

SUPPLEMENTARY MATERIAL S5

S5. References of functional characteristics.

- **Abelha MCF, Goulart E, Kashiwaqui EAL, Silva MR.** *Astyanax paranae* Eigenmann, 1914 (Characiformes: Characidae) in the Alagados Reservoir, Paraná, Brazil: diet composition and variation. *Neotrop Ichthyol.* 2006; 4(3):349–56. <http://dx.doi.org/10.1590/S1679-62252006000300006>
- **Abilhoa V, Duboc LF, Azevedo-Filho DP.** A comunidade de peixes de um riacho de floresta com araucária, alto rio Iguacu, sul do Brasil. *Rev Bras Zool.* 2008; 25(2):238–46. <http://dx.doi.org/10.1590/S0101-81752008000200012>
- **Agostinho AA, Júlio-Jr HF.** Peixes da bacia do alto rio Paraná. In: Lowe-McConnell RH, editor. *Estudos ecológicos de comunidades de peixes tropicais.* São Paulo: EDUSP; 1999. p.374–400.
- **Alberti M.** The effects of urban patterns on ecosystem function. *Int Reg Sci Rev.* 2005; 28(2):168–92. <https://doi.org/10.1177/0160017605275160>
- **Aranha JMR, Caramaschi ÉP, Caramaschi U.** Ocupação espacial, alimentação e época reprodutiva de duas espécies de *Corydoras* Lacépède (Siluroidei, Callichthyidae) coexistentes no rio Alambari (Botucatu, São Paulo). *Rev Bras Zool.* 1993; 10(3):453–66. <http://dx.doi.org/10.1590/S0101-81751993000300013>
- **Araújo RB, Garutti V.** Ecology of a stream from upper Paraná River basin inhabited by *Aspidoras fuscoguttatus* Nijssen & Isbrücker, 1976 (Siluriformes, Callichthyidae). *Braz J Biol.* 2003; 63(3):363–72. <https://doi.org/10.1590/S1519-69842003000300002>
- **Barbieri G.** Dinâmica da reprodução do cascudo, *Rineloricaria latirostris* Boulenger (Siluriformes, Loricariidae) do rio Passa Cinco, Ipeúna, São Paulo. *Rev Bras Zool.* 1994; 11(4):605–15. <http://dx.doi.org/10.1590/S0101-81751994000400003>
- **Barbieri G.** Dinâmica da reprodução e crescimento de *Hoplias malabaricus* (Bloch, 1794) (Osteichthyes, Erythrinidae) da Represa do Monjolinho, São Carlos/SP. *Rev Bras Zool.* 1989; 6(2):225–33. <http://dx.doi.org/10.1590/S0101-81751989000200006>
- **Barbosa AS.** Ecologia trófica em arroios de baixa ordem do sul do Brasil: relação entre consumidores primários e secundários. [Master Dissertation]. São Leopoldo: Universidade do Vale do Rio dos Sinos; 2015. Available from: <http://www.repositorio.jesuita.org.br/handle/UNISINOS/3771>
- **Bonato KO, Delariva RL, Silva JC.** Diet and trophic guilds of fish assemblages in two streams with different anthropic impacts in the northwest of Paraná, Brazil. *Zoologia (Curitiba).* 2012; 29(1):27–38. <https://doi.org/10.1590/S1984-46702012000100004>
- **Bozzetti M, Schulz UH.** An index of biotic integrity based on fish assemblages for subtropical streams in Southern Brazil. *Hydrobiologia.* 2004; 529:133–44. <https://doi.org/10.1007/s10750-004-5738-6>
- **Braga FMS, Gomiero LM, Souza UP.** Aspectos da reprodução e alimentação de *Neoplecostomus microps* (Loricariidae, Neoplecostominae) na microbacia do Ribeirão Grande, serra da Mantiqueira oriental (Estado de São Paulo). *Acta Sci Biol Sci.* 2008; 30(4):455–63. <https://doi.org/10.4025/actasciobiolsci.v30i4.301>
- **Brandão-Gonçalves L, Lima-Junior SE, Suarez YR.** Hábitos alimentares de *Bryconamericus stramineus* Eigenmann, 1908 (Characidae), em diferentes riachos da sub-bacia do Rio Guiraí, Mato Grosso do Sul, Brasil. *Biota Neotrop.* 2009; 9(1):135–43. Available from: <https://www.biotaneotropica.org.br/v9n1/pt/abstract?article+bn03109012009>
- **Bressan VS.** Ecologia trófica de *Ancistrus dubius* Eigenmann & Eigenmann (1889) e *Ancistrus* sp. em igarapés da bacia do Rio Machado, Rondônia, Brasil. [Graduation Monograph]. Presidente Médici: Universidade Federal de Rondônia; 2015. Available from: <http://ri.unir.br/jspui/handle/123456789/962>
- **Caetano DLF, Oliveira EF, Zawadzki CH.** Fish species indicators of environmental quality of Neotropical streams in Southern Brazil, upper Paraná River basin. *Acta Ichthyol Piscat.* 2016; 46(2):87–96. <https://doi.org/10.3750/AIP2016.46.2.04>
- **Carmassi AL, Rondineli GR, Gomiero LM, Braga FMS.** Crescimento e mortalidade de *Oligosarcus hepsetus* (Cuvier, 1829) (Characiformes, Characidae) no Parque Estadual da Serra do Mar, Núcleo Santa Virgínia, São Paulo, Brasil. *Biota Neotrop.* 2011; 11(2):39–43 <http://dx.doi.org/10.1590/S1676-06032011000200004>
- **Carvalho L.** Bioindicadores da assembleia de peixes de riachos submetidos a diferentes condições de conservação na região metropolitana do município de Londrina (PR). [Graduation Monograph]. Londrina: Universidade Tecnológica Federal do Paraná; 2015. Available from: http://repositorio.roca.utfpr.edu.br/jspui/bitstream/1/5349/1/LD_COEAM_2015_1_11.pdf
- **Casatti L.** Alimentação dos peixes em um riacho do Parque Estadual Morro do Diabo, bacia do alto rio Paraná, sudeste do Brasil. *Biota Neotrop.* 2002; 2(2):1–14. <https://doi.org/10.1590/S1676-06032002000200012>
- **Casatti L.** Biology of a catfish, *Trichomycterus* sp. (Pisces, Siluriformes), in a pristine stream in the Morro do Diabo State Park, Southeastern Brazil. *Stud Neotrop Fauna Environ.* 2003; 38(2):105–10. <http://dx.doi.org/10.1076/snfe.38.2.105.15928>

