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**A New Species of the Genus *Tarsonemus* Canestrini et  
Fanzago (Acari: Tarsonemidae) from Tea Gardens of Iran**

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**Abstract:** *Tarsonemus mazandarani* sp. nov. (Acari: Tarsonemidae) was collected and identified for first time from tea gardens of Mazandaran province, Iran. This new species was described in the present study.

**Key words:** Acari, Tarsonemidae, *Tarsonemus mazandarani* sp. nov., tea, *Camellia sinensis* var. *sinensis*, Iran

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## Introduction

A survey of mites associated with tea gardens was conducted in the major tea-growing region of Iran (Mazandaran province) during period 1994-1996. Only the tea dominant species, *Camellia sinensis* var. *sinensis* (Teaceae) was sampled (Zargari, 1990). No previous studies were done on the tea mites fauna in Iran.

In this study there is a description of a new describe a new species of *Tarsonemus mazandarani* sp. nov. from tea gardens of Iran. The terminology and abbreviations are adapted from Lindquist (1986). Measurements are given in micrometers.

### *Tarsonemus Canestrini et Fanzago*

Pseudostigma organ in the middle expanded (female), propodosomal in the female are highly separated, its second pair in the posterior part of propodosoma, leg 4 with clear tibia and tarsus, tibia-tarsus in leg 4 of males less than half of femur length and three times less than basal part of femur 4. Femur in the leg 4 in the males without edge (Jeppson *et al.*, 1975).

## Description

### *Female*

Body long and oval-shaped, 184-192  $\mu$ m long and 101-110  $\mu$ m wide, parallel-sided, genathosoma dome and conical shape with short, thin and reduced palps, pseudostigmatic organ oval (Fig. 5). Diameter of anterior 7.4 and posterior 5.9, 6.9. vertical seta 26, scapular seta 48, tibia-tarhasus I bearing scythe shaped claw with two small hairs. Empodium unclear, its lateral sensory setae nearly situated under claw, fourth femur without wide hyaline, length of legs 1-4 as fallows: 53.5, 60, 83.2 and 57.4, respectively. Fourth segment of leg 4 11.4 long and 2.4 wide, third segment of leg 4 27.2 long and 3 wide. Third segment basal seta of leg 4 10 and its subapical seta 14.9, fourth segment apical seta

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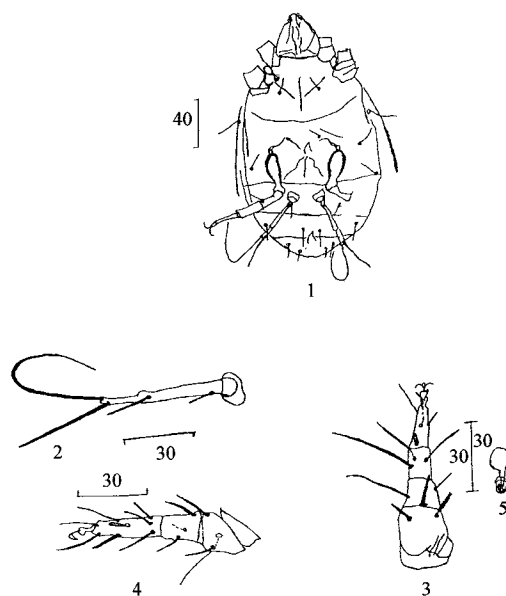


Fig. 1-5: *Tarsonemus mazandarani* sp. nov. (Female): 1, Ventral surface; 2, Leg 4; 3, Leg 2; 4, Leg 1; 5, Pseudostigma organ

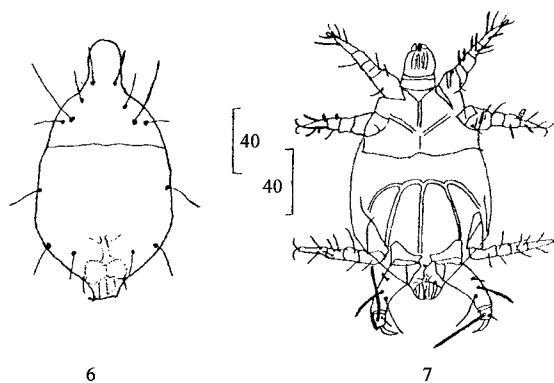


Fig. 6-7: *Tarsonemus mazandarani* sp. nov. (Male): 6, Dorsal idiosoma; 7, Ventral surface

of leg 4 71.3, its subapical seta 31, solenidion on tarsus of leg 2 3.9-4, solenidion on tibia-tarsus of leg 1 4.9-5 (Fig. 1-5).

*Male*

Smaller than female, 134-144  $\mu\text{m}$  long and 65-69  $\mu\text{m}$  wide, genathosoma similar to female and grooved, a sensory capsule in the lateral part of leg 2 with transversal grooves which appear as suture with 5.9-6 length. Femorogenu with three setae, outer distal femoral seta of leg 4 17-18, interior distal femoral seta 14.5-15, proximal seta 4.9-5, trochanter setae 10. Length of legs 1-4 as follows: 54, 48.5-49, 48.5-49 and 40.6-41 respectively, fourth femur 25.8-26 (Fig. 6 and 7).

### **Material Examined**

9 ♀ and ♂ Specimens, Ramsar and Chalus cities (150 and 25,100 meter heights above sea level), *Camellia sinensis* var. *sinensis* (leaves and fruit capsule), from April until August 1994-1996.

This species has a high density in the areas on where tea plants are infected with fumagine fungi (*Capnodium citri*). It has fungi-saprophage regime.

### **Etymology**

This species is named *mazandarani* because it was collected from Mazandaran province (the main area of tea gardens in Iran). The holotype is deposited in the Acarological Collection, Department of Plant Protection, College of Agricultural Sciences, Shahed University, Ramsar, Iran. Also two microscopic slides are deposited by Dr. Wojciech L. Magowski, in the collection of Department of Animal Taxonomy and Ecology, A. Mickiewicz University, Poland.

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