

**TABLE S1** | Fish species registered in the Serra da Bodoquena streams, their vertical and horizontal position in the water column and Feeding Trophic Groups (FTG). Taxonomic classification follows Fricke *et al.* (2022). ZUFMS-PIS = Coleção Zoológica da Universidade Federal de Mato Grosso do Sul.

Taxa	Vertical stratification	Horizontal stratification		FTG	Voucher
		Margin	Main Channel		
<b>CHARACIFORMES</b>					
<b>Crenuchidae</b>					
<i>Characidium borellii</i> (Boulenger, 1895)	Benthic		X	Sit-and-wait predator	ZUFMS-PIS05412
<i>Characidium</i> aff. <i>zebra</i> (Eigenmann, 1909)	Benthic	X	X	Sit-and-wait predator	ZUFMS-PIS06727
<b>Erythrinidae</b>					
<i>Hopleryrhinus unitaeniatus</i> (Spix & Agassiz, 1829)	Nektobenthic	X	X	Ambush and stalking predator	ZUFMS-PIS06757
<i>Hoplias malabaricus</i> (Bloch, 1794)	Nektobenthic	X	X	Ambush and stalking predator	ZUFMS-PIS04605
<b>Parodontidae</b>					
<i>Parodon nasus</i> Kner, 1859	Benthic		X	Grazer	ZUFMS-PIS01102
<b>Serrasalminidae</b>					
<i>Serrasalmus marginatus</i> Valenciennes, 1837	Nektonic		X	Ambush and stalking predator	ZUFMS-PIS03836
<i>Piaractus mesopotamicus</i> (Holmberg, 1887)	Nektonic		X	Nibbler	ZUFMS-PIS07478
<b>Anostomidae</b>					
<i>Leporellus vittatus</i> (Valenciennes, 1850)	Nektobenthic		X	Nibbler	ZUFMS-PIS07467
<i>Leporinus friderici</i> (Bloch, 1794)	Nektobenthic		X	Nibbler	ZUFMS-PIS01062
<i>Leporinus striatus</i> Kner, 1858	Nektobenthic		X	Nibbler	ZUFMS-PIS06812
<i>Megaleporinus obtusidens</i> (Valenciennes, 1837)	Nektobenthic		X	Nibbler	ZUFMS-PIS07395
<b>Curimatidae</b>					
<i>Steindachnerina brevipinna</i> (Eigenmann & Eigenmann, 1889)	Benthic	X		Mud-eater	ZUFMS-PIS00913
<i>Steindachnerina nigrotaenia</i> (Boulenger, 1902)	Benthic	X		Mud-eater	ZUFMS-PIS04547
<b>Prochilodontidae</b>					
<i>Prochilodus lineatus</i> Valenciennes, 1837	Nektobenthic		X	Mud-eater	ZUFMS-PIS03351
<b>Lebiasinidae</b>					
<i>Pyrrhulina australis</i> Eigenmann & Kennedy, 1903	Nektonic	X		Diurnal surface picker	ZUFMS-PIS06792
<b>Gasteropelecidae</b>					
<i>Thoracocharax stellatus</i> (Kner, 1858)	Nektonic		X	Surface striker	ZUFMS-PIS06790
<b>Bryconidae</b>					
<i>Brycon hilarii</i> (Valenciennes, 1850)	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS05244
<i>Salminus brasiliensis</i> (Cuvier, 1816)	Nektonic		X	Pursuit predator	ZUFMS-PIS03350
<b>Iguanodectidae</b>					
<i>Bryconops melanurus</i> (Bloch, 1794)	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS06725
<b>Acestrorhynchidae</b>					
<i>Acestrorhynchus pantaneiro</i> Menezes, 1992	Nektonic		X	Pursuit predator	ZUFMS-PIS04592



TABLE S1 | (Continued)

