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A NEW SPECIES OF *CHASMODON* HALIDAY (HYMENOPTERA, BRACONIDAE, ALYSIINAE)

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With 14 text-figures

During an acarological study of brackish habitats in the Netherlands, a wingless species of *Chasmodon* was discovered. Because of the intermediate shape of the notauli it was not possible to identify it with the key of Hedqvist (1962), and therefore I propose another key for the wingless and brachypterous specimens of Alysiinae. The new species is compared with *C. apterus* (Nees von Esenbeck, 1812), which is the only other species of the genus.

Key to the genera of wingless and brachypterous Alysiinae

1. Scutellum indistinct, strong constriction in middle of mesosoma; second abdominal tergite petiolate. (Mediterranean; 4 spp.) *Pseudopezomachus* Mantero, 1905
- Scutellum distinct, constriction wanting; second tergite may be slender, but not distinctly petiolate 2
2. Mandibles with 7 teeth; mesosoma strongly scrobiculate dorsad; length of temples 2.7 times compound eye (dorsal aspect). (N. Europe; 1 sp.) *Lodbrokia* Hedqvist, 1962
- Mandibles with 3 teeth, mesosoma almost smooth dorsad; length of temples equal to length of eye or less (dorsal aspect) 3
3. Third antennal segment distinctly longer than fourth; pterostigma large, elliptical; second cubital cell triangular; between notauli a medial, longitudinal, suture; hind coxa finely sculptured. (Europe; 1 sp.) Males of *Alloea* Haliday, 1833 (p.p.)
- Third antennal segment shorter than fourth; pterostigma (if present) smaller and triangular; second cubital cell wanting; medial suture wanting; hind coxa smooth 4
4. Both anterior and posterior lateral carinae of scutellum present; fore wing long and narrow, cells wanting; length of second abdominal tergite 1.3 times its apical width. (England; 1 sp.) *Atopandrium* Graham, 1952 (The only species, *A. loripenne* Graham, 1952, is only known in the male sex and is relatively closely related to *Chasmodon*).

- Lateral carinae of scutellum wanting, at most remains anteriorly; wings absent, if present, then wings short and wide, with three cells and length of second abdominal tergite more than 1.5 times its apical width 5
5. Second abdominal tergite slender, more than 1.5 times its apical width; fore wing with distinct pterostigma; only in female sex brachypterous. (Europe; 1 sp.)
Aspilota (Panerema) Foerster.
- Second tergite stout, scarcely longer, or shorter, than its apical width; fore wing reduced to a stub, without pterostigma; both sexes wingless. (Europe, 2 spp.)
Chasmodon Haliday, 1838.

