

Redescription and first molecular characterization of *Spauligodon oxkutzcabiensis* (Chitwood, 1938) from lizards in Brazil

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INTRODUCTION & AIM

The genus *Spauligodon* Skrjabin, Schikhobalova, Lagodovskaja, 1960 is widely distributed around the world and currently comprises 53 species reported in different reptile families (Ávila & Silva, 2010; Lacerda et al., 2023). Since the genus *Spauligodon* was established, many species have been discovered, described, and reclassified (Alvaro et al., 2024). *Spauligodon oxkutzcabiensis* (Chitwood, 1938). It is one of two species found in Brazil, and was described based on the analysis of reduced morphological and morphometric characteristics. The species is commonly found in lizards of the family Phyllodactylidae, and occurs in high abundance in these hosts. This study presents the first redescription of *S. oxkutzcabiensis*, based on the analysis of morphological and morphometric characteristics observed using an optical microscope and scanning electron microscopy (SEM). This is the first time that the species has been viewed using SEM, and it presents the first genetic characterization for the species.

RESULTS & DISCUSSION

The general morphology of *S. oxkutzcabiensis* (Chitwood, 1938) is simple and very similar to that of other species. Species of the genus *Spauligodon* are differentiated based on the presence or absence of spicules, the presence or absence of spines on the caudal filament of adults, egg shape, and geographic distribution (Monks et al., 2008). In Brazil, *S. oxkutzcabiensis* (Chitwood, 1938) nematodes have been reported mainly in Phyllodactylidae and Gekkonidae lizards, usually in high abundance (Oitaven et al., 2023).

