

**URSICOPTES PROCYONI SPEC. NOV. (ACARI: ASTIGMATA: AUDYCOPTIDAE)
FROM THE RACCOON, *PROCYON LOTOR*, IN U.S.A.**

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----- ABSTRACT—*Ursicoptes procyoni* spec. nov. is described from *Procyon lotor* in U. S. A. The male of the genus *Ursicoptes* is described for the first time. -----

Ursicoptes americanus Fain and Johnston, 1970 was the only species known in the genus. It was described from the Black Bear, *Ursus (Euarctos) americanus* Pallas, from North America. Recently this species has been found on the Polar Bear, *Ursus (=Thalarctos) maritimus* Phipps. The mites had produced a skin disease with damage to the fur (Nickel et al., 1974).

We describe here a new species found in debris brushed from the fur of Raccoons, *Procyon lotor* (Linnaeus), from Iowa, U. S. A.

Genus *Ursicoptes* Fain and Johnston, 1970
Ursicoptes procyoni spec. nov.

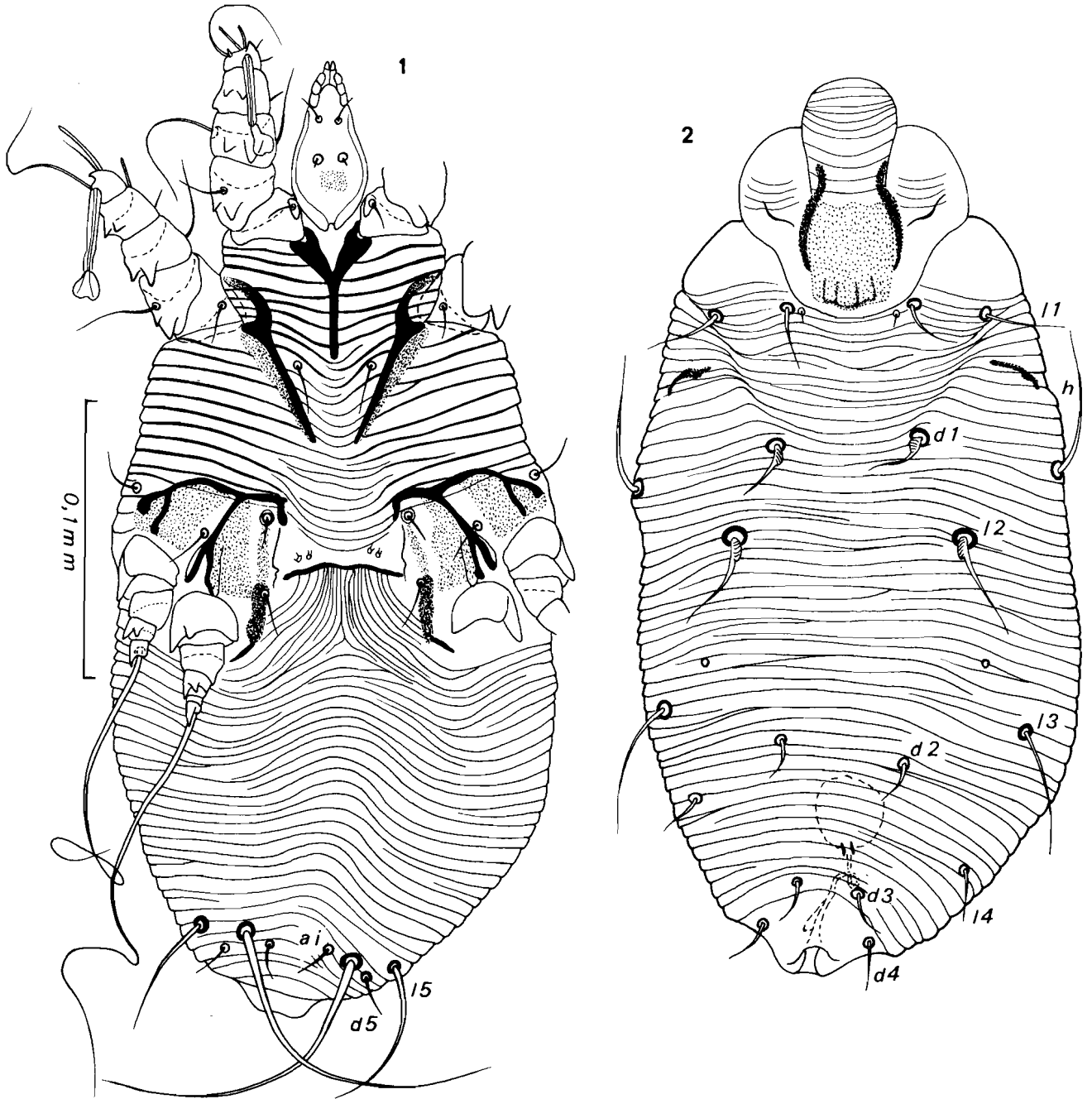
This species is distinguished in the female from *Ursicoptes americanus* Fain and Johnston, by the following characters: Body smaller (303-350 μ m instead of 411-435 μ m); cuticular striations between legs II and III less numerous (9-10 striations instead of 13-15), propodosomal shield only slightly longer than wide (27-36 μ m x 28-30 μ m instead of 60 μ m x 30 μ m); ventrally genua I-II bearing 2 unequal triangular processes (instead of 1 slightly bifid transverse process); setae *d* 1 and *l* 2 much less inflated at their base; setae *h* thicker and longer (35-55 μ m instead of 20 μ m); gnathosoma relatively shorter and thicker (50-56 μ m x 27-29 μ m instead of 63 μ m x 27 μ m).