- **Casatti L, Langeani F, Castro RMC.** Peixes de riacho do Parque Estadual Morro do Diabo, bacia do alto rio Paraná, SP. *Biota Neotrop.* 2001; 1(1-2):1–15. <http://dx.doi.org/10.1590/S1676-06032001000100005>
- **Casatti L, Langeani F, Silva AM, Castro RMC.** Stream fish, water and habitat quality in a pasture dominated basin, southeastern Brazil. *Braz J Biol.* 2006; 66(2B):681–96. <https://doi.org/10.1590/S1519-69842006000400012>
- **Casatti L, Teresa FB, Gonçalves-Souza T, Bessa E, Manzotti AR, Gonçalves CS et al.** From forests to cattail: how does the riparian zone influence stream fish? *Neotrop Ichthyol.* 2012; 10(1):205–14. <https://doi.org/10.1590/S1679-62252012000100020>
- **Cassemiro FAS, Hahn NS, Delariva RL.** Estrutura trófica da ictiofauna, ao longo do gradiente longitudinal do reservatório de Salto Caxias (rio Iguacu, Paraná, Brasil), no terceiro ano após o represamento. *Acta Sci Biol Sci.* 2005; 27(1):63–71. Available from: <https://www.researchgate.net/publication/289733671>
- **Castro RMC, Casatti L.** The fish fauna from a small forest stream of the upper Paraná River basin. *Ichthyol Explor Fres.* 1997; 7(4):337–52.
- **Ceneviva-Bastos M, Casatti L.** Oportunismo alimentar de *Knodus moenkhausii* (Teleostei, Characidae): uma espécie abundante em riachos do noroeste do Estado de São Paulo, Brasil. *Iheringia Ser Zool.* 2007; 97(1):7–15. <https://doi.org/10.1590/S0073-47212007000100002>
- **Chiang G, Munkittrick KR, Saavedra MF, Tucça F, McMaster ME, Urrutia R et al.** Seasonal changes in reproductive endpoints in *Trichomycterus areolatus* (Siluriformes: Trichomycteridae) and *Percilia gillissi* (Perciformes, Perciliidae), and the consequences for environmental monitoring. *Stud Neotrop Fauna Environ.* 2011; 46(3):185–96. <https://doi.org/10.1080/01650521.2011.598296>
- **Costa ID, Rocha VM.** Feeding ecology of *Serrapinnus notomelas* (Characiformes: Cheirodontinae) in small forest streams in the Machado River basin, Rondônia, Brazil. *Acta Amazon.* 2017; 47(1):19–28. <https://doi.org/10.1590/1809-4392201601944>
- **Daga VS, Gubiani ÉA, Cunico AM, Baumgartner G.** Effects of abiotic variables on the distribution of fish assemblages in streams with different anthropogenic activities in southern Brazil. *Neotrop Ichthyol.* 2012; 10(3):643–52. <https://doi.org/10.1590/S1679-62252012000300018>
- **Delariva RL, Hahn NS, Kashiwaqui EAL.** Diet and trophic structure of the fish fauna in a subtropical ecosystem: impoundment effects. *Neotrop Ichthyol.* 2013; 11(4):891–904. <https://doi.org/10.1590/S1679-62252013000400017>
- **Ferreira A, Gerhard P, Cyrino JEP.** Diet of *Astyanax paranae* (Characidae) in streams with different riparian land covers in the Passa-Cinco River basin, southeastern Brazil. *Iheringia Ser Zool.* 2012; 102(1):80–87. <https://doi.org/10.1590/S0073-47212012000100011>
