

Notes on mites associated with Myriapoda. III.
Two new species of the genus
Heterozercon Berlese, 1888
(Acari, Mesostigmata)
from Afrotropical Myriapods

by A. FAIN¹

Manuscrit accepté le 19.I.1988.

¹ Institut royal des Sciences naturelles de Belgique, rue Vautier 29, 1040 Bruxelles.

Abstract

Two new species of genus *Heterozercon* BERLESE, 1888 (Acari, Mesostigmata) are described from Myriapoda from Zaire: *H. spirostreptus* sp. n. from *Spirostreptus cornutus* and *H. pachybolus* sp. n. from *Pachybolus macrosternus*.

In two previous papers (FAIN 1987a and 1987b) we have described several new astigmatic and mesostigmatic mites from Afrotropical myriapods.

We describe herein 2 new species of the genus *Heterozercon* BERLESE. This genus contains now 9 species, amongst them 3 were collected from Myriapoda, 2 from snakes, 1 from a termit's nest and 3 as free-living forms (FINNEGAN, 1931 and LIZASO, 1979).

All the measurements are in micrometers (μm).

Genus *Heterozercon* BERLESE, 1888

1. *Heterozercon spirostreptus* spec. nov.

Female (holotype) (figs 1-6): body broadly oval. Length and width of idiosoma, in holotype 1230 x 996, in 3 paratypes 1200 x 942, 1170 x 900 and 990 x 750. Tectum rounded, poorly

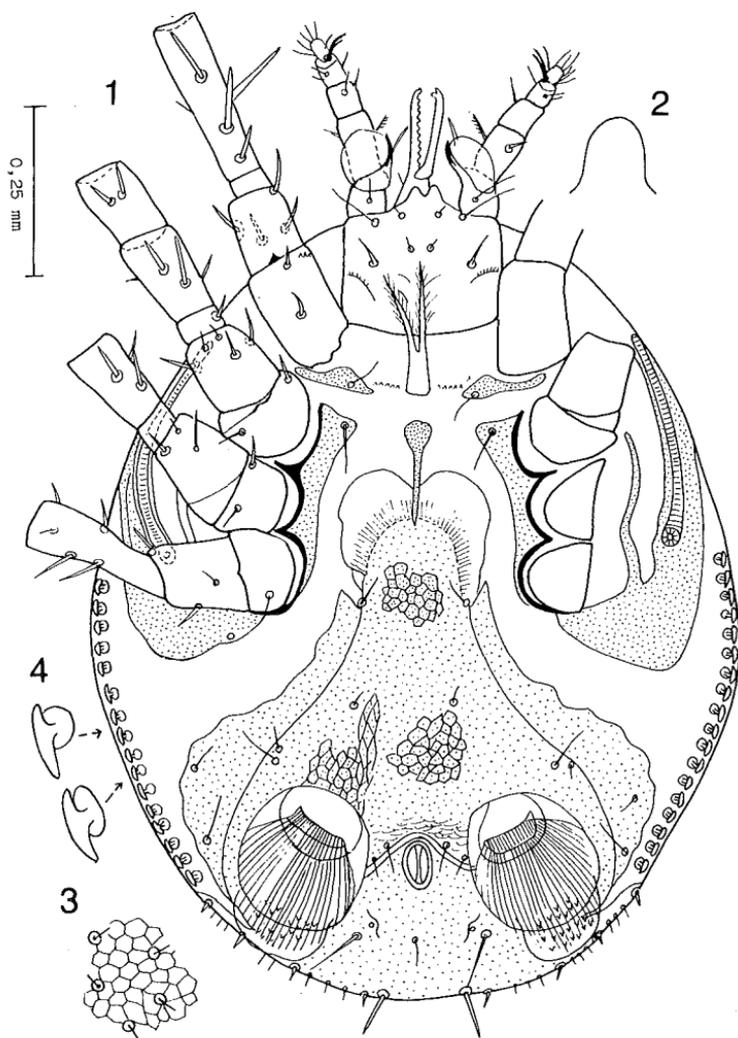
sclerotized. Dorsal plate finely reticulate, bearing about 200 very thin and short (6 long) hairs. Venter: Posterior margin with 5 pairs of spinous setae, the paramedian pair 80 long, the laterals 20 to 30 long. Between these setae the margin bears 9 pairs of additional very thin and short hairs similar to the dorsal hairs. Outside of these setae the lateral margins of opisthosoma and