Key to the species of *Chasmodon* Haliday

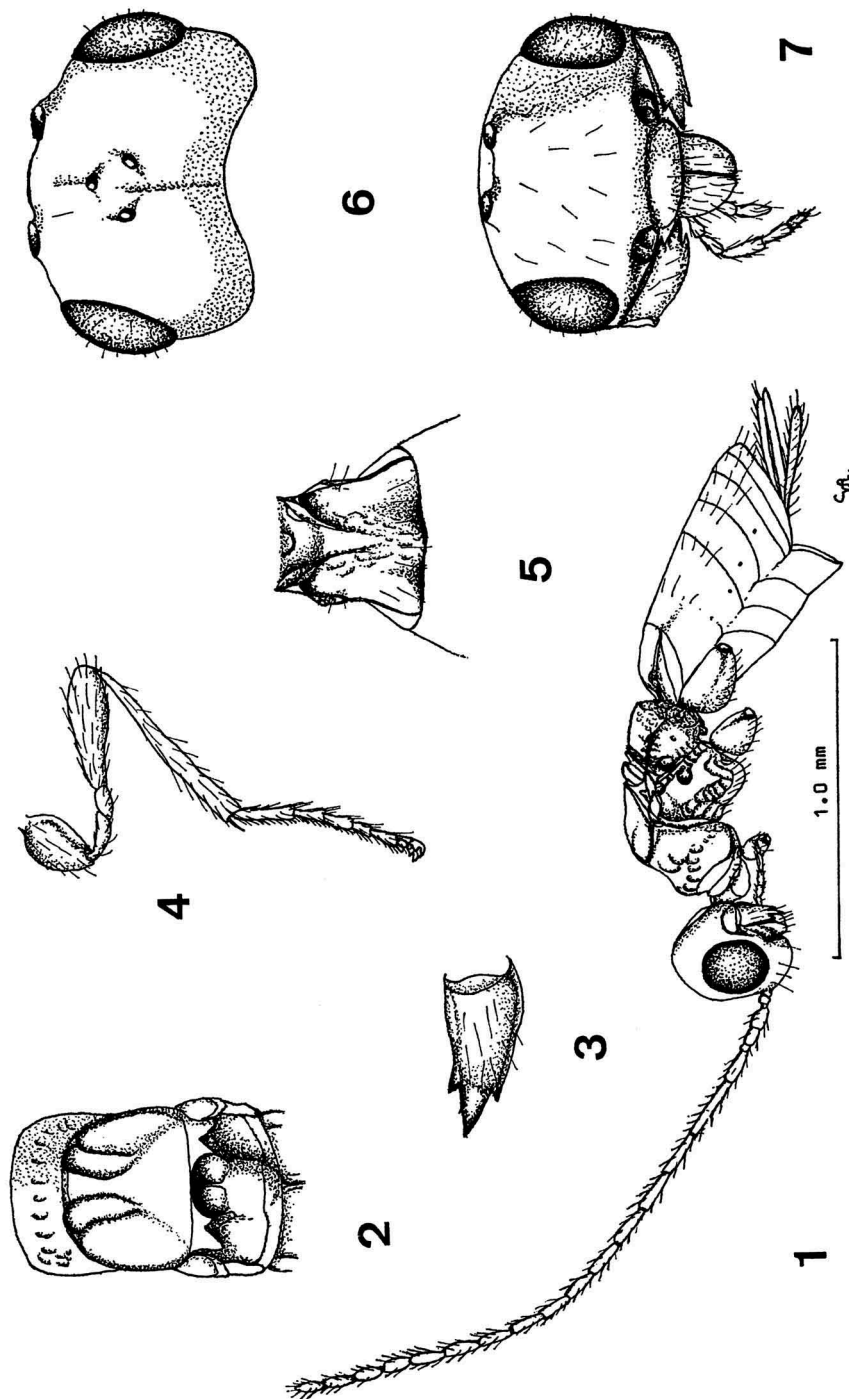
1. Scutellum (in lateral aspect) scarcely protruding as notaulic carinae (fig. 1); surface in front of scutellar suture flat; mesoscutum without median triangular carinated area; mandible without carina from third tooth, lateral teeth relatively small (fig. 3); maximum dorsal width of head 2.1 times width of mesoscutum; combined length of thorax and propodeum 1.3 times the maximum height of thorax; length of second tergite of female 0.9 times apical width; antenna of female with 18 segments; length of body about 1.9 mm *acares* spec. nov.
- Scutellum (in lateral aspect) strongly protruding as notaulic carinae (fig. 8); surface in front of scutellar suture usually with distinct oval depression; mesoscutum usually with median, triangular, carinated area (fig. 14); carina of third tooth distinct apically, lateral teeth relatively large (fig. 9); maximum dorsal width of head 2.3 times width of mesoscutum; combined length of thorax and propodeum 1.5 times as long as maximum height of thorax; length of second tergite of female equal to apical width; antenna with 20-22 segments; length of body about 2.6 mm *apterus* (Nees von Esenbeck, 1812).

***Chasmodon acares* spec. nov. (figs. 1-7)**

Description of holotype ♀. Length of body (without ovipositor) 1.9 mm, fore wing only present as a stub.

Head. — Antenna consisting of 18 segments, third segment and annellus 0.7 times as long as fourth segment, length of third and fourth segments 3.3 and 5.0 times their maximum width, respectively; scapus smooth and shiny as pedicel, the pedicel being relatively large; penultimate segments longer than wide, not tapering apicad; palpi short, rather stout.

