

PSILOTUM NUDUM (L.) P. BEAUV. (PSILOTACEAE), A NEW RECORD FOR THE FLORA OF IRAN

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Specimens of *Psilotum nudum* (L.) P. Beauv. were collected in a natural habitat in a program for the collecting of plants and establishment of a herbarium in Mazandaran. These specimens were found as epiphyte in the cavities on old trees of *Parrotia persica* (DC.) C.A. Meyer. (Iron tree) which filled with decomposing plant residues. Then available books and flora about the Pteridophytes of Iran were revised but the species had not been reported. These specimens were later on named *Psilotum nudum*, which is a new record for the flora of Iran. The species is a perennial herb and has branched rhizome and aerial stems with dichotomous branches. Foliar appendages are scale-like and once-forked. Sporangia are 3-locular and 3-lobed, occur above the base of forked sporophylls and each lobe exhibits loculicidal dehiscence at maturity.

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اولین گزارش گونه (*Psilotum nudum* (Psilotaceae) از ایران

آیت‌اله رضایی و شاهپور خانقلی

طی یک برنامه جمع‌آوری جهت احداث هرباریومی در غرب مازندران، نمونه‌هایی از گونه *Psilotum nudum* از رویشگاهی طبیعی جمع‌آوری گردید. نمونه‌های جمع‌آوری شده به صورت اپیفیت در حفره‌های روی درختان انجیلی (*Parrotia persica*) که با پس‌مانده گیاهان پر شده بود، یافت گردید. پس از جمع‌آوری نمونه‌ها، کتابهای در دسترس مربوط به پتریدوفیت‌های ایران بازبینی و مشاهده شد، چنین گیاهی از ایران گزارش نشده بود. این نمونه‌ها که بعداً *Psilotum nudum* نامگذاری شدند، در واقع مبنای اولین گزارش گونه برای فلور ایران می‌باشند. این گونه گیاهی علفی چندساله با ریزومهای منشعب می‌باشد. ساقه‌های هوایی گیاه با انشعابات دوتایی، زواید برگ‌گی فلس مانند و یک بار دو شاخه‌ای. اسپورانژی یا سه‌حجره‌ای، سه لبه‌ای، بالای اسپوروفیل دو شاخه‌ای؛ هر لب در مرحله بلوغ شکوفای حجره‌ای.

***Psilotum nudum* (L.) P. Beauv.**

Mazandaran: Ramsar, on the road to Limashak, on *parrotia persica* trees, 60 m, 5.6.2003, Rezaei & Maassoumi 83501 (TARI).

In a program of collecting plants for the establishment of West Mazandaran herbarium, the specimens of a fern - like species were found on trunk of *Parrotia persica* (DC.) C.A. Meyer trees in Ramsar, Ramak river, altitude about 40 m from sea level and collected. Then available books and flora about pteridophytes of Iran were revised but the species had not been reported from Iran. These specimens were later on named *Psilotum nudum* (L.) P. Beauv, which is a new record for the flora of Iran.

The division *Psilotophyta* is made up of living plants comprising one class, one order, one family and two genera (*Psilotum* and *Tmesipteris*). So, all of the taxa are new to Iran. It is native to the southeastern region of the United States, Japan, Australia and New Zealand (Gifford & Foster 1989). It is noteworthy that the species is one of only a few surviving members of an ancient group of vascular plants, accepted by some botanists as the most primitive - certainly the most primitive - looking and simplest vascular plant

alive today and it is often described as "living fossils" because of high similarity in many aspects to the earliest tracheophytes of the Silurian - Devonian periods, e.g., *Cooksonia*, *Agalophyton* (Judd & al. 1999). *Psilotum nudum* is a herbaceous plant up to 35 cm occurs as epiphyte on trunk of *Parrotia persica* (Iron tree). Roots absent, the branched rhizome bears numerous rhizoids. Aerial stems erect, nearly tetragonal, glabrous and dichotomously branched. Foliar appendages helically arranged, scalelike, once-forked, veinless. Sporangia 3-locular and 3-lobed, approximately 2 mm wide, short-stalked above the base of forked sporophylls and each lobe exhibits loculicidal dehiscence at maturity (Fig. 1). Homosporous; spores bean-shaped, pale in color. Gametophyte subterranean.