partly of metapodosoma bear at each side a row of 12 or 13 small anchor-shaped setae. Tritosternum with a trapezoidal base and 2 feathered lacinae. Sternal plate very poorly developed and very narrow. The paired jugular plates bear the first pair of sternal setae. Endopodal plates well developed bearing the second pair of sternal setae and fused posteriorly but very narrowly with the peritrematic plates. Opisthogenital plate arriving very close to anal plate, or partly fused with it. It bears 8 pairs of setae and one pair of voluminous suckers, the latter armed posteriorly with very small teeth. Anal plate with 3 setae and 2 lyrifissures. Anterior vulvar lip membranous and slightly excavated in middle. Peritreme reaching the middle of trochanter II; peritrematic plate well developed. Legs long, the legs I much longer than the others. Most of the segments bear long cylindrico-conical spines. Tarsi ending in strongly modified claws. Gnathosomal base 240 wide. Hypostome with 4 pairs of setae and 2 pairs of curved and finely toothed ridges. Deutosternal teeth lacking. Palpal trochanter with the antero-apical angle strongly produced and bearing ventrally a rounded membrane. Palptarsus with a two-tined apotele. Chelicerae 375 long (fixed digit included). Cheliceral digits very narrow, the fixed digit 140 long and bearing 14 small teeth and a short pilus dentilis. Moveable digit 155 long bearing 2 apical teeth, 2 ventral preapical hair-like projections and a villous membrane attached dorsally. Chaetotaxy of palps (trochanter to tibiae) 1-6-6-14. Chaetotaxy of legs: Trochanters 6-5-5-4; Femora 11-10-7-7; Genua 12-10-10-10; Tibiae 10-8-8-8.

