EXAMINED. 1♂ (Holotype) (Bagheria (Palermo), in countryside at "Incorvino", ex egg of Rhopalid bug laid on *Inula viscosa;* October 2004, dr S. Blando); 1♂ (Paratype), head dissected, glued on the same pin, wings and antenna on slide.

REMARKS. Of *Telenomus inulae* Mineo it is not easy to establish its affinity, at least,

with the other species bred from Rhopalids and described in this note, mainly because of the course of its occipital carina and of the very poor material examined. I think it would therefore be better to collect further specimens for study.

Derivatio nominis. It refers to the plant on which the host eggs, from which the adult emerged, were laid.

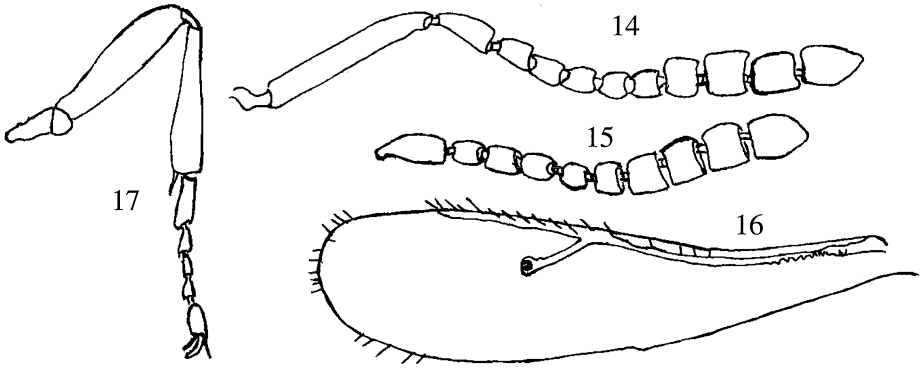
Telenomus minutus (Westwood, 1833)

Diagnosis. Brachypterous. Head rather round with vertex lacking tranverse keel; lateral ocellus rather distant from inner orbit of eye; scrobes deep and large, but central keel absent; inter-antennal process above the endpart of toruli internally diverging into two short arms in such a way that together they appear horse-shoe shaped, occipital carina complete; foramen magnum rather high on the occiput; post-occipital sulci almost complete; conjunction line obliterated; propodeal halves triangular in shape, abundantly surpassed above by the dorsellum; T2 longer than all remaining tergites together.

Description. *Female.* Length about 0.9 mm. Body brownish; antennal radicle, mandibles and legs yellow; fore-wing, approximately after the line of the basalis, slightly fumose.

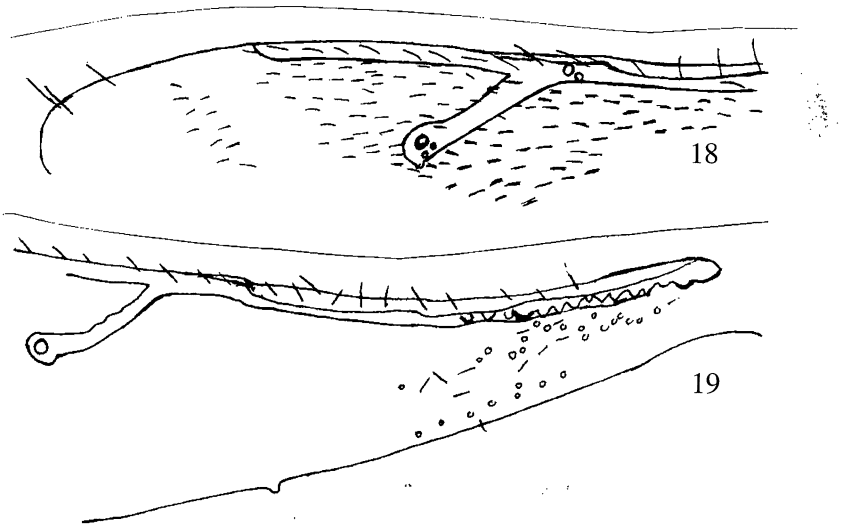
Length to width ratio of head as 10.5:13; *ms*= 3; *eh*= 6.5; *ios*= 7; length of scrobes less than that of scape (5:7); antennae see Figs 14, 15; mandible almost as long as pedicel; due to the inappropriate magnification of the stereomicroscope the number (2 or 3) of minute teeth was uncertain. Eyes glabrous; parascrobal area bulging, minutely reticulate sculpturing; frontal depression traversed by delicate compact and arched striae.

Mesosoma. Longer than wide (14:4); mesoscutum/scutellum/dorsellum length ratio as 7:2.5:1.3; scutellum half moon-like; dorsellum protruding medially; nucha



Figs 14-17 - *Telenomus minutus* (Westwood) (♀): right (14) and left (15) antenna; forewing (16); middle leg (17). (*Drawing from type*).

short, on its upper half five thin costulae are visible; mesoscutum-scutellar-metanotum furrows apparently without any visible pit (x160); rim of both parascutal sulcus and scutellum strongly sclerotized; metapleural carina little developed, whilst the acetabular one is absent.



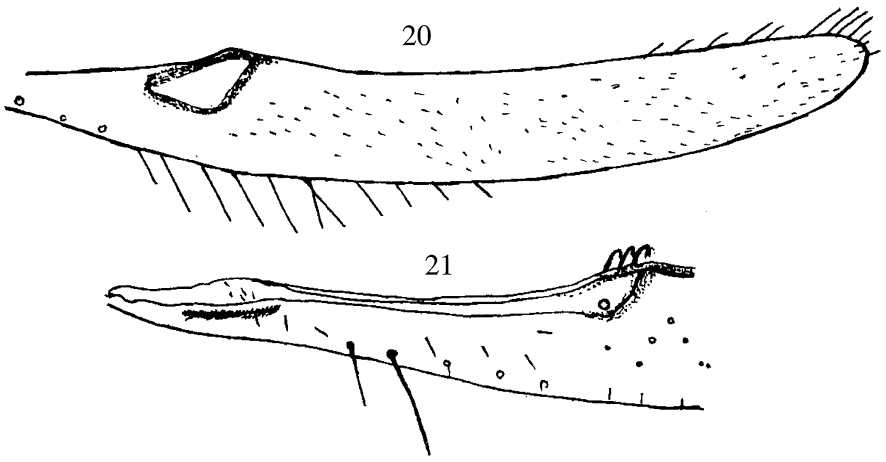
Figs 18-19 - *Telenomus minutus* (♀): details of forewing. (Drawing from type).

