

A NEW GENUS AND SPECIES OF THE TRIBE HYSTRICHONYCHINI (ACARINA: TETRANYCHIDAE) FROM QUEENSLAND

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Abstract

Notonychus asper gen. et sp. n., from *Gahnia aspera* (R.Br.) Sprengel, is described and figured. The relationships of *Notonychus* within the tribe Hystrichonychini, family Tetranychidae, are indicated.

INTRODUCTION

Very little is known of the spider mites (Tetranychidae) of indigenous plants in Australia, and a species recently collected from the sedge *Gahnia aspera* (R.Br.) Sprengel in Queensland cannot be placed in any known genus. No Tetranychid with any resemblance to the species now described has been reported from Australia but the genus *Aplonobia* Womersley, also placed in the tribe Hystrichonychini, occurs here. The only other spider mite known to occur on *Gahnia aspera* is *Schizotetranychus gahniae* Davis.

Notonychus gen. n.†

Idiosoma flattened, relatively narrow, dorsally with a propodosomal and an opisthosomal shield, the area between with coarse transverse striae; four pairs of propodosomal setae, including one pair on an antero-median projection, and one pair on outer anterior projections; nine pairs of dorsal hysterosomal setae, the fourth pair in the dorso-central series more widely spaced than the other three and nearly marginal; three pairs of anal setae; dorsal setae short, broadly spatulate and strongly pubescent; hysterosomal setae set on low tubercles; tarsal claws padlike, each with a pair of tenant hairs; empodia padlike with a double row of tenant hairs.

Type Species: Notonychus asper sp. n.

Notonychus is a monotypic genus. The type species is known only from females and one larva. The definition already given distinguishes the genus from all others of the family Tetranychidae. *Notonychus* is placed within the tribe Hystrichonychini Pritchard and Baker—as defined by Tuttle and Baker (1968)—on account of the structure of the tarsal claws and empodia. *Notonychus* resembles *Monoceronychus* McGregor (Western United States and Florida) in the narrow body with dorsal shields, and the widely spaced fourth pair of dorso-central hysterosomal setae. These features are also seen in *Mesobryobia* Wainstein (Armenia and Kazakhstan (U.S.S.R.) and California). *Notonychus* differs from both of these genera in having four pairs of dorsal propodosomal setae. Species of *Monoceronychus* and *Mesobryobia* occur on Graminiae while the host of *Notonychus* is a species of the genus *Gahnia* (Cyperaceae) distributed mostly in Australia. Evolutionary and zoogeographic relationships between the three genera of Tetranychidae mentioned must remain obscure until much more collecting has been done in Australia and elsewhere.

Notonychus asper sp. n. (Figs. 1-6)

