



**FIGURE S1** | Mantel correlation between PhyloBsim calculated with AmazonFISH taxonomic data and two distinct phylogenetic informations: Rabosky *et al.* (2018) (which includes genetic + polytomies based on taxonomy) and Cassemiro *et al.* (2023) (which include only genetic data).

## REFERENCES

- Cassemiro FAS, Albert JS, Antonelli A, Menegotto A, Wüest RO, Cerezer F *et al.* Landscape dynamics and diversification of the megadiverse South American freshwater fish fauna. *PNAS*. 2023; 120(2):e2211974120. <https://doi.org/10.1073/pnas.2211974120>
- Rabosky DL, Chang J, Title PO, Cowman PF, Sallan L, Friedman M. An inverse latitudinal gradient in speciation rate for marine fishes. *Nature*. 2018; 559(7714):392–95. <https://doi.org/10.1038/s41586-018-0273-1>

## HOW TO CITE THIS ARTICLE

- Dias MS, Jézéquel C, Hugueny B, Leprieur F, Brosse S, Albert J, Cassemiro FAS, Frederico RG, Hidalgo M, Ortega H, Tedesco PA, Torrente-Vilara G, Zuanon J, Bigorne R, Martens K, Acosta A, Agudelo E, Maure SB, Bastos DA, Bogotá-Gregory J, Cabeceira FG, Canto ALC, Carvajal-Vallejos FM, Carvalho LN, Cella-Ribeiro A, Covain R, DoNascimento C, Dória CRC, Duarte C, Ferreira EJG, Galuch AV, Giarrizzo T, Leitão RP, Lundberg JG, Maldonado M, Montag LFA, Ohara WM, Pires THS, Pouilly M, Prada-Pedreiros S, Queiroz LJ, Py-Daniel LR, Ribeiro FRV, Herrera RR, Sarmiento J, Sousa LM, Stegmann LF, Valdiviezo-Rivera J, Villa F, Yunoki T, Wever A, Oberdorff T. Dispersal limitation, environmental filtering, and historical contingencies explain the patterns of taxonomic and phylogenetic turnover in Amazonian freshwater fish faunas, but only poorly their functional traits turnover. *Neotrop Ichthyol*. 2026; 24(1):e250084. <https://doi.org/10.1590/1982-0224-2025-0084>



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Official Journal of the Sociedade Brasileira de Ictiologia