Taxa	Vertical stratification	Horizontal stratification		FTG	Voucher
		Margin	Main Channel		
Characidae					
<i>Aphyocharax anisitsi</i> Eigenmann & Kennedy, 1903	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS06714
<i>Aphyocharax dentatus</i> Eigenmann & Kennedy, 1903	Nektonic	X		Pursuit predator	ZUFMS-PIS06385
<i>Astyanax abramis</i> (Jenyns, 1842)	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS00133
<i>Astyanax lacustris</i> (Lütken, 1875)	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS00793
<i>Astyanax lineatus</i> (Perugia, 1891)	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS00129
<i>Astyanax</i> sp. 1	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS04888
<i>Astyanax</i> sp. 2	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS02568
<i>Brachyhalcinus retrospina</i> Boulenger, 1892	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS04517
<i>Bryconamericus exodon</i> Eigenmann, 1907	Nektonic	X		Diurnal channel drift feeder	ZUFMS-PIS01047
<i>Creagrutus meridionalis</i> Vari & Harold, 2001	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS06687
<i>Deuterodon luetkenii</i> (Boulenger, 1887)	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS02518
<i>Hemigrammus lunatus</i> Durbin, 1918	Nektonic	X		Diurnal channel drift feeder	ZUFMS-PIS02665
<i>Hyphessobrycon eques</i> (Steindachner, 1882)	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS03810
<i>Jupiaba acanthogaster</i> (Eigenmann, 1911)	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS00130
<i>Moenkhausia bonita</i> Benine, Castro & Sabino, 2004	Nektonic	X	X	Diurnal channel drift feeder	ZUFMS-PIS01034
<i>Moenkhausia oligolepis</i> (Günther, 1864)	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS02774
<i>Odontostilbe paraguayensis</i> Eigenmann & Kennedy, 1903	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS06818
<i>Odontostilbe pequirá</i> (Steindachner, 1882)	Nektonic	X	X	Browser	ZUFMS-PIS01057
<i>Oligosarcus perdido</i> Ribeiro, Cavallaro & Froehlich, 2007	Nektonic		X	Pursuit predator	ZUFMS-PIS05460
<i>Phenacogaster tegatus</i> (Eigenmann, 1911)	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS03802
<i>Piabarchus analis</i> (Eigenmann, 1914)	Nektonic	X		Diurnal channel drift feeder	ZUFMS-PIS03823
<i>Piabarchus torrenticola</i> Mahnert & Géry, 1988	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS03811
<i>Poptella paraguayensis</i> (Eigenmann, 1907)	Nektonic	X		Diurnal channel drift feeder	ZUFMS-PIS01450
<i>Psalidodon marionae</i> (Eigenmann, 1911)	Nektonic		X	Diurnal channel drift feeder	ZUFMS-PIS00131
<i>Psellogrammus kennedyi</i> (Eigenmann, 1903)	Nektonic	X		Diurnal backwater drift feeder	ZUFMS-PIS05988
<i>Serrapinnus calliurus</i> (Boulenger, 1900)	Nektonic	X		Browser	ZUFMS-PIS02532
<i>Xenrobrycon macropus</i> Myers & Miranda Ribeiro, 1945	Nektonic	X		Surface striker	ZUFMS-PIS01109



TABLE S1 | (Continued)

