

## ***Weissia perssonii* Kindb. in the Iberian peninsula**

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**Abstract** — *Weissia perssonii* Kindb. was found in the course of bryological research related with the project 'Flora Briofítica Ibérica'. The ecological characteristics of the site, current distribution and description of the samples from Spain are reported. © 2001 Adac / Éditions scientifiques et médicales Elsevier SAS

*Weissia* / Pottiaceae / Musci / Iberian peninsula

**Résumé** — On rapporte la présence dans le nord de l'Espagne de *Weissia perssonii*, identifié au cours des travaux de recherche réalisés dans le cadre du projet 'Flora Briofítica Ibérica'. En plus des données écologiques sur le site et de la description de l'échantillon espagnol, on commente aussi la répartition actuelle du taxon. © 2001 Adac / Éditions scientifiques et médicales Elsevier SAS

*Weissia* / Pottiaceae / Musci / peninsule ibérique

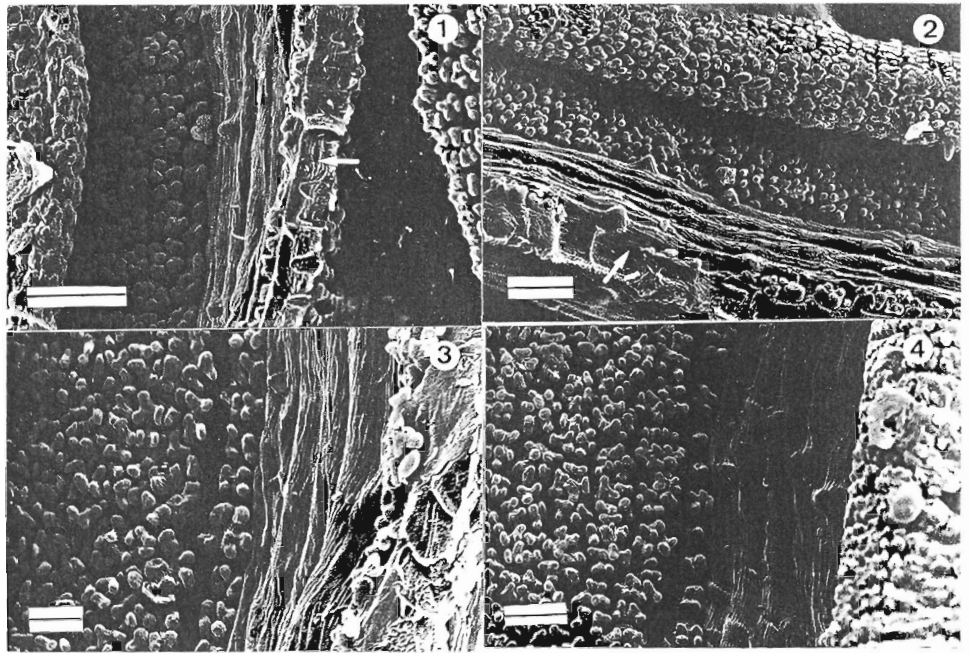
### INTRODUCTION

While studying material of the genus *Weissia* for publication in *Flora Briofítica Ibérica* we came across a sample from the North of Spain which we identified as *Weissia perssonii* Kindb. To confirm its identification we studied the type material of this taxon (Sweden, in Scania, Arild ad Kullaberd...; lectotype: S !).

### MORPHOLOGICAL CHARACTERISTICS

The Spanish samples showed all the distinctive characters of the species, which are basically the absence of papillae along the whole length of the adaxial surface of the nerve (the only species of the genus which present this character) and very densely papillose upper and middle laminal cells (Figs 1-4). The description of the species based on the specimens from Spain is as follows:

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Figs. 1-4. *Weissia perssonii*, SEM micrographs of leaf surfaces (MUB 6554). 1, 2. Nerve near the leaf apex (arrows showing area where the lamina is broken). 3, 4. Nerve in the middle of leaf. Scale bars: 10  $\mu$ m.

