

EIGHT NEW *AMBLYSEIUS* FROM MEXICO WITH
COLLECTION NOTES ON TWO OTHER
SPECIES (ACARINA: PHYTOSEIIDAE)¹

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Recent authors have not recognized *Amblyseiopsis* Garman and have placed mites of this group either in *Amblyseius* Berlese or in *Typhlodromus* Scheuten; although Garman (1958), considers *Amblyseiopsis* distinctive, I believe it is more correct to use the generic placement *Amblyseius*.

In the descriptions of new species all measurements are in microns and are averages unless variation from the average exceeds 10 per cent, in that case the range is given. Since D2-D6 and M1 in this genus are minute or nearly so (5-14 microns long) no measurements for these setae are given in the description of species. The females of all the species described have 4 pairs of interscutal setae.

Amblyseius megaporos, n. sp.

(Figures 1-3)

A. megaporos appears to be most closely related to *chiapensis*, described below, but differs most notably from that species in having the whip-like setae of the dorsal shield shorter and the pores of the ventrianal shield very much larger.

FEMALE: Dorsal shield 355 long, 235 wide with setae of the following lengths: L1 53, L2 14, L3 11, L4 56, L5 11, L6 13, L7 11, L8 11, L9 195; D1 24; M2 56. VL1 65. Genital shield 92 wide at base; ventrianal shield 63 wide (74 wide at level of anus), 105 long, with three pairs of preanal setae and a pair of unusually large pores; primary metapodal shield 31 long about 5.4 wide, the anterior end constricted; accessory shield 18 long about 2 wide. Fixed digit with 10-11 teeth including the subapical tooth; movable digit not observable. Genua I-IV each with a macroseta 35, 39, 58, and 105 long respectively; tibia and metatarsus IV each with a macroseta 66 and 56 long respectively; tarsus IV 115 long, excluding pretarsus.

MALE: Unknown.

Holotype: Female, Veracruz, Veracruz, January 1, 1957 (D. De Leon), from *Bumelia* sp.

Amblyseius chiapensis, n. sp.

(Figures 4-7)

A. chiapensis resembles *elongatus* Garman, but differs from that species in having 6 pairs of "D" setae whereas *elongatus* has 5 pairs.

FEMALE: Dorsal shield 322-376 long, 208-232 wide (5 specimens), with setae of the following lengths: L1 54, L2 13-19, L3 8-14, L4 100, L5 8, L6 9, L7 6, L8 8, L9 214-235; D1 24-30, M2 117. VL1 76 long. Genital shield 83 wide at base; ventrianal shield 71-81 wide 116-132 long, with three