Metasoma. Length to width ratio of T1-T3 as 2:8; 13.5:13.6; 1.5:11.8; length of all the remaining tergites together 4.8. T1 longitudinally traversed by several costae that reach smooth and shiny apical margin; T2 at mesad of basal margin crossed by rather thick costae, whose length is about half that of those present on T1; the remaining surface is sculptured as follows: the approximate apical 2/12 is smooth and shiny, while on the rest, after the costae, there is an engraved reticulation made of rhomboedric meshes lengthened in the direction of the tergite, and in such a way that they are smaller and denser on the central sector, and until they reach about half the length of the tergite; they then become bigger, diminishing also in number at the centre of the tergite with a few elements, alutaceous; at the sides, however, such polygons gradually disappear after more or less 1/3 of tergite's length.

Male and *host.* Unknown.

REMARKS. *Telenomus minutus* has been dealt with by a few authors in the past, but in particular by Masner (1961), who also added other morphological characteristics to the original description. More recently Johnson (1984) proposed including it, albeit with some reservation, in his *floridanus*-group. In my opinion the author has mixed up several different species groups within that species group and, incidentally, I disagree with putting together *Telenomus floridanus* Asmead and *T. minutus*. The latter,

although in its brachypterous shape, might well be placed with *Telenomus dissolcus* Kozlov, *T. fodori* (Szelenyi), *T. tauricus* Kononova, *T. viggiani* Mineo etc., because of characteristics such as: frons sculpturing, course of occipital carina, ratio of venations on fore-wing, sculpture on T2; furthermore, since I could not compare *Telenomus brachypterus* Szabò & Mineo, 1978, I cannot establish if it is a likely synonym of *Telenomus minutus*.



Figs 20-21 - *Telenomus minutus* (♀): detail of hindwing. (Drawing from type).

Gryon nr. ***gnidum*** (Nixon)

MATERIAL EXAMINED. 1♀ (Santa Flavia, contrada "Bellacera", 9.VII.81, p. trap).
REMARKS. *Gryon gnidum* belongs to the *muscaeforme*-group s.l. *fulviventre*-subgroup. Several species are included in the latter, and distributed either around the Old World, or in the Australian region. The leader species, *Gryon fulviventre* (Crawford), is also present in the Mediterranean region, (Mineo & Szabò, 1978).

Owing to the availability of a single specimen I would avoid giving a definitive diagnosis. Nevertheless, it is worth recording because never has any species of the above-mentioned subgroup of *Gryon* Hal. been found in Italy before.

Rachelia robertae Mineo

MATERIAL EXAMINED. 1♀ (Santa Flavia (Palermo), sweeping net on *Pulicaria dysenterica* along "vallone Quarara", 20.VII.04 - Dr S. Blando).
REMARKS. This is the second specimen collected. It is more or less the same as type material except for tiny details such as the 2nd and 3rd tergites not being incised at the meson; it is not prudent to consider it as belonging to a new taxon.

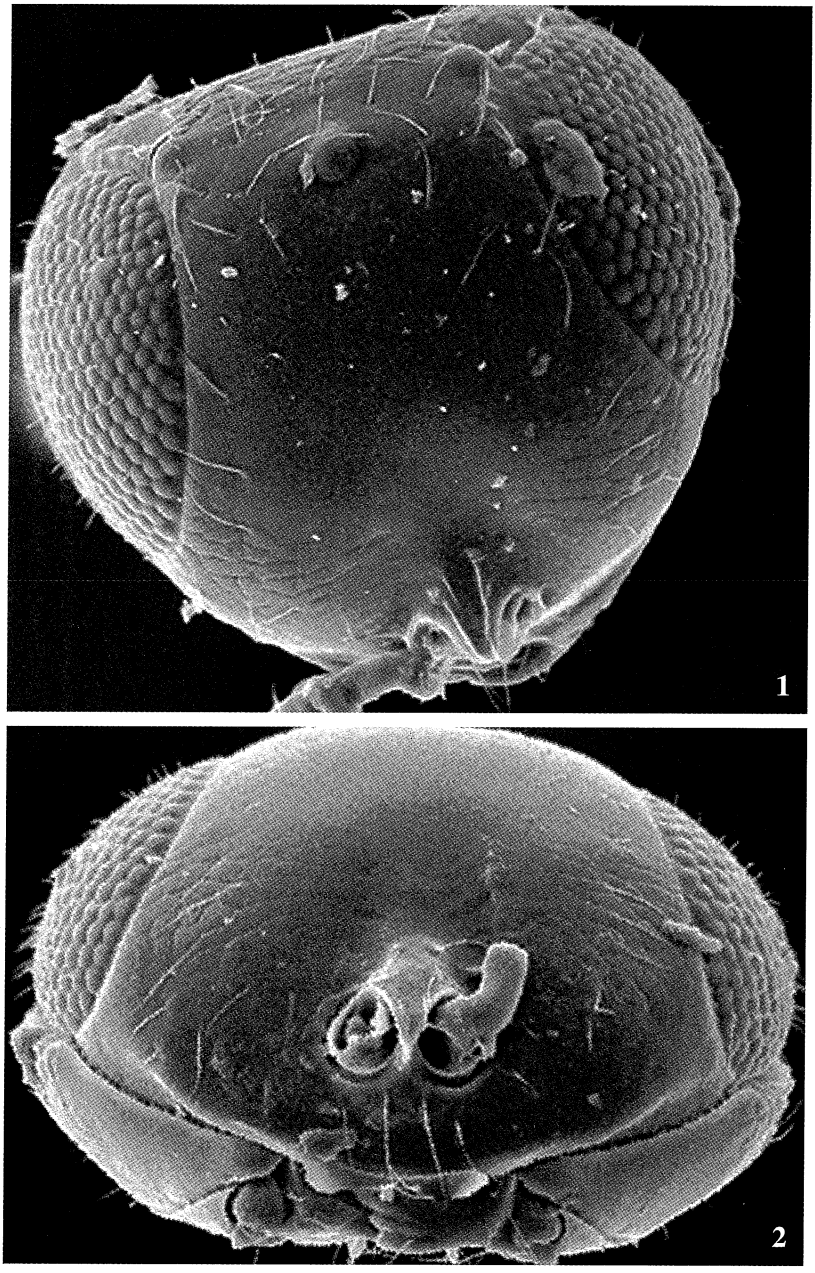


Plate I - *Telenomus foveatus* Mineo. Head of female in frontal (1) (x 526) and in front-lateral view (2) (x 508).

