

Attagivora, a new genus of feather mite
subfamily Avenzoariinae (Analgoidea: Avenzoariidae)
from seedsnipes of the genus *Attagis*
(Charadriiformes: Thinocoridae)

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(With 7 figures)

A b s t r a c t

The new feather mite genus *Attagivora* gen. n. is established. It includes two new species associated with the seedsnipes genus *Attagis* (Thinocoridae): *Attagivora atyeoi* sp. n. is described from the Rufous-bellied Seedsnipe *Attagis gayi latreilli* and *A. gaudi* sp. n. from the White-bellied Seedsnipe *Attagis malouinus*. Described genus is most closely related to the genus *Avenzoaria*, but shows some more ancestral characters.

I n t r o d u c t i o n

The feather mite subfamily Avenzoariinae includes up to now 8 distinct genera (Atyeo & Gaud 1981, Mironov 1991a). This subfamily is restricted in host-parasite associations to the bird order Charadriiformes. As a rule, each genus of this mite subfamily is associated with certain close related subfamilies or families of the hosts (Mironov 1991b, Vasyukova & Mironov 1991). However, it was found that avenzoariin fauna of some families of these birds had not been studied well enough. During the examination of the feather mite fauna associated with the Charadriiformes, authors have discovered a new genus of the subfamily Avenzoariinae consisting of two species from seedsnipes of the genus *Attagis* (Thinocoridae).

M a t e r i a l s a n d M e t h o d s

The mite materials for the present paper have been received from the Department of Entomology of the University of Georgia (Athens, Georgia, U.S.A.) and from the Zoological Museum of the University of Michigan (Ann Arbor, Michigan, U.S.A.). The chaetotactic signatures follow the nomenclature of Griffiths et. al. (1990). All measurements are in micrometers (μm). For each measured character we give the range (observed limits) and in parenthesis an index for holotype.

The type material will be deposited: AMNH - American Museum of Natural History (N.Y., U.S.A.), UGA - University of Georgia (Athens, Georgia, U.S.A.), UM - University of Michigan (Ann Arbor, Michigan, U.S.A.), ZMH - Zoologisches Institut und Zoologisches Museum (Hamburg, Germany), ZIN - Zoological Institute, Russian Academy of Sciences (Saint-Petersburg, Russia), PU - Poznań University (Poznań, Poland).

D e s c r i p t i o n o f n e w t a x a

Attagivora gen. n.

TYPE SPECIES: **Attagivora atyeoi** sp. n.

COMPOSITION: **A. atyeoi** sp. n., **A. gaudi** sp. n.

DIAGNOSIS. Avenzoariine mites (Analgoidea, Avenzoariidae) with moderately elongated idiosoma; prodorsal shield without extending posterior angles; anterior part of hysteronotal shield with rounded angles (not narrowed trapezoid-like), bases of epimeres Ia connected with bases of epimeres IIa by heavy sclerotized internal band, epimeres Ia free, tarsus I and II longer than diameter of respective ambulacral discs.

MALE. Hysteronotal shield crossed by the narrow transversal furrow at the level of the openings of hysteronotal glands gl; posterior tips of epimeres Ia separated from the tips of epimeres IIa; opisthosoma bilobate, terminal cleft semicircular or ovoid with small incision on the anterior margin; opisthosomal lobes straight and narrowed on apex; entire margin of terminal cleft with wide interlobal membrane extending without interruption to apex and to lateral part of opisthosomal lobe till base of setae ps2; lateral setae f2 hair-like; opisthosoma with well developed submarginal adanal membranes; aedeagus shorter than genital arc; epandrium and genital apodemes absent; coxal setae 4a on the medial tip of epimeres IVb; anal setae ps3 are on small sclerites; adanal discs with multidentate corolla; legs III slightly thicker than legs IV; ambulacral stalk IV with small teeth-like ventral process.

FEMALE. Hysteronotal shields parallel-sided, with rounded anterior angles, each lateral margin of hysteronotal shield crossed by oblique cuticular fold which is anterior to the opening of hysteronotal gland; posterior end of opisthosoma slightly concave.

REMARKS. The genus is most closely related to the genus **Avenzoaria** Oudemans, 1905. Males of the new genus differ from males of the genus **Avenzoaria** and other evolved members of the subfamily Avenzoariinae by some obviously primitive characters: absence of indentation on terminal membrane, weak sclerotization of lateral parts of propodosoma, hair-like form of setae f2. Moreover, they differ by some autoapomorphic characters as transversal furrow on hysteronotal shield and by presence of well developed adanal membranes. Females of **Attagivora** are quite similar in general appearance to those of **Avenzoaria** and **Pomeranzevia** but differ well from these and all other genera of the Avenzoariinae by oblique fold on lateral margin of hysteronotal shield. The new genus seems to be restricted to seedsnipes genus **Attagis** (Thinocoridae).

