

Notes on *Bryobia pelerentsi* (Acari: Tetranychidae)

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Abstract: The male and nymphal stages of *Bryobia pelerentsi* are described for the first time; the description of the female is corrected.

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Introduction

The large genus *Bryobia* includes several species groups. One of these, the *berlesei* group Van Eindhoven, 1957, is mainly characterized by the fact that in the series of four to five setae on tubercles that form the usual dorsal inner row of setae on femur I, three or four setae are notably longer than in other species groups. Moreover, all species of this group have a usually distinct receptaculum seminis, which in some species attains a considerable size. Because of this ubiquitous, distinct, receptaculum we presume that males are present in all species, contrary to several other species groups.

The relatively rare males have been described in *Bryobia ulicis* Van Eindhoven, 1959, *vandaelei* Vacante, 1983, *pyrenaica* Van Eindhoven & Vacante, 1985 and *B. cavalloroi* Vacante & Van Eindhoven, 1988. Juvenile stages have been described of *B. berlesei* Van Eindhoven, 1957, *cooremani*, *dekocki*, *dikmenensis*, *pandayi*, *provincialis*, *pyrenaica* (all Van Eindhoven & Vacante, 1985), *ulicis*, *vandaelei*, and *cavalloroi*.

So far, 14 species have been described within the *berlesei* group (Van Eindhoven & Vacante, 1985; Vacante & Van Eindhoven, 1988). As far as we have been able to ascertain all species are monophagous; all foodplants belong to the tribe Genisteae (Leguminosae).

The second author collected nymphs and

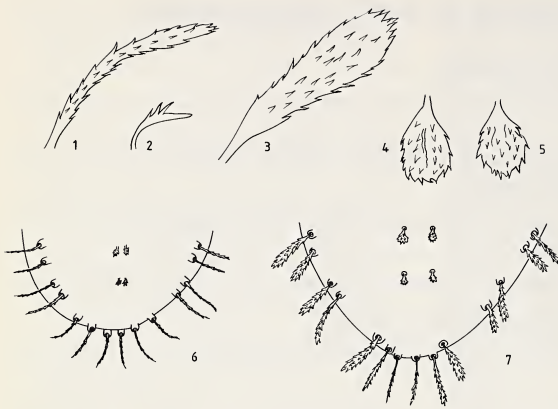
adults of both sexes of *B. pelerentsi* on the island of Sardinia in May 1986 (Argius (OR), S. M. Pula (Cagliari) and Domus de Maria (Cagliari)). The material was found on *Calicotome villosa* (Poiret) Link., the same foodplant from which the species was discovered originally in Yugoslavia. The hitherto unknown nymphs and male are described below.

The following abbreviations are used: C: setae clunales, DC₁₋₃: setae dorsales I-III, P₁₋₂: setae of the propodosoma, Se: setae sacrales exteriores, Si: setae sacrales interiores.

Bryobia pelerentsi Van Eindhoven & Vacante, 1985

Protonymph (figs. 1-6)

Length 280 μ , width 180 μ . Propodosomal exterior lobes lower than interior lobes, with long, narrow seta, 30 \times 3 μ . Interior lobes with short, widened seta with some long teeth, rather broad and mammilliform. Dorsal setae on very low tubercles, I very long, 36 \times 8 μ , II 16 \times 8 μ , III 12 \times 6 μ . Marginal and terminal setae on strong tubercles, long, narrow and pectinate, 45-50 μ . Leg I 140 μ , femur I with 1 long seta of 24 μ , leg II 85 μ , leg III 105 μ , leg IV 85 μ . Palptarsus about 1.5 times as long as claw, 12 μ .



Figs. 1-7. *Bryobia pelearnisi* Van Eyndhoven & Vacante, nymphal stages. 1-6 protonymph. 1, seta of the exterior frontal lobe; 2, seta of the interior frontal lobe; 3-5, first, second and third dorsocentral seta; 6, dorsal aspect of opisthosoma; 7, deutonymph, dorsal aspect of opisthosoma.

Deutonymph (fig. 7)

Length \pm 460 μ , width 250-280 μ . Propodosomal exterior lobes much lower than interior lobes, with long, rather broad seta, 30 \times 8 μ . Interior lobes mammilliform with a widened seta with some long teeth about as in protonymph, 15 \times 5 μ . Dorsal setae all short and wide, on very low tubercles, I 28 \times 20 μ , II 17 \times 13 μ , III 12 \times 9 μ . Marginal setae and exterior sacrales 35-45 \times 10 μ , interior sacrales 50 \times 5 μ , clunales very narrow, 55 \times 3 μ , all on strong tubercles. Leg I 240 μ , femur I with 2 long setae of 40 μ , leg II 140 μ , leg III 165 μ , leg IV 175 μ . Palptarsus about 1.5 times as long as claw, 25 μ .

