

**ENTONYSSUS SQUAMATUS SPEC. NOV. (ACARI, ENTONYSSIDAE)
FROM THE LUNG OF THE SNAKE, *ELAPHE SCHRENCKI* STEJNEGER, 1925**

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ABSTRACT: *Entonyssus squamatus* sp.n. (Acari: Entonyssidae) is described from the lung of the snake, *Elaphe schrencki* Stejneger, from Eastern Siberia, USSR.

INTRODUCTION

The family Entonyssidae is composed, until now, of eight genera and 23 species. All these species live in the lung of snakes in several parts of the world. Eight species have been described from North America, six from Afrotropical region, four from Oriental region, three from Neotropical region and two from Europe. Of these species, 19 are known from the lung of Colubridae, one from Viperidae, one from Crotalidae and two from Elapidae. All measurements are given in microns.

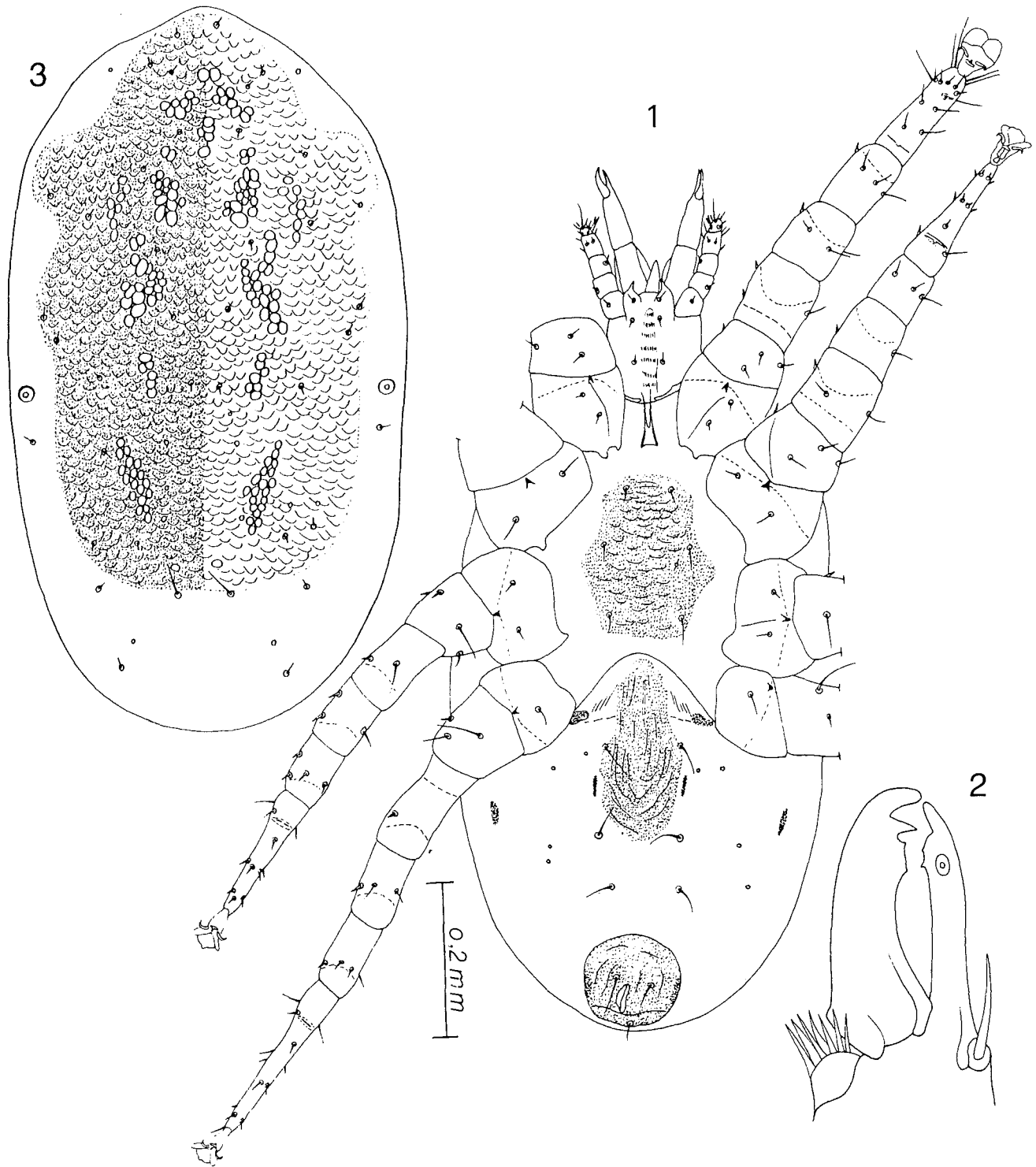
Entonyssus squamatus spec. nov.