- **Ferreira CP, Casatti L.** Integridade biótica de um córrego na bacia do Alto Rio Paraná avaliada por meio da comunidade de peixes. *Biota Neotrop.* 2006; 6(3):1–25. <https://doi.org/10.1590/S1676-06032006000300002>
- **Ferreira FC, Silva AT, Gonçalves CS, Petrere M, Jr.** Disentangling the influences of habitat structure and limnological predictors on stream fish communities of a coastal basin, southeastern Brazil. *Neotrop Ichthyol.* 2014; 12(1):177–86. <http://dx.doi.org/10.1590/S1679-62252014000100019>
- **Ferreira FS, Suárez YR.** Estrutura populacional e aspectos reprodutivos de *Corydoras aeneus* (Siluriformes, Callichthyidae) em riachos da bacia do rio Ivinhema, Alto rio Paraná. *Iheringia Ser Zool.* 2015; 105(4):474–83. <https://doi.org/10.1590/1678-476620151054474483>
- **Fialho CB, Schifino LC, Verani JR.** Biologia reprodutiva de *Oligosarcus jenynsii* (Günther) (Characiformes, Characidae) da Lagoa das Custódias, Tramandaí, Rio Grande do Sul, Brasil. *Rev Bras Zool.* 1998; 15(3):775–82. <https://doi.org/10.1590/S0101-81751998000300020>
- **Fisch-Muller S, Cardoso AR, Silva JFP, Bertaco VA.** Three new species of *Ancistrus* Kner (Teleostei: Siluriformes: Loricariidae) from the upper Tapajós and Tocantins rivers. *Rev Suisse Zool.* 2005; 112(2):559–72. <https://doi.org/10.5962/bhl.part.80314>
- **Froese R, Pauly D, editors.** FishBase [Internet]. World Wide Web electronic publication; 2018. Available from: www.fishbase.org
- **Gathaz RJ.** Condição relacionada ao hermafroditismo protogínico diândrico em *Synbranchus marmoratus* (Bloch, 1795) (Teleostei, Synbranchiformes, Synbranchidae) na represa de Salto Grande, Americana - SP. [Master Dissertation]. Rio Claro: Universidade Estadual Paulista Júlio de Mesquita Filho; 2012. Available from: <http://hdl.handle.net/11449/99517>
- **Gibran FZ, Ferreira KM, Castro RMC.** Diet of *Crenicichla britskii* (Perciformes: Cichlidae) in a stream of Rio Aguapeí basin, Upper Rio Paraná system, southeastern Brazil. *Biota Neotrop.* 2001; 1(1–2):1–05. <https://doi.org/10.1590/S1676-06032001000100007>
- **Gomiero LM, Braga FMS.** Reproduction of a fish assemblage in the state of São Paulo, southeastern Brazil. *Braz J Biol.* 2007; 67(2):283–92. <https://doi.org/10.1590/S1519-69842007000200013>
- **Graça WJ, Pavanelli CS.** Peixes da planície de inundação do Alto rio Paraná e áreas adjacentes. Maringá: EDUEM; 2007.
- **Graciolli G, Azevedo MA, Melo FAG.** Comparative study of the diet of Glandulocaudinae and Tetragnopterinae (Ostariophysi: Characidae) in a small stream in southern Brazil. *Stud Neotrop Fauna Environ.* 2003; 38(2):95–103. <https://doi.org/10.1076/snfe.38.2.95.15932>

