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## Short communications

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### ***Opogona scaphopis* Meyrick (Lepidoptera: Tineidae: Hieroxestinae) causing serious damage to *Gasteria* and *Haworthia* at Kirstenbosch National Botanical Garden, South Africa**

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Over the last few years severe insect damage has been caused to several species of *Gasteria* and *Haworthia* plants (Asphodelaceae) in greenhouses at the Kirstenbosch National Botanical Garden, Cape Town, Western Cape, resulting in the death of the plants (Fig. 1).

Examination of the plants showed that the damage was caused by lepidopterous larvae. The larvae destroy the roots of the plants by tunnelling into them, hollowing them out and eventually rendering the plants without roots (Fig. 2). Then they tunnel into the base of the plant and, if it still survives as the hardy succulents can do, into the leaves. The plants eventually disintegrate.

The larvae were reared to the adult stage and the moth was identified as *Opogona scaphopis* Meyrick (Lepidoptera: Tineidae: Hieroxestinae). The phytophagous behaviour of this species is unusual for members of the Tineidae, the family to which the clothes moths belong, as they mostly feed on decaying animal or vegetable matter or fungi (Henning 1985; Davis & Peña 1990). However, two other *Opogona* species also feed on living plants. *Opogona omoscopia* (Meyrick), which is present in South Africa (with specimens from Cape Town in the Iziko South African Museum, Cape Town), feeds on decaying vegetation, but also on gladioli corms and pineapple roots (Sterling *et al.* 2009). *Opogona sacchari* (Bojer), known as the banana moth, can cause damage to a wide range of plants by burrowing into the plant tissue, including sugar cane, maize, banana (particularly the inflorescences) (Davis & Peña 1990) and pineapple (Vorsino *et al.* 2005). The latter has also been recorded from South Africa (Davis & Peña 1990), but (like *O. scaphopis*) is not listed by Prinsloo & Uys (2015) as an insect of cultivated plants. Earlier

references to *O. scaphopis* are Meyrick (1909), who described the species from specimens reared from *Aloe*, and Taylor (1957) who mentions roots of *Haworthia* sp. as a host for *O. scaphopis*.

The mature larva of *O. scaphopis* is 8–10 mm long, dirty grey to brown in colour, with a prominent dark brown head. The alimentary canal usually shows black through the semi-transparent integument (Fig. 3). The pupal case is formed from silk and covered with small sand particles (Fig. 4). It was found in the detritus remains of damaged plants and on dry leaves. The folded wings of the small adult moth (Fig. 5) have a pale yellow-green or mustard colour (clear pale ochreous-yellow, according to Meyrick 1909). At the back they show a dark, semi-triangular patch stretching to the middle of the body. In this study the adults appeared during the period April to June.

*Opogona scaphopis* has previously only been collected in the eastern and northern parts of South Africa. The type specimen in the Iziko South African Museum was collected in Port Elizabeth and Taylor (1975) lists Port Elizabeth as a locality for this species. The Ditsong National Museum of Natural History, Pretoria, has specimens from Grahamstown and Pretoria. The species was probably brought to the Western Cape with *Gasteria* and *Haworthia* specimens collected in the Eastern Cape for the Kirstenbosch Botanical Garden (E. van Jaarsveld, pers. comm.) where it is presently confined to the greenhouse where the plants are kept. In view of the serious damage caused by the insect, attempts will be made to eradicate it with repeated applications of the insecticide cypermethrin.

Suggested common names for this insect: *Gasteria* borer, *Gasteria* boorder (Afrikaans).



**Fig. 1.** *Gasteria* plants dying as a result of infestation by *Opogona scaphopis*.



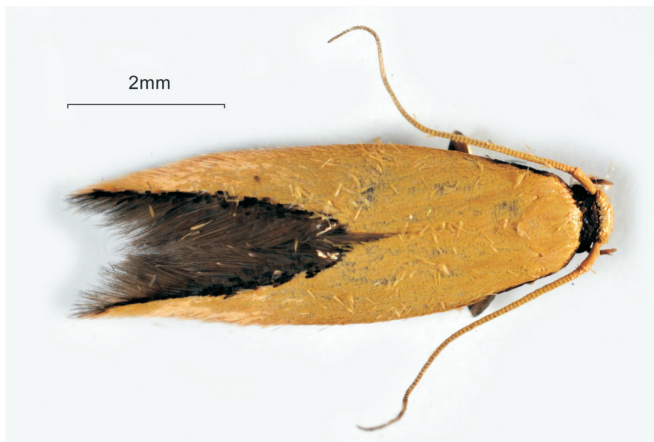
**Fig. 2.** *Gasteria* sp. with roots destroyed by *Opogona scaphopis*.



**Fig. 3.** Larvae of *Opogona scaphopis*.



**Fig. 4.** Empty pupal case of *Opogona scaphopis* on dry *Gasteria* leaf.



**Fig. 5.** *Opogona scaphopis* adult.

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