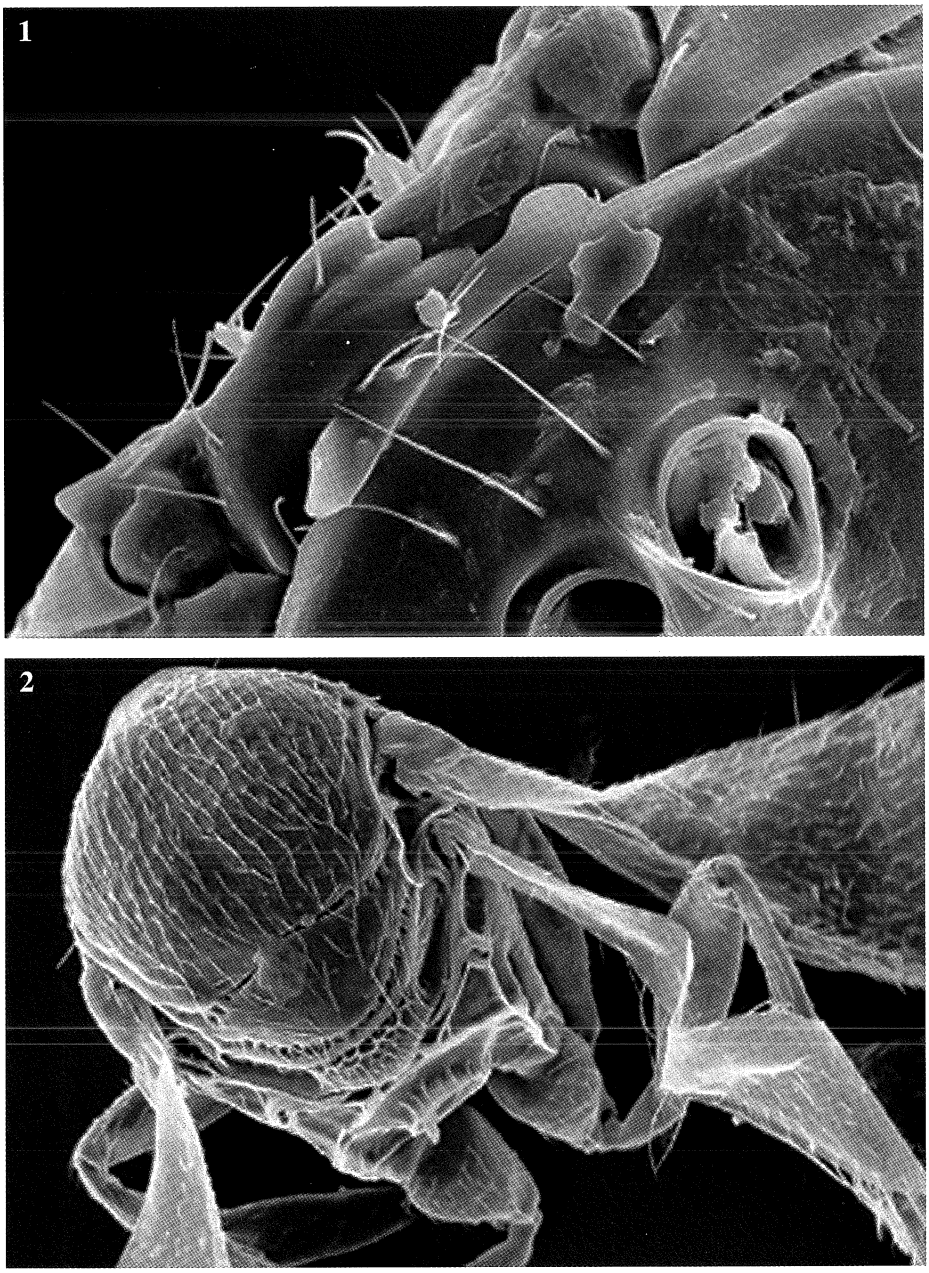


Plate II - *Telenomus foveatus* Mineo. Detail of the head to show the shape of clypeus, labrum and size of mandible (1) (x 1520); mesosoma from above (2) (x 344).