Attagivora atyeoi sp. n.

(Figs 1-4)

MALE. Total length (from tips of palpi to bases of setae h3) 410-454 (440), length of idiosoma 390-425 (420), width at level of humeral shields 220-235 (225). Prodorsal shield with convex posterior margin, length of the shield 85-91 (86), distance between setae se 55-60 (58). Hysteronotal shield with rounded, slightly extending anterior angles, length of shield 268-293 (283), width at the anterior margin 190-205 (192); the shield is crossed by flat inverted V-like transversal furrow dividing the shield into two parts. Anterior part of hysteronotal shield with very small rounded lacunas. Terminal cleft semicircular, with small round incision on anterior margin. The length of terminal cleft (from most anterior margin to level of setae h3) 50-69 (67). Width of terminal cleft (distance between setae ps1) 88-96 (96). Distance between ends of opisthosomal lobes (between setae h3) 105-120 (108). Terminal end of membrane on apex of the lobe with short rounded extension. Distances between row of setae: 3a:4a 36-45 (40), 3a:g 55-67 (67), g:ps3 79-86 (81), ps3:h3 81-96 (86).

FEMALE. Total length 425-460, length of idiosoma 390-425, width of idiosoma 211-240. Prodorsal shield with convex, slightly waved posterior margin; length of the shield 93-105, distance between setae se 60-79, lateral margin anterior to this setae with small incision. Hysteronotal shield with slightly concave anterior and posterior margins; the surface of this shield with a pair of desclerotized areas, elongated and greatly varied in form; usually they occupy the surface of lateral parts of the shield from the level of setae d2 to the level of setae h1, sometimes fusing by their posterior ends. Length of hysteronotal shield 268-290, width at anterior margin 134-160, distance between setae h3. Epigynum semicircular, length 36-45, width 74-84. Legs IV extend posterior to the end of opisthosoma by the distal part of tarsus.

TYPE DATA. Holotype male (NU 11865, AMNH 123889) and paratypes 9 males, 10 females from the Rufos-bellied Seedsnipe **Attagis gayi latreilli** (Thinocoridae). Ecuador, Mt. Chimborazo, 6 July 1913, W. B. Richardson. Holotype is deposited - AMNH, paratypes - AMNH, UGA, ZIN, PU, ZMH.

In the index numbers of holotype the first number means the collection number of mite in the catalogue of NU, second one means the collection number of bird host in the catalogue of AMNH.

ETYMOLOGY. The species is dedicated to Professor Dr. W. T. Atyeo (University of Georgia, Athens, Georgia, U.S.A.), the great expert of feather mites.

Attagivora gaudi sp. n.

(Figs 5-7)

MALE. Total length 430-474 (444), length of idiosoma 400-444 (420), width of idiosoma 204-232 (213). Prodorsal shield with convex posterior margin, length of the shield 93-103 (98), distance between setae se 62-67 (67). Hysteronotal shield with widely rounded anterior angles, length of the shield 283-308 (298), width 156-175 (170); the shield is crossed by

slightly convex anterior transversal furrow, anterior part of this shield with small round lacunas, posterior part of the shield with ovoid lacunas. Terminal cleft ovoid with a small, near triangular incision on anterior margin; the length of the cleft 93-110 (96), width (at the most widest part) 96-98 (98). Distance between apexes of opisthosomal lobes 108-120 (120). Terminal part of interlobal membrane with two short, rounded extensions. Distances between rows of the setae: 3a:4a 36-39 (38), 3a:g 58-69 (64), g:ps3 72-74 (72), ps3:h3 93-103 (93).

