



## A new species of Tenuipalpidae (Acari: Prostigmata) on orchid from Brazil

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### Abstract

*Tenuipalpus orchidofilo* n. sp. (Acari: Tenuipalpidae) is described from Brazil based on the mobile immatures and adult stages of both sexes collected on the orchid *Arundina graminifolia* (D. Don) Hochs.

**Key words:** Acari, Tenuipalpidae, *Tenuipalpus*, orchid, taxonomy

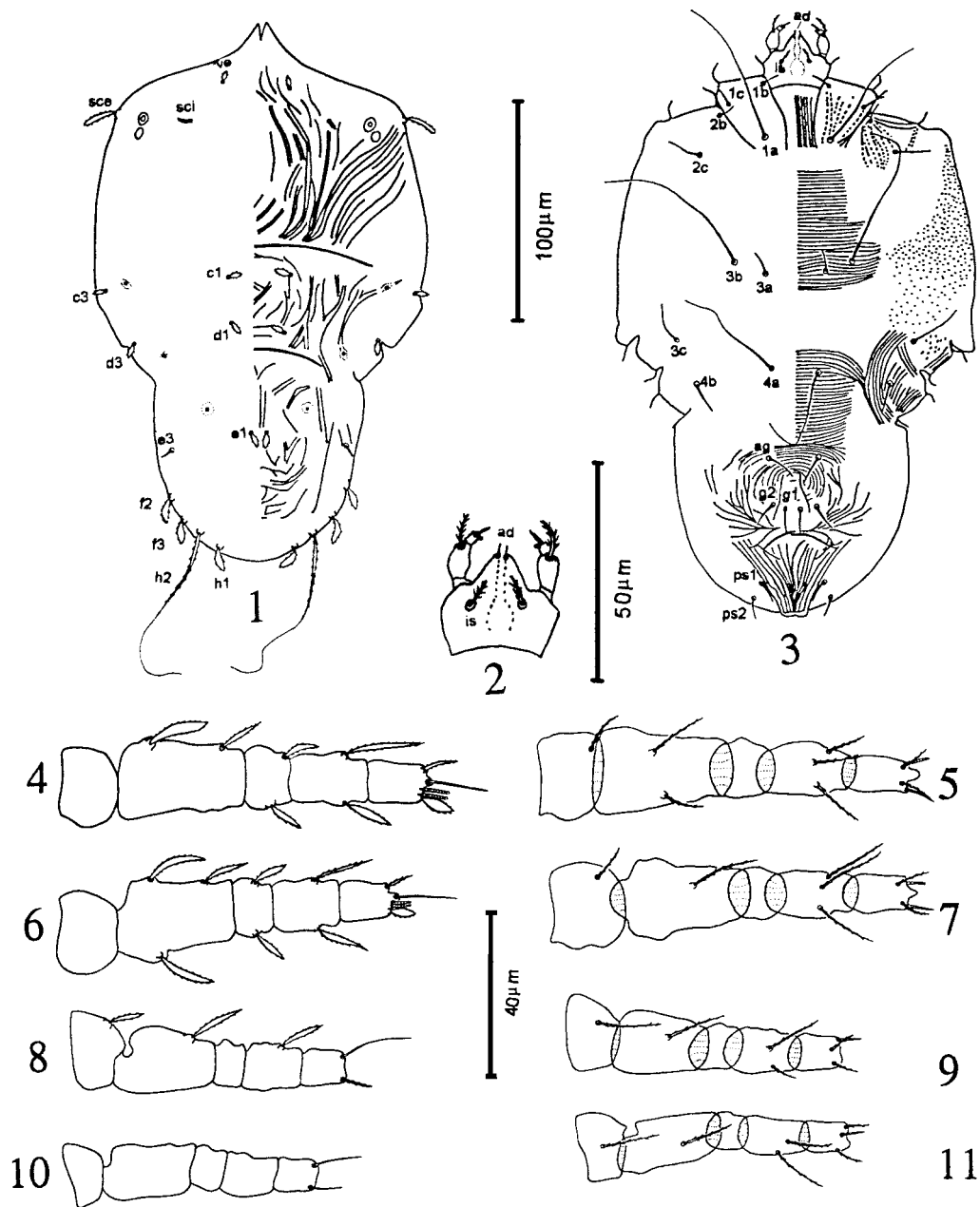
### Introduction

Three species of Tenuipalpidae mites have been found on orchids in Brazil, *Brevipalpus phoenicis* (Geijskes), *Brevipalpus californicus* (Banks) and *Tenuipalpus pacificus* (Baker) (Flechtmann 1976). Recently, an outbreak of a tenuipalpid was observed on the orchid *Arundina graminifolia* (D. Don) Hochs, in southeastern Brazil. The mites were causing severe bronzing on the upper and lower surfaces of the leaf blade as well as on the petiole. The highest number of mites was found on the lower surface of the leaf blade. It is still unknown how often such high populations are reached.

The mites were identified as a new species, here described, of the genus *Tenuipalpus* Donnadieu. Up to now, the only species in this genus mentioned as an orchid pest is *T. pacificus* Baker (Jeppson *et al.* 1975). The latter species has been reported in northeastern Brazil, as well as in several other countries.

The description of the new species here presented is based on observations done under light microscopy complemented by observations under scanning microscopy. Measurements of each structure in this paper are given in micrometers and represent the average measurements for the specimens observed, followed (in parentheses) by the corresponding ranges.

Seta *ag* is first found in this stage. In relation to the deutonymph, one seta is added to the trochanter and two setae are added to the tarsus of leg IV.



**FIGURES 1-11.** *Tenuipalpus orchidifilo* n. sp., female. 1, Dorsum of idiosoma; 2, Venter of gnathosoma; 3, venter of idiosoma; 4, dorsum of leg I; 5, venter of leg I; 6, dorsum of leg II; 7, venter of leg II; 8, dorsum of leg III; 9, venter of leg III; 10, dorsum of leg IV; 11, venter of leg IV.

R.A.P. Freire; allotype male, 3 paratype males, 5 paratype deutonymphs, 5 paratype protonymphs and 5 paratype larvae, same collection data - deposited in the reference collection of Departamento de Entomologia, Fitopatologia e Zoologia Agrícola, Setor de Zoologia, Escola Superior de Agricultura "Luiz de Queiroz", Universidade de São Paulo, Piracicaba-SP, Brazil. Two paratype females and 2 paratype males, same collection data as holotype – deposited in the National Museum of Natural History, Smithsonian Institution, Washington-DC, USA.

### Acknowledgements

To D.S. Pedrazzoli (ESALQ-USP, Brazil) for first bringing to our attention the occurrence of the species here described and for helping with the illustration. To C.H.W. Flechtmann (ESALQ-USP, Brazil) for help with the literature and for revising the text. To PRONEX, Ministry of Science and Technology, Brazil, for providing the financial support for this work. To E.W. Kitajima (NAP-MEPA, ESALQ-USP, Brazil), for helping with the scanning microscopy observations. To R. Ochoa (SEL-USDA, USA) and E. Kane (University of Maryland, USA), for helping with the interpretation of setal homologies.

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