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New species of Parotocinclus (Loricariidae: Hypoptopomatinae) from a tributary of the São Francisco River, Bahia, Brazil

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INTRODUCTION & AIM

Parotocinclus Eigenmann & Eigenmann, 1889 is a genus of Hypoptopomatinae, distributed in coastal drainages to the north, reaching Santa Catarina in the south of Brazil, including the São Francisco basin. Specifically for the São Francisco River basin, four species are cited: *P. cearensis*, *P. jumbo*, *P. prata*, and *P. robustus*. However, in a recent sampling in the Salitre River, a tributary of the São Francisco River, a new population was found that is morphologically distinct from the other species described for the basin.

The present study aimed to conduct an integrative taxonomy study using morphological and molecular data and analyses to determine whether the population found in the Salitre River indeed represents a new species for science.

Fig 1. Preserved specimen *Parotocinclus* sp. n.

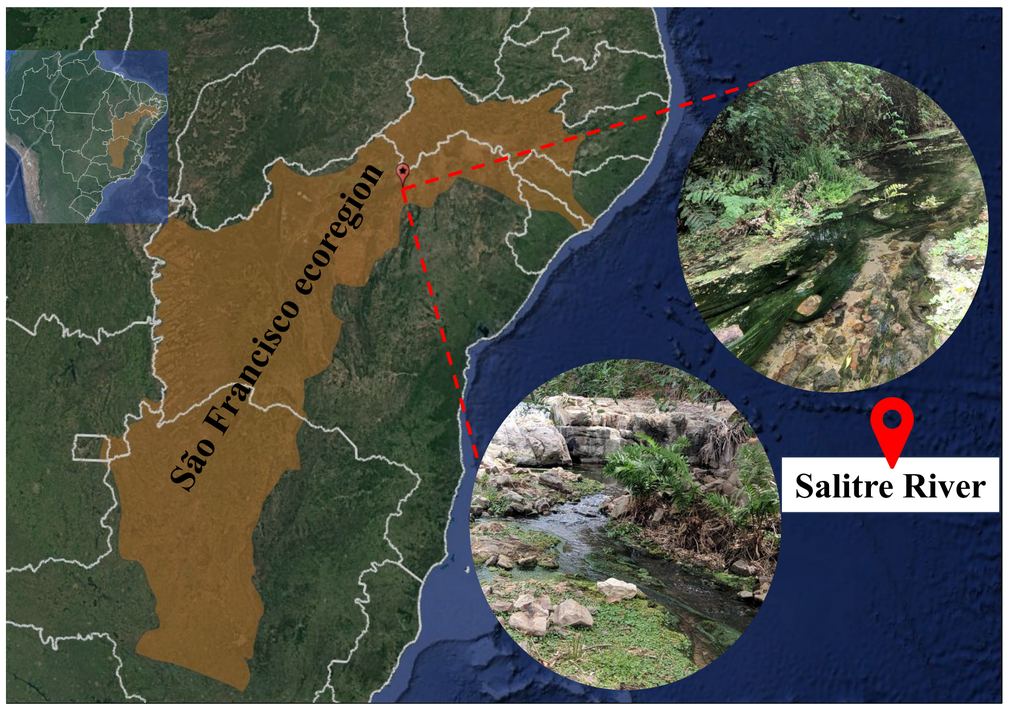


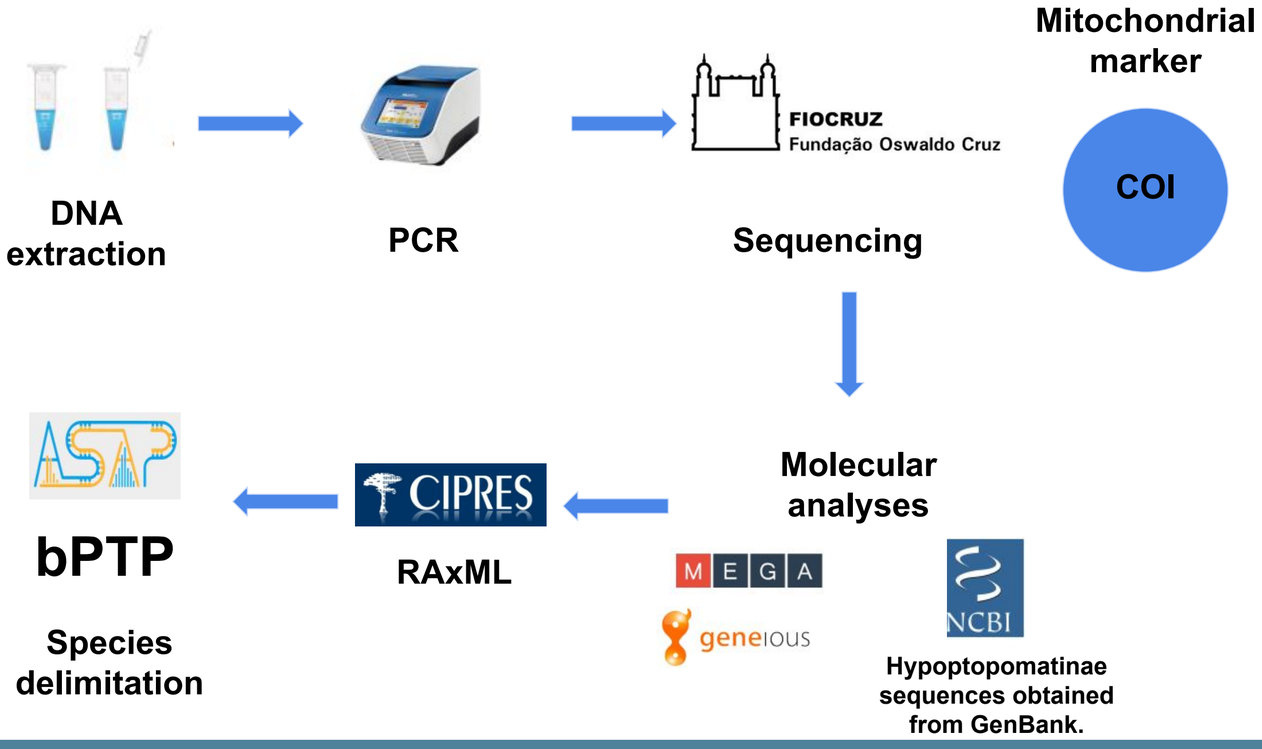
Fig 2. Geographic locality of *Parotocinclus* sp. n., Salitre River, São Francisco basin, Bahia, Brazil

METHOD

Morphologic study:

