APPENDICES

Appendix 1 Summary of the physico-chemical characteristics of the waters in the Upper Tahuamanu and Lower Nareuda/Middle Tahuamanu sub-basins during the AquaRAP expedition to Pando, Bolivia in September 1996.
Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Germana de Paula Castro Prates Renault, Paulina María Maia-Barbosa, Rosa María Menéndez, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

Appendix 2 Distribution of zooplankton species along the sampling stations of the AquaRAP expedition to Pando, Bolivia in September 1996.
Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Germana de Paula Castro Prates Renault, Paulina María Maia-Barbosa, Rosa María Menéndez, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

Appendix 3 Composition of the benthic macroinvertebrate community in selected sites of the AquaRAP expedition to Pando, Bolivia in September 1996.
Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Germana de Paula Castro Prates Renault, Paulina María Maia-Barbosa, Rosa María Menéndez, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

Appendix 4 Distribution of Chironomidae genera identified from selected sites of the AquaRAP expedition to Pando, Bolivia in September 1996.
Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

Appendix 5 Decapod crustaceans collected by the AquaRAP expedition to Pando, Bolivia in September 1996.
Célio Magalhães

Appendix 6 Fishes collected during the AquaRAP expedition to Pando, Bolivia in September 1996.
Jaime Sarmiento, Barry Chernoff, Soraya Barrera, Antonio Machado-Allison, Naércio Menezes, and Hernán Ortega

Appendix 7 Comparative list of fishes reported from the Bolivian Amazon.
Philip W. Willink, Jaime Sarmiento, and Barry Chernoff

Appendix 8 Description of ichthyological field stations sampled during the AquaRAP expedition to Pando, Bolivia in September 1996.
Antonio Machado-Allison, Jaime Sarmiento, Naércio Menezes, Hernán Ortega, Soraya Barrera, Theresa M. Bert, Barry Chernoff, and Philip W.Willink

APPENDIX 1 Summary of the physico-chemical characteristics of the waters in the Upper Tahuamanu and Lower Nareuda/Middle Tahuamanu sub-basins during the AquaRAP expedition to Pando, Bolivia in September 1996.

Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Germana de Paula Castro Prates Renault, Paulina María Maia-Barbosa, Rosa María Menéndez, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

UPPER TAHUAMANU SUB-BASIN

Site 1: Río Tahuamanu, left margin
(11° 26.699'S; 69° 0.509'W)
Date: 4/9/96 ; Time: 9:00 am
Depth: 0.25m; three hauls for benthos; substrate: fine sand.
Water temp.: 28.4°C; pH: 7.43; cond.: 270 µS/cm; oxyg.: 8.85 mg/l, 114.3% sat.
Left margin: sand beach
Site 1: Right Margin
Time: 10:30 am
Depth:1.5 m; three hauls for benthos; substrate: fine sand.
Water temp.: 28.8°C; cond.: 240 µS/cm; pH: 7.50; oxyg.: 9.29 mg/l, 120.5% sat.
Right margin: riparian forest

Site 2. Lake at Aceradero
(11° 25.802'S; 69° 0.481'W)
Date: 4/9/96; Time: 1:40 pm
Depth: 0.5 m; distance from shore: 1.5 m, near a stand of macrophytes (*Pistia* sp and *Scirpus* sp); substrate: mud.
Water temp.: 30.8°C; cond.: 27.4 µS/cm; pH: 6.40; oxyg.: 9.45 mg/l, 124.1 % sat.
Site 2. Outlet of the lake (11° 25.872'S; 69° 0.189'W)
Water temp.: 29.1°C; cond.: 30.9 µS/cm; pH: 6.46; oxyg.: 10.0 mg/l, 126.7 % sat.

Site 3: Río Muymano, left margin
(11° 27.225'S; 69° 01.810'W)
Date: 5/9/96; Time: 9:50 am
Depth: 1.30 m; distance from shore: approx. 3 m
Water temp.: 27.8°C; cond.: 78.9 µS/cm; pH: 6.85; oxyg.: 9.47 mg/l, 124.2 % sat.

Site 4: Lake/Río Muymano
(11° 27.197'S; 69° 1.834'W)
Date: 5/9/96; Time: 10:25 am
Depth: 0.50m; distance from shore: approx. 1 m; substrate: mud
Water temp.: 28.7°C; cond.: 122.8 µS/cm; pH: 6.72; oxyg.: 8.47 mg/l, 111.0 % sat.

Site 5: Río Tahuamanu, left margin
(11° 26.792'S; 69° 1.434'W)
before the mouth of the Muymano river.
Date: 5/9/96; Time: 12:25
Depth: 0.50 m; distance from shore: approx. 1 m; sand beach.
Water temp.: 31.2°C; cond.: 355.0 µS/cm; pH: 7.59; oxyg.: 10.69 mg/l, 154.6 % sat.

Site 6: Mouth of Río Muhymano, right margin
(11° 26.839'S; 69° 01.468'W)
Date: 5/9/96; Time: 1:30 pm
Depth: > 2.0 m; distance from shore: approx. 3.0 m; riparian vegetation.
Water temp.: 28.3°C; cond.: 83.0 µS/cm; pH: 6.97; oxyg.: 10.41 mg/l, 134.6 % sat.

Site 7: Lake at right margin Río Tahuamanu
(11° 26.723'S; 69° 0.692'W)
Date: 7/9/96; Time: 10:00 am; Weather: cloudy
Depth: 1.10 m; distance from shore: approx. 3.0 m; substrate: mud
Water temp.: 26.2°C; cond.: 59.9 µS/cm; pH: 6.83; oxyg.: 8.82 mg/l, 108.4 % sat.

Site 8: Lake Remanso, left margin Río Tahuamanu (11° 26.054'S; 69° 0.879'W)
Date: 7/9/96; Time: 2:00 pm
Depth: 1.0 m; distance from shore: approx. 3.0 m; substrate: mud
Water temp.: 27.5°C; cond.: 92.7 µS/cm; pH: 6.66; oxyg.: ?

Site 9: Lake Canhaveral, left margin Río Tahuamanu (11° 26.257'S; 69° 1.997'W)
Date: 7/9/96; Time: 4:30 pm; substrate: ; abundant Neuston
Depth: 0.50 m; distance from shore: approx. 2.0 m
Water temp.: 31.0°C; cond.: 92.4 µS/cm; pH: 7.90; oxyg.: 0.79 mg/l, 10.3% sat.

Site 10: Curiche at left margin Río Tahuamanu (11° 25.263'S; 69° 5.160'W)
Date: 8/9/96; Time: 12:30
Remnant of the river entirely covered by vegetation; dark water, probably containing humic substances and ferrous bacteria.
Depth: 0.70m; distance from shore: 0.30 m
Water temp.: 22.2°C; cond.: 31.0 µS/cm; pH: 5.46; oxyg.: 2.21 mg/l, 23.0% sat.

