FIRST RECORD OF GEOPHILA IN SOUTHERN AFRICA

Geophila D.Don, a small herbaceous genus of forest floor perennials, has previously not been recorded from the Flora of southern Africa (FSA) region (Leistner 2005), the closest known locality being in eastern Zimbabwe (Govaerts et al. 2009). The genus comprises more than 20 species from both the Old and New World (Mabberley 2008; Govaerts et al. 2009), with only three taxa reported in the Flora zambesiaca (FZ) region (Verdcourt 1989).

In July of 2008, red-fruiting plants of Geophila were encountered in shade alongside the road traversing Ngoye Forest in Zululand (Figure 14). This low-growing herb occupied the poorly developed field layer community of climax forest (Huntley 1965) in vegetation classified recently as Scarp Forest (FOz5) (Rutherford et al. 2006). Material was grown on to flowering in Everton near Durban and a voucher specimen prepared. A return trip to Ngoye Forest in late May 2009 enabled the gathering of fruiting material from the colony, which occupies an area of \pm 12 m². Comparison with literature revealed this collection to be Geophila repens (L.) I.M.Johnston, a pantropical herb of evergreen forest floors, widespread in both the Old and New World (Verdcourt 1989). The nearest known locality of this species lies some 940 km north of Ngoye Forest in Zimbabwe's Chirinda Forest (Drummond & Mapaure 1994), a medium altitude rainforest (Müller 1999) within the Chimanimani-Nyanga Centre (CIC) of Endemism (Van Wyk & Smith 2001). These Geophila repens records represent a significant range extension, and they also serve to confirm the close floristic relationship of the rainforests of eastern Zimbabwe with Ngoye Forest-as part of the Maputaland-Pondoland Region of Floristic Endemism, approximating the Tongaland-Pondoland Regional Mosaic of White (1983) (Müller 1999). Various pteridophytes (Burrows & Burrows 2001), lianes (Urera trinervis), shrubs (Pseuderanthemum subviscosum) and grasses (Olyra latifolia) exhibit similar disjunctions. The distributions of certain fauna such as the butterfly Euriphene achlys further reflect this pattern (Swanepoel 1953). Whereas some such taxa remain regionally localized within Ngoye Forest (Klopper & Crouch 2010), a number extend their range southwards

to Pondoland (Huntley 1965; Van Wyk & Smith 2001). The *Geophila* species occurring nearest to Ngoye Forest is *Geophila obvallata* (Schumach.) F.Didr., which was recorded from the Maputo region of Mozambique (Verdcourt 1989), somewhat closer than Chirinda Forest. This species is associated with a much broader range of habitats than *G. repens*, which is restricted to evergreen forest. *Geophila repens* is distinguished from *G. obvallata* by its bright red or orange rather than black, purple or blue berries. Furthermore, the inflorescences of *G. repens* are usually 1-flowered in our region and without an involucre, whereas those of *G. obvallata* are always several-flowered and subtended by a distinct involucre comprising separate bracts. The style of *G. repens* is between 3.5–7.0 mm long vs not more than 1 mm in *G. obvallata* (Verdcourt 1989).

The full synonymy for *Geophila repens*, with species description and illustration, is provided by Verdcourt (1989).

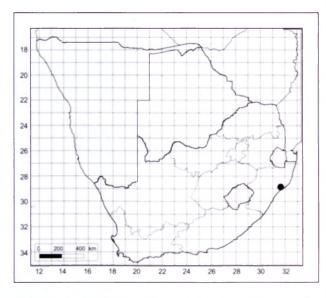


FIGURE 14.—Distribution of Geophila repens in the FSA region, •.

Specimens examined

KWAZULU-NATAL.—2831 (Nkandla): Ngoye Forest Reserve, ± 3 km west of gauge weir in forest, on northern roadside verge in shade, 440 m, grown on to flowering in Everton, (–DC), 20-05-2009, *R. Edwards 1* (PRE), fruiting, 24-05-2009, *R. Edwards 2* (PRE).

ACKNOWLEDGEMENTS

Mr D. Styles is thanked for helpful discussions regarding the identity of the discovery; Mrs H. Snyman, SANBI, for preparing the map; and the staff of the Mary Gunn Library, SANBI, for facilitating access to literature. This note is dedicated to the late Mr Ian Garland who for many years recognized the uniqueness of Ngoye Forest and surrounds, and actively supported its botanical exploration.

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