Original descriptions of the 27 species of *Parotocinclus* were analyzed. Whenever possible, material from ichthyological collections was examined, including type material of the species when available and accessible. Otherwise, topotypes were examined in place of the primary types. Specimens deposited in the Ichthyological Collection of UFBA were examined. The osteological examination of the material was conducted through cleared and stained specimens, prepared according to the procedures of Taylor & Van Dyke (1985). The osteological examination followed Schaefer (1997).

Molecular study:



RESULTS & DISCUSSION

Diagnosis:

Parotocinclus sp. n. differs from its congeners, except *P. bidentatus*, *P. cabessadecuia*, *P. jacumirim*, *P. muriaensis*, *P. pukuixe*, *P. seridoensis* and *P. spilurus*, by its vestigial or rudimentary adipose fin (vs. developed adipose fin). The new species differs from *P. bidentatus* and *P. muriaensis* by the absence of accessory unicuspid teeth (vs. presence), from *P. jacumirim*, *P. pukuixe* and *P. seridoensis* by the abdomen completely covered with large plates (vs. abdomen with small plates and naked areas in *P. jacumirim* and *P. seridoensis*, and abdomen with small plates without naked areas in *P. pukuixe*), from *P. spilurus* by the pectoral girdle completely covered by odontodes (vs. pectoral girdle covered solely laterally by odontodes), and from *P. cabessadecuia* by having rounded white spots on head (vs. absence of white spots).