LOWER NAREUDA/MIDDLE TAHUAMANU SUB-BASIN

Site 11: Curiche at right margin Río Nareuda (11° 18.336'S; 68° 45.861'W)
Date: 10/9/96; Time: 11:00 am
Depth: 0.50 m; distance from shore: 1.0 m; substrate: clay
Water temp.: 22.8°C; cond.: 40.2 µS/cm; pH: 6.05; oxyg.: 3.48 mg/l, 39.5% sat.

Site 12: Río Nareuda, right margin (11° 18.541'S; 68° 45.938'W)
Date: 10/9/96; Time: 12:15
Depth: 1.5 m; distance from shore: approx. 3.0 m; substrate: fine sand
River width: approx. 15 m; sampling area for benthos: approx. 5 m^2 ;
Water temp.: 24.1°C; cond.: 44.2 µS/cm; pH: 6.71; oxyg.:7.37 mg/l, 84.3% sat.

Site 13: Curiche at right margin of Río Nareuda (11° 18.525'S; 68° 45.965'W)
Date: 11/9/96; Time: 10:00 am
Depth: 0.50 m; distance from shore: approx. 1.0 m; substrate: clay
Water temp.: 19.7°C; cond.: 40.6 µS/cm; pH: 6.00; oxyg.: 3.08 mg/l, 31.6% sat.

Site 14: Río Nareuda, right margin, at the rapids (11° 18.306'S; 68° 45.422'W)
Date: 11/9/96; Time: 01:20 pm
Depth: 0.50 m; distance from shore: approx. 3.0 m; substrate: stones/gravel
River width: approx. 15 m; At this site it was collected periphyton from the stones.
Water temp.: 23.9°C; cond.: 51.4 µS/cm; pH: 6.70; oxyg.: 7.91 mg/l, 94.8% sat.

Site 15: Arroyo Filadelfia, right margin Río Tahuamanu (11° 20.550'S; 68° 45.895'W)
Date: 12/9/96; Time: 11:00 am
Depth: 0.80 m; distance from shore: approx. 1.0 m; stream width: approx. 3.0 m
substrate: clay;
Water temp.: 21.1°C; cond.: 12.3 µS/cm; pH: 5.86; oxyg.: 7.83 mg/l, 86.1% sat.

Site 16: Río Tahuamanu, right margin (11° 20.567'S; 68° 46.061'W)
Below the mouth of Arroyo Fila
Date: 12/9/96; Time: 01:30 pm
Depth: > 2.0 m; distance from shore: approx. 3.0 m
Water temp.: 26.7°C; cond.: 175.0 µS/cm; pH: 7.46; oxyg.: 9.31 mg/l, 116.6% sat.

Site 17: Lake Filadelfia, right margin Río Tahuamanu (11° 20.026'S; 68° 45.353'W)
Date: 12/9/96; Time: 02:30 pm
Depth: 1.0 m; distance from shore: approx. 3.0 m; substrate: clay
Water temp.: 28.6°C; cond.: 102.6 µS/cm; pH: 7.19; oxyg.: 8.65 mg/l, 112.0% sat.

Site 18: Lake at right margin Río Tahuamanu (11° 18.61'S; 68° 44.425'W)
Date: 12/9/96; Time: 05:25 pm
Depth: 1.0 m; distance from shore: approx. 2.0 m; substrate: clay
Water temp.: 26.2°C; cond.: 22.1 µS/cm; pH: 5,71; oxyg.: 2.49 mg/l, 30.7% sat.

Site 19: Igarapé Preto, left margin Río Tahuamanu (11° 16.273'S; 68° 44.338'W)
Date: 13/9/96; Time: 10:20 am
Depth: 0.70 m; distance from shore: approx. 2.0m; substrate: clay
Black water; sampling area for benthos: approx. 10 m2.
Water temp.: 22.5°C; cond.: 17.5 µS/cm; pH: 6.2; oxyg.: 8.05 mg/l, 87.0% sat.

Site 20: Lake at right margin of Río Tahuamanu (11° 17.609'S; 68° 44.494'W)
The lake is permanently conected to the river; clear water
Date: 13/9/96; Time: 11:30 am
Depth: 1.0 m; distance from shore: approx. 1.5 m; substrate: clay
Water temp.: 28.2°C; cond.: 331.0 µ S/cm; pH: 7.62; oxyg.: 8.34 mg/l, 107.3% sat.

Site 21: Río Tahuamanu, central channel at the rapids (11° 18.273'S; 68° 44.482'W)
Date: 13/9/96; Time: 12:30;
Depth: 0.80 m; distance from shore: approx. 40 m; substrate: rocks
Clear water; periphyton present on the rocks.
Water temp.: 27.4°C; cond.: 159.2µS/cm; pH: 7.38; oxyg.: 7.51 mg/l, 88.0% sat.

Site 22: Arroyo las Alicias, right margin Río Tahuamanu (11° 18.493'S; 68° 44.585'W)
Date: 13/9/96; Time: 01:00 pm
Depth: 0.50 m; distance from shore: 1.0 m; substrate: clay/stones
Water color: white/dark
Water temp.: 25.0°C; cond.: 13.7 µS/cm; pH: 6.40; oxyg.: 7.48 mg/l, 88.3% sat.

Distribution of zooplankton species along the sampling stations of the AquaRAP expedition to Pando, Bolivia in September 1996.

APPENDIX 2

Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Germana de Paula Castro Prates Renault, Paulina María Maia-Barbosa, Rosa María Menéndez, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