FEMALE (holotype) (Figs. 1-2)—Idiosoma (dorsally) 330 μ m long and 154 μ m wide. Total length including gnathosoma 350 μ m. **DORSUM**—As in *U. americanus*. Propodosomal shield punctate, with an irregular pattern of lines, 32 μ m long (at midline) and 30 μ m wide. Setae *sc e* and *l* 1 short (25 μ m) and thin. Setae *sc i* very short and thin. Setae *d* 1 and *l* 2 as in *U. americanus* but their bases slightly more elongate. Setae *h* 42-55 μ m long. Setae *l* 3 about twice as long (35-40 μ m) as *d* 2 (15-18 μ m). Setae *l* 5 40 μ m. **VENTER**—Epimerae, vulva and posterior legs as in *U. americanus*. Striations as in this species except thicker and less numerous between epimerae II, and epimerae II and epimerae III. Legs I-II and gnathosoma as in *U. americanus* except for following characters: Tibiae with 2 small triangular pointed ventral processes; genua with 2 unequal pointed ventral processes, inner process long (10-12 μ m), outer process much smaller; femora with 2 unequal triangular processes, 1 large ventro-terminal and 1 very small ventro-lateral.

MALE (allotype) (Figs. 3-4)—Idiosoma (dorsally) 219 μ m long and 124 μ m wide. Total length including gnathosoma 243 μ m. Posterior extremity slightly incised. **DORSUM**—With 2 shields, propodosomal 27 μ m long and 32 μ m wide, hysterosomal about 100 μ m long and 75 μ m wide, very poorly sclerotized in median area. Setae *d* 1 slightly inflated basally. All dorsal setae thin and relatively short. **VENTER**—Propodosoma as in female. Genital organ surrounded by oval sclerotized ring, prolonged anteriorly into median longitudinal sclerite forked anteriorly. Epimerae III and IV fused as sclerite, connected inside and with genital sclerite. Penis thin, 38 μ m long. Anus flanked by 2 large adanal suckers. Anterior legs and gnathosoma as in female.

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Figs. 1-2: *Ursicoptes procyoni* sp. n.—1, Venter of holotype female; 2, Dorsum of holotype female.

Posterior legs larger than in female, ending in long, stout slightly curved claw-like prolongations. Tarsi III-IV with very long and strong seta. Tibiae III-IV bearing strong bifid spine. Tibia IV solenidion much stronger and longer than tibia III solenidion.

NYMPH (3 specimens)—Length of idiosoma 256-352 μ m, width 134-186 μ m. **DORSUM**—As in female. **VENTER**—As in female except lacking genital slit. Legs as in female but trochanters IV with strong triangular internal projection. Setae *a i* and *d 5* much shorter.