Compound eye with some setae, medium-sized; dorsal length of compound eye 1.5 times length of temple (fig. 6); temple smooth and shiny. Head very shiny, with sparse setae. Ocelli small, scarcely protruding; POL: Ø ocellus: OOL = 6 : 3 : 15. Sutures present before and behind front ocellus; frons smooth, convex; vertex smooth and distinctly convex; occipital carina wanting. Face strongly and evenly convex, smooth and shiny; anterior antennal pits large and deep; clypeus convex, smooth, apical margin almost straight medially; clypeal suture deep and sculptured; labrum not projecting; medial length of mandible 2.1 times basal width, medial tooth long, lateral teeth relatively small, surface almost smooth and shiny (fig. 3). Dorsal maximum width of head 2.1 times width of mesoscutum.



Figs. 1-7. *Chasmodon acarus* spec. nov., ♀, holotype. 1, habitus, lateral aspect; 2, thorax, dorsal aspect; 3, left mandible, frontal aspect; 4, left hind leg, lateral aspect; 5, second abdominal tergite, dorsal aspect; 6, head, dorsal aspect; 7, head, frontal aspect. 2, 3, 5-7, X 87; 1 and 4, as indicated.

Thorax. — Combined length of thorax and propodeum 1.3 times maximum height of thorax. Dorsal half of sides of pronotum strongly rugose anteriorly, smooth and shiny posteriorly as in the ventral half. Prepectal carina indistinct, postpectal carina very fine, almost complete; dorsal part of epicnemial suture depressed but smooth, ventral part strongly reticulate; precoxal suture wide, strongly crenulate in middle, anteriorly connected with crenulated part of epicnemial suture (fig. 1); pleural suture narrow, only ventral half distinctly crenulate; episternal scrobe large, round and deep; above middle coxa a small metapleural flange, metapleura smooth and shiny, except for lateral rugosity. Only basal half of notauli present, smooth and shiny, wide, in lateral aspect not distinctly protruding; mesoscutum slightly convex, almost flat and bare, with strong lateral carina; scutellar suture deep and long, with a strong medial, longitudinal, carina; scutellum convex, smooth and shiny, lateral carina absent, sides of scutellum smooth.

Legs. — Hind leg smooth and very shiny, long and remotely setose; tarsus with ventral row of shorter setae (less densely as in *apterus*); tarsal claws stout, with short basal lobe. Femur, tibia and basitarsus of hind leg 3.1, 8.3 and 3.5 times as long as their maximum width, respectively.

Abdomen. — Dorsal surface of propodeum with fine medial carina, anteriorly smooth and shiny, dorsal surface posteriorly and posterior surface rugulose; propodeal spiracle small and flat.

Length of second tergite 0.9 times its apical width, moderately convex, spiracles small, slightly protruding; dorsal carinae distinct in basal half only, converging; surface almost smooth and shiny, except for some medial rugulosity; laterope large and deep, as is the dorsope, forming a diplope (fig. 5). Remaining of abdomen smooth and shiny; ovipositor stout, straight; ovipositor sheath slightly widening apicad, with some long setae; length of ovipositor sheath 1.3 times hind femur. Tergites of gaster with posterior row of setae; segments without sharp lateral fold.

Colour. — Head, mesopleuron, mesosternum, propodeum and gaster (from 0.2 of third tergite), brown; mesoscutum, pronotum, antenna, palpi, legs and second tergite, yellowish brown.

Ecological data. — Captured in *Artemisietum maritimae*, in a brackish habitat.

Holotype in the author's collection, to be deposited in the Leiden Museum. Locality label reading as follows: "Balgzand (N-H), S. E. of Den Helder, B 15, brackish, 18.vii.1973, from *Artemisietum maritimae*, P. Polderman".

Chasmodon apterus (Nees von Esenbeck, 1812) (figs. 8-14)

Shenefelt (1974:983) gave a list of pertinent literature.