+ = present; - = absent

	SAMPLING STATIONS (see Appendix 1)											
RECORDED TAXA	**1 Right S.E.**	**1 Left N.W.**	**2**	**3**	**4**	**5**	**6**	**7 limn.**	**7 litt.**	**8**	**9**	**10**
PROTOZOA - RHIZOPODA												
Arcellidae												
Arcella costata	-	-	+	-	-	-	-	-	-	-	-	-
A. discoides	+	+	-	+	-	-	+	-	-	+	-	-
A. discoides v. pseudovulgaris	-	-	+	-	-	-	-	-	-	-	-	-
A. gibbosa	-	-	-	-	-	-	-	-	-	+	-	-
A. gibbosa v. mitriformes	-	-	+	+	-		-	-	-	-	-	-
A. hemisphaerica	+	-	-	+	+	+	-	-	-	+	-	-
A. hemisphaerica undulata	-	+	+	+	+	-	+	+	+	+	-	-
A. megastoma	-	-	-	-	-	-	-	-	-	+	-	-
A. mitrata	+	-	-	-	-	-	-	-	-	-	-	-
A. rotundata	+	+	-	+	+	-	-	-	-	-	-	-
A. vulgaris	-	-	-	-	+	-	-	-	-	+	-	+
A. vulgaris v. undulata	-	-	-	-	-	-	-	-	-	+	-	-
Centropyxidae												
Centropyxis sp.	-	+	-	-	-	+	-	-	-	-	-	-
C. aculeata	-	+	+	+	-	-	+	-	-	-	-	-
C. ecornis	+	-	-	+	-	-	-	-	-	+	-	-
C. marsupiformes	-	+	-	-	-	-	-	-	-	-	-	-
C. platystoma	-	-	-	-	-	-	+	-	-	-	-	-
Cyclopyxis arcelloides	-	-	-	-	-	-	+	-	-	-	-	-
C. euristoma	-	-	+	-	-	-	-	-	-	-	-	-
Diffugidae												
Difflugia acuminata	+	-	-	-	+	-	-	-	-	-	-	-
D. acutissima	+	-	-	-	+	-	-	-	-	-	-	-
D. avellana	-	-	-	+	+	-	-	-	-	-	-	-
D. corona	-	-	-	-	-	-	-	-	-	+	-	-
D. elegans	-	-	-	-	+	-	-	-	-	-	-	-
D. gramen	+	+	+	+	+	-	-	-	-	-	-	-
D. oblonga	-	-	-	-	-	-	-	-	-	-	-	+
D. oblonga v. cylindrus	-	-	-	-	+	-	-	-	-	-	-	-
D. lanceolata	+	-	-	-	-	-	+	-	-	-	-	-
D. lobostoma	-	-	+	-	-	-	-	-	-	-	-	-
D. lobostoma fma multilobada	-	+	+	-	-	-	-	-	-	-	-	-
D. lithophila	-	+	+	-	-	-	-	-	-	-	-	-
D. difficilis	-	+	-	-	-	+	-	-	-	-	-	-
D. smilion?	-	+	-	-	-	-	-	-	-	-	-	-
Cucurbitella sp.	-	-	-	-	-	-	-	+	-	-	-	-
C. mespiliformes	-	-	-	-	-	-	-	-	+	+	-	-
C. obturata	-	-	-	-	+	-	-	-	-	-	-	-
Protocucurbitella coroniformes	-	-	+	-	-	-	-	-	-	-	-	-
P. microstoma	-	-	-	-	-	-	-	-	+	-	-	-

RECORDED TAXA	SAMPLING STATIONS (see Appendix 1)											
	1 Right S.E.	1 Left N.W.	2	3	4	5	6	7 limn.	7 litt.	8	9	10
Euglyphidae												
Euglypha sp.	-	-	-	-	+	-	+	-	-	-	-	-
E. acanthophora	+	-	+	+	-	-	-	-	-	+	-	-
E. acanthophora v. cylindracea	-	-	-	-	-	+	-	-	-	-	-	-
E. tuberculata	+	+	-	+	-	-	-	-	-	-	-	+
Eughypha laevis	-	+	+	-	-	-	+	-	-	-	-	-
Trinema lineare	+	+	+	-	-	-	+	-	-	-	-	-
T. enchelys	+	-	-	+	-	-	-	-	-	+	-	-
Nebellidae												
Lesquereusia modesta	-	-	+	-	-	-	-	-	-	-	-	-
Nebela sp.	-	-	-	-	-	-	-	-	-	-	-	+
Quadrulella symetrica	-	-	-	-	-	-	+	-	-	-	-	-
Sub-total 1	13	14	15	12	12	4	10	2	3	12	0	4
ROTIFERA												
Brachionidae												
Anuraeopsis fissa	+	-	-	-	-	+	+	+	+	+	+	-
Brachionus caudatus	+	+	+	-	-	+	-	+	+	+	+	-
Brachionus dolabratus	-	-	-	-	-	-	-	+	-	-	-	-
Brachionus falcatus falcatus	+	-	-	-	+	-	-	+	-	-	-	-
Brachionus mirus	-	-	-	-	-	-	-	+	+	-	-	-
Brachionus urceolaris	+	+	-	-	-	-	-	-	-	+	-	-
Epiphanes sp.	+	-	-	-	-	-	-	-	-	-	-	-
Keratella cochlearis	-	-	+	-	-	-	-	+	-	-	+	-
K. tropica	+	+	+	+	+	-	-	+	-	+	-	-
Platyias quadricornis	-	-	-	-	-	-	-	-	+	-	-	+
Plationus patulus	-	-	-	-	-	-	-	-	-	+	-	-
Euchlanidae												
Euchlanis dilatata	-	-	-	+	+	-	-	-	-	-	-	-
Notommatidae								-				
Cephalodella gibba	+	+	-	+	-	+	-	+	-	-	-	-
Cephalodella gigantea	-	-	-	-	-	-	+	-	-	-	-	-
Cephalodella sp. 1	-	-	-	-	+	-	-	-	-	+	-	-
Cephalodella sp. 2	-	-	-	-	+	-	+	-	-	-	-	-
Notommata sp.	+	-	-	-	-	+	-	-	+	-	-	-
Scaridium longicaudum	-	-	-	-	-	-	-	-	-	+	-	-
Colurellidae												
Colurella sp.	-	-	+	-	-	-	-	-	-	-	-	+
C. obtusa	+	-	-	+	-	-	-	-	+	-	-	+
Lepadella sp.	-	-	-	-	-	-	-	-	+	-	-	-
L. patella	-	-	-	+	-	-	+	-	-	+	-	-
L. rhomboides	-	-	+	-	-	-	-	-	-	-	-	-
L. latusinus	-	-	-	+	-	-	-	-	-	-	-	-