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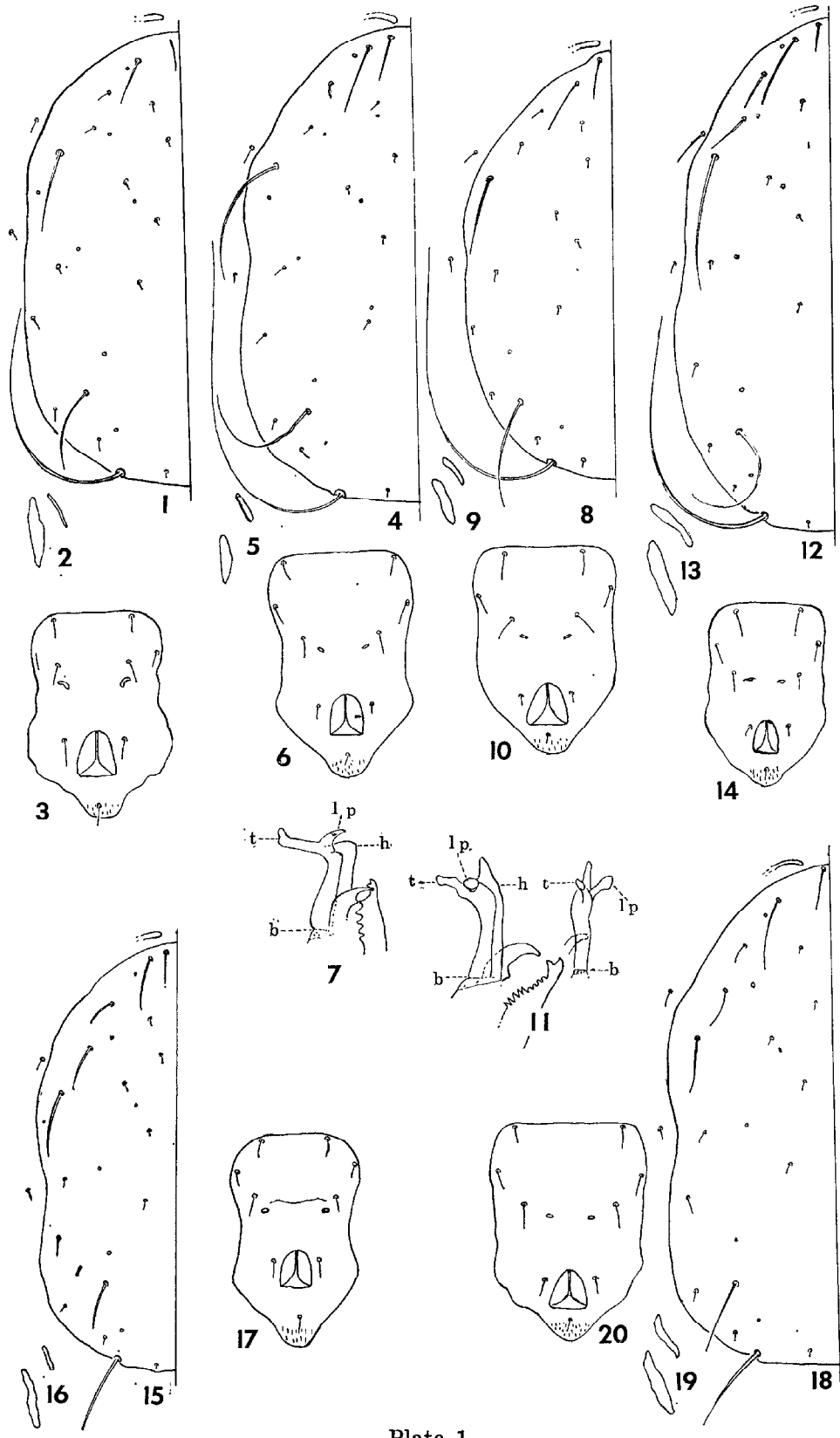


Plate 1

pairs of preanal setae and a pair of pores; primary metapodal shield 22 long, 5 wide; accessory shield 18 long, 3.5 wide. Fixed digit with 8-10 rather large teeth not including the subapical tooth; movable digit with 1 small tooth. Genua I-IV each with a macroseta 38-48, 38, 38-47, and 91 long respectively; tibia and metatarsus IV each with a macroseta 51-63, and 63-72 long respectively; tarsus IV, not including pretarsus 132-141 long.

MALE: Resembles female; dorsal shield 238-283 long, 163-180 wide (3 specimens). Ventrianal shield with 3 pairs of preanal setae and a pair of narrow pores. Spermatophore bearer with foot 12 long, shank 14 long, of shape shown in figure. The length of the shank is measured from its base to the distalmost point of the heel; in this species the heel is evenly rounded, but in the following species the distal part of the heel is prolonged. The length of the foot is measured from the tip of the toe to the back of the heel.

Holotype: Female, Tuxtla Gutierrez, Chiapas, January 18, 1957 (D. De Leon), from *Ceiba pentandra*. *Paratypes*: 2 males, 2 females, January 10, 1957, from *Acrocomia mexicana*; 1 male, 1 female, January 26, 1957, from *Cocos nucifera*, all other data as for holotype. Additional specimens were taken in the same area and during the same period from the following plants: *Styrax argentea*, *Annona purpurea*, *Sterculia apetala*, *Jaquinia pungens*, and *Quercus conspersa*.

Amblyseius coffeae, n. sp.
(Figures 8-11)

The female of *A. coffeae* closely resembles the female of *chiapensis*. L1, L4, L9, and M2 of *coffeae* are somewhat shorter and the pores of the ventrianal shield are somewhat more distant from the bases of the posterior pair of preanals than for *chiapensis*; the spermatophore bearer is distinctive.

