

**KEY TO FISH TABLES (Tables D1-D7) (1/2)**

**SAMPLED AT STATION** (see Figure 2.7 in Chapter 2.)

No.	Station	River	REF. (REFERENCE)
Y1	Asagicala	Coruh	A: Observation
Y1A	Dokumacilar	Coruh	B: Communication with locals
Y2	Coruh	Coruh	C: Literature
Y3	Tekkale	Coruh	
Y4	Barhal	Barhal	<b>END.</b>
Y4A	Barhal	Barhal	Endemism to Turkey
Y5	Barhal	Barhal	
Y6	Barhal-Coruh Confluence	Coruh	
Y7	Yagcilar	Coruh	
Y8	Oltu-Coruh Confluence	Coruh	
Y9	Oltu-Aspisen Confluence	Coruh	
Y10	Tivasor	Oltu	
Y11	Tortum-Kinalicam	Tortum	

**F.R. (Fishing restrictions, according to Recreational Fishing Circular, 2004-2006)**

Denotes the number of fish (of a specified size) allowed to be captured by one person in one day during a specified period (April 15-July 15 for Artvin Province).

\* : A total of maximum 10 fish (of one species or of several species) can captured by one person in one day during the specified period.

\*\* : The Black Sea salmon (*Salmo trutta labrax*) is a protected species and its capture is prohibited.

**CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)**

**App1 (Appendix 1):** Species threatened with extinction. Trade in specimens of these species is permitted only in exceptional circumstances.

**App2 (Appendix 2):** Species not necessarily threatened with extinction, but their trade must be controlled to avoid utilization incompatible with their survival.

**App3 (Appendix 3):** Species protected in at least one country, and their trading is under control by CITES.

**BERN (Bern Convention [Convention on the Conservation of European Wildlife and Natural Habitats])**

**Anx2 (Annex 2):** Strictly Protected Fauna Species

**Anx3 (Annex 3):** Protected Fauna Species

**KEY TO FISH TABLES (Tables D1-D7) (2/2)****IUCN (IUCN Red List of Threatened Species) (IUCN: The World Conservation Union)**

*(IUCN 2003. 2003 IUCN Red List of Threatened Species. <www.redlist.org>. Downloaded on 06 January 2004.)*

**IUCN Red List Categories and Criteria, 1994 (ver. 2.3)**

**EX:** Extinct

**EW:** Extinct in the wild

**CR:** Critically endangered

**EN:** Endangered

**VU:** Vulnerable

**LR:** Lower risk

**cd:** conservation dependent

**nt:** near threatened

**lc:** least concern

**DD:** Data deficient

**NE:** Not evaluated

**IUCN Red List Categories and Criteria, 2001 (ver. 3.1)\***

**EX:** Extinct

**EW:** Extinct in the wild

**CR:** Critically endangered

**EN:** Endangered

**VU:** Vulnerable

**NT:** Near threatened

**LC:** Least concern

**DD:** Data deficient

**NE:** Not evaluated

\* The IUCN Red List Categories and Criteria have undergone an extensive review in recent years and the revised Categories and Criteria (version 3.1) was published in 2001. All new assessments and reassessments on the IUCN Red List use this system, however, reassessments are not yet complete. Both 1994 (ver 2.3) and 2001 (ver 3.1) categories are presented above for comparison. The categories in the following fish tables are the IUCN categories of year 1994 (ver 2.3). Finally, it should be noted that there is no national red data book for fauna in Turkey.

