

**TABLE S2** | All sequences obtained from BOLD Systems used to the molecular analysis. *Astyanax lacustris* and *A. bimaculatus* represent all the data found of *A. bimaculatus* group species from the Paraná River basin found in the Databank until now.

Species	ID	Link
<i>Astyanax lacustris</i>	BAST072-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST072-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST072-12</a>
<i>Astyanax lacustris</i>	BAST073-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST073-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST073-12</a>
<i>Astyanax lacustris</i>	BAST074-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST074-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST074-12</a>
<i>Astyanax lacustris</i>	BAST075-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST075-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST075-12</a>
<i>Astyanax lacustris</i>	BAST090-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST090-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST090-12</a>
<i>Astyanax lacustris</i>	BAST091-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST091-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST091-12</a>
<i>Astyanax lacustris</i>	BAST092-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST092-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST092-12</a>
<i>Astyanax lacustris</i>	BAST146-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST146-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST146-12</a>
<i>Astyanax lacustris</i>	BAST152-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST152-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST152-12</a>
<i>Astyanax lacustris</i>	BAST153-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST153-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST153-12</a>
<i>Astyanax lacustris</i>	BAST154-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST154-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST154-12</a>
<i>Astyanax lacustris</i>	BAST234-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST234-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST234-12</a>
<i>Astyanax lacustris</i>	BAST235-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST235-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST235-12</a>
<i>Astyanax lacustris</i>	BAST236-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST236-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST236-12</a>
<i>Astyanax lacustris</i>	BAST237-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST237-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST237-12</a>
<i>Astyanax lacustris</i>	BAST239-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST239-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST239-12</a>
<i>Astyanax lacustris</i>	BAST240-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST240-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST240-12</a>
<i>Astyanax lacustris</i>	BAST241-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST241-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST241-12</a>
<i>Astyanax lacustris</i>	BAST266-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST266-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST266-12</a>
<i>Astyanax lacustris</i>	BAST267-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST267-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST267-12</a>
<i>Astyanax lacustris</i>	BAST408-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST408-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST408-12</a>
<i>Astyanax lacustris</i>	BAST409-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST409-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST409-12</a>
<i>Astyanax lacustris</i>	BAST410-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST410-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST410-12</a>
<i>Astyanax lacustris</i>	BAST411-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST411-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST411-12</a>
<i>Astyanax lacustris</i>	BAST414-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST414-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST414-12</a>
<i>Astyanax lacustris</i>	BAST415-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST415-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST415-12</a>
<i>Astyanax lacustris</i>	BAST416-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST416-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST416-12</a>
<i>Astyanax lacustris</i>	BAST442-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST442-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST442-12</a>
<i>Astyanax lacustris</i>	BAST443-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST443-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST443-12</a>
<i>Astyanax lacustris</i>	BAST454-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST454-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST454-12</a>
<i>Astyanax lacustris</i>	BAST455-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST455-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST455-12</a>
<i>Astyanax lacustris</i>	BAST456-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST456-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST456-12</a>
<i>Astyanax lacustris</i>	BAST457-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST457-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST457-12</a>



TABLE S2 | (Continued)