FEMALE: Dorsal shield 344-365 long, 217-244 wide (5 specimens) with setae of the following lengths: L1 40-47, L2 12-14, L3 10, L4 70, L5 9-13, L6 11-14, L7 9, L8 9, L9 220; D1 30; M2 76-90. VL1 46-72 long. Genital shield 79-86 wide at base, ventrianal shield 74-85 wide, 112-127 long; primary

Explanation of Figures

- Figures 1-3. *Amblyseius megaporos*, n. sp. Female, dorsal shield, metapodal shields, and ventrianal shield.
- Figures 4-7. *Amblyseius chiapensis*, n. sp. Female, dorsal shield, metapodal shields, ventrianal shield; male, spermatophore bearer—b, base of shank; h, heel; l.p., lateral process, and t, toe. For details see discussion under description of this species.
- Figures 8-11. *Amblyseius coffeae*, n. sp. Female, dorsal shield, metapodal shields, ventrianal shield; male, spermatophore bearer, lateral view (left) and edge view (right). Abbreviations as in figure 7.
- Figures 12-14. *Amblyseius nayaritensis*, n. sp. Female, dorsal shield, metapodal shields, and ventrianal shield.
- Figures 15-17. *Amblyseius gliricidii*, n. sp. Female, dorsal shield, metapodal shields, and ventrianal shield.
- Figures 18-20. *Amblyseius arbuti*, n. sp. Female, dorsal shield, metapodal shields, and ventrianal shield.

metapodal shield 25 long, about 6 wide, accessory shield 17 long, about 3 wide. Fixed digit with 10-11 teeth including the subapical tooth; movable digit with 2 teeth. Genua I-IV each with a macroseta 34, 36, 38-53, and 95 long respectively; tibia and metatarsus IV each with a macroseta 63-72 and 64-74 long respectively; tarsus IV, excluding pretarsus, 125 long.

MALE: Resembles female; dorsal shield 289-301 wide (2 specimens). Ventrianal shield with 3 pairs of preanals and a pair of pores. Spermophore bearer with foot about 9 long, shank about 17 long, of shape shown in figures.

Holotype: Female, Cordoba, Ver., February 4, 1957 (D. De Leon), from orange leaves. *Paratypes*: 1 male, same data as for holotype; 1 female from coffee; 2 females from *Gilbertia arborea*, and 2 females from *Eriobotrya japonica*, all other data as for holotype. Additional specimens were taken from *Licaria coriacea* near Ocozocoatla, Chiapas, from an unknown host near Matias Romero, Oax., and from *Tillandsia* at Cordoba.

Amblyseius nayaritensis, n. sp.

(Figures 12-14)

A. nayaritensis resembles *A. andersoni* Chant, but differs from this species chiefly in having L3 about 3 times as long as L6 which is minute, in *andersoni* L3 and L6 are about equal in length, and in having L4 distinctly longer.

FEMALE: Dorsal shield 302-320 long, 180 wide (6 specimens) with setae of the following lengths: L1 29, L2 21-25, L3 22-32, L4 98, L5 7, L6 9, L7 9, L8 8, L9 155-190; D1 29; M2 91-101. VL1 63-75 long. Genital shield 74 wide at base; ventrianal shield 64-72 wide and slightly wider at about level of anus with 3 pairs of preanal setae and a pair of narrow pores. Two pairs of metapodal shields, the primary 20 long about 5 wide, the accessory 14 long and about 2 wide. Fixed digit with 9-11 teeth including the subapical tooth, the 5 to 6 beginning with the second tooth from the base coarser than the others; movable digit with 3 small teeth. Genua I-IV each with a macroseta 29-38, 30, 34, and 74 long respectively; tibia and metatarsus IV each with a macroseta 51 and 74-96 long respectively. Tarsus IV, excluding pretarsus, 127 long.

MALE: Unknown.

Holotype: Female, San Blas, Nayarit, March 28, 1957 (D. De Leon), from *Casearia arguta*. *Paratypes*: 2 females from *Orbignya guacuyule* and 3 females from *Tetracera* sp. ? , Aticama, Nay., April 8, 1957; 1 female, San Blas, April 9, 1957, from *Annona* sp. The specimens from *Orbignya* were taken in association with *Tenuipalpus coyacus*.

Amblyseius gliricidii, n. sp.

