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## A taxonomic review of the genus *Goffartia* Hirschmann, 1952 (Rhabditida: Diplogastridae) with a note on the relationship of congeners

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### Abstract

This paper deals with the descriptions and diagnoses of the species of the relatively rare and poorly-understood genus *Goffartia* Hirschmann, 1952. A comparative account of the salient morphological characters including stoma, amphids, pharynx, and the male accessory sex organs of the six species viz., *G. africana* (Micoletzky, 1915) Hirschmann, 1952; *G. filicaudata* (Andrássy, 1968) Sudhaus & Fürst von Lieven, 2003; *G. heteroceri* Hirschmann, 1952; *G. praepilata* Shoshin, 1989 and *G. variabilis* (Micoletzky, 1922) Hirschmann, 1952 and the recently described *G. phalacra* Singh, Yousuf, Kumar & Ahmad, 2014, has been given. This paper also discusses the variations among and the relationships between these congeners, and provides an identification key.

**Key words:** Description, species, *G. africana*, *G. filicaudata*, *G. heteroceri*, *G. phalacra*, *G. praepilata*, *G. variabilis*

### Introduction

Diplogastrid nematodes can be predatory or facultative bacterivores, and they further demonstrate phoretic, necromenic or parasitic associations with insects (Sudhaus & Fürst von Lieven 2003). As a result, the group has shown conspicuous feeding adaptations leading to extensive variability in their stoma and pharynx. Andrásy (1984) put the diplogastrids under the suborder Diplogastrina Micoletzky, 1922, in the order Rhabditida Chitwood, 1933. Fürst von Lieven & Sudhaus (2000) accepted the suborder Diplogastrina and gave a comparative functional morphology of their buccal cavities. De Ley & Blaxter (2002) raised an equivalent taxon Diplogastromorpha with some deviation from the classification proposed by Andrásy (1984). Further, Sudhaus & Fürst von Lieven (2003), by using cladistic methods, classified diplogastrid nematodes and accepted 28 genera under one family Diplogastridae Micoletzky, 1922. Thirty-three valid genera have been recorded in the family by Kanzaki *et al.* (2014).

The genus *Goffartia* Hirschmann, 1952 contains slender individuals with inconspicuous features although considerably large amphids. Unlike the stoma/buccal cavity of most diplogastrids, it has a relatively narrow, apparently unarmed stoma with an unobtrusive stegostom. The genus was erected in 1952 by Hirschmann who described *G. heteroceri* as its type species and transferred *Diplogasteroides variabilis* Micoletzky, 1922 and *D. africana* Micoletzky, 1915 to the genus *Goffartia*. Sudhaus and Fürst von Lieven (2003) in their revision of the genera and species of Diplogastridae, synonymised *Paramonovnema* Andrásy, 1968 with *Goffartia* and transferred *P. filicaudatum* to the latter genus. Another species, *G. praepilata* was described by Shoshin, 1989, and the Indian species *G. phalacra* was recently described by Singh *et al.* (2014).

In the present study, we revise the comparative diagnostic characters of the species of the poorly-understood genus *Goffartia* on the basis of original descriptions given by the authors in earlier publications. A population of *G. phalacra* is also described to give an account of intraspecific variations.