- **Guerini S, Prado GP, Passos MG.** Hábito alimentar de *Rhamdia quelen* (Siluriformes: Pimelodidae) em um trecho do rio Bonito no município de São Domingos, Santa Catarina. *Rev Uningá Review*. 2014; 18(2):10–15. Available from: <http://revista.uninga.br/index.php/uningareviews/article/view/1509>
- **Gurgel HCB.** Estrutura populacional e época de reprodução de *Astyanax fasciatus* Cuvier (Characidae, Tetragonopterinae) do rio Ceará Mirim, Poço Branco, Rio Grande do Norte, Brasil. *Rev Bras Zool*. 2004; 21(1):131–35. <https://doi.org/10.1590/S0101-81752004000100022>
- **Hahn NS, Agostinho AA, Gomes LC, Bini LM.** Estrutura trófica da ictiofauna do reservatório de Itaipu (Paraná-Brasil) nos primeiros anos de sua formação. *Interciência*. 1998; 23(5):299–305. Available from: <http://repositorio.uem.br:8080/jspui/handle/1/5202>
- **Hahn NS, Fugi R, Almeida VLL, Russo ML, Loureiro VE.** Dieta e atividade alimentar de peixes do reservatório de Segredo. In: Agostinho AA, Gomes LC, editors. *Reservatório de Segredo - Bases Ecológicas para o Manejo*. Maringá: Eduem; 1997. p.141–62
- **Hahn NS, Fugi R, Andrian IF.** Trophic ecology of the fish assemblages. In: Thomaz SM, Agostinho AA, Hahn NS, editors. *The Upper Paraná River and its floodplain: physical aspects, ecology and conservation*. Leiden: Backhuys Publishers; 2004. p.247–69
- **Hahn NS, Fugi R, Loureiro-Crippa VE, Peretti D, Russo ML.** Trophic ecology of the fish assemblages. In: Agostinho AA, Rodrigues L, Gomes LC, Thoma SM, Miranda LE, editors. *Structure and functioning of the Paraná River and its floodplain LTER-Site 6 (PELD – Sítio 6)*. Maringá: Eduem; 2004
- **Hahn NS, Loureiro-Crippa VE.** Estudo comparativo da dieta, hábitos alimentares e morfologia trófica de duas espécies simpátricas, de peixes de pequeno porte, associados à macrófitas aquáticas. *Acta Sci Biol Sci*. 2006; 28(4):359–63. <https://doi.org/10.4025/actasciobiolsci.v28i4.167>
- **Kramer DL, Mehegan JP.** Aquatic surface respiration, an adaptive response to hypoxia in the guppy, *Poecilia reticulata* (Pisces, Poeciliidae). *Environ Biol Fish*. 1981; 6(3/4):299–313. <https://doi.org/10.1007/BF00005759>
- **Lourenço LS, Mateus LA, Machado NG.** Sincronia na reprodução de *Moenkhausia sanctaefilomenae* (Steindachner) (Characiformes: Characidae) na planície de inundação do rio Cuiabá, Pantanal Mato-grossense, Brazil. *Rev Bras Zool*. 2008; 25(1):20–27. <http://dx.doi.org/10.1590/S0101-81752008000100004>
- **Luiz EA, Agostinho AA, Gomes LC, Hahn NS.** Ecologia trófica de peixes em dois riachos da bacia do rio Paraná. *Rev Bras Biol*. 1998; 58(2):273–85. Available from: <http://repositorio.uem.br:8080/jspui/handle/1/5193>
- **Luz-Agostinho KDG, Bini LM, Fugi R, Agostinho AA, Júlio HF, Jr.** Food spectrum and trophic structure of the ichthyofauna of Corumbá reservoir, Paraná River basin, Brazil. *Neotrop Ichthyol*. 2006; 4(1):61–68. <https://doi.org/10.1590/S1679-62252006000100005>