FEMALE (Figs. 1-3)—Holotype (idiosoma) 825 long and 480 wide. In five paratypes: 950 x 530, 870 x 490, 855 x 450, 840 x 490 and 810 x 420. *Dorsum*: A large punctate and scaly shield 660 long and 390 wide bearing 16 pairs of short setae except posterior pair slightly longer. Spiracle dorsal, round, without peritreme and situated at level of coxa IV. Remaining cuticle finely striated, with a few small setae. *Venter*: Tritosternum short (total length 80). Sternal shield scaly, longer (200) than wide (maximum width 150), bearing three pairs of setae 20 to 40 long and one pair of lyrifissures. Genital shield 102 (maximum width), with well developed lines but without scales, bearing one pair of setae. Anal shield 115 wide, with anus in median position, bearing three setae, anterior two being approximately at same level as anterior margin of anus. Gnathosoma well developed, its base 135 long in midline and 108 wide; cornicules relatively large. Epistome triangular. Seven transverse rows of very small deutosternal teeth. Palps with five free segments 120 long; tarsus with a well developed bifurcate apotele. Chelicerae 150 long (fixed digit included) and at most 27 wide; fixed digit cylindrico-conical and slightly curved at apex, 34 long and with two very small preapical teeth; movable digit 39 long, slightly curved at apex and with a well developed preapical tooth. Legs with two claws and a sucker, without "eye-spots". Legs IV longer than other legs.

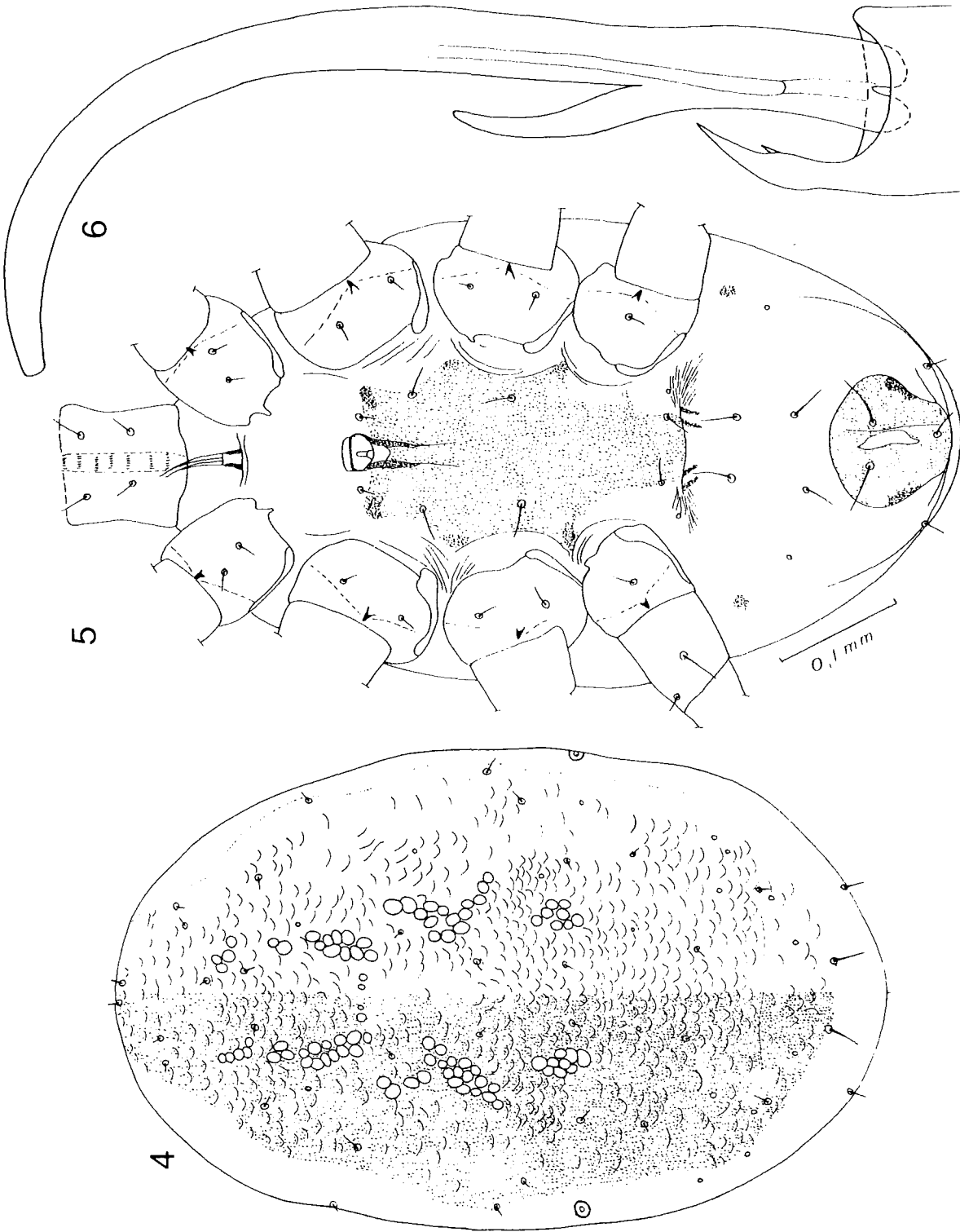
MALE (Figs. 4-6)—A paratype measuring 605 long and 375 wide (idiosoma). *Dorsum*: with a large scaly shield as in female but scales less numerous. *Venter*: Tritosternum 60 long (base included). Sternogenital shield very poorly sclerotized, 210 long and 130 wide. Anal shield slightly wider (105) than long (100). Length of gnathosoma in midline (palps excluded) 100, width of the base 90. Length of palps (five free segments) 106. Chelicerae 136 long (fixed digit included); movable digit 120-130, with a short spermatophore-carrier 25 long. Legs as in female.