Male (figs 7-9 and 14): length and width of 3 paratypes: 918 x 690, 900 x 705 and 870 x 660. Tectum, dorsal surface and postero-lateral margins of venter as in the female. Venter with a large plate including laterally the endopodal and the peritrematic plates; posteriorly it arrives close to the anal shield. Legs as in female except that femur II bears a strong ventral cylindrical spur with a rounded apex 70-75 long and 21-25 wide. Gnathosoma as in female but the palptrochanter is not produced antero-apically and does not bear a membrane. Chelicerae 230 long (digits not included). Fixed digit short and narrow, fused with a much longer spermatodactyl. Moveable digit 120 long, thick with 2 teeth in its apical third and bearing a large villous membrane.

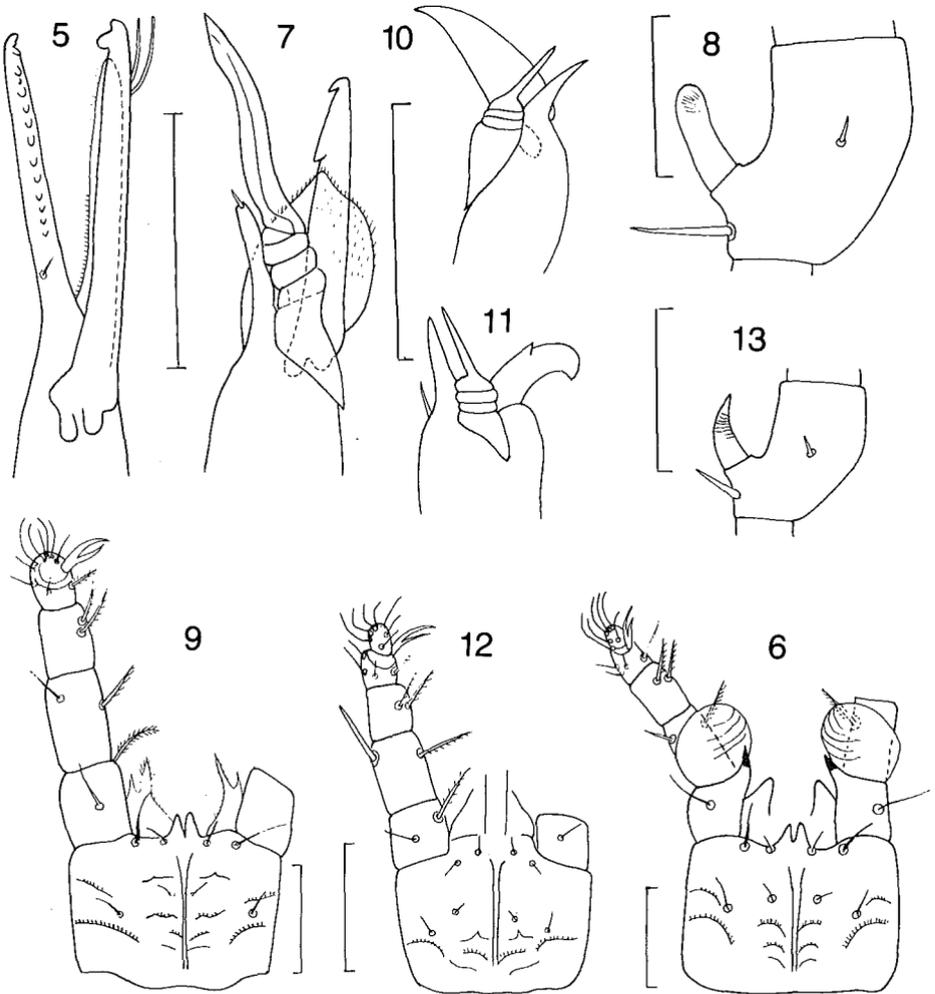
Nymphs and larva: Unknown.

Habitat: Holotype and 10 paratypes females and 12 paratypes male from a julid *Spiros-treptus cornutus* ATTEMS (Diplopoda) from Madiakoko, Chiloango, Forest of Mayumbe, Bas-Zaïre, Zaïre. (Mites and hosts collected by A. FAIN, 25.III.1964). Holotype in Museum of Tervuren. Paratypes males and females in the same Museum, in the Institut royal des Sciences naturelles de Belgique and in the British Museum, London.

Remark: This species is well distinguished from all the other known species in the genus by the presence on the postero-lateral margins of the body of a row of anchor-shaped spines.



Figs 1-4. - *Heterozercan spirostreptus* sp. n. Holotype female: 1. ventral view; 2. tectum; 3. structure of the dorsum; 4. anchor-shaped spines of lateral margins.



Figs 5-13. - Figs 5-9: *Heterozercus spirostreptus* sp. n. Holotype female: 5. cheliceral digits; 6. gnathosoma. Paratype male: 7. cheliceral digits; 8. femur II; 9. gnathosoma. Figs 10-13: *Heterozercus pachybolus* sp. n. Holotype male: 10 and 11. cheliceral digits of both sides; 12. gnathosoma; 13. femur II. (N.B.: the scales represent 0,1 mm).