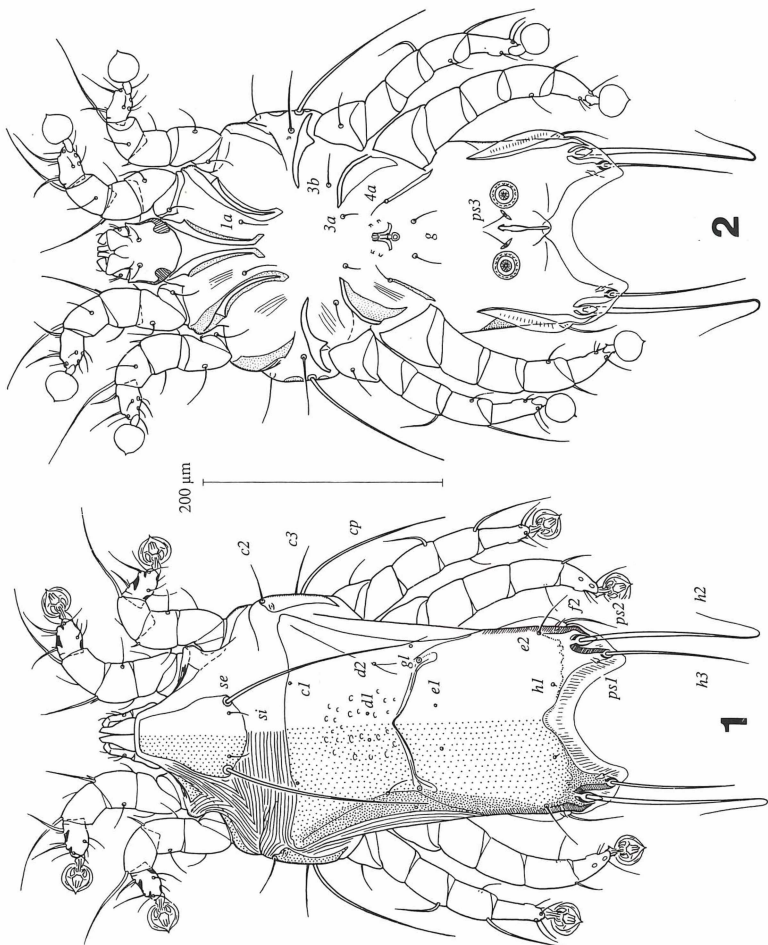
FEMALE. Total length 420-440, length of idiosoma 390-410, width of idiosoma 192-216. Prodorsal shield with slightly convex posterior margin, length of the shield 91-98, distance between setae se 60-65, lateral margin of the shield with small incision anterior to these setae. Hysteronotal shield with slightly concave anterior margin and with pronounced low triangular concave posterior margin; anterior part of the shield with small rounded lacunas, posterior part with relatively big ovoid lacunas; length of hysteronotal shield 259-273, width 127-141, distance between setae h3 67-74. Epigynum semicircular, length 36-40, width 52-72. Legs IV extend posterior to the end of opisthosoma by the ambulacral disc.

In one female of 9 examined the epimeres I are fused V-like, that can be referred to mutation.

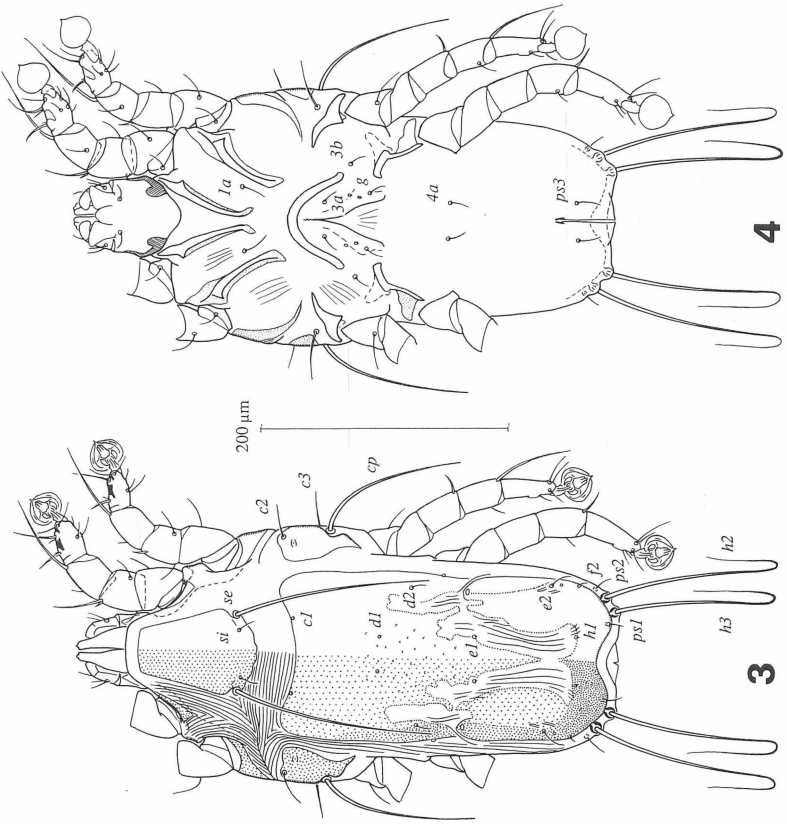
TYPE DATA. Holotype male (No. 217637) and paratypes 4 males, 9 females from the White-bellied Seedsnipe *Attagis malouinus*, Chile, Magellan Prov., Tierra de Fuego, Estancia Gente Grande, 12 April 1959, E. L. Bernath. Holotype is deposited in UM, paratypes - UM, ZIN, PU, ZMH.

The number of holotype points out the collection number of bird host in catalogue of UM.