RECORDED TAXA	SAMPLING STATIONS (see Appendix 1)											
	1 Right S.E.	1 Left N.W.	2	3	4	5	6	7 limn.	7 litt.	8	9	10
Mytilinidae												
Mytilina ventralis	+	-	-	-	-	-	-	-	-	-	-	-
Filinidae												
Filinia longiseta	-	-	+	-	-	-	-	+	+	+	+	-
Hexarthridae												
Hexarthra sp.	-	-	+	-	-	-	-	+	+	-	+	-
Philodinidae												
Dissotrocha macrostyla	-	-	-	+	-	-	-	-	-	-	-	-
Rotaria rotatoria	+	-	+	-	-	-		-	+	-	-	-
Bdelloidea	+	-	+	+	+	+	-	-	-	+	-	+
Lecanidae												
Lecane bulla	-	+	+	-	-	-	-	-	-	+	-	-
L. closterocerca	-	-	-	-	-	-	+	-	-	-	-	-
L. furcata	-	-	+	-	-	-	-	-	-	-	-	-
L. hamata	-	-	-	-	-	-	-	-	-	+	-	-
L. hastata	+	+	-	-	-	-	-	-	-	-	-	-
L. inermis	-	-	-	-	-	-	+	-	-	-	-	-
L. leontina	-	-	+	-	-	-	-	-	-	-	-	-
L. lunaris	-	-	-	-	-	-	-	-	-	+	-	-
L. papuana	+	+	-	-	+	+	-	-	-	-	+	-
L. pyriformes	-	+	-	-	-	-	-	-	-	-	-	-
L. stichaea	-	-	-	+	-	-	-	-	-	-	-	-
Synchaetidae												
Polyarthra sp.	-	-	+	+	+	-	-	+	+	+	+	-
P. dolychoptera	-	-	+	-	-	-	-	-	-	-	-	-
Synchaeta sp.	-	-	+	-	-	-	-	-	-	-	-	-
Testudinellidae												
Pompholyx sulcata	-	+	-	-	-	+	-	-	-	+	-	+
Testudinella patina patina	-	+	+	-	-	-	-	-	-	+	-	-
Trichocercidae												
Trichocerca (D) porcellus	-	-	+	+	+	-	-	-	-	-	-	-
T. iernis	-	-	-	-	+	-	-	-	-	+	-	-
T. insignis	+	-	+	-	-	-	-	-	-	-	-	-
T. pussila	+	-	-	-	-	-	+	+	+	+	+	-
T. rousseletie?	+	-	-	-	-	-	-	-	-	-	-	-
T. similis	+	-	-	-	-	-	-	-	-	-	+	+
T. tenuior	-	+	-	-	-	-	-	-	-	-	-	-
Sub-total 2	18	11	18	11	10	7	7	12	12	18	9	6

RECORDED TAXA	SAMPLING STATIONS (see Appendix 1)											
	1 Right S.E.	1 Left N.W.	2	3	4	5	6	7 limn.	7 litt.	8	9	10
COPEPODA												
Nauplius	+	-	+	+	+	+	-	+	+	-	+	+
Copepodito Cyclopoida	+	-	+	+	+	-	-	-	+	-	-	+
Cryptocyclops brevifurca	-	-	+	-	-	-	-	-	-	-	-	-
Mesocyclops sp.	-	-	+	-	-	-	-	-	-	-	-	-
Microcyclops sp.	-	-	+	-	-	-	-	-	-	-	-	-
Tropocyclops prasinus	+	-	-	-	-	-	-	-	-	-	-	-
Notodiaptomus sp.	-	-	-	+	-	-	-	-	-	-	-	-
Copepodito Calanoida	-	-	-	+	-	+	-	-	-	-	-	-
Calanoida	-	-	-	-	+	-	-	-	-	-	-	-
Ergasilus sp.	-	-	-	-	-	-	-	-	+	-	+	-
Sub-total 3	1	0	3	1	1	0	0	0	1	0	1	0
CLADOCERA												
Ilyocryptidae												
Ilyocryptus spinifer	+	+	+	-	-	+	-	-	-	+	-	-
Moinidae												
Moina minuta	+	-	+	+	+	+	-	-	-	-	+	-
Dapnidae												
Ceriodaphnia cornuta	-	+	-	-	-	-	-	-	-	-	-	-
Moinodaphnia macleayi	-	-	+	-	-	-	-	-	-	-	-	-
Simocephalus serrulatus	-	+	-	-	-	-	-	-	-	-	-	-
Macrothricidae												
Macrothrix laticornis	+	+	-	-	-	+	-	-	-	-	-	-
Chydoridae												
Alonella hamulata	-	-	+	-	-	-	-	-	-	-	-	-
Eurialona orientalis	-	-	+	-	-	-	-	-	-	-	-	-
Oxyurella longicaudis	-	-	+	+	-	-	-	-	-	-	-	-
Sub-total 4	3	4	6	2	1	3	0	0	0	1	1	0
OSTRACODA	-	-	+	+	+	-	-	-	+	-	-	-
Sub-total 5	0	0	1	1	1	0	0	0	1	0	0	0
GASTROTRICHA												
Chaetonotus sp.	-	-	+	-	-	+	-	+	+	+	-	+
Sub-total 6	0	0	1	0	0	1	0	1	1	1	0	1
NEMATODA	+	+	+	-	+	+	+	-	-	-	-	+
Sub-total 7	1	1	1	0	1	1	1	0	0	0	0	1
TOTAL	**36**	**30**	**45**	**27**	**26**	**16**	**18**	**15**	**18**	**32**	**11**	**12**

Composition of the benthic macroinvertebrate community in selected sites of the AquaRAP expedition to Pando, Bolivia in September 1996.

APPENDIX 3

Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Germana de Paula Castro Prates Renault, Paulina María Maia-Barbosa, Rosa María Menéndez, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

	SAMPLING SITES (See Appendix 1)							
TAXA	**SITE 1 - LEFT**	**SITE 2**	**SITE 8**	**SITE 9**	**SITE 13**	**SITE 16**	**SITE 18**	**SITE 20**
Mollusca								
Bivalvia	44	1	181	77	10	75	18	48
Gastropoda *Biomphalaria*	-	-	-	-	-	-	1	-
Oligochaeta	6	6	26	3	30	79	14	3
Hirudinea	1	-	2	1	-	13	-	2
Decapoda - Gamaridae	-	-	2	1	-	2	-	-
Acarina	-	-	-	-	-	-	-	-
Arachnida	-	-	-	-	-	-	1	-
Insecta								
Odonata	1	2	18	5	9	3	12	5
Heteroptera	2	-	106	7	22	155	7	2
Lepidoptera	-	-	-	-	-	-	1	-
Ephemeroptera	2	-	69	7	-	17	2	18
Trichoptera	1	1	7	-	1	-	-	3
Coleoptera	3	3	-	-	9	9	2	1
Diptera								
Ceratopogonidae	9	1	4	11	17	50	7	2
Chaoboridae	-	-	-	1	-	-	3	1
Chironomidae	27	11	107	22	32	51	25	120
Culicidae	-	-	1	-	-	-	-	-
Tabanidae	-	-	-	-	1	-	-	-
Tipulidae	-	3	-	-	-	-	-	-
Total Number of Individuals	96	28	523	135	131	454	93	205

APPENDIX 4 Distribution of Chironomidae genera identified from selected sites of the AquaRAP expedition to Pando, Bolivia in September 1996.