Plants about 3-4(5) mm high, pale green, small, scattered or loosely tufted. Leaves crisped or spirally twisted when dry, erect to patent when moist, lanceolate to linear-lanceolate or ovate-lanceolate, generally narrowed to the apex from lower thirds, 1.8-2.5  $\times$  0.3-0.6 mm; margins entire, plane below, strongly involute above and forming a tubulose apex, with the nerve not visible in the adaxial face. Nerve 50-60(70)  $\mu$ m wide in lower part of leaf, ventral cells elongated with very thick walls, without papillae; in section showing 1-2 abaxial and adaxial stereid bands and 1 guide cell band. Upper and median cells of leaves quadrate or shortly rectangular, 9-10  $\times$  8-9  $\mu$ m, densely papillose, 3-5(6) simple or bifurcate papillae per cell. Lower cells of leaves rectangular, 19-22(25)  $\times$  6-10(11)  $\mu$ m, smooth, hyaline. Autoicous. Perichaetial leaves similar to or larger than upper stem leaves, narrowly lanceolate. Seta straight, 3-4.5 mm long. Capsule ovoid to ellipsoid, symmetric, 1.8-2.5 mm long, yellowish-brown. Peristome teeth lanceolate, 20-50  $\mu$ m long. Operculum subulate-rostrate, 0.6-1 mm long. Calyptra cucullate, 1.5-2 mm long. Spores 12-18(22)  $\mu$ m in diameter, finely papillose.

#### DISTRIBUTION AND HABITAT

The distribution of this species, which is only known in Europe, seems to be confined to coastal zones of the North: Faroes, England and Wales, Isle of Man, Scotland, Ireland, Channel Island, Sweden, Norway (cf. Crundwell, 1971; Smith, 1978; Düll, 1984;

Hill *et al.*, 1992) and France (Bates & Hodgetts, 1995). The new record extends its area to southern climes, although still open to the Atlantic influence (Fig. 5). *Weissia perssonii* is a new record for the Iberian peninsula (Spain, Asturias, Playa de Cuevas del Mar, 43° 27' N; 4° 45' W, 7.8.1987, *Buck 15095* (BCB 33596, 26718; LISU 153660; MUB 6554; NY).

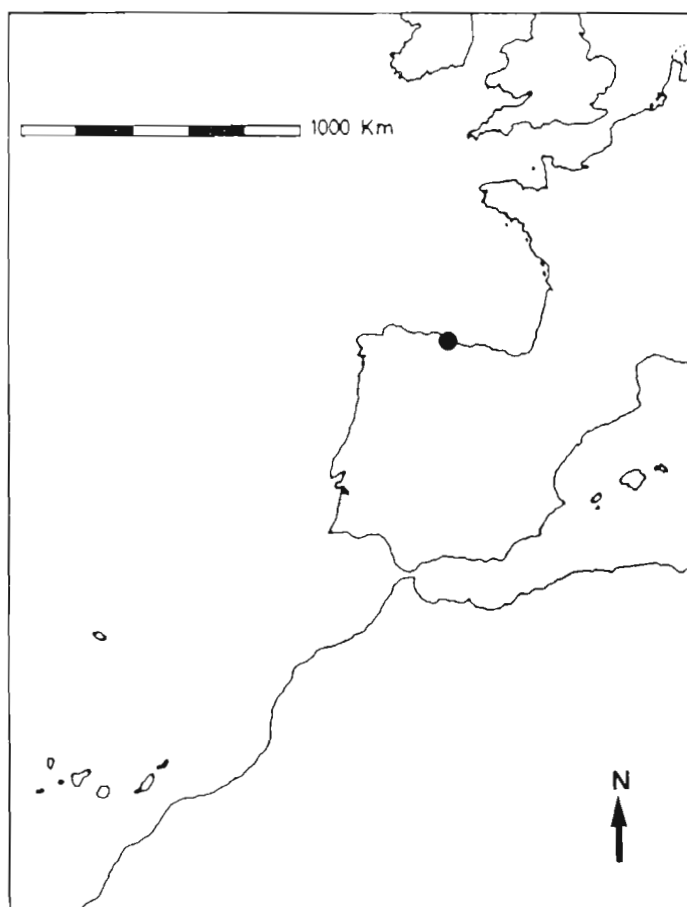


Fig. 5. Locality of *Weissia perssonii* in northern Spain.

Its ecological behaviour is homogeneous throughout its range, being found on soil exposed cliff in schistose coastal rocks, as indeed was the present sample.

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