Table D1. Fish Identified in the Study Area

Fish	Common Name		International Concern			National Concern	Ref.	End.	Habitats	Sampled at Stations	
	Turkish	English	IUCN	BERN	CITES	F.R.					
CYPRINIFORMES											
CYPRINIDAE											
	<i>Cyprinus carpio</i> , Linnaeus, 1758	Sazan	Carp	DD	—	—	8	C		Lakes and slow-moving parts of rivers	
	<i>Alburnoides bipunctatus fasciatus</i> (Nordman, 1840)	Noktali inci baligi	Chub	LR/lc	Anx 3	—	*	A,C	—	Flowing water, over rocky beds	Coruh (Y1, Y1A, Y2, Y6, Y7, Y8, Y9), Tortum (Y11), Barhal (Y4, Y4A, Y5)
	<i>Barbus tauricus escherichi</i> Steindachner, 1897	Biyikli balik	Barbel	—	—	—	*	A,C	—	Faster, clear reaches of rivers	Coruh (Y1, Y1A, Y2, Y6, Y7, Y8, Y9), Oltu (Y10), Tortum (Y11), Barhal (Y4, Y5)
	<i>Capoeta tinca</i> (Heckel, 1843)	Karabalik, Siraz	Anatolian khramulya	—	—	—	*	A,C	—	Rivers	Coruh (Y1, Y1A, Y6, Y7, Y8, Y9), Oltu (Y10), Tortum (Y11), Barhal (Y4, Y4A, Y5)
	<i>Capoeta capoeta sieboldi</i> (Steindachner, 1864)	Siraz	Transcaucasian barb	—	—	—	*	A,C	—	Faster, clear reaches of rivers	Coruh (Y1, Y2, Y7, Y8, Y9)
	<i>Chondrostoma colchicum</i> Derjugin, 1899	Karaburun	Colchic nase	—	—	—	*	A,C	—	Middle reaches of rivers	Coruh (Y1, Y2, Y6, Y7, Y8, Y9), Barhal (Y4, Y5)
	<i>Chalcalburnus chalcoides</i> (Guldenstadt, 1772)	Tatlisu kolyozu	Danube bleak	DD	Anx 3	—	*	A,C	—	Middle reaches of rivers	Coruh (Y1)
	<i>Leuciscus cephalus orientalis</i> (Nordmann, 1840)	Tatlisu kefali	European chub	LR/lc	—	—	*	A,C	—	Rivers	Coruh (Y1, Y2, Y7, Y8)

Table D1. (Cont.). Fish Identified in the Study Area

Fish	Common Name		International Concern			National Concern	Ref.	End.	Habitats	Sampled at Stations	
	Turkish	English	IUCN	BERN	CITES	F.R.					
COBITIDAE											
	<i>Orthrias</i> sp. Jordan-Fowler, 1903	Copcu baligi	Loach	—	—	—	*	A,C	—	Rivers, streams	Coruh (Y8), Barhal (Y4A)
SALMONIFORMES											
SALMONIDAE											
	<i>Salmo trutta labrax</i> Pallas, 1814	Alabalik, Deniz alasi	Black Sea salmon	—	—	—	**	A,C	—	Faster, clear reaches of rivers	Barhal (Y3, Y4)
	<i>Salmo trutta macrostigma</i> (Duméril, 1855)	Dag alabaligi, Buyuk lekeli alabalik	Brown trout	—	—	—	3	A,C	—	Faster, clear reaches of rivers	Barhal (Y4, Y5)
	<i>Oncorhynchus mykiss</i> (Walbaum, 1792)	Gokkusagi alabaligi	Rainbow trout	—	—	—	10	A,C	—	Faster, clear reaches of rivers	Barhal (Y4, Y5), Coruh (Y6)

Table D2. Distribution of Fish Species according to Sampling Stations

Station No.		1	1A	2	3	4	4A	5
River		Coruh	Coruh	Coruh	Barhal	Barhal	Barhal	Barhal
River km								
<i>Barbus tauricus escherischii</i>	n	9	1	8		3		2
	%	12,2	2,3	34,8		11,1		8,7
<i>Capoeta tinca</i>	n	41	32			5	2	6
	%	55,4	74,4			18,5	10	26,1
<i>Capoeta capoeta sieboldi</i>	n	3		5				
	%	4,1		21,6				
<i>Chondrostoma colchicum</i>	n	2		2		3		3
	%	2,7		9,0		11,1		13,0
<i>Chalcalburnus chalcoides</i>	n	4						
	%	5,4						
<i>Leuciscus cephalus orientalis</i>	n	1		3				
	%	1,3		13,0				
<i>Alburnoides bipunctatus fasciatus</i>	n	14	10	5		3	12	8
	%	18,9	23,3	21,6		11,1	60	34,8
<i>Orthrias sp.</i>	n						6	
	%						30	
<i>Salmo turtta labrax</i>	n				18	1		
	%				100	3,7		
<i>Salmo trutta macrostigma</i>	n					9		3
	%					33,4		13,1
<i>Oncorhynchus mykiss</i>	n					3		1
	%					11,1		4,3
<b>Station's Total</b>	n	74	43	23	18	27	20	23
	%	100	100	100	100	100	100	100