Francisco Antonio R. Barbosa, Fernando Villarte V., Juan Fernando Guerra Serrudo, Marcos Callisto Faria Pereira, and Juliana de Abreu Vianna

	SAMPLING SITES (See Appendix 1)							
TAXA	**SITE 1 - LEFT**	**SITE 2**	**SITE 8**	**SITE 9**	**SITE 13**	**SITE 16**	**SITE 18**	**SITE 20**
TANYPODINAE								
Ablabesmyia	-	-	18	1	-	3	1	2
Coelotanypus	14	-	18	15	-	27	2	26
Djalmabatista	-	-	-	-	-	-	1	-
Labrundinia	-	-	2	-	2	1	2	2
CHIRONOMINAE								
Asheum	-	-	10	-	1	-	-	6
Chironomus	-	2	40	-	-	-	5	3
Cladopelma	-	-	-	-	-	-	1	-
Fissimentum desiccatum	-	-	-	-	-	9	5	12
Goeldichironomus	2	-	2	1	2	1	-	48
Harnischia	-	1	1	-	-	-	-	2
Parachironomus	-	-	1	-	1	-	-	-
Polypedilum	10	-	2	5	2	4	5	8
Stenochironomus	-	-	6	-	-	-	-	-
Tribelos	1	1	1	-	-	-	-	-
Zavreliella	-	-	1	-	-	-	-	-
Nimbocera paulensis	-	5	-	-	10	-	-	4
Tanytarsini genera	-	2	-	1	14	5	3	5
Richness	4	5	12	5	7	7	9	11
Total Number of Individuals	27	11	102	23	32	50	25	118
H' Shannon-Wiever (base 2)	1.48	2.04	2.58	1.47	2.11	2.02	2.90	2.62
Equitabilidade	0.74	0.88	0.72	0.63	0.75	0.72	0.92	0.76

Decapod crustaceans collected by the AquaRAP expedition to Pando, Bolivia in September 1996.

APPENDIX 5

Célio Magalhães

Field Station	Number of individuals collected	Species
B96 – P01 – 01	1	*Palaemonetes ivonicus* (imat.)
B96 – P01 – 02	10	*Macrobrachium depressimanum*
B96 – P01 - 03	1 m	*Sylviocarcinus devillei*
	39	*Macrobrachium depressimanus*
B96 – P01 –04	1	*Macrobrachium depressimanum*
B96 – P01 – 08	7	*Macrobrachium depressimanum*
	4	*Palaemonetes ivonicus* (juv.)
B96 – P01 – 09	1 f	*Valdivia* cf. *serrata* (imat.)
B96 – P01 – 10	1	*Palaemonetes ivonicus*
	1	*Macrobrachium jelskii*
	1	*Macrobrachium amazonicum*
B96 - P01 - 11	2	*Macrobrachium* cf. *brasiliense* (imat.)
	10	*Macrobrachium jelskii*
	17	*Macrobrachium depressimanum*
	1 m	*Sylviocarcinus maldonadoensis*
	2 m	*Zilchiopsis oronensis*
B96 - P01 - 12	2	2 *Macrobrachium* cf. *brasiliense*
	20	20 *Palaemonetes ivonicus*
B96 - P01 - 13	1	1 *Macrobrachium depressimanum*
	1	1 *Macrobrachium brasiliense*
	9	9 *Palaemonetes ivonicus* (imat. + juv.)
B96 - P01 - 14	1	*Macrobrachium depressimanum*
	1	*Macrobrachium brasiliense*
	3	*Macrobrachium jelskii*
B96 - P01 - 14	29	*Palaemonetes ivonicus*
B96 - P01 - 17	16	*Macrobrachium jelskii*
B96 - P01 - 18	1	*Macrobrachium depressimanum*
	1 f	*Sylviocarcinus maldonadoensis*
B96 - P01 - 20	1	*Acetes paraguayensis*
B96 - P01 - 23	2	*Palaemonetes ivonicus*
B96 - P01 - 25	1	*Palaemonetes ivonicus*
B96 - P01 - 26	1	*Macrobrachium amazonicum*
	2	*Palaemonetes ivonicus*
	3 f	*Valdivia* cf. *serrata* (imat.)
B96 - P01 - 30	1	*Macrobrachium amazonicum*
B96 - P01 - 31	1	*Acetes paraguayensis*
	1	*Macrobrachium jelskii*
	4	*Macrobrachim depressimanus*
B96 - P01 - 32	5	*Macrobrachium depressimanum*
B96 - P01 - 33	3	*Macrobrachium amazonicum*

P01 = Group consisted of Jaime Sarmiento, Hernán Ortega, Soraya Barrera, and Luis Fernando Yapur.
F = Female; M= Male

Field Station	Number	Species
B96 - P02 – 01	28	*Macrobrachium depressimanum*
	17	*Macrobrachium brasiliense*
	2 m	*Zilchiopsis oronensis*
	2 m	*Valdivia* cf. *serrata*
B96 - P02 – 02	5	*Macrobrachium depressimanum*
	10	*Macrobrachium jelskii*
	2 m	*Valdivia* cf. *serrata*
B96 - P02 – 03	2	*Macrobrachium depressimanum*
B96 - P02 – 05	16	*Macrobrachium depressimanum*
B96 - P02 – 06	15	*Macrobrachium brasiliense*
B96 - P02 – 07	1	*Macrobrachium* cf. *brasiliense*
	2	*Macrobrachium jelskii*
	3	*Macrobrachium depressimanum*
B96 - P02 – 08	4	*Macrobrachium depressimanum*
B96 - P02 – 09	1 f	*Valdivia* cf. *serrata* (imat.)
B96 - P02 – 12	2	*Macrobrachium* cf. *brasiliense*
B96 - P02 – 13	1	*Macrobrachium* cf. *brasiliense*
B96 - P02 – 14	6	*Acetes paraguayensis*
	10	*Macrobrachium depressimanum*
B96 - P02 – 15	2	*Macrobrachium depressimanum*
B96 - P02 – 16	3	*Acetes paraguayensis*
	4	*Macrobrachium depressimanum*
B96 - P02 – 17	2	*Macrobrachium depressimanum*
B96 - P02 – 18	3	*Macrobrachium* cf. *brasiliense*
B96 - P02 – 22	4	*Macrobrachium depressimanum*
	1 f	*Sylviocarcinus devillei* (imat.)
B96 - P02 – 23	2	*Macrobrachium depressimanum*
B96 - P02 – 26	6	*Macrobrachium depressimanum*
B96 - P02 – 27	34	*Acetes paraguayensis*
	17	*Macrobrachium depressimanum*
	1 f	*Sylviocarcinus maldonadoensis*
B96 - P02 – 32	4	*Acetes paraguayensis*
B96 - P02 – 34	1	*Macrobrachium amazonicum*
B96 - P02 – 36	3	*Macrobrachium amazonicum*
	39	*Macrobrachium depressimanum*
B96 - P02 – 43	70	*Macrobrachium amazonicum*
	15	*Macrobrachium amazonicum*
	1	*Acetes paraguayensis*

P02 = Group consisted of Barry Chernoff, Naércio Menezes, Theresa M. Bert, Roxana Coca, and Antonio Machado-Allison.
F = Female; M = Male

Fishes collected during the AquaRAP expedition to Pando, Bolivia in September 1996.