Female

There are four long hairs on femur I, in accordance with the other species of the *berlesei* group. The original description erroneously mentioned three setae, caused by the poor state of the type material.

Male (figs. 8-19)

Living animal with central area of idiosoma and legs orange, numerous brown-greenish spots along border of idiosoma.

Idiosoma pyriform (fig. 8). Cuticular striae

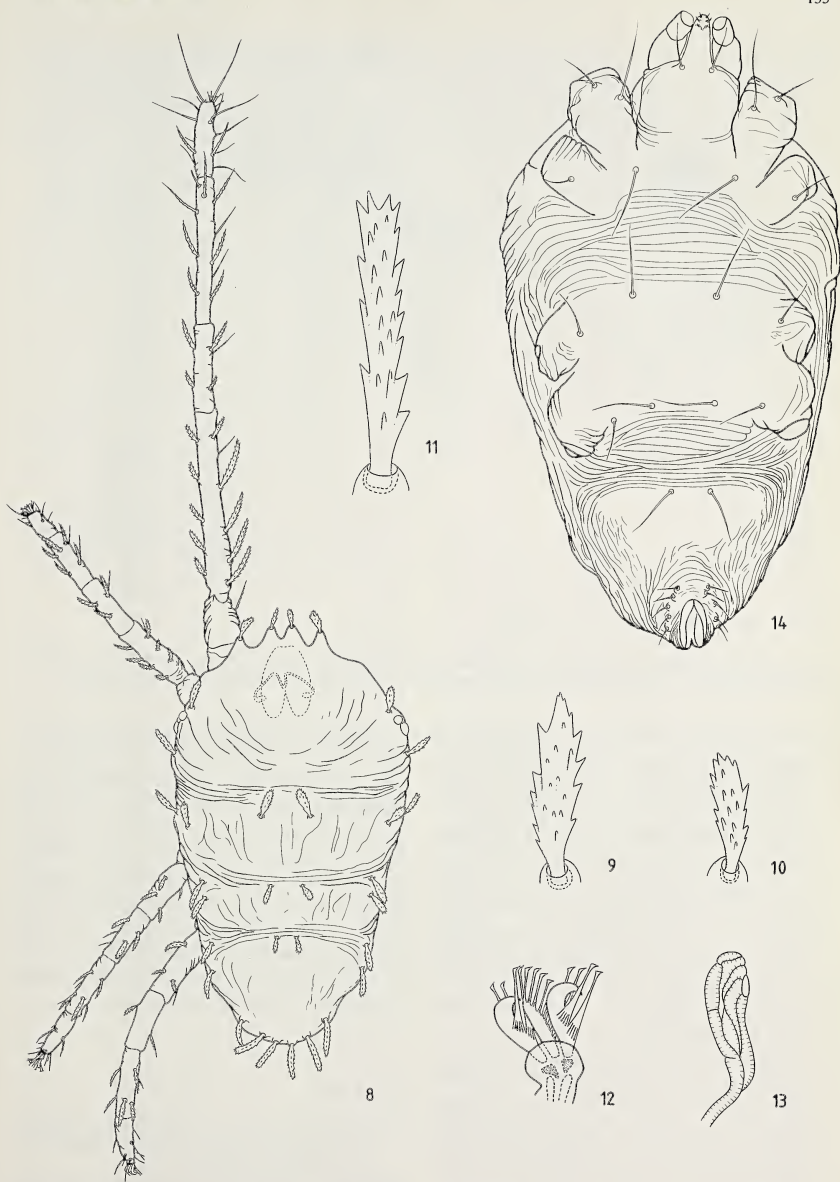
as in the female of *Bryobia aetnensis* Vacante, 1983. Surface of body with numerous granulations (not indicated in fig. 8). Propodosomal lobes subtriangular, exterior ones lower than interior ones. An imaginary line connecting the tops of the setae of the exterior lobes passes through the setae of the interior lobes.

Dorsally there are 16 pairs of setae, all spatulate, pectinate (figs. 9-11), on small tubercles; 4 pairs belong to propodosoma and 12 to hysterosoma. Clunal and sacral setae of about the same size and somewhat longer than other dorsal setae. First dorsocentral setae distinctly larger than 2nd and 3rd dorsocentrals.

