Table 1 - Sampling sites in the Aripuanã River basin, geographic position, coordinates, and elevation.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Sites** | **Position** | **Zone** | **Latitude** | **Longitude** | **Order** | **Elevation (m)** |
| P01 | Upstream | 21 L | 8810176.06 | 253090.12 | First | 308 |
| P02 | Upstream | 21 L | 8816822.03 | 253895.19 | First | 291 |
| P03 | Upstream | 21 L | 8819520.00 | 250317.00 | First | 286 |
| P04 | Upstream | 21 L | 8819510.01 | 250630.32 | First | 293 |
| P05 | Upstream | 21 L | 8816744.26 | 253668.49 | First | 303 |
| P06 | Upstream | 21 L | 8819425.54 | 246126.56 | Second | 287 |
| P07 | Upstream | 21 L | 8818881.79 | 247557.40 | First | 293 |
| P08 | Upstream | 21 L | 8807408.76 | 256440.20 | Second | 299 |
| P09 | Upstream | 21 L | 8808669.62 | 259901.74 | First | 302 |
| P10 | Upstream | 21 L | 8813854.07 | 254762.39 | Second | 277 |
| P11 | Upstream | 21 L | 8816125.87 | 254420.71 | Second | 282 |
| P12 | Downstream | 21 L | 8874019.96 | 241084.57 | First | 275 |
| P13 | Downstream | 21 L | 8877676.47 | 246875.40 | First | 142 |
| P14 | Downstream | 21 L | 8877913.68 | 248822.83 | First | 112 |
| P15 | Downstream | 21 L | 8879543.68 | 234315.21 | Second | 114 |
| P16 | Downstream | 21 L | 8878413.90 | 235375.70 | Second | 137 |
| P17 | Downstream | 21 L | 8874052.43 | 243754.55 | Second | 247 |
| P18 | Downstream | 21 L | 8874376.00 | 241363.00 | Second | 259 |
| P19 | Downstream | 21 L | 8876433.73 | 233235.12 | First | 116 |
| P20 | Downstream | 21 L | 8875585.26  | 232592.41 | Second | 132 |
| P21 | Downstream | 21 L | 8874185.03 | 233699.70 | Second | 228 |
| P22 | Upstream | 21 L | 8862948.00 | 231819.00 | First | 237 |
| P23 | Upstream | 21 L | 8868130.00 | 236807.00 | First | 241 |
| P24 | Downstream | 21 L | 8875374.56 | 242334.10 | First | 152 |
| P25 | Downstream | 21 L | 8876736.00  | 242141.00 | First | 111 |
| P26 | Downstream | 21 L | 8878562.00 | 240706.00 | First | 134 |
| P27 | Downstream | 21 L | 8879716.00 | 240489.00 | First | 108 |
| P28 | Downstream | 21 L | 8877659.59 | 241408.09 | First | 135 |
| P29 | Upstream | 21 L | 8855184.05 | 230941.76 | First | 236 |
| P30 | Upstream | 21 L | 8855765.11 | 229154.86 | Second | 225 |
| P31 | Upstream | 21 L | 8856697.00 | 226278.00 | Second | 224 |
| P32 | Upstream | 21 L | 8854756.00 | 223498.00 | First | 244 |
| P33 | Upstream | 21 L | 8854227.74  | 224449.79 | First | 270 |
| P34 | Upstream | 21 L | 8871308.00 | 227804.00 | First | 209 |
| P35 | Upstream | 21 L | 8870926.00 | 224711.00 | First | 236 |
| P36 | Downstream | 21 L | 8872131.47 | 221946.46 | Second | 241 |
| P37 | Upstream | 21 L | 8857417.58 | 220480.28 | Third | 229 |
| P38 | Upstream | 21 L | 8862500.72 | 220455.23 | First | 265 |
| P39 | Upstream | 21 L | 8863347.27 | 220625.76 | First | 270 |
| P40 | Upstream | 21 L | 8850065.60 | 229904.65 | Second | 220 |