APPENDIX 6

Jaime Sarmiento, Barry Chernoff, Soraya Barrera, Antonio Machado-Allison, Naércio Menezes, and Hernán Ortega

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
RAJIFORMES						
Potamotrygonidae						
Potamotrygon motoro	-	■	■	-	-	-
CLUPEIFORMES						
Engraulidae						
Anchoviella cf. *carrikeri*	-	-	-	■	-	■
CHARACIFORMES						
Anostomidae						
Abramites hypselonotus	-	■	-	■	-	■
Laemolyta sp.	-	-	-	-	-	■
Leporinus cf. *fasciatus*	-	-	-	-	-	■
Leporinus friderici	■	-	■	-	-	■
Leporinus cf. *nattereri*	-	■	-	-	-	■
Schizodon fasciatum	■	-	■	-	-	■
Characidae						
Aphyocharax alburnus	■	■	-	-	-	-
Aphyocharax dentatus	■	-	■	■	■	■
Aphyocharax pusillus	-	-	■	■	-	■
Astyanax cf. *abramis*	■	■	■	■	■	■
Astyanax sp.	-	-	■	-	-	-
Brachychalcinus copei	■	■	■	-	-	-
Bryconamericus cf. *caucanus*	■	-	-	-	-	-
Bryconamericus cf. *pachacuti*	■	-	-	-	-	-
Bryconamericus cf. *peruanus*	■	■	-	-	-	-
Bryconamericus sp.	■	-	-	■	-	-
Characidium sp. 1	■	■	■	■	-	-
Characidium sp. 2	■	-	-	■	-	-
Charax gibbosus	-	■	-	-	-	-
Cheirodon fugitiva	-	■	■	■	-	■
Cheirodon sp. 1	-	-	-	-	-	■
Cheirodon sp. 2	-	■	-	-	-	-
Cheirodontinae sp.	-	-	-	-	-	■
Chrysobrycon sp. 1	■	-	-	-	-	-
Chrysobrycon sp. 2	■	-	■	-	-	-
Clupeacharax anchoveoides	-	-	■	■	-	-
Creagrutus sp. 1	■	-	-	-	-	-
Creagrutus sp. 2	■	■	■	■	-	■
Creagrutus sp. 3	■	-	-	■	-	-
Ctenobrycon spilurus	-	■	■	■	■	■
Cynopotamus gouldingi	■	■	-	-	-	-
Engraulisoma taeniatum	-	-	■	■	■	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Eucynopotamus biserialis	-	-	-	■	■	■
Galeocharax gulo	■	-	■	■	■	-
Gephyrocharax sp.	■	-	■	-	-	-
Hemigrammus lunatus	-	-	-	■	-	■
Hemigrammus cf. *megaceps*	-	-	-	■	-	-
Hemigrammus ocellifer	■	■	-	■	-	■
Hemigrammus cf. *pretoensis*	-	-	-	-	-	■
Hemigrammus? sp.	-	-	-	-	-	■
Hemigrammus cf. *unilineatus*	-	-	-	-	-	■
Hyphessobrycon agulha	■	-	-	-	-	-
Hyphessobrycon cf. *anisitsi*	-	-	-	-	-	■
Hyphessobrycon cf. *gracilior*	■	-	-	■	-	■
Hyphessobrycon? sp.	-	-	-	-	-	■
Hyphessobrycon cf. *tucunai*	-	-	-	■	-	-
Iguanodectes spilurus	-	-	-	-	-	
Knodus cf. *caquetae*	-	-	-	■	-	■
Knodus cf. *gamma*	■	■	■	■	-	■
Knodus cf. *heterestes*	-	-	-	■	-	■
Knodus sp.	■	■	-	■	■	■
Knodus cf. *victoriae*	■	■	■	■	■	■
Metynnis luna	-	-	-	-	-	■
Microschemobrycon geisleri	■	-	-	■	-	-
Moenkhausia cf. *chrysargyrea*	-	-	-	-	-	■
Moenkhausia colletti	■	■	■	■	-	■
Moenkhausia cf. *comma*	-	-	-	-	-	■
Moenkhausia dichroura	■	■	■	■	■	■
Moenkhausia cf. *jamesi*	-	-	-	-	■	■
Moenkhausia cf. *lepidura*	-	■	-	■	■	■
Moenkhausia cf. *megalops*	-	-	-	-	-	■
Moenkhausia sanctaefilomenae	■	■	■	■	-	■
Moenkhausia sp. 1	-	■	-	-	-	-
Moenkhausia sp. 2	-	■	-	-	-	■
Moenkhausia sp. 3	■	■	■	■	■	■
Moenkhausia sp. 4	-	-	-	■	-	-
Moenkhausia sp. 5	-	-	-	-	-	■
Moenkhausia sp. 6	-	-	-	-	-	■
Moenkhausia sp. 7	-	-	-	-	-	■
Moenkhausia sp. 8	-	-	-	-	-	■
Myleus sp.	-	■	-	-	-	-
Mylossoma duriventris	■	-	■	-	-	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Odontostilbe hasemani	■	-	■	■	-	-
Odontostilbe piaba	-	-	-	-	-	■
Odontostilbe paraguayensis	■	■	■	■	-	■
Odontostilbe sp. 1	-	■	■	-	-	-
Odontostilbe sp. 2	-	■	-	-	-	■
Paragoniates alburnus	■	■	■	■	■	■
Phenacogaster cf. *microstictus*	-	■	-	-	-	■
Phenacogaster cf. *pectinatus*	■	■	■	■	-	■
Phenacogaster sp. 1	■	-	■	■	-	■
Phenacogaster sp. 2	■	■	■	-	■	■
Phenacogaster sp. 3	-	-	-	■	-	■
Phenacogaster? sp.	■	-	■	■	■	-
Piabucus melanostomus	■	-	-	-	-	■
Poptella compressa	-	■	-	-	■	■
Prionobrama filigera	■	■	■	■	■	■
Pristobrycon sp.	-	-	■	-	-	-
Pygocentrus nattereri	-	-	■	-	-	■
Roeboides cf. *myersii*	-	-	■	-	-	-
Roeboides sp. 1	-	-	-	■	■	■
Roeboides sp. 2	-	■	-	■	-	■
Roeboides sp. 3	-	-	■	■	-	■
Serrasalminae sp.	-	-	-	-	-	■
Serrasalmus cf. *hollandi*	-	-	■	-	■	■
Serrasalmus marginatus	-	-	-	-	-	■
Serrasalmus rhombeus	■	-	■	-	-	■
Serrasalmus sp.	-	-	-	-	-	■
Stethaprion crenatum	-	■	-	-	-	■
Tetragonopterinae sp. 1	-	■	-	-	-	-
Tetragonopterinae sp. 2	■	-	-	■	-	-
Tetragonopterus argenteus	-	-	■	■	-	■
Triportheus angulatus	■	■	■	■	-	■
Triportheus sp.	■	-	■	-	-	-
Tyttocharax madeirae	■	■	-	■	-	-
Tyttocharax sp. nov.	■	-	-	-	-	-
Tyttocharax tambopatensis	■	-	■	-	-	-
Curimatidae						
Curimatella alburna	-	-	-	-	-	■
Curimatella dorsalis	-	-	-	-	-	■
Curimatella immaculata	-	■	-	-	-	■
Curimatella meyeri	-	■	■	-	-	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Cyphocharax cf. *plumbeus*	-	-	-	-	-	■
Cyphocharax sp.	-	■	-	-	-	■
Cyphocharax spiluropsis	■	■	■	■	-	■
Potamorhina altamazonica	-	■	■	-	-	■
Potamorhina laitior	-	-	■	-	-	■
Psectrogaster curviventris	-	■	-	-	-	■
Psectrogaster rutiloides	-	-	-	-	-	■
Steindachnerina dobula	■	■	■	■	■	■
Steindachnerina guentheri	■	■	■	■	-	-
Steindachnerina leucisca	-	■	■	-	-	-
Steindachnerina sp.	■	■	-	■	-	-
Cynodontidae						
Cynodon gibbus	-	-	-	-	-	■
Hydrolycus pectoralis	■	-	■	-	-	-
Rhaphiodon vulpinus	■	-	■	-	-	-
Erythrinidae						
Hoplias malabaricus	■	■	■	■	-	■
Gasteropelecidae						
Carnegiella myersi	■	■	■	■	-	■
Carnegiella strigata	-	-	-	-	-	■
Gasteropelecus sternicla	■	■	■	■	-	■
Thoracocharax stellatus	-	-	■	■	■	■
Hemiodontidae						
Anodus elongatus	-	-	■	-	-	-
Lebiasinidae						
Nannostomus trifasciatus	-	-	-	-	-	■
Pyrrhulina australe	-	-	-	-	-	■
Pyrrhulina vittata	■	-	-	■	-	■
Prochilodontidae						
Prochilodus cf. *nigricans*	■	■	■	-	■	■
SILURIFORMES						
Ageneiosidae						
Ageneiosus cf. *caucanus*	-	-	-	-	-	■
Ageneiosus sp.	■	-	-	■	-	-
Tympanopleura sp.	-	-	-	-	■	■
Aspredinidae						
Bunocephalus coracoideus	-	-	-	-	-	■
Bunocephalus sp. 1	■	-	-	-	-	-
Bunocephalus sp. 2	-	■	-	-	-	■
Bunocephalus sp. 3	-	-	-	■	-	-