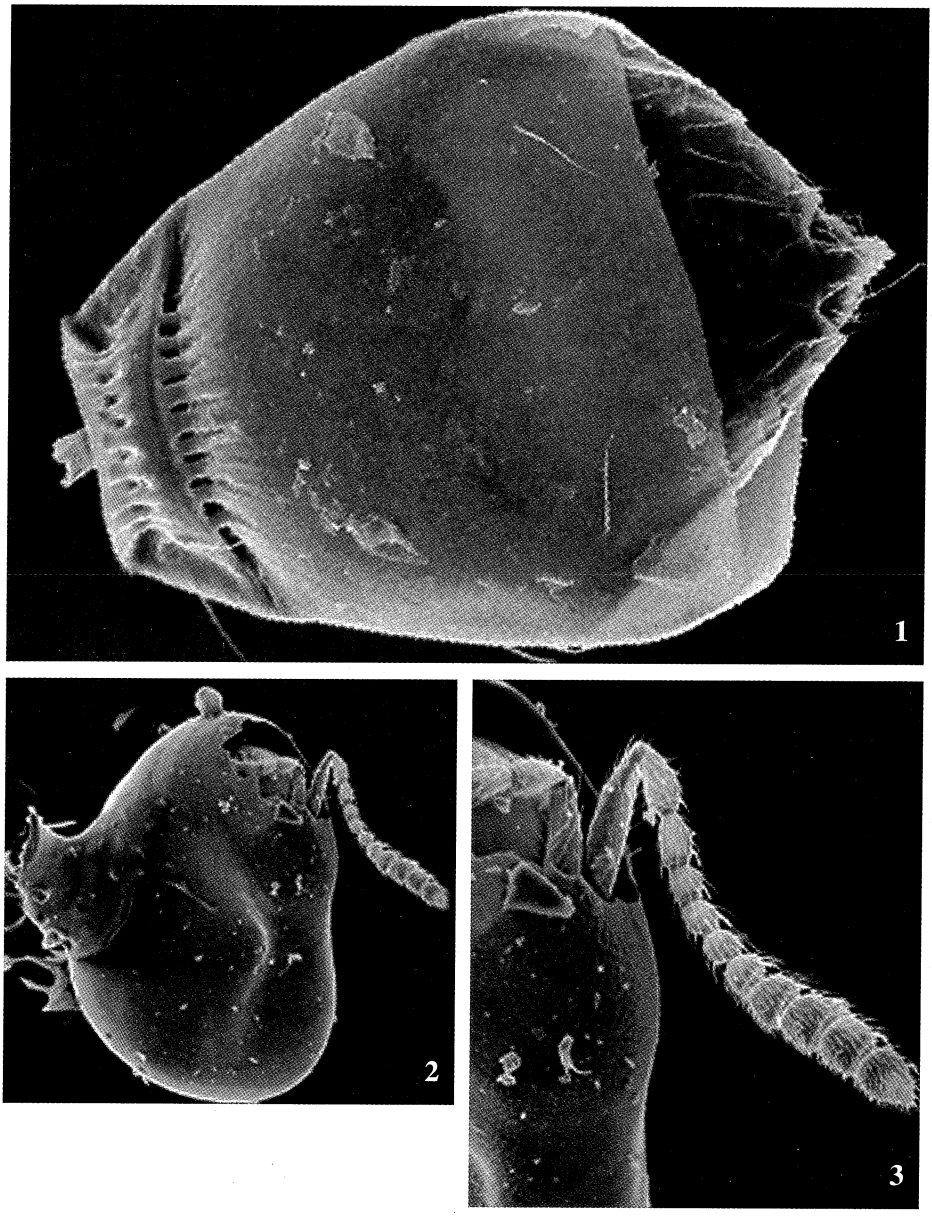


Plate III - *Telenomus foveatus* Mineo. Metasoma from above (1) (x368); female adult before emerging from the host chorion (2) (x 146); detail of sculpture of the host chorion (3) (x 423).

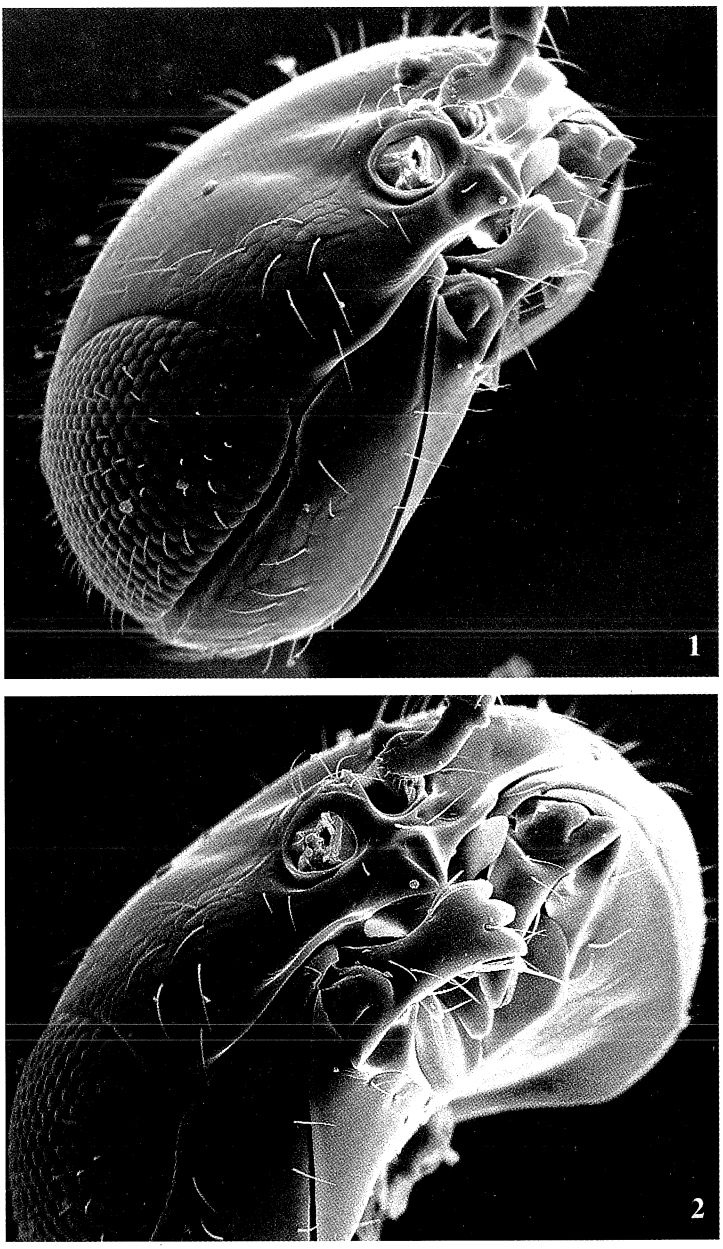


Plate IV - Head in fronto-ventral aspect of *Telenomus eleuterus* n. sp. (♀) at lower (1) (x 355) and higher (2) (x 484) magnification. Note the pointed clypeus and cone-shaped, dorsal depression along its middle, as well as the shape of mandible.