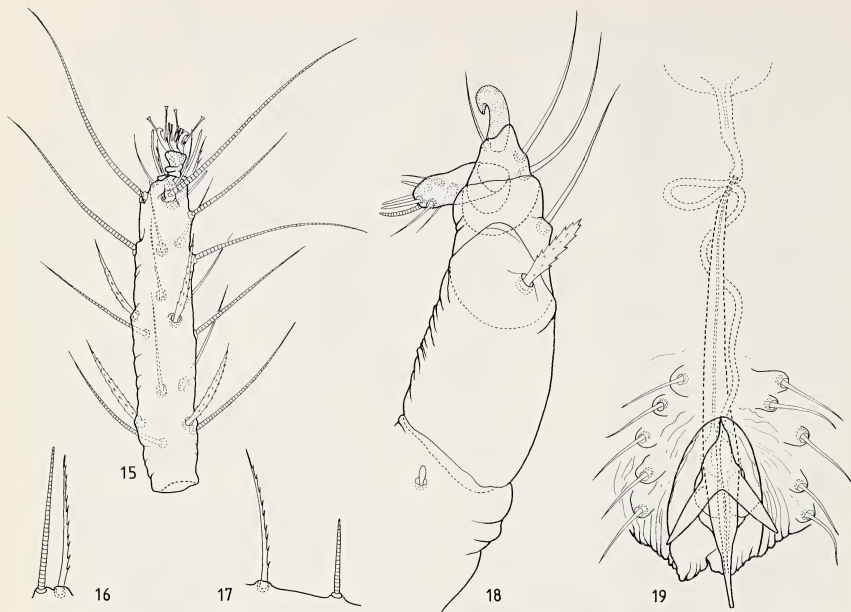
Ventral chaetotaxy and ano-genital area as in all other species of the genus. Aedeagus (fig. 19) straight, long, narrowing distally to a fine point.

Stylophore slightly burrowed in anterior margin. Pedipalp having the same construction and chaetotaxy as all other species of the genus. Its 5th segment, i.e. the palptarsus, not very long, about 1.5 times length of claw. Peritreme ending in distal anastomosis (fig. 13).

Leg I longer than idiosoma. Femur I dorsally with 5 pectinate setae in interior row; first 4 of these longer than largest width of segment. Claw of pretarsus I (fig. 15) with 2 tenent setae; empodium I with 4 tenent setae in 2 rows. Pretarsi II-IV (fig. 12) have claws with 2 rows of 2-5 tenent setae and an empodium with 2



Figs. 8-14. *Bryobia pelerentis* Van Eynhoven & Vacante, male. 8, dorsal aspect; 9-10, first and third dorsocentral seta; 11, clunal seta; 12, pretarsus IV; 13, distal anastomosis of peritreme; 14, ventral aspect.



Figs. 15-19. *Bryobia pelerentsi* Van Eynhoven & Vacante, male. 15, tarsus I; 16, duplex setae of tarsus III; 17, solenidium of tarsus IV with the nearest tactile seta; 18, last four segments of pedipalp; 19, ano-genital area with aedeagus.

rows of 5-10 tenent setae each. Solenidium of duplex setae of tarsus III (fig. 16) slightly, occasionally amply, longer than tactile seta. Solenidium of tarsus IV (fig. 17) of about half the length of nearest tactile seta, distance between them about length of solenidium. Chaetotaxy of the legs: coxa 2-1-1-1; trochanter 1-1-1-1; femur 12/15-9/10-5/7-5/6; genu 6-5-6-5/6; tibia 12/13 + 1 trichobothrium + 1 solenidium - 9-9-9; tarsus 14 + 6/7 solenidia + 3 eupathidia + 2 duplex setae - 12/13 + 2 solenidia + 3 eupathidia + 1 duplex seta - 13 + 1 duplex seta - 13/14 + solenidium.

Measurements (6 specimens on slides, in μ m). Length of body (including lobes) 410-449, width 185-270. Length of leg I (femur-tarsus) 480-569, leg II 230-280, leg III 230-280, leg IV 260-300. Femur I 187-215, genu I 85-88, tibia I 130-156, tarsus I 78-110. P₁ 15-20×5-7, P₂ 23-28×7-10, DC₁ 26-30×9-10, DC₂ 17-20×6-9, DC₃ 15-20×6, Se 29-39×7-10, Si 30-40×7-9,

C 30-40×7-9. Distance between DC₁-DC₁ 37-58, DC₂-DC₂ 28-33, DC₃-DC₃ 21-30, DC₁-DC₂ 68-76, DC₂-DC₃ 56-60. Solenidium and tactile seta of duplex setae of tarsus III 18-23 and 18-21, respectively. Solenidium of tarsus IV 10-12, nearest tactile seta 18-21, distance between them 10-13. Dorsal interior setae of femur I (proximally to distally) 30-46, 38-50, 32-46, 34-50 and 22-28. Stylophore 74-75 × 48-50. Distal anastomosis of peritreme 12-21 × 6-9. Palp tarsus 16; its solenidium 8-9, its eupathidia 6-7, 5-7 and 4-5 respectively.

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