

ADIANTACEAE/PTERIDACEAE

DORYOPTERIS PILOSA VAR. *GEMMIFERA*, A NEW FERN VARIETY ESTABLISHED

Doryopteris pilosa (Poir.) Kuhn var. *gemmafera* J.E. Burrows & Strauss, var. nov., a *D. pilosa* var. *pilosa* frondibus gemmas ad juncturam stipitis rachidisque ferentibus differt.

TYPE.—Transvaal, Thabazimbi District, Geelhoutbosch, *Strauss 17* (PRE, holo.). Figures 13; 14A, B.

The publication of the new record of *Doryopteris pilosa* (Poir.) Kuhn for the southern African subregion (Jacobsen & Jacobsen 1988), makes no mention of this fern bearing gemmae, although plants in the Geelhoutbosch population frequently bear gemmae at or near the junction of the stipe and the midrib. (Figure 13). This phenomenon also occurs in *D. pedata* (L.) Fée from the New World, with the proliferous form having been accorded varietal status, *D. pedata* var. *palmata* (Willd.) Hicken.

In order to establish the relationship of *D. pilosa* from southern Africa to the typical form from the Mascarene Islands and Madagascar (Tardieu-Blot 1958), SEM micrographs were made of the spores from two collections from the Indian Ocean islands as well as from material from the north-western Transvaal (Figure 14). There appear to be no discernable differences in the spores from the two regions. However, because of the disjunct geographical distribution of the two forms, together with the distinctive gemmiferous habit, it was felt that the form from Geelhoutbosch should be given varietal rank. Specimens from the Penge area (Jacobsen & Jacobsen 1988) and other regions of the Transvaal have not been reported to possess gemmae but further field work will possibly result in their inclusion within the new variety.

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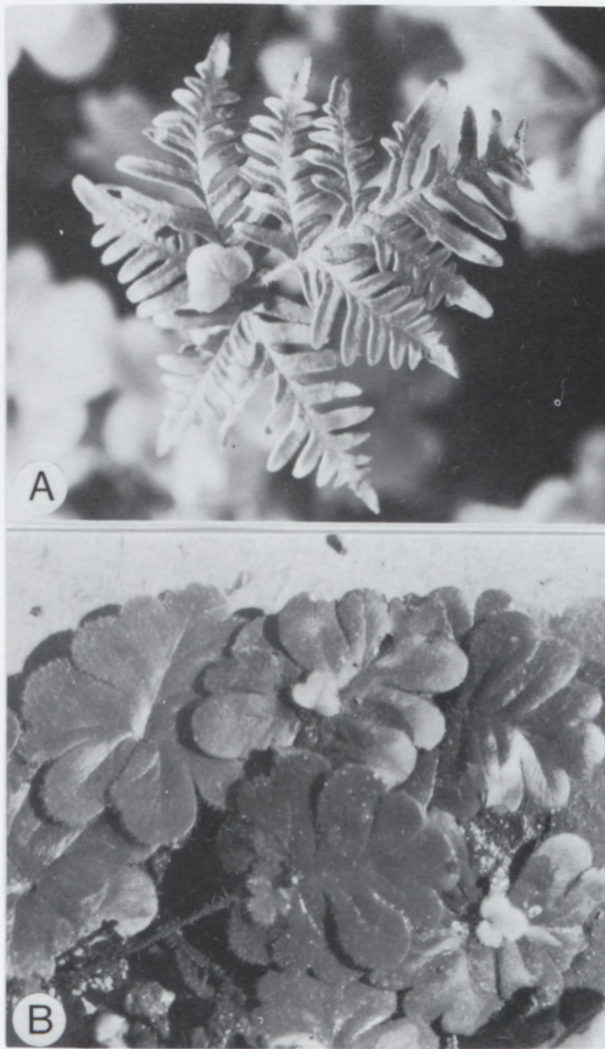


FIGURE 13.—*Doryopteris pilosa* (Poir.) Kuhn var. *gemmafera* J.E. Burrows & Strauss, *Strauss 17*: A, gemma at the base of the fertile frond, $\times 0.9$; B, gemmae at the base of sterile fronds, $\times 0.8$.