PROTONYMPH—Length of a paratype 540, width 360. Dorsum with two poorly sclerotized shields, a podosomal and a pygidial. Gnathosoma and chelicerae as in female but smaller. Legs as in female but with relatively smaller claws.

DEUTONYMPH and LARVA—Unknown.



Figs. 1 - 3. *Entonyssus squamatus* sp. nov. Female. 1, ventral surface; 2, chelicerae; 3, dorsal surface.



Figs. 4 - 6. *Entonyssus squamatus* sp. nov. Male. 4, dorsal surface; 5, ventral surface; 6, chelicerae (fixed and movable digits).



Fig. 7. *Entonyssus squamatus* sp.nov. Mites in the lung of the snake (main internal bronchus).

HOST AND LOCALITY—Holotype and 79 paratypes female, 6 paratypes male and 2 paratypes protonymph from the respiratory tract of a snake, *Elaphe schrencki* Stejneger, 1925, from Aldan-Plateau (East Siberia), USSR. Holotype in Institut royal des Sciences naturelles de Belgique, paratypes in the collections of the authors.

REMARKS—(1.) *Entonyssus squamatus* is distinguished from the six known species in genus *Entonyssus* Ewing and the four known species in the closely-allied genus *Entophiophaga* Fain, in both sexes by the scaly aspect of the dorsal shield and in the female by the shape of the cheliceral digits. (2.) The parasitized snake (length 1 m, weight 0.33 kg) which was kept together with individuals of other *Elaphe*-species, died in consequence of amoebiasis. It had been privately owned and it is supposed that it was imported from wilderness. The autopsy showed the described mites mainly in the central air space (main internal bronchus) of the respiratory tract but also in the bronchus and trachea up to larynx. Secondary bronchi, peripherally arranged alveoli and saccular extension were free from parasites. (3.) The histological investigations showed no alterations on the tissue of lung and trachea which can be put in connection with the infestation of mites. It was noticed that the ciliar boarder of the epithelium of trachea and bronchus was intact throughout. Fecal particles laid on the respiratory epithelium were seen phagocytized in the epithelial cells of the alveoli.

REFERENCE

Fain, A. (1961). Les Acariens parasites endopulmonaires des Serpents (Entonyssidae: Mesostigmata). Bull. Inst. r. Sci. nat. Belg. 37, n° 6: 1-135.