

A NEW ALGOPHAGIN MITE,
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gen. n., sp. n. LIVING IN A RIVER
(ASTIGMATA : HYADESIDAE)*

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by A. FAIN** and D. JOHNSTON***

The mite that we describe here belongs to a new species and a new genus of the family Hyadesidae, subfamily Algophaginae FAIN, 1975. It has been found in the King River, U.S.A.

The family Hyadesidae HALBERT has been divided recently in two subfamilies, Hyadesinae and Algophaginae (see FAIN, 1975). The Algophaginae are distinguished from the Hyadesinae by the following characters: Absence of a sejugal furrow and of a system of oil-grooves in the dorsal surface of the body; epigynium well developed; all the claws of the legs large and with rather short and not stalk-like pretarsi, presence on the lateral surfaces of the prodosoma, between legs I and II and extending dorsally and sometimes also ventrally, of slightly sclerotized and surelevated bands. These bands probably are air-chambers which could serve for both respiration or flottation of the mite.

The subfamily Algophaginae was represented so far by two genera *Algophagus* HUGHES and *Neohyadesia* HUGHES and GOODMAN, 1969, living in the Subantarctic region.

Algophagus is represented by two species living in both fresh or brackish water, *Neohyadesia* contains only one species forming two subspecies which are living in fresh to brackish water.

The new genus that we describe here is distinguished from these genera by the presence on the dorsum of a sclerotized shield and a pair of lens-like eyes.

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Genus **Algophagopsis** gen. n.

Definition : General characters as in the subfamily : body broadly ovoid ; tegmen present ; legs relatively long and ending into a short pretarsus bearing a single large and strongly curved claw ; the sclerotized bands situated laterally between the legs I and II are distinctly surelevated and resemble air-chambers : there are two pairs of rounded, small and sclerotized genital suckers. This genus is distinguished from the genera *Algophagus* and *Neobyadesia* by the presence of a large dorsal sclerotized and sculptured shield and of a pair of lens-like eyes situated in paramedian position along the posterior margin of the propodosomal shield.

Types species : *Algophagopsis pneumatica* sp. n.

Algophagopsis pneumatica sp. n.

Only the female and a nymph are known.

FEMALE (fig. 1-6) : The idiosoma in the holotype is 525 μ long and 345 μ wide. *Dorsum* : there is a small punctate propodosomal shield. Behind this shield there is a small surelevated punctate area bearing at each side a well-developed transparent and ovoid lens-like eye. At the base of the lens the punctate area is strongly sclerotized (= retina). Behind the eyes the dorsum bears a large median shield with a raised pattern forming a network. The orifice of the oil-gland is strongly sclerotized and has a complex structure. Genital papilla short, rounded and sclerotized, situated near the posterior margin of the body. *Venter* : epimera I loosely fused in a V. Epigynium thick, wider than long. Vulva in an inverted Y. Anus ventral, near the posterior extremity. Legs ending into a well-developed and curved claw, all the claws equal or subequal. Gnathosoma and chelicerae well-sclerotized. Palps with two long and narrow articles. *Chaetotaxy* : all the dorsal setae are thin and relatively short. The *ve* are paramedian and situated behind the eyes. Are present the *vi*, *ve*, *sci*, *sc e*, *h*, *sh*, *d l-d 5*, *l 1-l 5*, *ai*, *ga*, *gm*, *gp*, *cx I*, *cx III*. Tarsi with 9-8-6-6 setae. Tibiae 2-2-1-1. Solenidia : Tarsi 2-1-0-0. Tibiae 1-1-1-1. Genua 2-1-0-0.

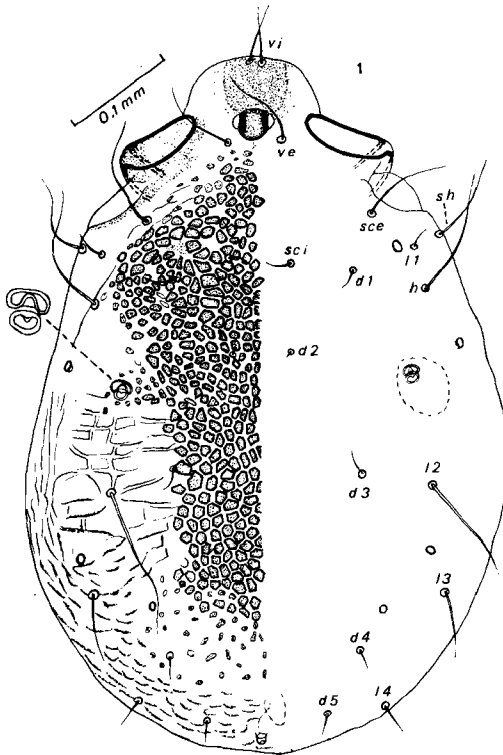


FIG. 1. — *Algophagopsis pneumatica* sp. n. Female in dorsal view.



FIG. 2. — *Algophagopsis pneumatica* sp. n. Female in ventral view.

Habitat :

All collections were made from algal mats on submerged rocks in riffles of the Kings River. The exact site on the Kings River is 3/4 mile west of Pine Flat Dam, Piedra, Fresno County, California, U.S.A. Collection were made well out into the flow of the river, no shore sampling, using a modified (by BURDICK) Surber Sampler. Collections have been as high as 1500 mites par square foot, another collection was 600 square foot. The number

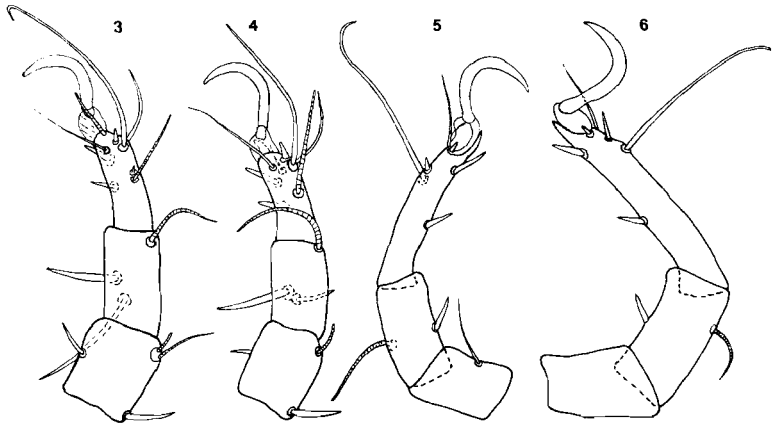


FIG. 3-6 — *Algophagopsis pneumatica* sp. n. Legs I-IV in lateral view.

of mites collected varies directly with the amount of algal covering the rocks. The mite has been collected at every collection date throughout the year (Don BURDICK).

Holotype and 2 paratypes females, one nymph paratype, from sites A and B 5 (28 and 30.IX.1973) (Coll. Don BURDICK).

Holotype in the U.S. National Museum, Washington.

BIBLIOGRAPHY

- FAIN A., 1975. Acariens récoltés par le D^r TRAVE aux Iles Subantarctiques. I. Familles Saprogllyphidae et Hyadesidae (Astigmatés). *Acarologia* (in press).
- HUGHES A.M., 1955. A new genus and species of hyadesid mites *Algophagus antarcticus* from Heard Island. *A.N.A.R.E. Rep. Ser. B. Zool.* 1: 1-19.