- **Marcarelli AM, Baxter CV, Benjamin JR, Miyake Y, Murakami M, Fausch KD et al.** Magnitude and direction of stream–forest community interactions change with timescale. *Ecology*. 2020; 101(8):e03064. <https://doi.org/10.1002/ecy.3064>
- **Marraro F, Bistoni MA, Carranza M.** Spawning season, ovarian development and fecundity of female *Trichomycterus corduvense* (Osteichthyes, Siluriformes). *Hydrobiologia*. 2005; 534:223–30. <https://doi.org/10.1007/s10750-004-1635-2>
- **Mattias AT, Rantin FT, Fernandes MN.** Gill respiratory parameters during progressive hypoxia in the facultative air-breathing fish, *Hypostomus regani* (Loricariidae). *Comp Biochem Physiol A Mol Integr Physiol*. 1998; 120(2):311–15. [https://doi.org/10.1016/S1095-6433\(98\)00034-8](https://doi.org/10.1016/S1095-6433(98)00034-8)
- **Mazzoni R, Moraes M, Rezende CF, Miranda JC.** Alimentação e padrões ecomorfológicos das espécies de peixes de riacho do alto rio Tocantins, Goiás, Brasil. *Iheringia Ser Zool*. 2010; 100(2):162–68. <https://doi.org/10.1590/S0073-47212010000200012>
- **Menezes MS, Takeuti DF, Aranha JMR, Verani JR.** Desenvolvimento gonadal de machos e fêmeas de *Pseudotothyris obtusa* (Ribeiro, 1911) (Loricariidae, Hypoptopomatinae). *Acta Biol Par*. 2000; 29(1, 2, 3, 4):89–100.
- **Monaco IA, Suárez RY, Lima-Junior SE.** Influence of environmental integrity on feeding, condition and reproduction of *Phalloceros harpagos* Lucinda, 2008 in the Tarumã stream micro-basin. *Acta Sci Biol Sci*. 2014; 36(2):181–88. Available from: <https://doi.org/10.4025/actasciobiolsci.v36i2.21394>
- **Muniz CM.** Composição funcional em reservatórios: seleção de traços da assembleia de peixes com o envelhecimento. [Master Dissertation]. Maringá: Universidade Estadual de Maringá; 2017. Available from: <http://repositorio.uem.br:8080/jspui/handle/1/4775>
- **Neves MP, Delariva RL, Wolff LL.** Diet and ecomorphological relationships of an endemic, species-poor fish assemblage in a stream in the Iguaçu National Park. *Neotrop Ichthyol*. 2015; 13(1):245–54. <https://doi.org/10.1590/1982-0224-20140124>
- **Oliveira DC, Bennemann ST.** Ictiofauna, recursos alimentares e relações com as interferências antrópicas em um riacho urbano no sul do Brasil. *Biota Neotrop*. 2005; 5(1):95–107. <https://doi.org/10.1590/S1676-06032005000100011>
- **Pavanelli CS.** Revisão taxonômica da família Parodontidae (Ostariophysi: Characiformes). [PhD Thesis]. São Carlos: Universidade Federal de São Carlos; 1999.
- **Pazza R, Júlio FH, Jr.** Occurrence of three sympatric cytotypes of *Hoplias malabaricus* (Pisces, Erythrinidae) in the upper Paraná River floodplain (Brazil). *Cytologia*. 2003; 68(2):159–63. <https://doi.org/10.1508/cytologia.68.159>

