

the identification of all known species of *Pavetta* occurring within the Soutpansberg and its surroundings.

### Key to *Pavetta* species in the Soutpansberg

- 1a Calyx lobes less than 1 mm long:
  - 2a Leaves large, up to 160 × 90 mm, circular in outline ..... *Pavetta eylesii* S.Moore
  - 2b Leaves not circular in outline:
    - 3a Leaves spatulate:
      - 4a Leaves glabrous ..... *Pavetta gardeniifolia* A.Rich. var. *gardeniifolia*
      - 4b Leaves hairy ..... *Pavetta gardeniifolia* A.Rich. var. *subtomentosa* K.Schum.
    - 3b Leaves elliptic to lanceolate:
      - 5a Petiole 5–15 mm long; forest trees ..... *Pavetta inandensis* Bremek.
      - 5b Petiole 2–6 mm long; occurring in savanna or on forest margins ..... *Pavetta lanceolata* Eckl.
  - 1b Calyx lobes more than 1 mm long:
    - 6a Calyx lobes acute:
      - 7a Leaves sessile ..... *Pavetta harborii* S.Moore
      - 7b Leaves stalked ..... *Pavetta schumanniana* F.Hoffm. ex K.Schum.
    - 6b Calyx lobes ensiform:
      - 8a Leaf lamina obovate to spatulate; calyx lobes up to 9 mm long; *Androstachys* woodland ..... *Pavetta tshikondeni* N.Hahn
      - 8b Leaf lamina ovate; calyx lobes up to 5 mm long; occurring in high mountain mistbelt vegetation ..... *Pavetta trichardtensis* Bremek. *sensu lato*

### Etymology

The new species was discovered on 4-05-1996 in the course of a vegetation survey for the Tshikondeni Mining

Company. The specific epithet is derived from the name of this company, in recognition of their responsible mining practises and conservation efforts in the region.

### Specimens examined

NORTHERN PROVINCE—2230 (Messina): Venda, Klein Tshipise, (–BC), (in fl. & fr.), 01-02-1980, A.E. van Wyk 3606 (PRE, PRU). 2231 (Pafuri): Kruger National Park, 32 miles northeast of Punda Maria, steep sandstone hillside overlooking Pafuri (Luvuvhu) River, (–AC?), L. E. Codd & B. de Winter 5538 (PRE). Makhaya Park, World's View, (–CA), (in fr.), 04-05-1996, N. Hahn s.n. (K, Herb. Sout.), 27-01-1997, (in fl.), N. Hahn 1367 (K, PRE, Herb. Sout.).

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## OPHIOGLOSSACEAE: PTERIDOPHYTA

### TWO NEW TAXA OF *OPHIOGLOSSUM* FROM TROPICAL AFRICA

#### INTRODUCTION

Historically, the species within the genus *Ophioglossum* L. have been taxonomically misunderstood and poorly delimited, due mainly to their simple morphology and the resulting lack of characters upon which to base the delimitation of species. A recent detailed study of the genus (Burrows 1992) has shown that extensive field research, in which taxa are compared to one another when growing together in a single locality (Burrows 1996), and the use of scanning electron microscopy to categorise spore morphology (Burrows 1997), provides reliable taxonomic information with which to separate taxa and has led to the recognition of several undescribed taxa. This paper describes two new taxa of *Ophioglossum* from south-central Africa.

1. ***Ophioglossum richardsiae* J.E.Burrows**, sp. nov., ab *O. lusoaficano* trophophoris lanceolatis vel anguste ellipticis ultra 8 mm latis, et sporis cum foveis multis conicis differt; et ab *O. vulgato* trophophoris angustis, plerumque ellipticis, infra latis, differt.

TYPE.—Zambia, Northern Province, 24 km from Mbala (Abercorn), The Rocks, 4.8 km N of Kawimbe, 1 700 m, 26 Feb. 1959, *McCallum-Webster* C8 (K, holo.).

Perennial herb with annual aerial parts. *Rhizome* fusiform to thickly linear, 7–22 × 1.5–5.0 mm. *Roots* fleshy, horizontal, proliferous. *Leaves* usually single; stipe 12–(27–69)–100 mm long, 25–40% of its length subterranean, stipe : trophophore length ratio 1:0.57–1.83, bases not persistent; trophophore elliptic, narrowly elliptic or lanceolate, 22–(28–50)–60 × 6–(8–13)–15 mm, length : width ratio 2.5–5.7:1, apex acute, often apiculate, base narrowly cuneate, dull green, lamina somewhat folded along midline in fertile leaves, margins flat; venation with linear areolae medially and elongate areolae laterally, with fine veins and included veinlets confined to lateral areas; epidermal cells linear with wavy walls medially, to elongate with sinuous anticlinal walls laterally, stomata partially aligned. *Sporophore* arising from base of trophophore, 77–(95–115)–140 mm long, sporophore : trophophore length ratio 2.0–4.1:1, with 9–(12–21)–29 pairs of sporangia. *Spores* 30–40 µm in equatorial diam., trilete, rarely alete or monolete, muri often so broad that lumina are reduced to conical pits, superficially smooth but always minutely undulate (*sensu* Murley in Stearn 1978). Figures 12A, B; 13A–C.

This taxon was first collected by Edgar Milne-Redhead and Peter Taylor on their 1956 expedition to southern Tanzania. This and subsequent collections have either remained unnamed or have been attributed to