| P41 | Upstream | 21 L | 8852462.00 | 226625.00  | First | 296 |
| P42 | Upstream | 21 L | 8853774.67 | 220591.50 | First | 286 |
| P43 | Upstream | 21 L | 8853178.00 | 220235.00 | First | 286 |
| P44 | Downstream | 21 L | 8879307.39 | 226448.64 | First | 160 |
| P45 | Downstream | 21 L | 8879219.43 | 226428.34 | First | 161 |
| P46 | Downstream | 21 L | 8878505.97 | 224912.41 | First | 132 |
| P47 | Downstream | 21 L | 8888337.82 | 224669.33 | First | 236 |
| P48 | Downstream | 21 L | 8886925.85 | 224283.36 | First | 161 |
| P49 | Downstream | 21 L | 8884681.08 | 224041.53 | Second | 136 |
| P50 | Downstream | 21 L | 8888583.97  | 230776.56 | First | 161 |
| P51 | Downstream | 21 L | 8888470.60 | 227250.27 | First | 206 |
| P52 | Downstream | 21 L | 8889574.84 | 233751.58 | First | 134 |
| P53 | Downstream | 21 L | 8888994.25 | 234507.95 | First | 121 |
| P54 | Downstream | 21 L | 8888590.00 | 236748.00  | Third | 134 |
| P55 | Downstream | 21 L | 8889291.47 | 237871.43 | Second | 148 |
| P56 | Upstream | 21 L | 8856049.32 | 220375.01 | Second | 242 |
| P57 | Downstream | 21 L | 8875755.27 | 226495.50  | Third | 225 |
| P58 | Downstream | 21 L | 8880834.19 | 223264.41 | Second | 160 |
| P59 | Upstream | 21 L | 8859626.35 | 238915.12 | First | 241 |
| P60 | Upstream | 21 L | 8833930.94 | 236443.11 | First | 247 |
| P61 | Upstream | 21 L | 8832311.22 | 238845.48 | First | 277 |
| P62 | Upstream | 21 L | 8833679.21 | 238517.76 | First | 296 |
| P63 | Upstream | 21 L | 8838362.71 | 241521.14 | First | 299 |
| P64 | Upstream | 21 L | 8845653.50 | 241526.93 | Second | 271 |
| P65 | Upstream | 21 L | 8853325.00  | 241585.00 | Second | 253 |
| P67 | Upstream | 21 L | 8842233.09 | 240867.69 | First | 250 |
| P68 | Upstream | 21 L | 8845139.55 | 240729.60 | First | 242 |
| P69 | Upstream | 21 L | 8846299.37 | 242224.59 | Second | 234 |
| P70 | Upstream | 21 L | 8854923.00 | 241373.00  | Second | 245 |
| P71 | Upstream | 21 L | 8856712.06 | 240858.25 | Second | 262 |
| P72 | Upstream | 21 L | 8842792.77 | 240755.15 | Second | 270 |

Table 2 - List of fish species collected on the first and second order streams located both upstream and downstream from the Dardanelos-Andorinhas waterfalls complex, Aripuanã River basin, Amazonian Brazil.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Order/Family/Species | Downstream | Upstream | Total | Vouchers |
| **Characiformes** |  |  |  |  |
| **Acestrorhynchidae** |  |  |  |  |
| *Acestrorhynchus falcatus* (Bloch 1794) | 1 | 2 | 3 | CPUFMT 5131 |
| **Anostomidae** |  |  |  |  |
| *Leporinus gomesi* Garavello & Santos 1981 | 1 | 9 | 10 | CPUFMT 4936 |
| **Characidae** |  |  |  |  |
| *Aphyocharax* cf. *alburnus* (Günther 1869) | 1 |  | 1 | CPUFMT 5043 |
| *Astyanax* cf. *anterior* Eigenmann 1908 | 39 |  | 39 | CPUFMT 4965 |
| *Astyanax* cf. *bimaculatus* (Linnaeus 1758) | 44 |  | 44 | NUP 18415 |
| *Astyanax* *maximus* (Steindachner 1876) | 33 | 96 | 129 | CPUFMT 4880 |