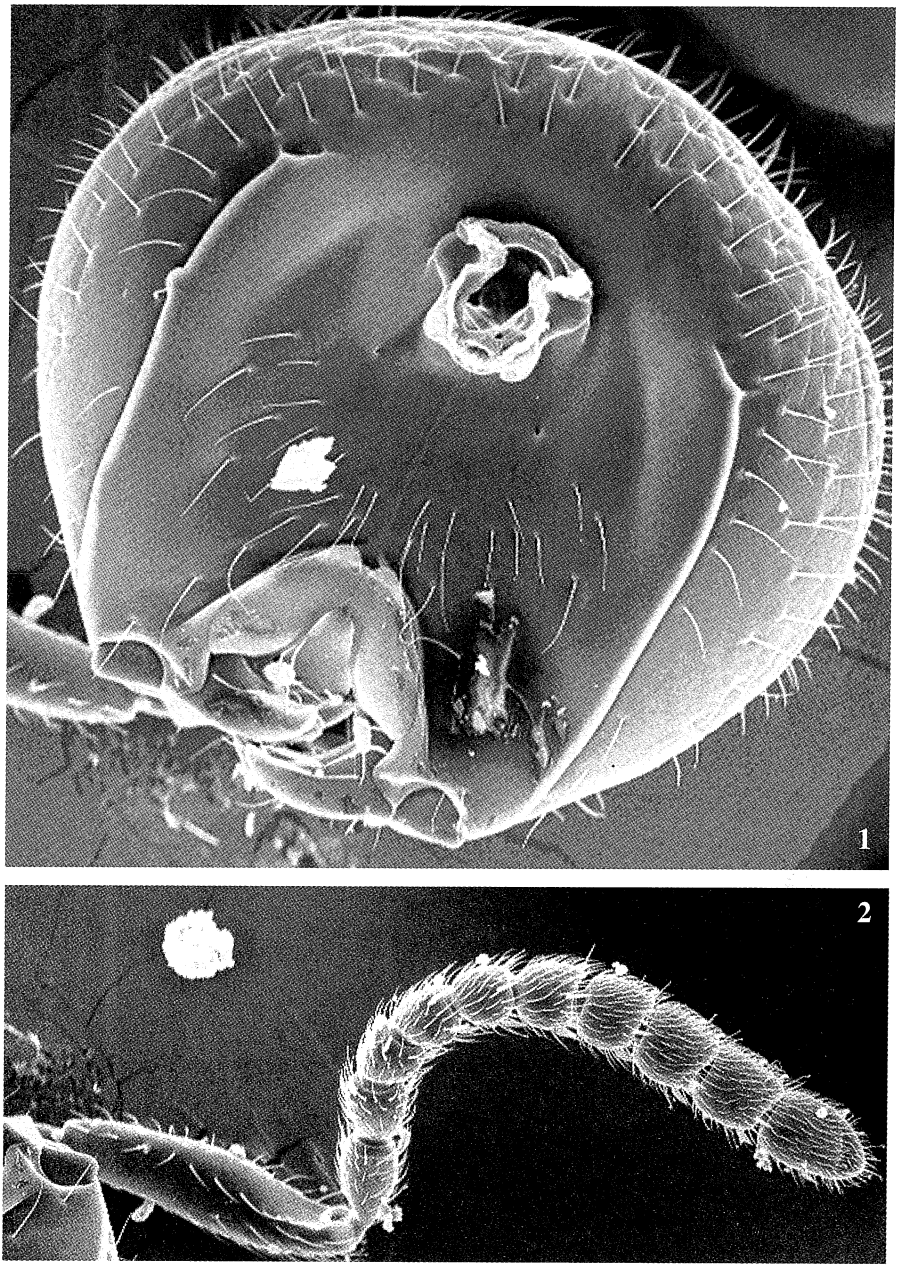


Plate V - *Telenomus eleuterus* n. sp. (♀). Back of the head (1) (x 322) and antenna (2) (x 284). Note the course of occipital carina, largely incomplete, and the almost obliterated conjunction line.

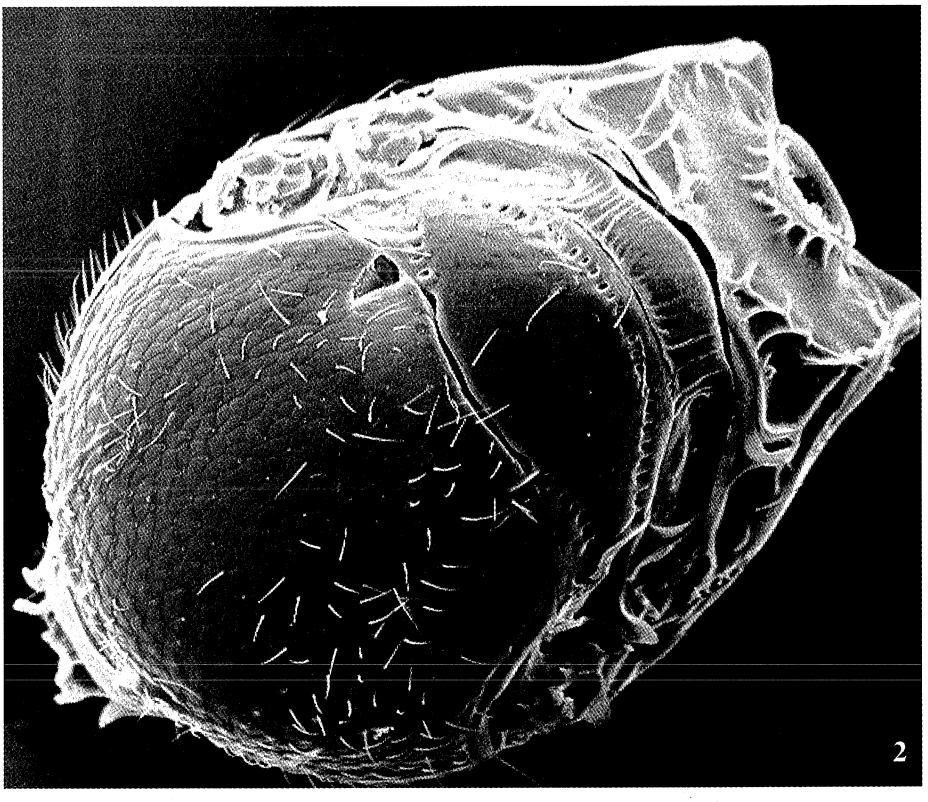


Plate VI - *Telenomus eleuterus* n. sp. Male antenna (1) (x 198) and female mesosoma (2) viewed in dorsal aspect (x 248).