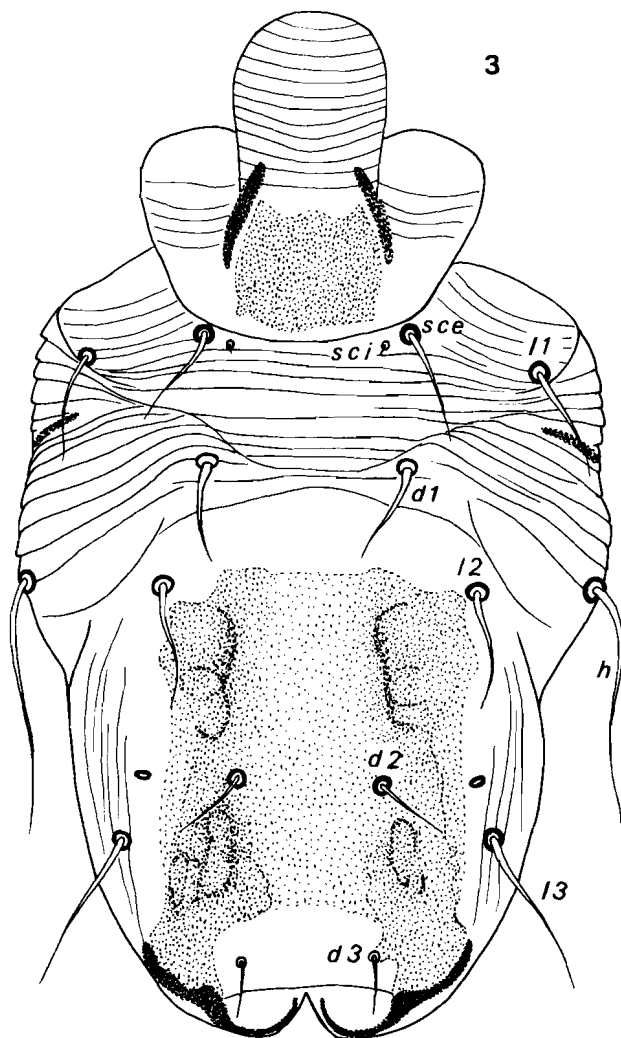


Fig. 3: *Ursicoptes procyoni* sp. n. - Dorsum of allotype male.

HOST AND LOCALITY—Holotype female, allotype male, 10 paratype males, and 1 paratype nymph in debris brushed from fur of *Procyon lotor*, Cedar Falls, Black Hawk Co., Iowa, 17 July 1978, collected by N. Wilson.

Additional paratypes collected under similar circumstances and with the same data except date (all 1978) are as follows: 3 males, 1 nymph containing male, 16 July; 1 male, 19 July; 2 males and 1 nymph, 16 August (2 hosts); 1 male, 29 August; and 5 males, 2 females, 10 November.

Material is deposited as follows: Holotype (No. 3933) and allotype in the U. S. National Museum of Natural History, Washington, D. C., 1 male paratype each in the B. P. Bishop Museum, Honolulu, Hawaii, Field Museum of Natural History, Chicago, Illinois, and Florida State Collection of Arthropods, Gainesville, 1 male and 1 female paratype in the Institute of Tropical Medicine, Antwerp, Belgium, and remaining paratypes in the collection of N. Wilson.

All mites were found in debris (i. e. skin scales, hair, dirt) brushed from the fur of anesthetized Raccoons. They were brushed vigorously over a piece of paper with the resulting debris placed in a petri dish and examined under a dissecting microscope. The debris from 7 of 54 Raccoons yielded 1 to 13 mites. No mites were found on 168 Raccoons, including the 54 brushed, when examined macroscopically.