- **Pereira LM.** Impactos antropogênicos definem traços funcionais da ictiofauna em riachos neotropicais de primeira ordem. [Master Dissertation]. Maringá: Universidade Estadual de Maringá; 2017. Available from: <http://repositorio.uem.br:8080/jspui/handle/1/4827>
- **Rocha FC, Casatti L, Pereira DC.** Structure and feeding of a stream fish assemblage in Southeastern Brazil: evidence of low seasonal influence. *Acta Limnol Bras.* 2009; 21(1):123–34. Available from: <http://hdl.handle.net/11449/22484>
- **Rondineli GR, Braga FMS.** Biologia populacional de *Corydoras flaveolus* (Siluriformes, Callichthyidae) no Rio Passa Cinco, sub-bacia do Rio Corumbataí, São Paulo, Brasil. *Biota Neotrop.* 2009; 9(4):45–53. <https://doi.org/10.1590/S1676-06032009000400004>
- **Rondineli GR, Carmassi AL, Braga FMS.** Population biology of *Trichomycterus* sp. (Siluriformes, Trichomycteridae) in Passa Cinco stream, Corumbataí River sub-basin, São Paulo State, southeastern Brazil. *Braz J Biol.* 2009; 69(3):925–34. <http://dx.doi.org/10.1590/S1519-69842009000400022>
- **Rondineli GR, Gomiero LM, Carmassi AL, Braga FMS.** Diet of fishes in Passa Cinco stream, Corumbataí River sub-basin, São Paulo State, Brazil. *Braz J Biol.* 2011; 71(1):157–67. <http://dx.doi.org/10.1590/S1519-69842011000100023>
- **Rotta MA.** Aspectos biológicos e reprodutivos para a criação da Tuvira (*Gymnotus* sp.) em cativeiro-I. Corumbá: Embrapa Pantanal-Documentos; 2004. Available from: <https://www.infoteca.cnptia.embrapa.br/bitstream/doc/784118/1/DOC74.pdf>
- **Sabaj MH, Armbruster JW, Page LM.** Spawning in *Ancistrus* (Siluriformes: Loricariidae) with comments on the evolution of snout tentacles as a novel reproductive strategy: larval mimicry. *Ichthyol Explor Fres.* 1999; 10(3):217–29.
- **Sabino J, Castro RMC.** Alimentação, período de atividade e distribuição espacial dos peixes de um riacho da Floresta Atlântica (Sudeste do Brasil). *Rev Bras Biol.* 1990; 50(1):23–36. Available from: <http://pascal-francis.inist.fr/vibad/index.php?action=getRecordDetail&idt=5540106>
- **Sales ML, Braga EPR, Magalhães ALB, Maia BP, Rattón TF.** Reproductive biology of the lambari *Hyphessobrycon santae* (Eigenmann, 1907) (Pisces: Characidae) in the Fazenda Lagoa do Nado Urban Park, São Francisco River basin, Minas Gerais/Brazil. *Rev Bras Zool.* 2015; 16(1, 2, 3):55–65. Available from: <https://periodicos.ufjf.br/index.php/zoociencias/article/view/24596>
- **Sampaio ALA, Goulart E.** Ciclídeos neotropicais: ecomorfologia trófica. *Oecologia Aust.* 2011; 15(4):775–98. <https://doi.org/10.4257/oeco.2011.1504.03>
- **Sazima I.** Behavior of two Brazilian species of parodontid fishes, *Apareiodon piracicabae* and *A. ibitiensis*. *Copeia.* 1980; 1980(1):166–69. <https://doi.org/10.2307/1444157>
- **Silva HS, Meurer S, Zaniboni-Filho E.** Biologia alimentar e reprodutiva do peixe-cachorro (*Oligosarcus jenynsii* Günther, 1864) na região do alto rio Uruguai – Brasil. *Acta Sci Biol Sci.* 2004; 26(2):175–79. <https://doi.org/10.4025/actascibiolsci.v26i2.1632>
- **Silva JC, Delariva RL, Bonato KO.** Food-resource partitioning among fish species from a first-order stream in northwestern Paraná, Brazil. *Neotrop Ichthyol.* 2012; 10(2):389–99. <http://dx.doi.org/10.1590/S1679-62252012005000008>
- **Silva JPA, Muelbert AE, Oliveira EC, Fávoro LF.** Reproductive tactics used by the lambari *Astyanax aff. fasciatus* in three water supply reservoirs in the same geographic region of the upper Iguazu River. *Neotrop Ichthyol.* 2010; 8(4):885–92. <https://doi.org/10.1590/S1679-62252010000400019>
- **Smith WS, Biagioni RC, Halcsik L.** Fish fauna of Floresta Nacional de Ipanema, São Paulo State, Brazil. *Biota Neotrop.* 2013; 13(2):175–81. <http://dx.doi.org/10.1590/S1676-06032013000200016>
- **Smith WS, Petrere M, Jr., Barrella W.** The fish fauna in tropical rivers: The case of the Sorocaba River basin, SP, Brazil. *Rev Biol Trop.* 2003; 51(3-4):769–82. Available from: http://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S0034-77442003000300019&lng=en
- **Súarez YR, Silva EA, Viana LF.** Reproductive biology of *Astyanax lacustris* (Characiformes: Characidae) in the southern Pantanal floodplain, upper Paraguay River basin, Brazil. *Environ Biol Fish.* 2017; 100(7):775–83. <https://doi.org/10.1007/s10641-017-0604-3>
- **Suzuki HI, Bulla CK, Agostinho AA, Gomes LC.** Estratégias reprodutivas de assembleias de peixes em reservatórios. In: Rodrigues LS, Thomaz SM, Agostinho AA, Gomes LC, editors. *Biocenoses em reservatórios: padrões espaciais e temporais.* São Carlos: Rima; 2005. p.223–36.
- **Suzuki HI, Pelicice FM, Luiz EA, Latini JD, Agostinho AA.** Estratégias reprodutivas da assembléia de peixes da planície de inundação do Alto rio Paraná. In: *Pesquisas Ecológicas de Longa Duração–PELD*, organizer. A planície alagável do rio Paraná: estrutura e processos ambientais. Maringá: PELD; 2002. Available from: <https://www.researchgate.net/publication/237707827>
- **Suzuki HI, Vazzoler AEAM, Marques EE, Lizama MAP, Inada P.** Reproductive ecology of fish assemblages. In: Thomaz SM, Agostinho AA, Hahn NS, editors. *The Upper Paraná River and its floodplain: physical aspects, ecology and conservation.* Leinden: Backhuis Publishers; 2004. p.271–91.
- **Teixeira I, Bennemann ST.** Ecomorfologia refletindo a dieta dos peixes em um reservatório no sul do Brasil. *Biota Neotrop.* 2007; 7(2):67–76. <http://doi.org/10.1590/S1676-06032007000200007>