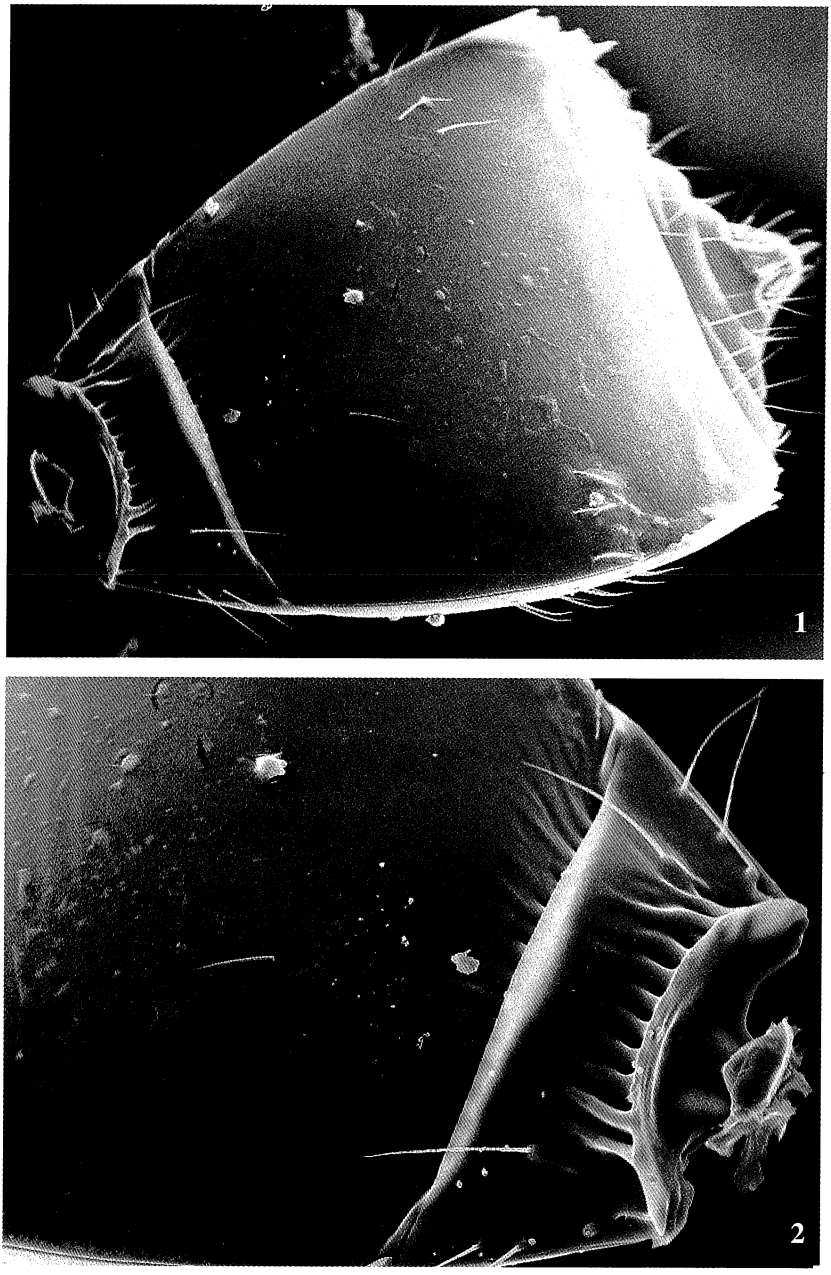


Plate VII - *Telenomus eleuterus* n. sp. (♀). Female metasoma (1) (x 339) and detail of the same (2) at higher magnification (x 637).

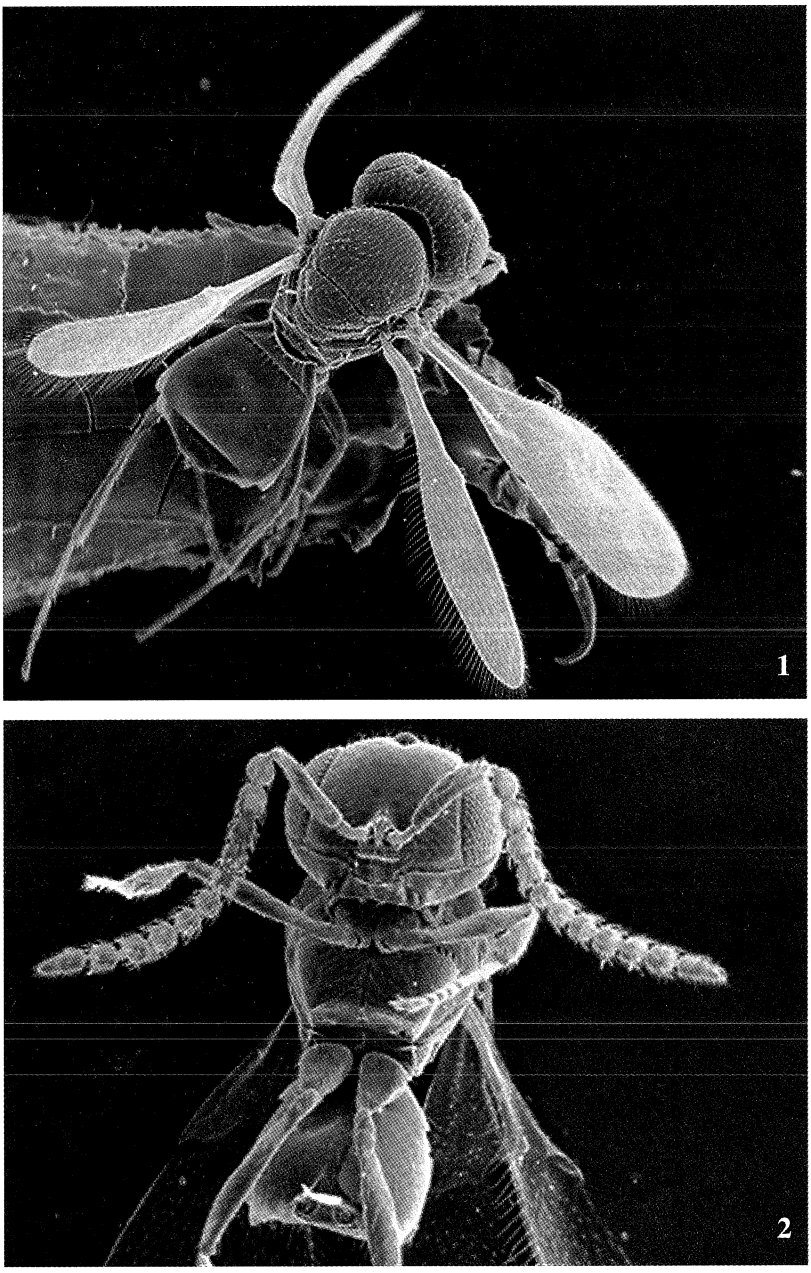


Plate VIII - *Telenomus liorhyssi* Mineo. Male from above (1) (x 98) and in ventral view (2) (x 193).