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Dysichthys bifidus	-	■	-	-	-	■
Dysichthys cf. *aleuropsis*	-	■	■	■	-	-
Dysichthys cf. *amazonicus*	■	■	-	■	-	■
Dysichthys cf. *depressus*	■	■	-	-	-	-
Xiliphius cf. *melanopterus*	-	-	-	■	-	-
Auchenipteridae						
Auchenipterichthys thoracatus	-	-	-	-	-	■
Auchenipterus cf. *nuchalis*	-	-	■	-	-	-
Centromochlus cf. *heckelii*	-	-	-	■	-	-
Entomocorus benjamini	-	■	-	-	-	■
Tatia altae	■	■	■	■	-	-
Tatia aulopygia	-	-	-	-	-	■
Tatia cf. *perugiae*	-	■	-	-	-	-
Trachelyopterus cf. *galeatus*	-	-	-	-	-	■
Callichthyidae						
Brochis splendens	-	■	-	-	-	■
Callichthys callichthys	-	■	-	-	-	-
Corydoras acutus	■	■	■	■	-	■
Corydoras aeneus	■	-	-	-	-	■
Corydoras hastatus	-	-	-	-	-	■
Corydoras cf. *loretoensis*	■	■	■	■	■	■
Corydoras cf. *napoensis*	-	-	-	-	-	■
Corydoras sp.	-	-	■	-	-	■
Corydoras trilineatus	■	■	■	-	-	■
Dianema longibarbis	-	-	-	-	-	■
Megalechis thoractus	■	■	-	-	-	■
Cetopsidae						
Pseudocetopsis sp.	■	-	■	-	-	-
Doradidae						
Acanthodoras cataphractus	-	-	-	-	-	■
Agamyxis pectinifrons	-	-	-	-	-	■
Amblydoras cf. *hancockii*	-	-	-	-	-	■
Anadoras cf. *grypus*	-	-	-	-	-	■
Astrodoras asterifrons	-	-	-	-	-	■
Doras cf. *carinatus*	-	-	-	■	■	■
Doras eigenmanni	-	-	-	-	-	■
Hemidoras microstomus	-	-	-	-	-	■
Opsodoras cf. *humeralis*	-	-	-	-	-	■
Opsodoras cf. *stubelii*	-	-	-	■	-	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Platydoras costatus	-	-	-	-	-	■
Pseudodoras niger	-	-	■	-	-	■
Trachydoras cf. *atripes*	-	-	-	■	-	-
Trachydoras paraguayensis	-	-	-	-	-	■
Loricariidae						
Ancistrus sp. 1	■	-	-	-	-	-
Ancistrus sp. 2	■	■	■	-	-	-
Ancistrus sp. 3	■	■	■	-	-	-
Ancistrus sp. 4	-	-	-	-	-	■
Aphanotorulus frankei	■	-	■	■	■	■
Aphanotorulus unicolor	-	-	-	■	-	-
Cochliodon cf. *cochliodon*	■	■	■	■	-	■
Crossoloricaria sp.	-	-	■	■	■	■
Farlowella cf. *oxyrryncha*	-	-	■	■	-	■
Farlowella sp. 1	■	■	-	■	-	■
Farlowella sp. 2	■	-	■	■	-	■
Glyptoperichthys lituratus	-	-	-	-	-	■
Hemiodontichthys acipenserinus	-	■	■	-	-	■
Hypoptopoma joberti	-	■	■	-	-	■
Hypoptopoma sp.	■	■	■	-	-	■
Hypostomus sp. 1	■	■	■	-	-	■
Hypostomus sp. 2	■	■	■	■	-	■
Hypostomus sp. 3	-	-	-	■	-	■
Hypostomus sp. 4	-	-	-	-	-	■
Lamontichthys filamentosus	-	-	■	■	-	-
Liposarcus disjunctivus	-	-	■	-	-	■
Loricaria sp.	■	■	■	■	■	■
Loricariidae sp.	■	-	-	-	-	-
Loricariichthys sp.	-	■	■	■	-	■
Otocinclus mariae	■	■	■	■	-	■
Panaque sp.	-	-	-	■	-	-
Parotocinclus sp.	-	■	■	-	-	■
Peckoltia arenaria	-	■	-	■	-	-
Planiloricaria cryptodon	-	-	-	■	-	-
Pseudohemiodon cf. *lamina*	-	-	-	■	-	■
Pseudohemiodon sp. 1	-	-	-	-	-	■
Pseudohemiodon sp. 2	-	-	-	■	-	-
Pseudohemiodon sp. 3	■	-	-	-	-	-
Rineloricaria lanceolata	■	■	■	■	-	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Rineloricaria sp.	■	■	■	■	-	■
Scoloplax cf. *dicra*	-	-	-	-	-	■
Sturisoma nigrirostrum	■	■	■	■	-	■
Pimelodidae						
Brachyglanis? sp.	-	■	-	-	-	-
Brachyrhamdia marthae	-	■	■	-	-	■
Cetopsorhamdia phantasia	-	-	-	■	-	-
Cheirocerus eques	-	-	■	■	■	■
Duopalatinus cf. *malarmo*	-	-	■	-	-	-
Hemisorubim platyrhynchos	■	-	-	-	-	■
Heptapterus longior	■	-	-	-	-	-
Heptapterus sp.	■	-	-	-	-	-
Imparfinis sp.	■	-	-	-	-	-
Imparfinis stictonotus	■	■	■	■	■	■
Leiarius marmoratus	-	-	■	■	-	■
Megalonema sp.	■	-	-	■	-	■
Megalonema sp. nov.	-	-	■	■	■	■
Microglanis sp.	■	■	■	-	-	-
Pimelodella cf. *boliviana*	-	-	-	-	-	■
Pimelodella cristata	■	■	-	-	■	■
Pimelodella gracilis	■	■	■	■	■	■
Pimelodella hasemani	-	-	■	■	-	■
Pimelodella cf. *itapicuruensis*	■	■	-	■	-	■
Pimelodella cf. *serrata*	-	■	■	■	■	■
Pimelodidae sp.	-	-	-	-	-	■
Pimelodus "*altipinnis*"	-	-	-	■	-	■
Pimelodus altissimus (sp. nov.)	-	-	-	■	-	-
Pimelodus armatus	■	-	-	-	-	-
Pimelodus cf. *blochii*	-	-	■	■	■	■
Pimelodus cf. *pantherinus*	-	■	■	■	-	■
Pimelodus sp. 1	-	-	-	-	-	■
Pimelodus sp. 2	-	-	-	■	-	-
Pimelodus sp. 3	-	-	-	-	-	■
Pimelodus sp. 4	-	-	-	■	-	-
Pseudoplatystoma fasciatum	-	-	-	-	-	■
Rhamdia sp.	-	■	-	-	-	■
Sorubim lima	-	■	■	-	-	■
Trichomycteridae						
Acanthopoma cf. *bondi*	-	-	-	■	-	-
Homodiaetus sp.	■	-	■	-	■	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
Ochmacanthus cf. *alternus*	■	■	■	■	-	■
Plectrochilus sp.	-	-	-	■	-	-
Pseudostegophilus nemurus	-	-	■	-	■	■
Tridentopsis pearsoni	-	-	-	-	-	■
Vandellia cirrhosa	■	-	■	■	■	■
GYMNOTIFORMES						
Apteronotidae						
Adontosternarchus clarkae	-	-	-	-	-	■
Apteronotus albifrons	-	■	■	-	-	■
Apteronotus bonapartii	-	-	-	■	-	■
Electrophoridae						
Electrophorus electricus	-	-	-	-	-	■*
Gymnotidae						
Gymnotus cf. *anguillaris*	■	-	-	-	-	-
Gymnotus carapo	-	-	■	-	-	■
Gymnotus cf. *coatesi*	■	■	-	■	-	-
Hypopomidae						
Brachyhypopomus brevirostris	-	-	-	-	-	■
Brachyhypopomus pinnicaudatus	-	-	-	-	-	■
Brachyhypopomus sp.	-	■	-	-	-	■
Hypopygus lepturus	-	-	-	-	-	■
Sternopygidae						
Distocyclus conirostris	-	-	-	-	-	■
Eigenmannia humboldtii	-	-	-	-	-	■
Eigenmannia macrops	■	-	-	■	-	■
Eigenmannia cf. *trilineata*	-	■	-	-	-	■
Eigenmannia virescens	■	■	■	■	■	■
Rhabdolichops caviceps	-	-	-	-	-	■
Sternopygus macrurus	-	-	■	-	-	■
CYPRINODONTIFORMES						
Rivulidae						
Rivulus sp.	-	-	-	-	-	■
BELONIFORMES						
Belonidae						
Potamorrhaphis sp.	■	-	-	■	-	-
SYNBRANCHIFORMES						
Synbranchidae						
Synbranchus marmoratus	■	-	-	-	-	■