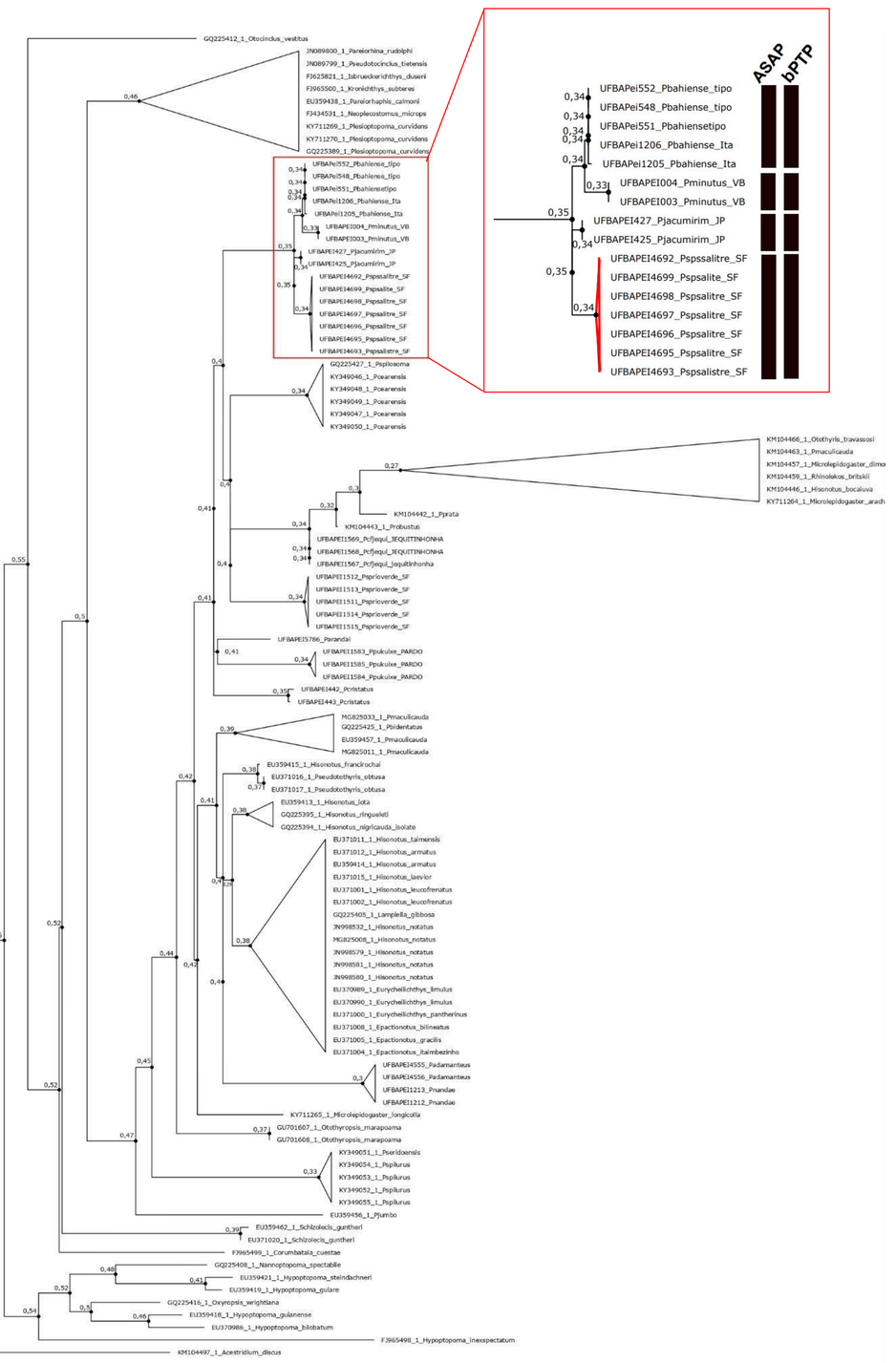


Fig 3. Phylogeny of the genera of Hypoptopomatinae with red highlights for the species delimitation involving the group of interest.

CONCLUSION

The results of the molecular and morphological analyses support the hypothesis that *Parotocinclus* sp. n. is a new species. The description of *Parotocinclus* sp. n. contributes to enhancing the knowledge of the ichthyofauna of the São Francisco ecoregion, and particularly the ichthyofauna of the Salitre River.

FUTURE WORK / REFERENCES

Schaefer, S. A. The Neotropical cascudinhos: systematics and biogeography of the Otocinclus catfishes (Siluriformes: Loricariidae). *Proceedings of the Academy of Natural Sciences of Philadelphia*, 148: 1-120, 1997.

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