

***Tenuipalpus coyacus* DE LEON (ACARI: TENUIPALPIDAE), NEW REPORT FOR CUBA**

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ABSTRACT: The genus *Tenuipalpus* is represented in Cuba by four species. *Tenuipalpus coyacus* De Leon is reported for first the time in the present paper. The mites were collected from leaves of *Roystonea regia* O.F. Cook at San José de las Lajas municipality, Havana Province. Some data about the life cycle of this mite are offered.

(Key words: *Tenuipalpus coyacus*; *Roystonea regia*; Tenuipalpidae)

***Tenuipalpus coyacus* DE LEON (ACARI: TENUIPALPIDAE), NUEVO INFORME PARA CUBA**

RESUMEN: El género *Tenuipalpus* está representado en Cuba por cuatro especies. En el presente trabajo se informa por primera vez la presencia de *Tenuipalpus coyacus* De León. Los ácaros se colectaron sobre hojas de *Roystonea regia* O.F. Cook en el municipio San José de las Lajas, provincia La Habana. Se brindan algunos datos sobre su ciclo de desarrollo.

(Palabras clave: *Tenuipalpus coyacus*; *Roystonea regia*; Tenuipalpidae)

The tenuipalpids or the false spider mites have a worldwide distribution and they are more numerous in the warmest regions of the world (1,2). In the Tenuipalpidae family, 622 species belonging to 30 genera have been reported (3).

Tenuipalpus Donnadieu is a large and widely distributed genus of phytophagous mites. It comprises up to 200 described species feeding on various plant species (4). Only four species; *T. cedrelae* Livschitz y Salina, *T. hurae* Livschitz y Salina, *T. imias* Cao y *T. swieteniae* Livschitz and Salina have been previously reported in Cuba (5).

In an investigation of the acarine fauna associated with plant species of the *Arecaceae* family carried out at San Jose de las Lajas municipality, Havana Province (6), a new species of *Tenuipalpus* (*T. coyacus* De Leon) was reported for the country. Specimens were cleared

in a lactic acid solution and mounted in Hoyer's medium. For the morphometric study; the body length was measured from the apex of the rostrum to the posterior apex of the body, and the width was measured at the level of the sejugal furrow. All measurements are given in micrometers (μm). The setal nomenclature used in the description follows Lindquist's system (7). The specimens were deposited in the collection of Acarology Laboratory at the National Centre of Animal and Plant Health, Cuba.

To known the life cycle under laboratory conditions, sections of leaves of *R. regia* were placed on water-saturated cotton layer in 9 cm Petri dishes and the leaves were surrounded with wet cotton. Females of *T. coyacus* were allowed to oviposit for 24 h, and then removed. Thereafter, the eggs were observed daily till adult emergency. The duration mean and standard deviation per stage were calculated.

Tenuipalpus coyacus De Leon

Description: The specimens examined agreed with the description given by De Leon (8) and Baker and Tuttle (2). Female: Red. Dorsum of body medially with numerous irregular mostly transverse ridges; lateral of those on opisthosoma small rounded knobs. Lengths of setae: *v2* 7; *sc1* 53,3; *sc2* 60,3; *c1* 30; *c3* 25,3; *d1* 26,6; *d2* 10; *e1* 23,6; *e2* 19; *e3* 22,3; *f2* 20,6; *h1* 20,6; *h2* 115. The ventral lengths of setae are: *IC3a* 14,3; *IC4a* 66,6; *ag* 22,3; *g1* 31,6; *g2* 31,6; *ps1* 10; *ps2* 23,6. Palpus three-segmented. Legs with both enlarged and setiform types of setae; coxa III with a seta on anterior margin; patellae I and II each with a seta on anterior and posterior margins; patella III with enlarged seta on anterior margin; patella IV bare; tarsi I and II each with a posterodistal rod-like seta and an overlying seta. Length 369, width 197,3 (Fig. 1a)

Male: Resembles female, but body setae proportionally smaller. Lengths of setae: *v2* 5 *sc1* 47,



A



B

FIGURE 1. *Tenuipalpus coyacus*. A. Female, B. Male./ *Tenuipalpus coyacus*. A. Hembra, B. Macho.

sc2 52, *c1* 19, *c3* 22, *d1* 19, *d2* 5,6, *e1* 17,3, *e2* 13, *e3* 15, *f2* 16,6, *h1* 17, *h2* 138,5. The ventral lengths of setae are: *IC3a* 9, *IC4a* 48,6, *ag* 12,3, *g1* 15, *g2* 15, *ps1* 10. Length 299, width 157,6 (Fig. 2b).

SPECIMENS EXAMINED: Three females and three males, on *Roystonea regia*, at San José de las Lajas municipality, Havana, Cuba, 11.xii. 2007.

REMARKS: *Tenuipalpus coyacus* is closely related to *T. dasples* Baker and Pritchard, but differing from it by having the third dorsal propodosomal rather narrow and reaching nearly to the hysterosomal suture among other characters a much longer third dorsal propodosomal and a seta on patella III.

This specie was reported in San Bias, Nayarit, México by De Leon (8) on *Cocos nucifera* L. In 2005, it was reported for first time in Recife, Brasil on *C. nucifera* (9). Subsequently, Gomes *et al.* (10) indicated its presence in Sul da Bahia on *C. nucifera* and *Euterpe oleracea* Mart. *R. regia* is a new hosp plant report.

The average duration of life-history stages were: egg 13,18±3,37 days; larva 5,90±1,52 days; nymph I 7,74±2,05 days and nymph II 8,00±1,41 days. The total period from egg deposition to adulthood averaged 34,79±3,13 days. These results are the first data about the biology of this *Tenuipalpus* species.

The phytoseiid mites *Amblyseius largoensis* Muma, *Amblyseius silvaticus* (Chant), *Euseius hibisci* Garman, *Amblyseius aerialis* Muma, *Africoseiulus namibianus* (Ueckermann) and *Galendromimus alveolaris* Chant were detected in association with *T. coyacus*. They can be considered as possible predators of this phytophagous mite. Further studies are needed to determine the damage that *T. coyacus* can produce on *R. regia*.

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