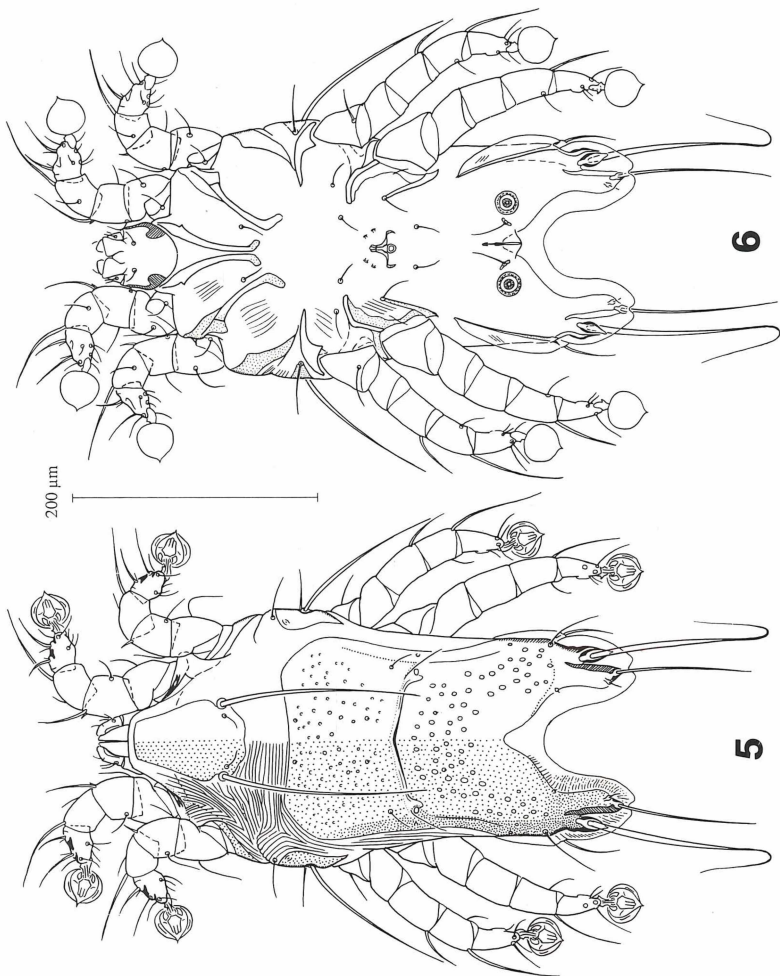
ETYMOLOGY. This species is dedicated to Prof. D. J. Gaud (University of Nice, France), the great feather mite expert and teacher of the all recent acarologists dealing with this group of mites.



Figs 1-2: *Attagivora atyeoi* sp. n., male: 1 dorsal view, 2 ventral view.



Figs 3-4: *Attigovora atyeoi* sp. n., female: 3 - dorsal view, 4 - ventral view.



Figs 5-6: *Attagivora gaudi* sp. n., male: 5 - dorsal view, 6 - ventral view.

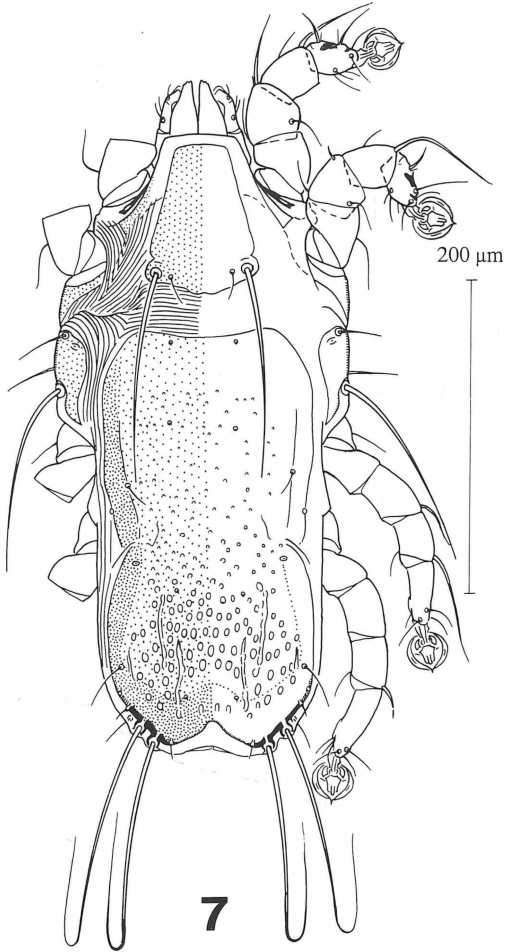


Fig. 7: *Attagivora gaudi* sp. n., female: dorsal view.

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