Species	ID	Link
<i>Astyanax lacustris</i>	BAST458-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST458-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST458-12</a>
<i>Astyanax lacustris</i>	BAST652-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST652-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST652-13</a>
<i>Astyanax lacustris</i>	BAST895-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST895-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST895-13</a>
<i>Astyanax lacustris</i>	FUPR1037-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1037-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1037-10</a>
<i>Astyanax lacustris</i>	FUPR1038-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1038-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1038-10</a>
<i>Astyanax lacustris</i>	FUPR1042-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1042-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1042-10</a>
<i>Astyanax lacustris</i>	FUPR1043-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1043-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1043-10</a>
<i>Astyanax lacustris</i>	FUPR1047-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1047-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1047-10</a>
<i>Astyanax lacustris</i>	FUPR1048-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1048-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1048-10</a>
<i>Astyanax lacustris</i>	FUPR1049-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1049-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1049-10</a>
<i>Astyanax lacustris</i>	FUPR1050-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1050-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1050-10</a>
<i>Astyanax lacustris</i>	FUPR1051-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1051-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1051-10</a>
<i>Astyanax lacustris</i>	FUPR1130-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1130-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1130-10</a>
<i>Astyanax lacustris</i>	FUPR1131-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1131-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1131-10</a>
<i>Astyanax lacustris</i>	FUPR1132-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1132-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1132-10</a>
<i>Astyanax lacustris</i>	FUPR1133-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1133-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1133-10</a>
<i>Astyanax lacustris</i>	FUPR1134-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1134-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1134-10</a>
<i>Astyanax lacustris</i>	FUPR1135-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1135-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1135-10</a>
<i>Astyanax lacustris</i>	GBMNB8467-20	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=GBMNB8467-20">http://www.boldsystems.org/index.php/Public_RecordView?processid=GBMNB8467-20</a>
<i>Astyanax lacustris</i>	CAPV685-17	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV685-17">http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV685-17</a>
<i>Astyanax lacustris</i>	BAST334-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST334-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST334-12</a>
<i>Astyanax lacustris</i>	BAST179-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST179-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST179-12</a>
<i>Astyanax lacustris</i>	BAST335-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST335-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST335-12</a>
<i>Astyanax lacustris</i>	BAST220-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST220-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST220-12</a>
<i>Astyanax lacustris</i>	BAST333-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST333-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST333-12</a>
<i>Astyanax lacustris</i>	FUPR1041-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1041-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1041-10</a>
<i>Astyanax lacustris</i>	BAST089-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST089-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST089-12</a>
<i>Astyanax lacustris</i>	BAST181-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST181-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST181-12</a>
<i>Astyanax lacustris</i>	BAST332-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST332-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST332-12</a>
<i>Astyanax lacustris</i>	BAST522-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST522-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST522-12</a>
<i>Astyanax lacustris</i>	FUPR1129-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1129-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1129-10</a>
<i>Astyanax lacustris</i>	BAST086-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST086-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST086-12</a>
<i>Astyanax lacustris</i>	CAPV669-17	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV669-17">http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV669-17</a>
<i>Astyanax lacustris</i>	CAPV683-17	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV683-17">http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV683-17</a>
<i>Astyanax lacustris</i>	CAPV884-17	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV884-17">http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV884-17</a>



TABLE S2 | (Continued)

Species	ID	Link
<i>Astyanax lacustris</i>	CAPV902-17	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV902-17">http://www.boldsystems.org/index.php/Public_RecordView?processid=CAPV902-17</a>
<i>Astyanax lacustris</i>	BAST1530-14	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1530-14">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1530-14</a>
<i>Astyanax lacustris</i>	FUPR1036-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1036-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1036-10</a>
<i>Astyanax lacustris</i>	PRP034-16	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=PRP034-16">http://www.boldsystems.org/index.php/Public_RecordView?processid=PRP034-16</a>
<i>Astyanax lacustris</i>	BAST1122-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1122-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1122-13</a>
<i>Astyanax lacustris</i>	BAST300-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST300-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST300-12</a>
<i>Astyanax lacustris</i>	BAST441-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST441-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST441-12</a>
<i>Astyanax lacustris</i>	BAST523-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST523-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST523-12</a>
<i>Astyanax lacustris</i>	FUPR1039-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1039-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1039-10</a>
<i>Astyanax lacustris</i>	FUPR1040-10	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1040-10">http://www.boldsystems.org/index.php/Public_RecordView?processid=FUPR1040-10</a>
<i>Astyanax lacustris</i>	PRP033-16	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=PRP033-16">http://www.boldsystems.org/index.php/Public_RecordView?processid=PRP033-16</a>
<i>Astyanax lacustris</i>	PRP035-16	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=PRP035-16">http://www.boldsystems.org/index.php/Public_RecordView?processid=PRP035-16</a>
<i>Astyanax bimaculatus</i>	BAST1320-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1320-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1320-13</a>
<i>Astyanax bimaculatus</i>	BAST727-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST727-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST727-13</a>
<i>Astyanax scabripinnis</i>	BAST1209-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1209-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1209-13</a>
<i>Astyanax scabripinnis</i>	BAST076-12	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST076-12">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST076-12</a>
<i>Astyanax cf. fasciatus</i>	BAST1123-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1123-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1123-13</a>
<i>Astyanax cf. fasciatus</i>	BAST1124-13	<a href="http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1124-13">http://www.boldsystems.org/index.php/Public_RecordView?processid=BAST1124-13</a>

## Neotropical Ichthyology



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