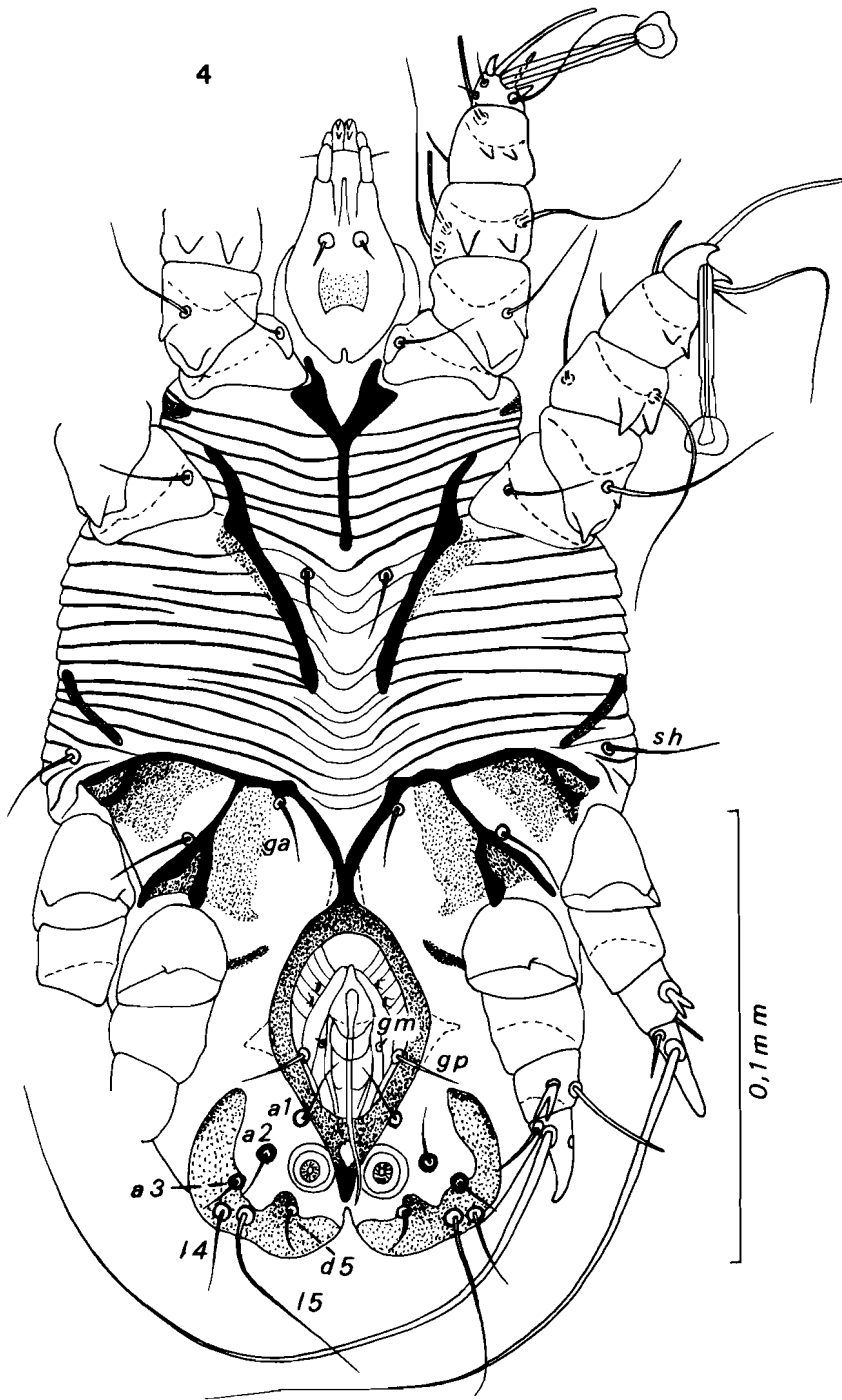


Fig. 4: *Ursicoptes procyoni*
sp. n. - Venter of allotype male.

REFERENCES

- Fain, A., and D. E. Johnston. (1970). Un nouvel acarien de la famille Audycoptidae chez l'Ours Noir *Ursus americanus* (Sarcoptiformes). Acta Zool. Path. Antverp. 50: 179-181.
- Nickel, S., R. Ribbeck, and K. Petersen. (1974). Durch Milbenbefall verursachte hautveränderungen bei Eisbären (*Thalarctos maritimus*). Verhandl. XVI^e Intern. Symposiums u. Erkrankungen der Zootiere. Akad. Verlag, Berlin, pp. 311-313.