NOTE

Anadeninus parvipesis (Pulmonata: Anadenidae), a Newly Recorded Species from Taiwan

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ABSTRACT: Anadeninus parvipesis Wiktor, Chen et Wu (Anadenidae), an endangered species in China Species Red List, is recorded for the first time in Lalashan Forest Reserve, Taiwan. The spermatheca of this species is elongated, penis is small and epiphallus is long and thick. In this study, a description of this newly recorded species is given and the colored photographs of specimens, SEM images of radula and jaw and dissection of genitalia are also provided for aid of identification of this species.

KEY WORD: Anadenidae, Anadeninus parvipesis, genitalia, New record, Taiwan.

INTRODUCTION

Anadenidae is a taxonomic family of air-breathing land slugs in the superfamily Arionoidea. Wiktor et al. (2000) raised the Anadenidae to a family rank and reported seven species of Anadenus from China. Kuzminykh and Schileyko (2005) reassigned seven China Anadenus species to the genus Anadeninus. Currently, the Family Anadenidae consists of two genera (Anadenus and Anadeninus) and 20 nominal species that distribute from northern India to Kashmir and Pakistan, Nepal and southern China (Gupta and Oli, 1998; Kuzminykh and Schileyko, 2005).

Recently, in our faunal survey of nature reserve, we collected Anadenus species in Lalashan Forest Reserve (24°42'37.68" N, 121°26'15.78" E). In the past investigation, the species of Anadenidae had never been reported from Taiwan. By making a detail comparison of external characters, genitalia, jaw and radula, this species was identified as Anadeninus parvipesis Wiktor, Chen et Wu, an endangered species in China Species Red List (Wang and Xie, 2005).

In this study, taxonomic external features with color photographs, SEM images of radula and jaw, and the result of genitalia dissection were studied and provided.

MATERIALS AND METHODS

Seventeen specimens were collected from the Lalashan Forest Reserve. Specimens were drowned in water overnight and then fixed and preserved in 70% ethanol. The slugs were identified mainly based on their external features and genital morphology. The size of preserved specimens was measured and external characters were photographed in dorsal, ventral and right side of views with a digital camera (Canon 20D). Dissections were done under a Leica Wild MZ12.5 binocular dissecting microscope (Leica Microscopy and Scientific Instruments Group, Heerburg, Switzerland). Drawings were made with the aid of a camera lucida attached to the microscope. Both the jaw and radula were separated, cleaned, observed and photographed with a Hitachi scanning microscope (model 3000N, Tokyo, Japan).

TAXONOMIC TREATMENT

Family Anadenidae Pilshby, 1948
Genus Anadeninus Simroth, 1912


Specimens: NMNS-6656-001: National Science Museum, Taichung, Taiwan, 2 specimens; ESRI-MOL-10-382: Taiwan Endemic Species Research Institute, 15 specimens.

Locality: Lalashan Forest Reserve, Taoyuan County, Taiwan (24°42'37.68" N, 121°26'15.78" E), 17 specimens.

Body length (specimens preserved in 70% ethanol) 29 mm; mantle length 14 mm; sole width 13 mm. Body coloration creamy or yellowish-brown (Fig. 1). Mantle slightly darker, sides with indistinct spots connects into barely visible streaks. Sides generally darker than dorsum. Sides separated from dorsum by two dark