(Figures 15-17)

A. gliricidii appears to be most closely related to *A. sinuatus*, n. sp., but is readily distinguished from that species in having setae M2 and L9 shorter and by the smaller and somewhat more elongate ventrianal shield.

FEMALE: Dorsal shield 338 long, 203 wide with setae of the following lengths: L1 51, L2 27, L3 39, L4 60, L5 12, L6 21, L7 13, L8 9, L9 70; D1

27; M2 44. VL1 51 long. Pores of the dorsal shield as for the previous species and with an additional refringent pore about midway between L6 and M2. Genital shield 81 wide at base; ventrianal shield 68 wide (very slightly narrower at level of anus), and 117 long with 3 pairs of preanal setae and a pair of narrow pores; 2 metapodal shields, the primary 29 long and about 3.7 wide, the accessory very narrow (full length not visible). Fixed digit with at least 7 teeth including the subapical tooth, movable digit with 2 teeth. Genua I-IV each with a macroseta 22, 26, 38, and 58 long respectively; tibia and metatarsus IV each with a macroseta 28 and 84 long respectively, the tip of the latter slightly enlarged; tarsus IV, excluding pretarsus, 136 long.

MALE: Unknown.

Holotype: Female, Tuxtla Gutierrez, Chiapas, January 18, 1957 (D. De Leon), from *Gliricidium sepium*.

Amblyseius arbuti, n. sp.

(Figures 18-20)

A. arbuti resembles *A. potentillae* Garman, but may be readily distinguished from that species in having the posterior margin of the sternal shield concave and in having the primary metapodal shield about 6 times as long as wide.

FEMALE: Dorsal shield 403 long, 251 wide (2 specimens), with setae of the following lengths: L1 47, L2 18, L3 30, L4 54, L5 11, L6 19, L7 11, L8 10, L9 84; D1 29; M2 66. VL1 56 long. Genital shield 100 wide near base; ventrianal shield 97 wide, 141 long with 3 pairs of preanal setae and a pair of narrow pores; 2 pairs of metapodal shields, the primary one 38 long and about 6 wide, the accessory 23 long and about 3 wide. Fixed digit with at least 11 teeth, excluding the subapical tooth; movable digit not observable. Genua I-IV each with a macroseta 36, 36, 36, and 60 long respectively; tibia IV and metatarsus each with a macroseta 50 and 93 long respectively; tarsus IV, excluding pretarsus 140 long. The setae of the legs and body unusually slender.

MALE: Unknown.

Holotype: Female, Quiroga, Michoacan, March 4, 1957 (D. De Leon), from *Arbutus* sp. *Paratype*: 1 female, other data as for holotype.

Amblyseius divisus, n. sp.

(Figures 21-23)

A. divisus resembles *A. potentillae* Garman, but differs from that species most noticeably in having the pair of pores of the ventrianal shield between and about in line with the bases of the third pair of preanals.

FEMALE: Dorsal shield 317 long, 208 wide with setae of the following lengths: L1 47, L2 12, L3 23, L4 65, L5 7, L6 9, L7 8, L8 8, L9 109; D1 27; M2 78. VL1 54 long. Genital shield 73 wide; ventrianal shield 83 wide, 110 long with 3 pairs of preanal setae and a pair of narrow pores; 2 pairs of metapodal shields, the primary one 19 long, 6 wide, the accessory 18 long 3 wide. Fixed digit with apparently 10 teeth including the subapical tooth; movable digit not observable. Genua I-IV each with a macroseta 26, 27,

31, and 60 long respectively; tibia and metatarsus IV each with a macroseta 46 and 72 long respectively; tarsus IV, excluding pretarsus, 127 long.

MALE: Unknown.

Holotype: Female, Matias Romero, Oax., January 30, 1957 (D. De Leon), from *Acrocomia* sp.