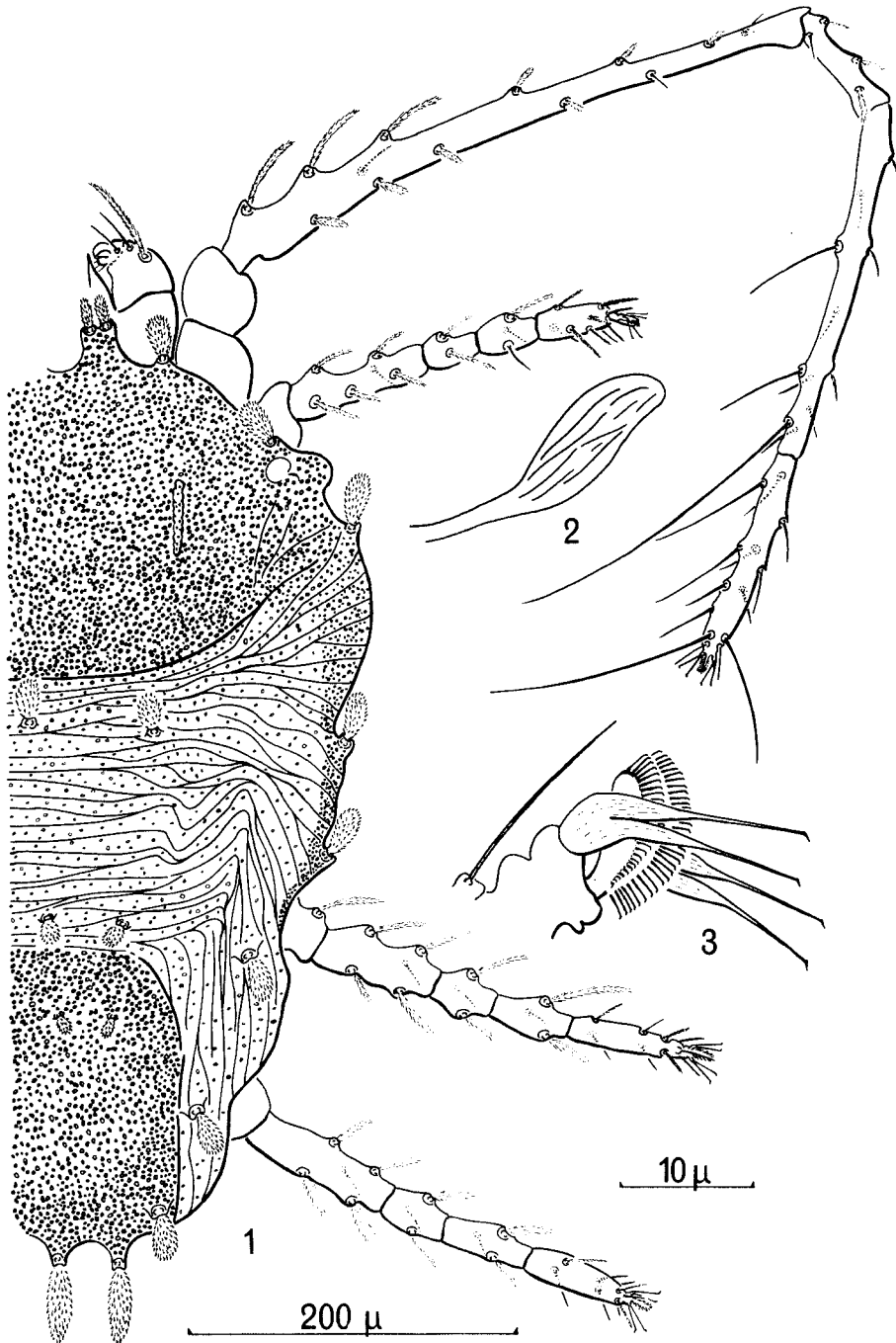
Types.—QUEENSLAND: *Holotype* female, *paratype* female, *paratype* larva, from *Gahnia aspera* (R.Br.) Sprengel (sword grass), Boat Mt. near Murgon, 29.iv.1968, 17.x.1967, and 2.x.1968 respectively, J. J. Davis. *Holotype* (Reg. No. W3042) in the Queensland Museum, *paratypes* in the Department of Primary Industries, Queensland.

Female

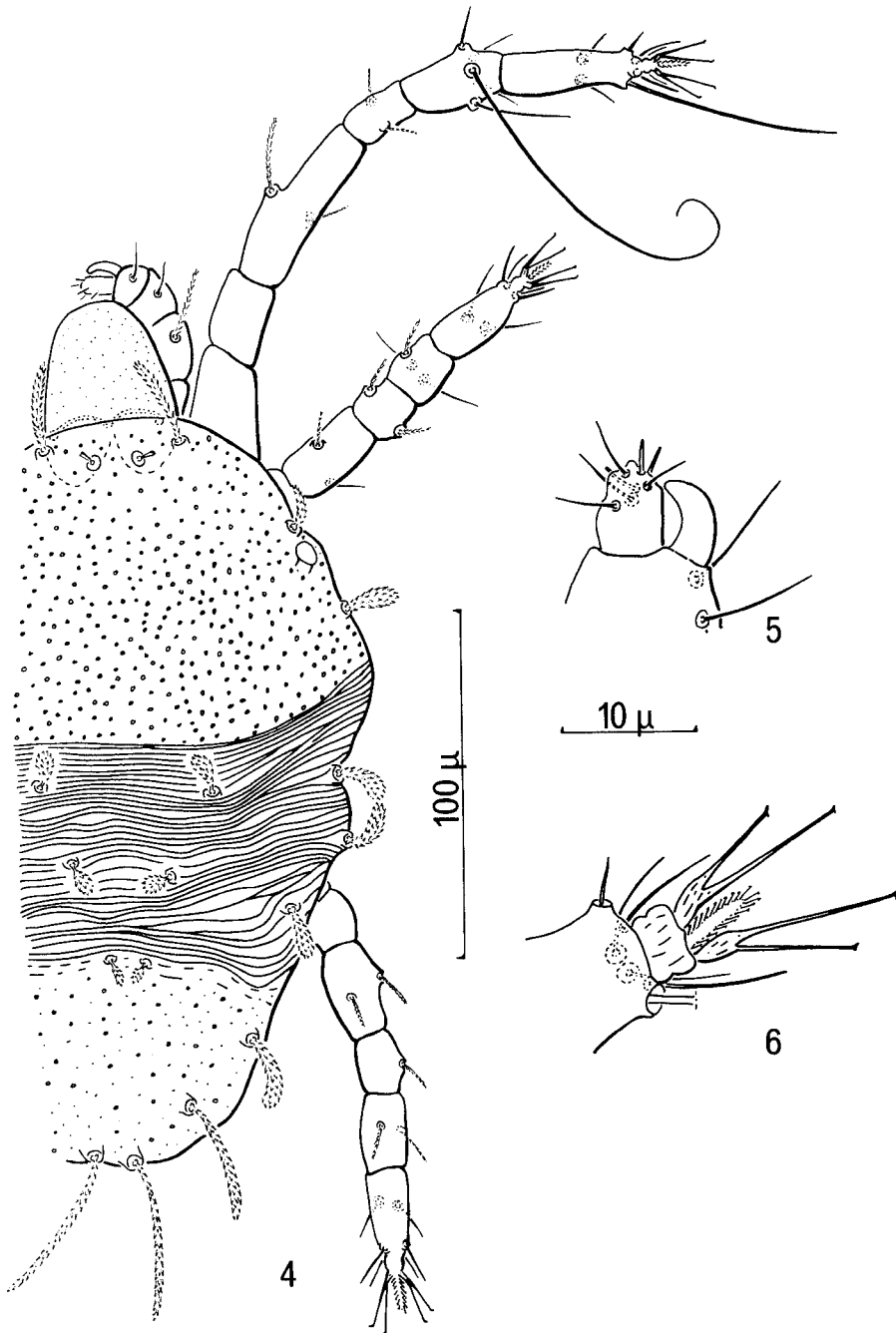
Mounted holotype, 615 μ long (to tip of palpi), 330 μ wide; paratype 600 μ long, 345 μ wide; idiosoma strongly flattened dorsoventrally and a relatively narrow pear shape, widest midway between posterior