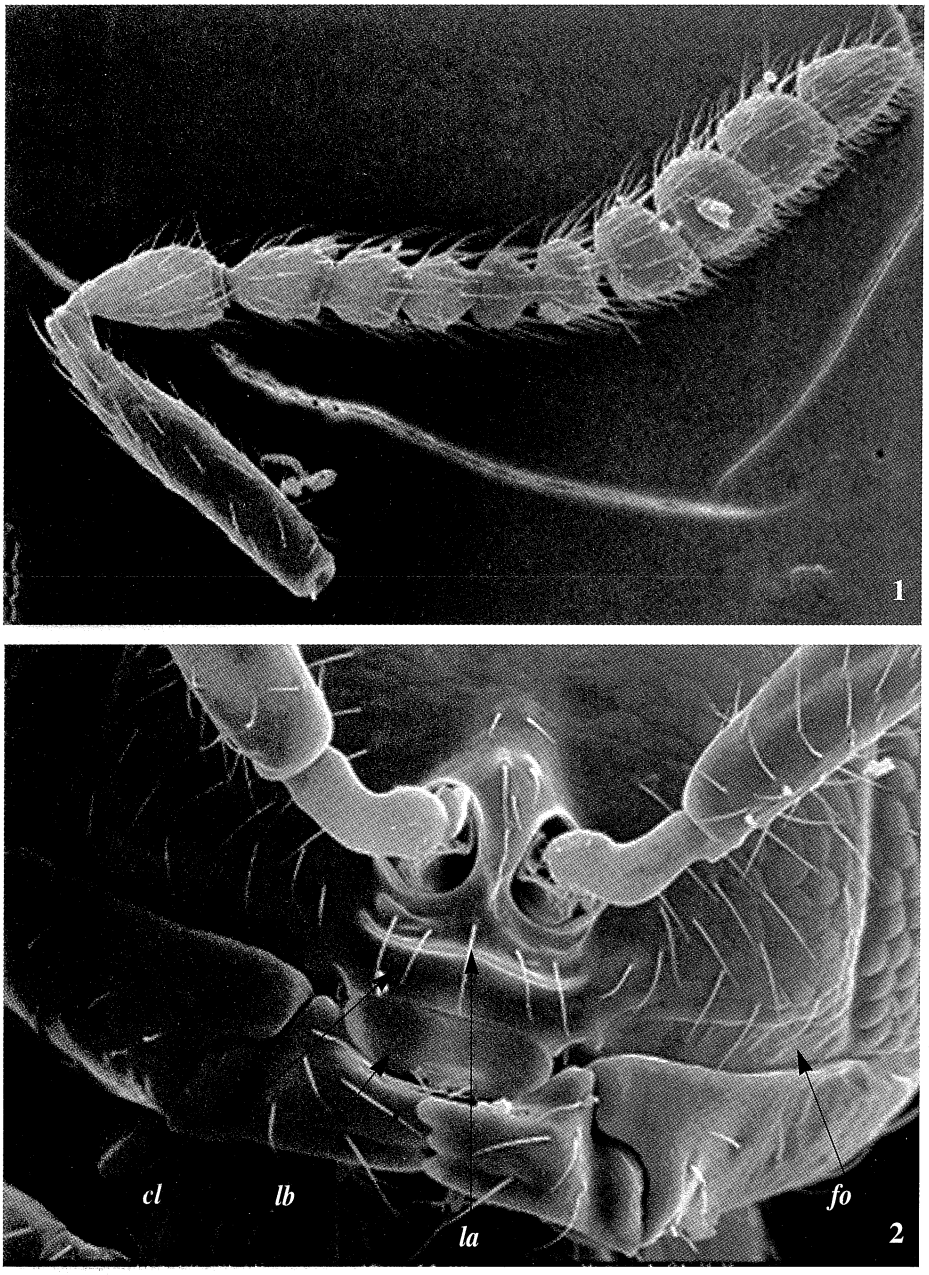


Plate IX - *Telenomus liorhyssi* Mineo. Female antenna (1) (x 373); detail of head (2); *cl* = clypeus; *lb* = labrum; *la* = clypeal lamella; *fo* = fovea.