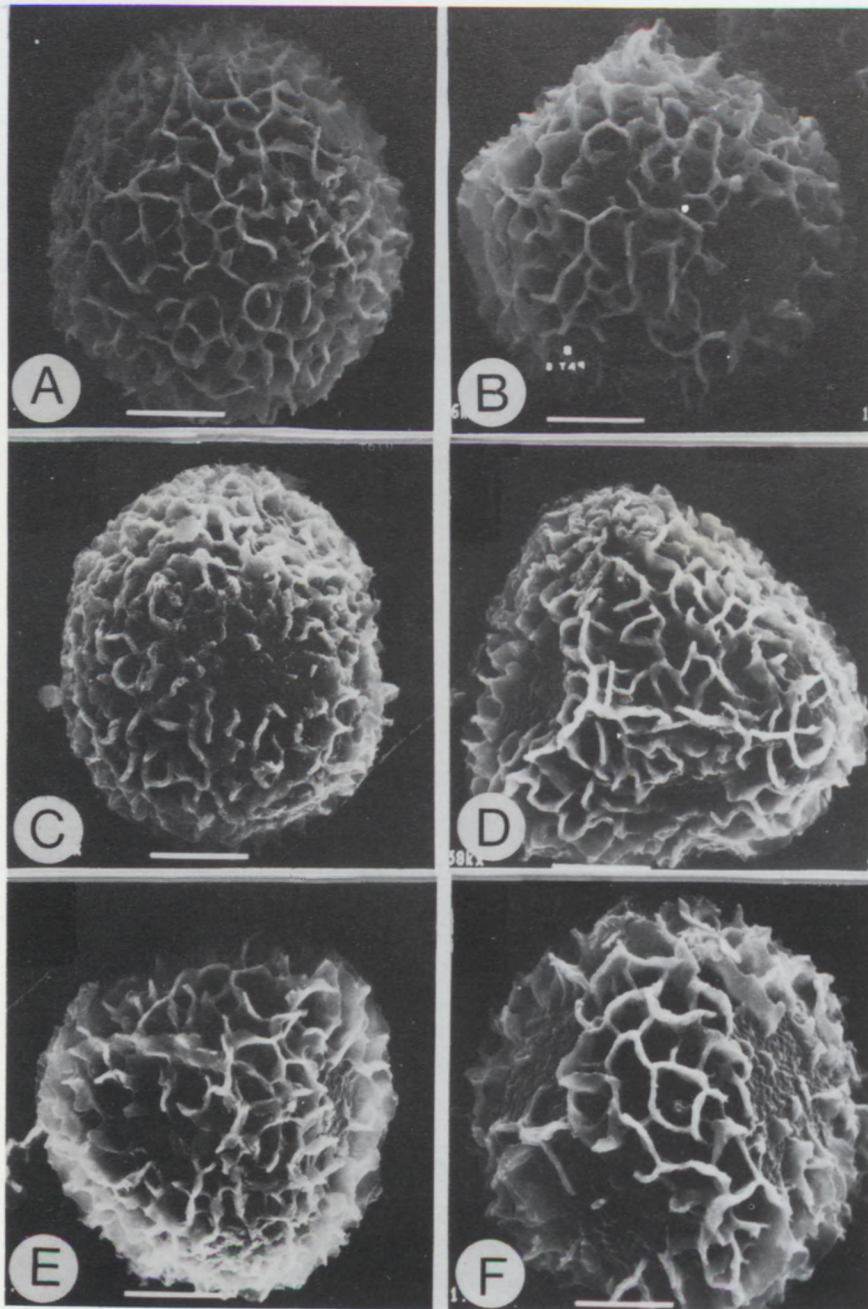


FIGURE 14. —*Doryopteris pilosa* (Poir.) Kuhn. A, B, var. *gemmifera* J.E. Burrows & Strauss, *Strauss 17*: A, spore, distal face, $\times 786$; B, spore, side view, $\times 936$. C–F, var. *pilosa*. C, D, St Paul, Ile de la Réunion, 1875, *G. de l'Isle 131* (P); C, spore, distal face, $\times 948$; D, spore, proximal face, $\times 876$. E, F, environs d'Antanimoro (Androy), Madagascar, 6–9.2.1955, *H. Humbert et R. Capuron 28821* (P); E, spore, proximal face, $\times 760$; F, spore, distal face, $\times 966$.

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