TAXA	Upper Nareuda	Lower Nareuda	Upper Tahuamanu	Middle Tahuamanu	Lower Tahuamanu	Manuripi
PERCIFORMES						
Cichlidae						
Aequidens sp. 1	■	■	■	-	-	■
Aequidens sp. 2	■	■	■	■	-	■
Aequidens sp. 3	-	-	■	-	-	■
Aequidens cf. *paraguayensis*	■	■	■	■	-	-
Aequidens cf. *tetramerus*	-	■	-	-	-	-
Apistogramma linkei	■	■	■	-	-	■
Apistogramma sp. 1	■	-	■	-	-	■
Apistogramma sp. 2	■	■	-	■	■	■
Apistogramma sp. 3	-	■	-	-	-	-
Apistogramma sp. 4	-	-	-	-	-	■
Astronotus crassipinnis	-	-	-	-	-	■
Chaetobranchiopsis orbicularis	-	■	■	-	-	■
Cichla cf. *monoculus*	-	-	-	-	-	■
Cichlasoma severum	-	-	-	-	-	■
Cichlidae sp.	■	-	■	-	-	-
Crenicara cf. *unctulata*	-	-	-	-	-	■
Crenicichla cf. *heckeli*	■	-	■	■	■	■
Crenicichla sp. 1	-	-	-	■	-	-
Crenicichla sp. 2	■	■	-	-	■	■
Mesonauta festivus	-	-	-	■	-	■
Mesonauta cf. *insignis*	-	-	-	-	-	■
Microgeophagus altispinosa	-	-	-	-	-	■
Satanoperca cf. *acuticeps*	-	-	-	-	-	■
Satanoperca sp.	-	-	■	■	-	■
Sciaenidae						
Pachyurus sp.	-	-	-	-	■	■
Plagioscion squamosissimus	-	-	■	-	-	-