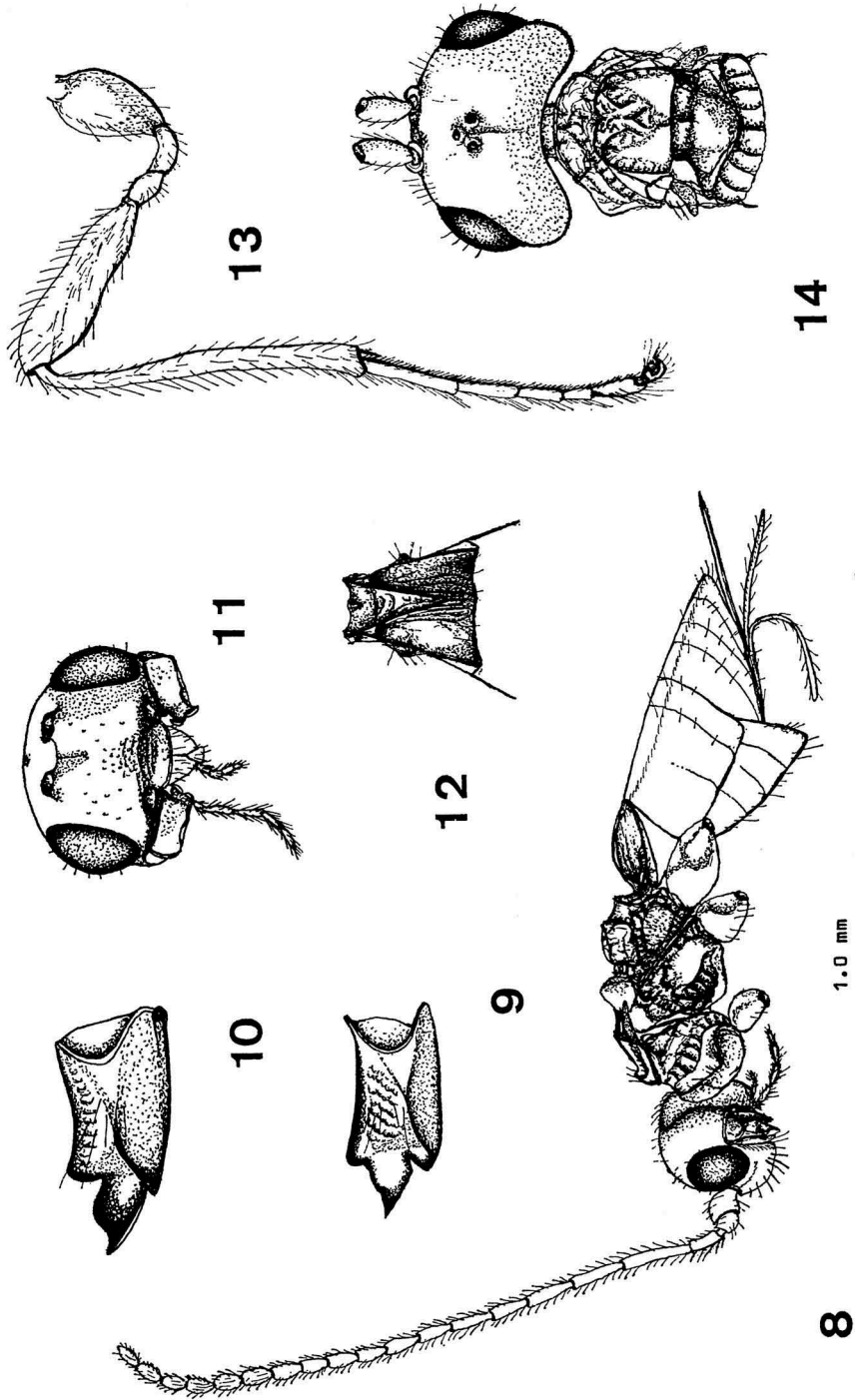
Description of ♀. Length of body 2.6 mm, fore wing only present as a stub.

Head. — Antenna consisting of 20 segments, third segment 0.5 times as long as fourth, length of third and fourth segments 2.8 and 5.2 times their maximum width, respectively; scapus smooth and shiny as pedicel, which is relatively short and stout; penultimate segments longer than wide, scarcely tapering apicad; palpi short, rather slender.