- **Teresa FB, Casatti L.** Influence of forest cover and mesohabitat types on functional and taxonomic diversity of fish communities in Neotropical lowland streams. *Ecol Freshw Fish.* 2012; 21(3):433–42. <https://doi.org/10.1111/j.1600-0633.2012.00562.x>
- **Uieda VS, Pinto TLF.** Feeding selectivity of ichthyofauna in a tropical stream: space-time variations in trophic plasticity. *Community Ecol.* 2011; 12(1):31–39. <https://doi.org/10.1556/comec.12.2011.1.5>
- **Vari RP, Castro RMC.** New species of *Astyanax* (Ostraiophysi: Characiformes: Characidae) from the upper Rio Paraná system, Brazil. *Copeia.* 2007; 2007(1):150–62. [https://doi.org/10.1643/0045-8511\(2007\)7\[150:NSOAO\]2.0.CO;2](https://doi.org/10.1643/0045-8511(2007)7[150:NSOAO]2.0.CO;2)
- **Vazzoler AEAM.** Biologia da reprodução de peixes teleósteos: teoria e prática. Maringá: Eduem; 1996.
- **Vazzoler AEAM, Menezes NA.** Síntese do conhecimento sobre o comportamento reprodutivo dos Characiformes da América do Sul (Teleostei, Ostariophysi). *Rev Bras Biol.* 1992; 52(4):627–40.
- **Vilella FS, Becker FG, Hartz SM.** Diet of *Astyanax* species (Teleostei, Characidae) in an Atlantic Forest river in southern Brazil. *Braz Arch Biol Technol.* 2002; 45(2):223–32. <https://doi.org/10.1590/S1516-89132002000200015>
- **Zarucki M, González-Bergonzoni I, Teixeira-de-Mello F, Loureiro M.** Fish diversity loss in an urban stream of Uruguay throughout the last century. *Pan-Am J Aquat Sci.* 2011; 6(1):71–75. Available from: [https://panamjas.org/pdf_artigos/PANAMJAS_6\(1\)_71-75.pdf](https://panamjas.org/pdf_artigos/PANAMJAS_6(1)_71-75.pdf)
- **Zeni JO, Casatti L.** The influence of habitat homogenization on the trophic structure of fish fauna in tropical streams. *Hydrobiologia.* 2014; 726:259–70. <https://doi.org/10.1007/s10750-013-1772-6>

Neotropical Ichthyology



This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

Distributed under Creative Commons **CC-BY 4.0**

© 2021 The Authors.
Diversity and Distributions Published by SBI



Official Journal of the
Sociedade Brasileira de Ictiologia

HOW TO CITE THIS ARTICLE

- **Miiller NOR, Cunico AM, Gubiani ÉA, Piana PA.** Functional responses of stream fish communities to rural and urban land uses. *Neotrop Ichthyol.* 2021; 19(3):e200134. <https://doi.org/10.1590/1982-0224-2020-0134>