| *Creagrutus* cf. *anary* Fowler 1913 | 14 |  | 14 | CPUFMT 5140 |
| *Hemigrammus* cf. *bellottii* (Steindachner 1882) | 567 |  | 567 | NUP 18417, CPUFMT 5143  |
| *Hemigrammus* *lunatus* Durbin 1918 | 1 |  | 1 |  |
| *Hemigrammus silimoni* Britski & Lima 2008 |  | 159 | 159 | CPUFMT 5034 |
| *Hyphessobrycon* sp. | 16 | 559 | 575 | CPUFMT 4857 NUP 18452 |
| *Hyphessobrycon eques* (Steindachner 1882) | 5 |  | 5 | CPUFMT 5052 |
| *Hyphessobrycon* sp. 1  | 3 |  | 3 | CPUFMT 5053 |
| *Hyphessobrycon vilmae* Géry 1966 | 1 | 495 | 496 | CPUFMT 4879 |
| *Inpaichthys kerri* Géry & Junk 1977 | 447 | 2192 | 2639 | NUP 18562, CPUFMT 4869 |
| *Jupiaba apenima* Zanata 1997 | 126 |  | 126 | NUP 18420, CPUFMT 4969 |
| *Jupiaba* *zonata* (Eigenmann 1908) | 1 |  | 1 |  |
| *Jupiaba citrina* Zanata & Ohara 2009 | 332 |  | 332 | CPUFMT 5003 |
| *Knodus* sp. | 695 | 617 | 1312 | NUP 18564, 18421, CPUFMT 4946 |
| *Moenkhausia* cf. *pankilopteryx* Bertaco & Lucinda 2006 | 124 |  | 124 | NUP 18423, CPUFMT 5138 |
| *Moenkhausia cotinho* Eigenmann 1908 | 45 |  | 45 | CPUFMT 4983 |
| *Moenkhausia mikia* Marinho & Langeani 2010 | 71 |  | 71 | CPUFMT 5056 |
| *Moenkhausia levidorsa* Benine 2002 | 1 | 242 | 243 | CPUFMT 4899 |
| *Moenkhausia oligolepis* (Günther 1864) | 248 | 361 | 609 | NUP 18422, CPUFMT 5137 |
| *Phenacogaster* sp. | 159 |  | 159 | NUP 18566, CPUFMT 4913 |
| *Poptella compressa*  (Günther 1864) | 78 |  | 78 | NUP 18567, CPUFMT 5009 |
| *Serrapinnus* cf. *notomelas*  (Eigenmann 1915) | 18 |  | 18 | NUP 18426, CPUFMT 5136 |
| *Tetragonopterus* aff. *argenteus*  Cuvier 1816 |  | 2 | 2 |  |
| *Thayeria* sp.  | 2 |  | 2 | CPUFMT 5065 |
| **Crenuchidae** |  |  |  |  |
| *Characidium* sp. | 4 | 16 | 20 | CPUFMT 4978 |
| *Characidium zebra* Eigenmann 1909 | 159 | 103 | 262 | NUP 18416 |
| **Curimatidae** |  |  |  |  |
| *Cyphocharax* gr. *spilurus* (Günther 1864) | 14 | 68 | 82 | CPUFMT 4901 |
| *Steindachnerina fasciata*  (Vari & Géry 1985) | 2 |  | 2 | NUP 18478 |
| **Erythrinidae** |  |  |  |  |
| *Erythrinus erythrinus* (Bloch & Schneider 1801) | 30 | 50 | 80 | CPUFMT 5018 |
| *Hoplerythrinus unitaeniatus* (Spix & Agassiz 1829) | 5 | 2 | 7 | NUP 18418, CPUFMT 5054 |
| *Hoplias malabaricus* (Bloch 1794) | 37 | 9 | 46 | NUP 18561, CPUFMT 5132 |
| *Hoplias* sp. | 1 |  | 1 |  |
| **Iguanodectidae** |  |  |  |  |
| *Bryconops caudomaculatus* (Günther 1864) | 72 | 199 | 271 | CPUFMT 5135 |
| *Bryconops* cf. *inpai* Knöppel, Junk & Géry 1968 | 3 | 42 | 45 | CPUFMT 4884 |
| **Prochilodontidae** |  |  |  |  |
| *Prochilodus nigricans*  Spix & Agassiz 1829 | 6 | 9 | 15 | CPUFMT 4987 |
| **Serrasalmidae** |  |  |  |  |
| *Utiaritichthys longidorsalis* Jégu, de Morais & Santos 1992 | 1 | 3 | 4 |  |
| *Metynnis* sp. |  | 2 | 2 |  |
| **Cichliformes** |  |  |  |  |
| **Cichlidae** |  |  |  |  |
| *Aequidens gerciliae* Kullander 1995 | 68 | 123 | 191 | NUP 18558, CPUFMT 5141 |