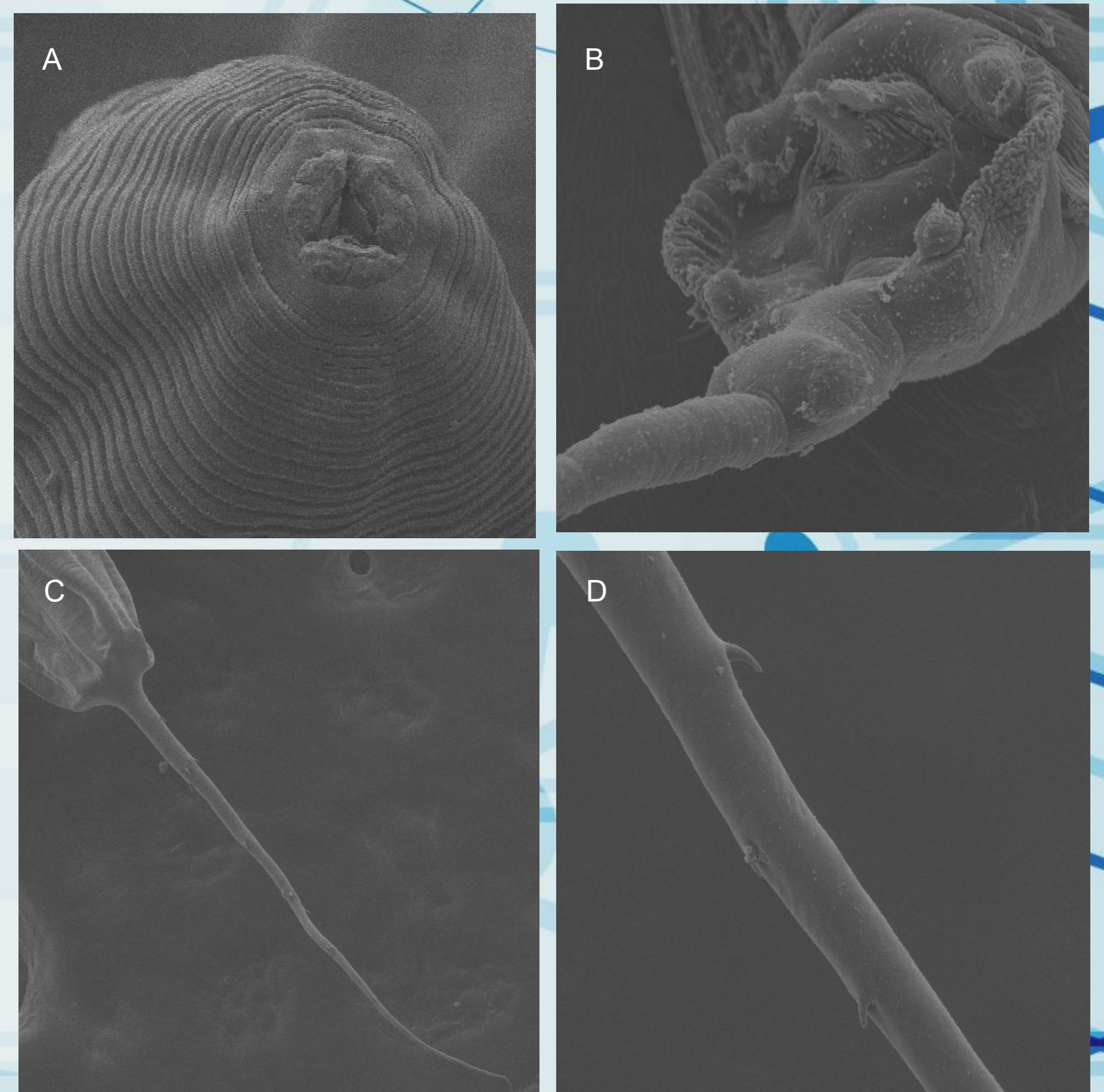


Figure 2. Scanning electron microscopy of adult specimens of *S. oxkutzcabiensis*. A - anterior cephalic region, apical view. B - posterior region of the male showing papillae and bursa. C - posterior region of the female showing tail. D - detail of the posterior region of the female showing spines present on the tail.

METHOD



Collections were made in the municipality of Mauriti, state of Ceará, in the Northeast region of Brazil.

Figure 1. A- Northeast Brazil. B-State of Ceará. C-Municipality of Mauriti.



In the laboratory, the nematodes found were mounted on temporary slides, clarified, and observed under a microscope. PCRs were performed to amplify DNA samples from the specimens.

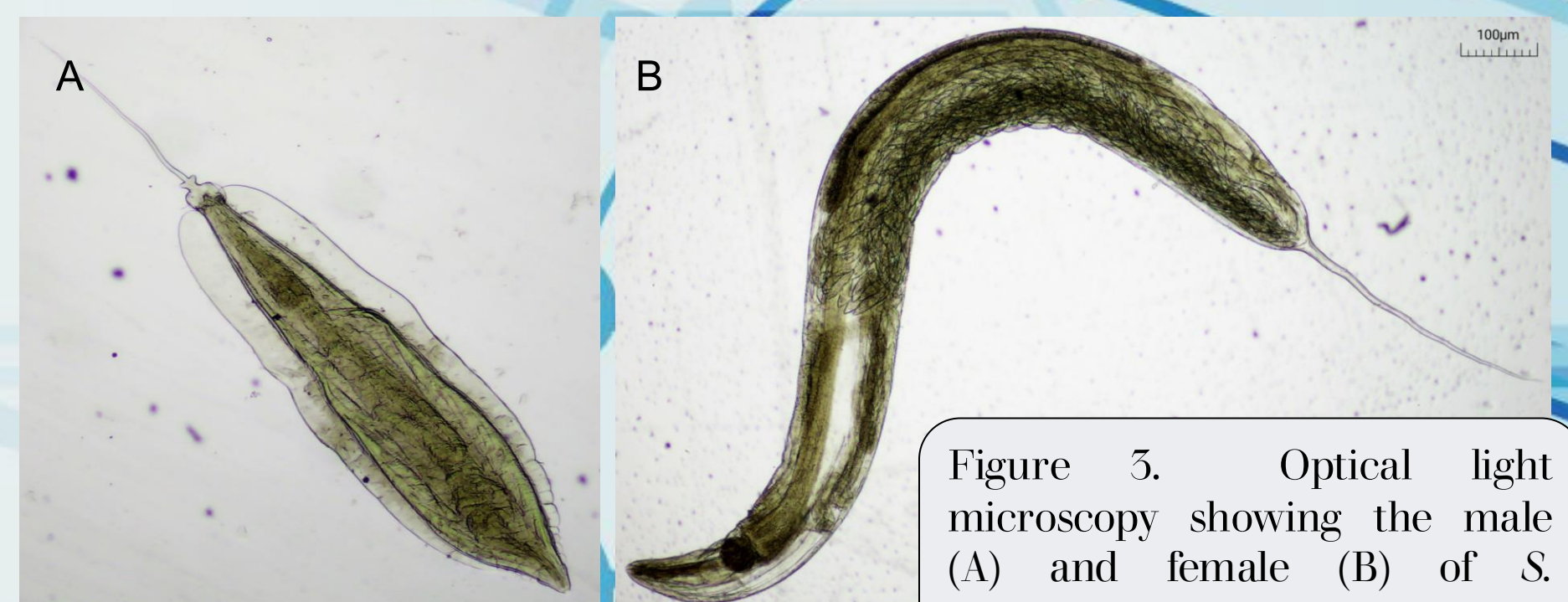


Figure 3. Optical light microscopy showing the male (A) and female (B) of *S. oxkutzcabiensis*.

CONCLUSION

This is the first time the species has been observed using MEV. Observations made using this method revealed morphological details that had previously only been mentioned in its original description. This is also the first genetic characterization of the species. These data contribute to improving the identification of the species and add important information about its morphological and genetic aspects, contributing to knowledge about it.

FUTURE WORK / REFERENCES

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