References

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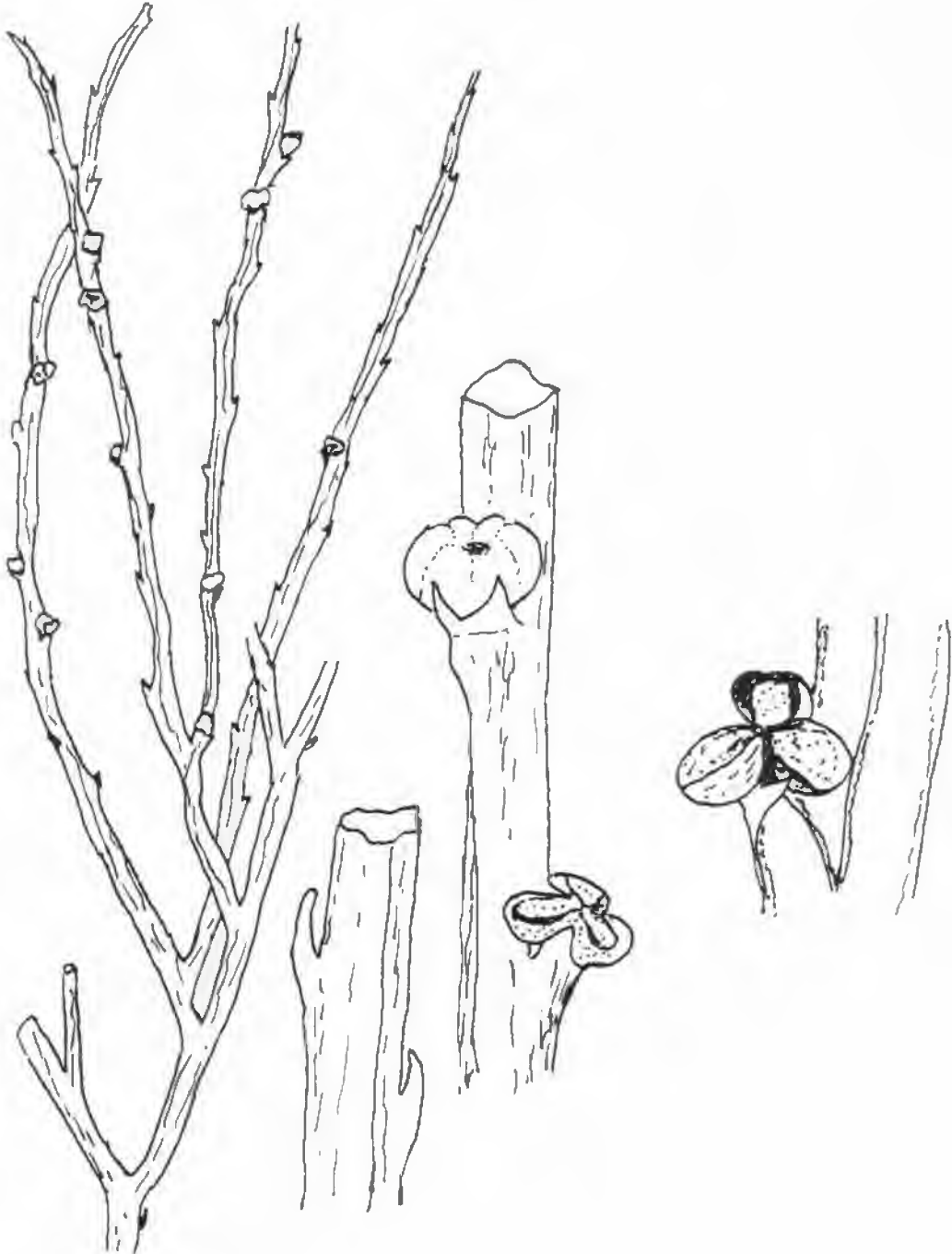


Fig. 1. *Psilotum nudum* (x 1.5); sporangium (x 10); dehiscent sporangium (x 10).