Taxa	Vertical stratification	Horizontal stratification		FTG	Voucher
		Margin	Main Channel		
<b>GYMNOTIFORMES</b>					
<b>Apteronotidae</b>					
<i>Apteronotus caudimaculosus</i> de Santana, 2003	Nektobenthic	X	X	Nocturnal invertebrate picker	ZUFMS-PIS04521
<b>Sternopygidae</b>					
<i>Sternopygus macrurus</i> (Bloch & Schneider, 1801)	Nektobenthic	X	X	Nocturnal invertebrate picker	ZUFMS-PIS04714
<b>Gymnotidae</b>					
<i>Gymnotus carapo</i> Linnaeus, 1758	Nektobenthic	X	X	Nocturnal invertebrate picker	ZUFMS-PIS03828
<b>SILURIFORMES</b>					
<b>Trichomycteridae</b>					
<i>Ituglanis herberti</i> (Miranda Ribeiro, 1940)	Benthic		X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS05743
<b>Callichthyidae</b>					
<i>Callichthys callichthys</i> (Linnaeus, 1758)	Benthic	X		Grubber	ZUFMS-PIS04940
<i>Corydoras aeneus</i> (Gill, 1858)	Benthic	X		Grubber	ZUFMS-PIS01101
<b>Loricariidae</b>					
<i>Ancistrus</i> sp.	Benthic	X	X	Grazer	ZUFMS-PIS00703
<i>Farlowella paraguayensis</i> Retzer & Page, 1997	Benthic	X	X	Grazer	ZUFMS-PIS00874
<i>Hemiodontichthys acipenserinus</i> (Kner, 1853)	Benthic		X	Digger	ZUFMS-PIS04695
<i>Hypostomus basilisko</i> Tencatt, Zawadzki & Froehlich, 2014	Benthic		X	Grazer	ZUFMS-PIS01039
<i>Hypostomus froehlichii</i> Zawadzki, Nardi & Tencatt, 2021	Benthic		X	Grazer	ZUFMS-PIS00786
<i>Hypostomus perdido</i> Zawadzki, Tencatt & Froehlich, 2014	Benthic		X	Grazer	ZUFMS-PIS00861
<i>Hypostomus</i> sp. 2	Benthic		X	Grazer	ZUFMS-PIS03605
<i>Loricaria luciae</i> Thomas, Rodriguez, Cavallaro, Froehlich & Castro, 2013	Benthic	X	X	Grazer	ZUFMS-PIS01501
<i>Otocinclus vittatus</i> Regan, 1904	Benthic	X		Grazer	ZUFMS-PIS02437
<i>Rineloricaria lanceolata</i> (Günther, 1868)	Benthic	X	X	Grazer	ZUFMS-PIS01549
<i>Rineloricaria parva</i> (Boulenger, 1895)	Benthic	X	X	Grazer	ZUFMS-PIS03839
<b>Aspredinidae</b>					
<i>Bunocephalus doriae</i> Boulenger, 1902	Benthic	X		Crepuscular to nocturnal bottom predator	ZUFMS-PIS05920
<b>Auchenipteridae</b>					
<i>Tatia neivai</i> (Ihering, 1930)	Nektobenthic	X	X	Crepuscular to nocturnal drift feeder	ZUFMS-PIS02379
<b>Heptapteridae</b>					
<i>Imparfinis schubarti</i> (Gomes, 1956)	Benthic		X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS00860
<i>Phenacorhamdia</i> sp.	Benthic		X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS00877
<i>Pimelodella taenioptera</i> Ribeiro, 1914	Benthic	X	X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS00907
<i>Rhamdia quelen</i> (Quoy & Gaimard, 1824)	Nektobenthic	X	X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS01046

TABLE S1 | (Continued)

Taxa	Vertical stratification	Horizontal stratification		FTG	Voucher
		Margin	Main Channel		
Pimelodidae					
<i>Pseudoplatystoma reticulatum</i> Eigenmann & Eigenmann, 1889	Benthic		X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS04768
Pseudopimelodidae					
<i>Pseudopimelodus mangurus</i> (Valenciennes, 1835)	Benthic		X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS03336
<i>Rhyacoglanis paranensis</i> Shibatta & Vari, 2017	Benthic		X	Crepuscular to nocturnal bottom predator	ZUFMS-PIS06579
<b>SYNBRANCHIFORMES</b>					
Synbranchidae					
<i>Synbranchus marmoratus</i> Bloch, 1795	Benthic	X	X	Sit-and-wait predator	ZUFMS-PIS01293
<b>CICHLIFORMES</b>					
Cichlidae					
<i>Aequidens plagiozonatus</i> Kullander, 1984	Nektobenthic	X		Picker and browser	ZUFMS-PIS03796
<i>Australoheros</i> sp.	Nektobenthic	X		Picker and browser	ZUFMS-PIS02502
<i>Bujurquina vittata</i> (Heckel, 1840)	Nektobenthic	X		Picker and browser	ZUFMS-PIS01092
<i>Cichlasoma dimerus</i> (Heckel, 1840)	Nektobenthic	X		Picker and browser	ZUFMS-PIS03598
<i>Coptodon rendalli</i> (Boulenger, 1897)	Nektobenthic		X	Picker and browser	ZUFMS-PIS02508
<i>Crenicichla lepidota</i> Heckel, 1840	Nektobenthic		X	Ambush and stalking predator	ZUFMS-PIS01078
<i>Crenicichla vittata</i> Heckel, 1840	Nektobenthic		X	Ambush and stalking predator	ZUFMS-PIS01307
<b>CYPRINODONTIFORMES</b>					
Poeciliidae					
<i>Poecilia reticulata</i> Peters, 1859	Nektonic	X		Diurnal surface picker	ZUFMS-PIS02119
<b>BELONIFORMES</b>					
Belonidae					
<i>Potamorhaphis eigenmanni</i> Ribeiro, 1915	Nektonic		X	Pursuit predator	ZUFMS-PIS02442



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