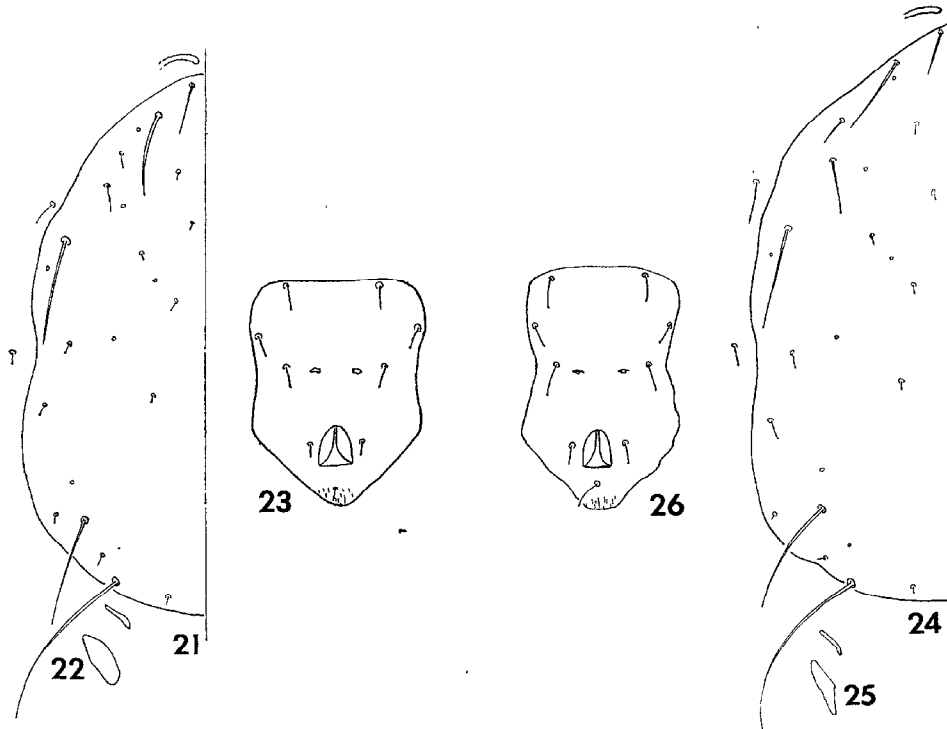


Plate 2

Explanation of Figures

Figures 21-23. *Amblyseius divisus*, n. sp. Female, dorsal shield, metapodal shields, and ventrianal shield.

Figures 24-26. *Amblyseius sinuatus*, n. sp. Female, dorsal shield, metapodal shields, and ventrianal shield.

Amblyseius sinuatus, n. sp.
(Figures 24-26)

A. sinuatus resembles *divisus*, but is readily separated from that species in having L3 longer than D1 and L6 short, but not minute.

FEMALE: Dorsal shield 371 long, 217-226 wide (2 specimens) with setae of the following length: L1 56, L2 27, L3 46, L4 67, L5 9, L6 19-22, L7 8, L8 8, L9 108; D1 29; M2 70. VL1 66 long. Genital shield 83 wide; ventrianal shield 84 wide, 108 long with 3 pairs of preanals and a pair of narrow pores; 2 pairs of metapodal shields, the primary one 27 long, about 5.5 wide, the accessory 18 long and about 2 wide. Teeth of fixed digit small with 9, excluding subapical tooth, present; movable digit with 1 tooth. Genua I-IV each with a macroseta 31, 31, 31-36, and 63 long respectively; tibia and metatarsus IV each with a macroseta 47-57 and 78 long respective-

ly; tarsus IV, excluding pretarsus, 133 long. All leg setae more slender than usual.

MALE: Unknown.

Holotype: Female, Santa Maria del Oro, Nay., March 24, 1957 (D. De Leon), from *Hedyosmum mexicanum*. *Paratype*: 1 female, Tepic, Nay., from *Baccharus trinervis*.

Amblyseius limonicus Garman and McGregor, 1956

This distinctive species was collected at Veracruz from cherimoya; at Cordoba, Ver., from *Gilbertia arborea* and *Bursera simaruba*; at Jalapa, Ver., from *Inga* sp., and about 45 miles north of Oaxaca from a palm. The mite also occurs in the southeastern United States having been collected at Columbus, Ga., from *Hicoria* sp.; at Coral Gables, Fla., from *Exothea paniculata*; in the Everglades National Park from *Icacorea paniculata*, and at Key Largo, Fla., from *Pithecellobium guadalupense*.

Amblyseius largoensis (Muma), 1955

A. largoensis was collected at Veracruz, Ver., in December, 1956, from mango and from *Cocos nucifera*.

Paratypes of the above new species will be deposited in the University of Florida Collections, Gainesville; the remaining specimens are in the author's collection.

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