Abstract

In this work, three new species of vagrant mites on *Trochodendron aralioides* in Taiwan are described and illustrated. They are: *Sierraphytoptus taiwanensus* sp. nov., *Abacarus aralioidus* sp. nov., and *Diptilomiopus aralioidus* sp. nov.

Key words: New species, eriophyoid mite, Taiwan, Trochodendraceae

Introduction

*Trochodendron aralioides* is a relic plant from the Tertiary (about 66.4 my ago). Based on fossil data, this plant was once distributed over eastern Asia. At present, it is distributed from 500 to 2500 m in Taiwan, from 300 to 2000 m in Japan south of 37°N latitude, and is rare in South Korea. The author collected eriophyoid mites from *T. aralioides* over all Taiwan. After the survey, there are three new species of eriophyoids now known to inhabit *Trochodendron aralioides*: *Sierraphytoptus taiwanensus* sp. nov., *Abacarus aralioidus* sp. nov., and *Diptilomiopus aralioidus* sp. nov. Specimens are deposited in the National Museum of Natural Science (NMNS), Taichung, Taiwan. All measurement units are in micrometres (µm). The terminology and abbreviations in the diagrams follow those of Lindquist (1996) and Huang (1999).

In the text, the measurement of the oblique distance between tubercles is indicated by a back slash (/), and that of the straight distance between tubercles is indicated by a dash (-).

*Sierraphytoptus taiwanensus* sp. nov. (Fig. 1)

Female

Body spindle-shaped, 196 long, shield 31 long, 65 wide; shield with minute lobe,