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†*notus*—the south-west; *onyx*, *onychus*—a talon or claw; masculine.



FIGS. 1-3.—*Notonychus asper* gen. et sp. n., female: (1) dorsal aspect; (2) distal enlargement of peritreme; (3) distal appendages of tarsus I (lateral).



FIGS. 4-6.—*Notonychus asper* gen. et sp. n., larva: (4) dorsal aspect; (5) distal segment of palpus; (6) distal appendages of tarsus I (dorsal).

propodosomal setae and anterior hysterosomal setae, with a prominent lateral projection between third and fourth pairs of dorsal propodosomal setae; rough pebbled integument forms a dorsal shield in propodosomal and opisthosomal regions, area between coarsely striate transversely; dorsal setae, as shown in Figure 1, short and broadly spatulate, coarsely pubescent; four pairs of dorsal propodosomal setae, one pair set on a prominent antero-median projection (this detail obscured in the female paratype), and one pair on small outer anterior projections; nine pairs of dorsal hysterosomal setae, set on low tubercles, fourth pair in the dorso-central series more widely spaced than other three pairs and placed nearly at margin of opisthosoma; three pairs of anal setae; stylophore evenly rounded in front, nearly twice as long as wide; peritreme distally slightly enlarged and anastomosing (Fig. 2); leg I, one and one half times as long as the idiosoma; tarsus I with "duplex" setae lacking tactile components; legs II, III, IV all about the same length, one half as long as idiosoma; tarsus II with a pair of short obscure associated setae perhaps comparable with duplex setae; tarsal claws padlike, each with a pair of tenant hairs, empodia padlike, each with a double row of tenant hairs (Fig. 3); body of living female pale yellow with dark markings, the gnathosoma, legs, and anterior margin of propodosoma reddish.

Larva

Mounted paratype 290 μ long (to tip of palpi), 165 μ wide; dorsal setation of body similar to that of female, except that posterior two pairs of hysterosomal setae are relatively long and slender, and first pair of propodosomal setae are relatively very small, slightly enlarged distally, not set on a projection (Fig. 4); sensilla of distal segment of palpus all slender (Fig. 5); setation of legs shown in Figure 4, a very prominent long tactile seta dorsally on tibia I; tarsal appendages similar to those of the female (Fig. 6).

Male

Unknown.

Comments

Notonychus asper is a distinctive species. As has already been mentioned it is in some ways morphologically similar to species of the genera *Mesobryobia* Wainstein and *Monoceronychus* McGregor.

REFERENCE

- TUTTLE, D. M. and BAKER, E. W. (1968).—"Spider Mites of Southwestern United States and a revision of the family Tetranychidae". (The University of Arizona Press: Tucson).