| *Caquetaia spectabilis* (Steindachner 1875) | 1 |  | 1 | CPUFMT 5044 |
| *Crenicichla* cf. *johanna* Heckel 1840 | 2 |  | 2 | NUP 18559, CPUFMT 4953 |
| *Crenicichla hemera* Kullander 1990 | 5 | 23 | 28 | CPUFMT 5033 |
| *Crenicichla santosi* Ploeg 1991 | 7 | 1 | 8 | NUP 18560 |
| *Geophagus mirabilis* Deprá, Kullander, Pavanelli & Graça 2014 |  | 16 | 16 | CPUFMT 4894 |
| *Heros spurius* Heckel 1840 | 1 |  | 1 | CPUFMT 5050 |
| **Gymnotiformes** |  |  |  |  |
| **Gymnotidae** |  |  |  |  |
| *Gymnotus carapo* Linnaeus 1758 | 4 | 4 | 8 | CPUFMT 5049 |
| **Hypopomidae** |  |  |  |  |
| *Brachyhypopomus* sp. |  | 2 | 2 | CPUFMT 4890 |
| **Rhamphichthyidae** |  |  |  |  |
| *Gymnorhamphichthys rondoni* (Miranda Ribeiro 1920) | 3 |  | 3 | CPUFMT 5048 |
| **Sternopygidae** |  |  |  |  |
| *Eigenmannia macrops* (Boulenger 1897) | 76 | 17 | 93 | CPUFMT 4921 |
| *Sternopygus macrurus*  (Bloch & Schneider 1801) | 2 |  | 2 | CPUFMT 5064 |
| **Siluriformes** |  |  |  |  |
| **Auchenipteridae** |  |  |  |  |
| *Tatia aulopygia*  (Kner 1858) |  | 6 | 6 |  |
| *Parauchenipterus porosus* (Eigenmann & Eigenmann, 1888) | 1 | 21 | 22 | NUP 18462 |
| **Callichthyidae** |  |  |  |  |
| *Callichthys callichthys* (Linnaeus 1758) | 2 |  | 2 |  |
| *Corydoras* aff. *rabauti* La Monte 1941 |  | 91 | 91 | CPUFMT 4934 |
| *Corydoras* sp. 1  | 2 |  | 2 | NUP 18532 |
| *Corydoras* sp. 2 |  | 2 | 2 |  |
| **Cetopsidae** |  |  |  |  |
| *Cetopsis* sp. |  | 2 | 2 | NUP 18495 |
| **Heptapteridae** |  |  |  |  |
| *Cetopsorhamdia* sp. | 144 | 353 | 497 | CPUFMT 5144 |
| *Imparfinis* aff. *cochabambae* (Fowler 1940) | 7 | 3 | 10 | NUP 18471 |
| *Imparfinis* cf. *hasemani* Steindachner 1915 | 6 | 15 | 21 | NUP 18454 |
| *Imparfinis stictonotus* (Fowler 1940) | 4 |  | 4 | NUP 18539 |
| *Myoglanis* sp. | 17 | 41 | 58 | NUP 18565, CPUFMT 5008 |
| *Pimelodella gracilis*  (Valenciennes 1835) | 7 |  | 7 | CPUFMT 4949 |
| *Rhamdia* sp. | 1 | 22 | 23 | NUP 17443 |
| **Loricariidae** |  |  |  |  |
| *Ancistrus* spp.  | 66 | 520 | 586 | CPUFMT 5142 |
| *Farlowella oxyrryncha* (Kner 1853) | 19 |  | 19 |  |
| *Hypostomus dardanelos* Zawadzki & Carvalho 2014 | 4 |  | 4 |  |
| *Hypostomus pyrineusi* (Miranda Ribeiro 1920) | 2 | 13 | 15 | CPUFMT 4931 |
| *Hypostomus* sp. 1 | 3 |  | 3 | NUP 18538 |
| *Lasiancistrus schomburgkii* (Günther 1864) | 4 |  | 4 | NUP 17803 |
| *Parotocinclus aripuanensis* Garavello 1988 | 62 | 178 | 240 | NUP 18526 |
| *Rineloricaria lanceolata* (Günther 1868) | 18 |  | 18 | NUP 18425, CPUFMT 5062 |
| *Rineloricaria* sp.  | 8 | 451 | 459 | CPUFMT 4875 |
| *Spatuloricaria* sp. | 2 |  | 2 | CPUFMT 5139 |
| **Trichomycteridae** |  |  |  |  |
| *Ituglanis* aff. *amazonicus* (Steindachner 1882) | 87 | 145 | 232 | NUP 18563, CPUFMT 4866 |
| **Synbranchiformes** |  |  |  |  |
| **Synbranchidae** |  |  |  |  |
| *Synbranchus* sp. | 2 | 4 | 6 | NUP 18427 |
| **Total** | **4044** | **7290** | **11334** |  |