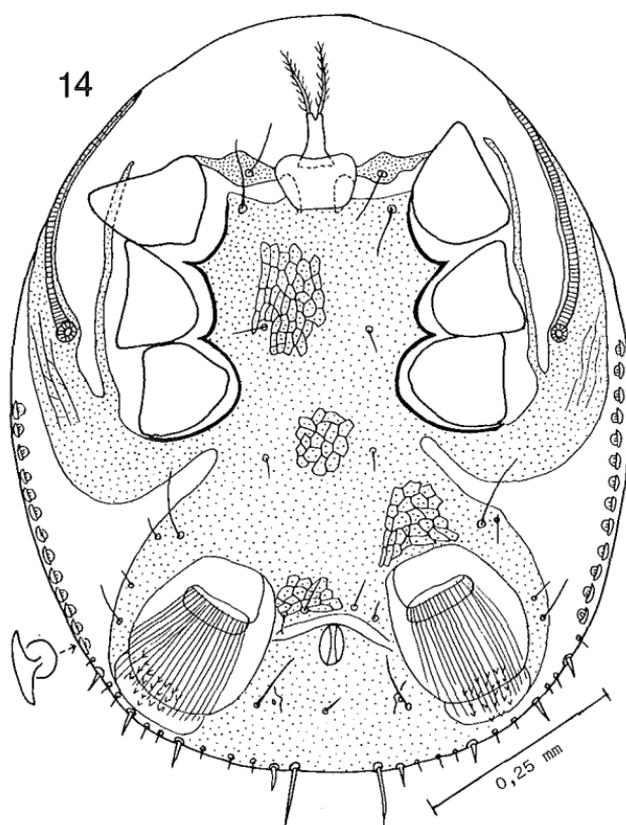


Fig. 14. - *Heterozercus spirostreptus* sp. n. Paratype male in ventral view.

2. *Heterozercus pachybolus* spec. nov.

This species is known only from the holotype male.

Male (holotype) (figs 10-13): Idiosoma 690 long and 540 wide. Dorsum as for the male of *H. spirostreptus*. Posterior margin of body as in this species but the very thin and short setae separating the spinous setae are less numerous (only 3-4 pairs). Postero-lateral margins with 17-18 pairs of anchor-shaped spines, the most anterior being situated at the level of coxa III. Venter: as in the male of *H. spirostreptus* but the jugular plates are fused with the sterniventral plate and the latter is fused posteriorly with the peritrematic plates along a much longer distance (along about $60\ \mu\text{m}$). Gnathosoma with palps relatively much shorter than in *H. spirostreptus*. The fixed digit and the spermatodactyl are also much shorter than in *H. spirostreptus*. Moveable digit triangular and much larger than fixed digit. Legs as in *H. spirostreptus* but the spur of femur II is much smaller, curved and pointed apically.

Habitat: Holotype and only known specimen from a julid *Pachybolus macrosternus* COOK, from the forest of River Kwango (Zaire). (Host and mite collected by A. FAIN on 19 April 1964). Holotype in the Museum of Tervuren.

Remark: This species presents, as *H. spirostreptus*, anchor-shaped spines along the lateral margins of the ventral surface. It differs from that species by the following characters: Size smaller; ventral spur of femur II different in shape; fusion of the jugular plates with the sterniventral shield; palps relatively longer; different shape of cheliceral digits; sterniventral plate wider posteriorly and more widely fused with the peritrematic shields; anchor-shaped spines of margins more numerous.

References

- FAIN, A., 1987a. - Notes on mites associated with Myriapoda. I. Three new astigmatic mites from Afrotropical Myriapoda (Acari, Astigmata). *Bull. Inst. r. Sci. nat. Belg.* 57: 161-172.
- FAIN, A., 1987b. - Notes on mites associated with Myriapoda. II. Four new species of the genus *Julolaelaps* BERLESE, 1916 (Acari, Laelapidae). *Bull. Inst. r. Sci. nat. Belg.* 57: 203-209.
- FINNEGAN, S., 1931. - On a new species of mite of the family Heterozzerconidae parasitic on a snake. *Proc. Zool. Soc. London*, 4: 1349-1357.
- LIZASO, N. M., 1979. - Um novo acaró da família Heterozzerconidae coletado sobre serpentes brasileiras. Descrição de *Heterozzercon elegans* sp. n. (Acarina: Mesostigmata) *Mem. Inst. Butantan* 42/43: 139-144.

★ ★ ★ ★ ★