Table D2. (Cont.). Distribution of Fish Species according to Sampling Stations

Station No.		6	7	8	9	10	11	Species' Total
River		Coruh	Coruh	Coruh	Coruh	Oltu	Tortum	
River km								
<i>Barbus tauricus escherischii</i>	n	13	4	19	13	6	11	89
	%	40,6	11,4	43,2	33,3	26,1	24,4	19,9
<i>Capoeta tinca</i>	n	11	14	17	18	17	21	184
	%	34,4	40,1	38,6	46,2	73,9	46,7	41,2
<i>Capoeta capoeta sieboldi</i>	n		4	3	5			20
	%		11,4	6,8	12,8			4,5
<i>Chondrostoma colchicum</i>	n	1	1	1	2			15
	%	3,1	2,9	2,3	5,1			3,4
<i>Chalcalburnus chalcoides</i>	n							4
	%							0,9
<i>Leuciscus cephalus orientalis</i>	n		6	2				12
	%		17,1	4,5				2,7
<i>Alburnoides bipunctatus fasciatus</i>	n	6	6	1	1		13	79
	%	18,8	17,1	2,3	2,6		28,9	17,7
<i>Orthrias sp.</i>	n			1				7
	%			2,3				1,6
<i>Salmo trutta labrax</i>	n							19
	%							4,3
<i>Salmo trutta macrostigma</i>	n							12
	%							2,7
<i>Oncorhynchus mykiss</i>	n	1						5
	%	3,1						1,1
Station's Total	n	32	35	44	39	23	45	446
	%	100	100	100	100	100	100	100

Table D3. Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y1	5	<i>Barbus tauricus escherischii</i>	15.5.04	15-80 63,8	9,3-22,3 14,4	10,3-23,4 15,3	11,5-25,0 16,8	2-4 3,5	4 Male 1 immature
Y1	3	<i>Barbus tauricus escherischii</i>	11.6.04	11-49 30	8,7-15 11,9	9,8-16,7 13,3	11-18,6 14,8	1,7-2,8 2,3	2 Male 1 immature
Y1	1	<i>Barbus tauricus escherischii</i>	20.7.04	72	16	18	20	3,5	Female
Y1	13	<i>Capoeta tinca</i>	15.5.04	23-80 47,5	10-20 15	11,5-21,5 16,5	15-22 17,5	2,5-4,5 3,3	12 Male 1 Female
Y1	16	<i>Capoeta tinca</i>	11.6.04	19-225 88,3	10-22,5 15,4	11,2-25,7 17,2	12,5-27,7 19,1	2,5-6 3,7	12 Male 2 Female 2 Immature
Y1	11	<i>Capoeta tinca</i>	20.7.04	18-69 43,5	9-15 12	10,3-17 13,7	11,5-18,5 15	2,5-3,5 3,0	5 Male 6 Female
Y1	1	<i>Capoeta tinca</i>	17.8.04	60	16	18	20	3,5	1 Female
Y1	1	<i>Capoeta capoeta sieboldi</i>	15.5.04	30	12	13,5	14,7	2,8	1 Male
Y1	2	<i>Capoeta capoeta sieboldi</i>	11.6.04	95-190 145	17-23 19	19-25 21	20,5-27 24	3,5-5 4,3	1 Female 2 Male
Y1	1	<i>Chondrostoma colchicum</i>	11.6.04	35	12,5	14,5	16	3	1 Male
Y1	1	<i>Chondrostoma colchicum</i>	20.7.04	203	21	24,5	26,7	6,5	1 Female
Y1	1	<i>Chalcalburnus chalcoides</i>	15.5.04	23	12	14	15,5	2,5	1 Female
Y1	3	<i>Chalcalburnus chalcoides</i>	11.6.04	23-30 26	12,0-13,5 12,7	14,0-16,0 14,5	15,0-18,5 16,5	2,5-3,0 2,8	3 immature
Y1	1	<i>Leuciscus cephalus orientalis</i>	11.6.04	55	14,8	16,8	18	3,3	1 Male
Y1	3	<i>Alburnoides bipunctatus fasciatus</i>	15.5.04	9-15 12	7-8 7,5	8-9 8,5	9,5-10,5 10	2-2,5 2,4	2 Male 1 Female
Y1	5	<i>Alburnoides bipunctatus fasciatus</i>	11.6.04	3-9 7	5,7-7,7 6,8	6,5-8,9 8	7,3-9,8 8,8	1,7-2,6 2	4 Male 1 Female

