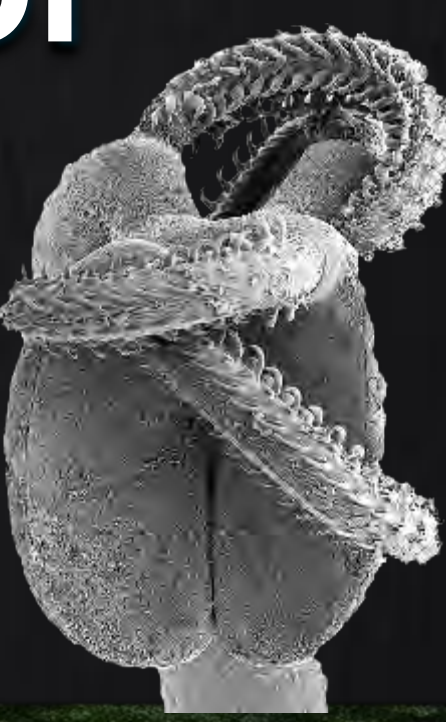


A new species of *Grillotia* Guiart, 1927 (Cestoda: Trypanorhyncha) found in a single batoid host species highlights the hidden diversity of elasmobranch parasites of southern African waters

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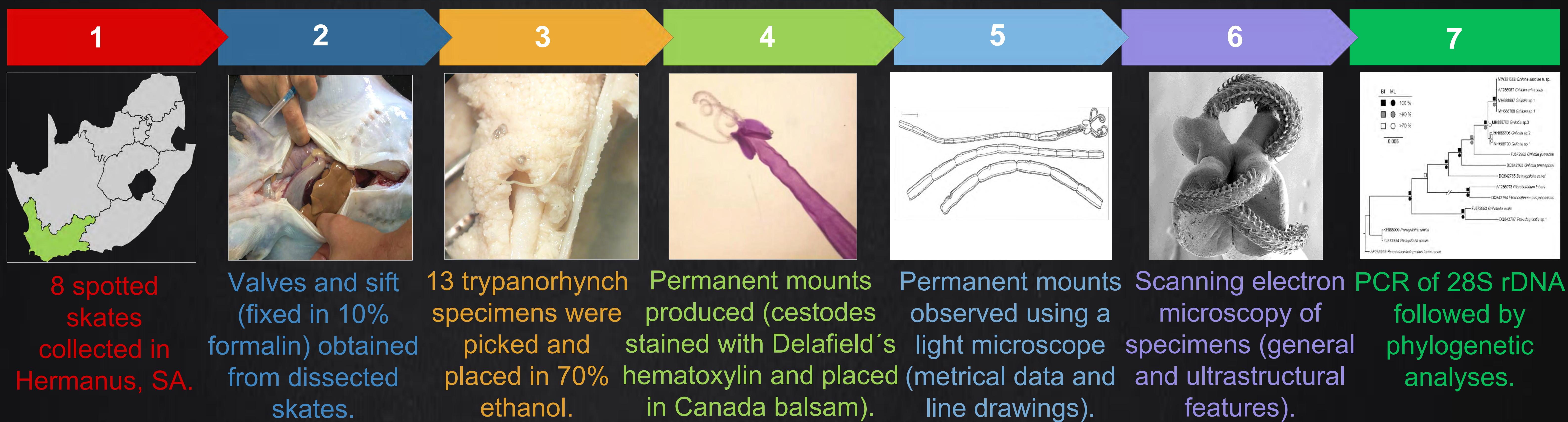
INTRODUCTION

Parasites are an integral part of every ecosystem, indirectly affecting multiple trophic levels. South Africa is regarded as the 3rd most diverse region for cartilaginous fish globally. A great diversity of the subclass Elasmobranchii (sharks, skates and rays), can be found along the coast of South Africa. Cestode records are available for representatives of most groups of elasmobranchs, however skates (Rajiformes) are particularly ignored in terms of species sampled. Trypanorhyncha is the most complicated cestode order infecting elasmobranchs, and from the ~300 species recorded worldwide only 11 species have been reported from South Africa. Trypanorhynchs are commonly characterised by a complex tentacular apparatus, with four tentacles possessing numerous hooks, arranged in highly complex patterns used to correctly classify the species on a lower taxonomic level.

AIM

Assessment of the species diversity of trypanorhynch cestodes in the spotted skate (*Raja straeleni*).