Compound eye with sparse, long setae; dorsal length of compound eye 1.7 times length of temple; temple convex, smooth and shiny. Head very shiny, with sparse, whitish setae. Ocelli small, scarcely protruding; POL: Ø ocellus : OOL = 4 : 2 : 11. A longitudinal suture occurring behind front ocellus; frons smooth and shiny, slightly depressed in middle; vertex slightly narrowed and evenly rounded apicad; occipital carina wanting. Face smooth, very shiny and convex, medially slightly flattened and superficially puncto-rugose, just below bases of antennae a superficial suture, remotely punctulate by the insertion of long, whitish, setae; anterior antennal pits deep, large and oval; clypeus almost smooth and shiny, except for the dorsal third, which is as rugose as the area above it, apical margin sharp; labrum not projecting. Mandibles with three teeth, medial tooth sharp, both lateral teeth more or less blunt, distinct carina from third tooth, medio-dorsal area superficially rugose (fig. 9). Dorsal maximum width of head 2.3 times width of mesoscutum.

Thorax. — Combined length of thorax and propodeum 1.5 times maximum height of thorax. Sides of pronotum with a wide crenulate furrow apicad, besides this, smooth and shiny. Prepectal carina only present laterally; postpectal carina present; dorsal part of epicnemial suture superficially crenulate, ventral part strongly crenulate; precoxal suture wide, narrowed apicad, remotely crenulate; episternal scrobe small, round and deep, almost in middle of mesopleuron; above middle coxa a small metapleural flange, metapleuron punctulate. Notauli combine anteriorly, smooth, with very strong lateral carina, except for apical quarter, distinctly protruding in lateral aspect (fig. 8), in middle separated by a carinated triangular area, posterior corners open (fig. 14); mesoscutum slightly convex, lateral carina strong and dorsal side crenulate, before scutellar suture a distinct oval, depression; scutellar suture wide and long, with one strong longitudinal carina, scutellum very strongly convex, smooth, lateral carina wanting, sides of scutellum smooth and shiny.

Legs. — Hind leg with long, whitish, setae; femur and tibia of hind leg



Figs. 8-14. *Chasmodon apterus* (Nees), ♀. 8, habitus, lateral aspect; 9, head, frontal aspect; 10, same, but with full sight on first tooth; 11, head, frontal aspect; 12, second abdominal tergite, dorsal aspect; 13, right hind leg, lateral aspect; 14, head and thorax, dorsal aspect. 9, 10, X 87; 11-14, X 42; 8, as indicated.

with microsculpture, moderately shiny; hind femur with distinct medial constriction; tarsus with dense ventral row of white, short, setae; tarsal claws simple and stout, with indistinct basal lobe. Femur, tibia and basitarsus of hind leg 3.6, 9.5 and 5.0 times as long as their maximum width, respectively.

Abdomen. — Dorsal surface of propodeum strongly and remotely rugose, lateral parts relatively superficially rugose, posterior surface with strong longitudinal carinae; propodeal spiracle small and flat; posteriorly propodeal carinae forming a tubercle-like, sharp, lamella.

Length of second tergite equal to apical width, medially very convex; spiracles small and distinctly protruding; dorsal carinae strong and complete, combined in apical third, enclosing a slightly depressed triangular area; surface smooth and shiny, except for six longitudinal weak carinae and some microsculpture medially; laterope large and deep as dorsope, forming a distinct diplope; abdomen after second tergite smooth and shiny; segments with an apical row of whitish, long, setae. Ovipositor straight; ovipositor sheath of equal width; length of ovipositor sheath 1.3 times hind femur; gaster without sharp lateral folds.

Colour. — Reddish yellow; head, apex of segments of antenna, thorax (except for pro- and mesonotum), propodeum and abdomen from fourth tergite onwards, brownish; palpi, whitish.

Ecological data. — Especially found in more or less moist habitats, during June and July in the Netherlands.

Redescription after a ♀ from the Netherlands, Waarder, 18-30.vi.1972, in my collection, captured in a Malaise-trap.

Male. — Essentially alike, but the male I have seen from Meijndel (dunes near The Hague, 9.vi.1973) possesses 22 antennal segments and the length of the second abdominal tergite is 1.4 times its apical width. However, the female from the same locality and date agrees in these aspects with the female from Waarder redescribed above.

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