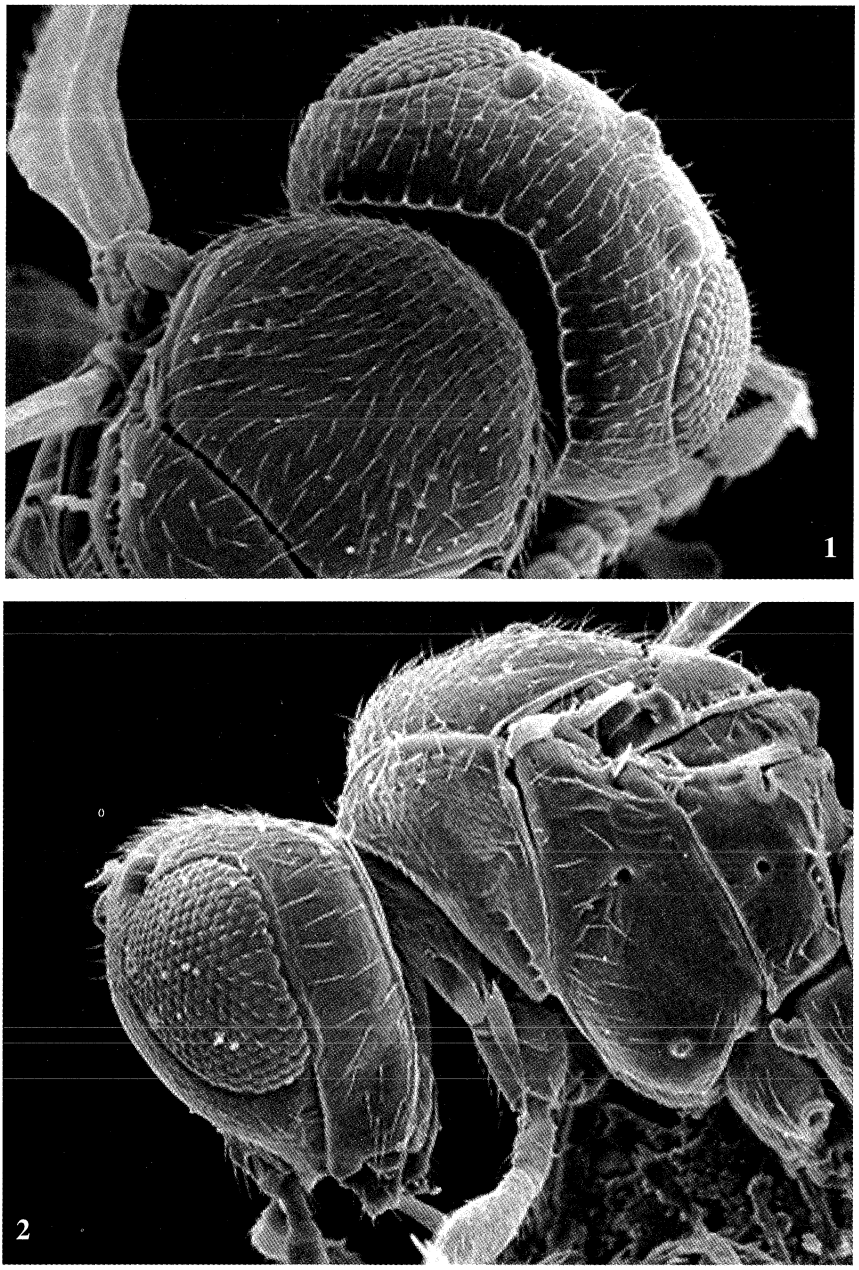


Plate X - *Telenomus liorhyssi* Mineo. Head and metasoma in dorsal (1) (x 383) and in lateral view (2) (x 270).

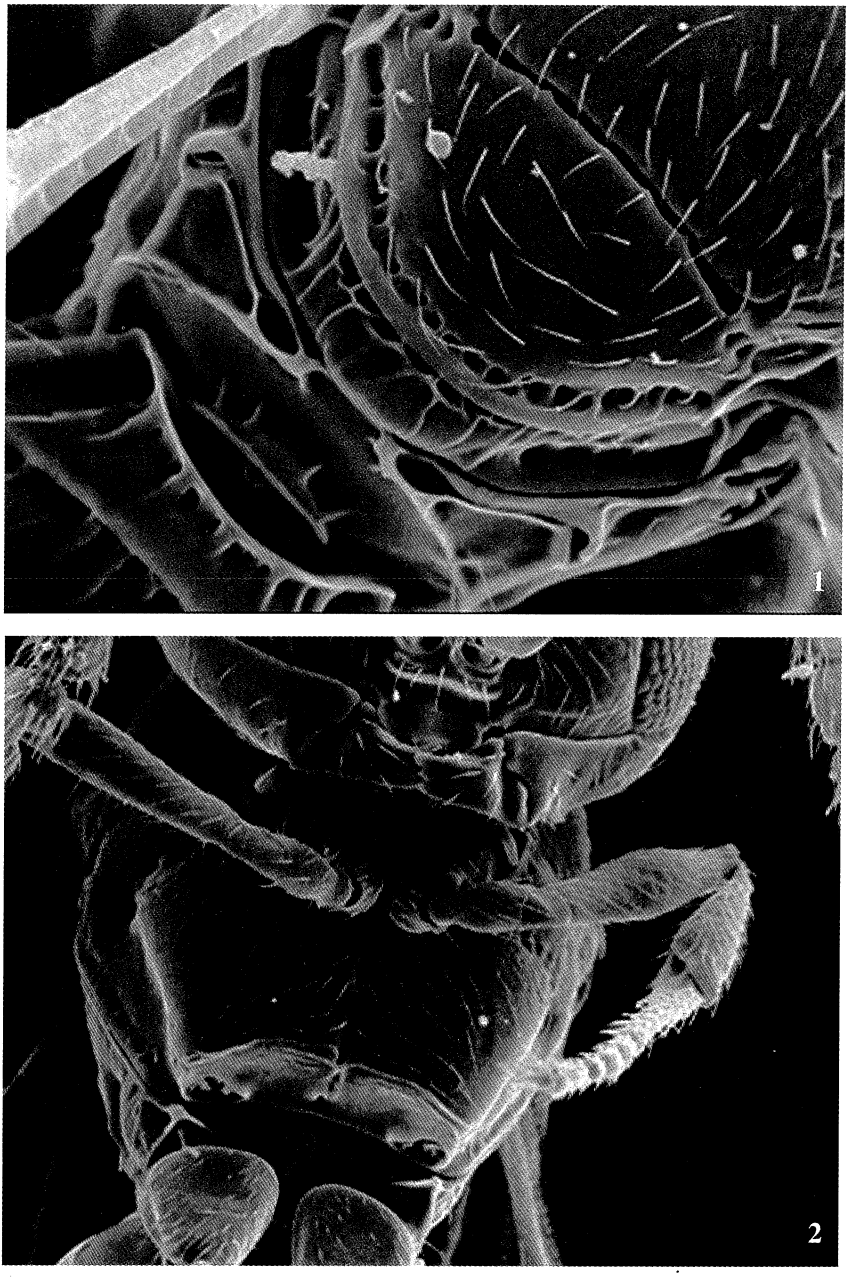


Plate XI - *Telenomus liorhyssi* Mineo. Detail of mesosoma in dorsal view (1) (x 784); details of head and mesosoma in ventral view (2) (x 518).

Plate XII - *Telenomus liorhyssi* Mineo. Mesosoma and metasoma in dorsal view (1) (x 299); background sculpture of the host chorion (2).

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