METHODOLOGY



RESULTS & DISCUSSION

A new species of *Grillotia* Guiart, 1927
Of the 17 species of *Grillotia* currently considered valid, 14 have been described as adults from a diverse array of elasmobranchs. Among them, six accepted species are grouped in the subgenus *Grillotia*. Most of the species were reported from the northern Atlantic while fewer reports were recorded from the southwestern Atlantic. *Grillotia sasciae* is the first species of the genus from southern African waters and, interestingly, the first record of the order Trypanorhyncha from the spotted skate. The characteristics of *G. sasciae* includes paired bothria, a heteroacanthous atypical armature, four principal hooks per half spiral row, intercalary hooks and post-ovarian testes. *G. sasciae* most closely resembles species within the subgenus *Grillotia*, however few morphological differences are present. In *G. sasciae*, the retractor muscle attaches at the posterior region of the tentacular bulb rather than the middle portion, continuing posteriorly as seen in most congeners of the subgenus *Grillotia*. The tentacles of *G. sasciae* present a patch of microhooks and two enlarged, uncinuate hooks in the basal tentacular armature. The phylogenetic analyses support the independent status of the new species within the subgenus *Grillotia* (Fig. 1).

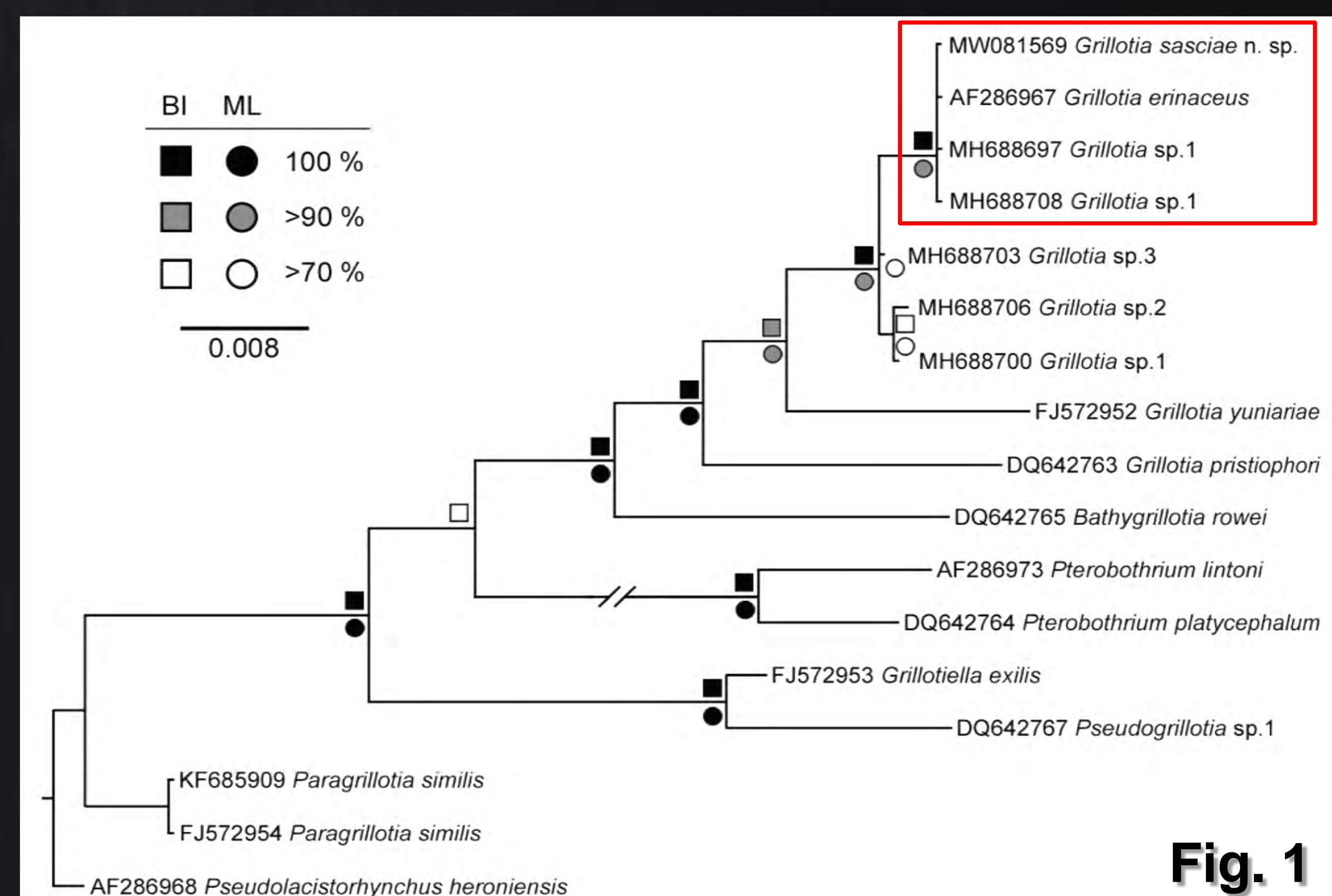


Fig. 1

CONCLUSION

Grillotia sasciae is the first species of the genus *Grillotia* reported from southern Africa. Given the large diversity (n = 196) of elasmobranchs present in South African waters and taking into consideration that most of these species have not been surveyed for parasites, proves that the actual species diversity is drastically underexplored and numerous species still await scientific discovery.

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