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Sex		
Y1	6	<i>Alburnoides bipunctatus fasciatus</i>	20.7.04	11-14 13	8-8,5 8,3	9,2-9,7 9,5	10,2-10,7 10,5	2,2-2,5 2,4	6 Female
Y1a	1	<i>Barbus tauricus escherischii</i>	15.5.04	16	10	12	14	2,5	1 Immature
Y1a	5	<i>Capoeta tinca</i>	20.7.04	5-66 32,4	5-15 10,2	6,7-17,5 12,1	7,7-19 13,5	1,5-3,5 2,5	3 Male 2 Female
Y1a	16	<i>Capoeta tinca</i>	11.6.04	19-225 88,3	10-22,5 15,4	11,2-25,7 17,2	12,5-27,7 19,1	2,5-6 3,7	10 Male 6 Female
Y1a	11	<i>Capoeta tinca</i>	20.7.04	18-69 43,5	9-15 12	10,3-17 13,7	11,5-18,5 15	2,5-3,5 3,0	5 Male 6 Female
Y1a	10	<i>Alburnoides bipunctatus fasciatus</i>	15.5.04	8-14 11,3	7-8,5 8	8,3-9,8 9,3	9,1-11 10,3	2-2,6 2,4	5 Male 5 Female
Y2	1	<i>Barbus tauricus escherischii</i>	15.5.04	169	21	23,5	25,7	4,5	1 Female
Y2	7	<i>Barbus tauricus escherischii</i>	11.6.04	30-125 50,1	13-18 14,5	15-20 16,0	17-23 18,0	3,0-4,0 3,5	7 Male
Y2	2	<i>Capoeta capoeta sieboldi</i>	15.5.04	96-196 146	17-23 20	19,8-25,5 22,7	21,6-27,7 24,7	3,5-5 4,3	2 Male
Y2	3	<i>Capoeta capoeta sieboldi</i>	11.6.04	15-428 160	9,5-29 17	11-32,5 19,3	12,2-36 21,4	2,2-6 3,7	2 Male 1 Female
Y2	4	<i>Alburnoides bipunctatus fasciatus</i>	15.5.04	22-24 23,2	9,7-9,8 9,8	11,2-11,3 11,2	12,5-12,6 12,6	2,9-3,1 3	3 Male 1 Female
Y2	1	<i>Alburnoides bipunctatus fasciatus</i>	20.7.04	25	10,5	11,8	13	3	1 Male
Y2	3	<i>Leuciscus cephalus orientalis</i>	11.6.04	13-148 58,3	8-18 11,4	9,5-21 13,5	10,4-23 14,7	2,0-5,0 3,0	2 Male 1 Female
Y2	2	<i>Chondrostoma colchicum</i>	11.6.04	21-423 222	10-29 19,5	11,7-32,5 22,1	13,9-35,5 24,7	2,5-6,7 4,6	2 Male
Y3	5	<i>Salmo trutta labrax</i>	16.5.04	34-106 63	11,8-18 14,6	13,7-20,5 16,5	14,5-21,4 17,4	2,6-4 3,4	-

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y3	6	<i>Salmo trutta labrax</i>	12.6.04	30-110 65	11-20 15	13,5-22 18	16,5-24 18,5	2,5-4 3,5	-
Y3	4	<i>Salmo trutta labrax</i>	20.7.04	35-80	11-16 13	13-18 16	13,9-19 17	2,4-3,5 2,6	-
Y3	3	<i>Salmo trutta labrax</i>	16.8.04	32-40 33	10,5-14 11,6	11,5-15 12,7	12,4-15,9 13,6	2,2-3,0 2,4	-
Y4	1	<i>Barbus tauricus escherischii</i>	16.5.04	314	27,2	30,3	33,1	5,5	1 Male 1 Female
Y4	2	<i>Barbus tauricus escherischii</i>	16.8.04	11-15 13	11,6-12,8 12,2	10,5-11,6 11,1	11,5-18,5 15	2,5-3,0 2,8	2 Male
Y4	1	<i>Capoeta tinca</i>	16.5.04	66	17	19,3	21,5	3,6	1 Male
Y4	3	<i>Capoeta tinca</i>	12.6.04	66-73 69,5	14,2-16 15,1	16,5-18 17,3	18-19,7 18,9	4,0-4,1 4,0	2 Male 1 Female
Y4	1	<i>Capoeta tinca</i>	12.8.04	60	15	17	19,5	3,0	1 Male
Y4	3	<i>Alburnoides bipunctatus fasciatus</i>	12.6.04	12-21 16	8-9,5 8,6	9,4-11 10	10,4-12,2 11,1	2,2-2,8 2,5	1 Male 2 Female
Y4	3	<i>Chondrostoma colchicum</i>	16.5.04	71-259 165,3	16,7-25,5 22,1	19,5-29 25,1	21,3-31,5 27,2	4-6 5,3	2 Male 1 Female
Y4	4	<i>Salmo trutta macrostigma</i>	16.5.04	14-36 25,3	10,5-13,8 12	11,5-14,8 13,2	12,4-16,4 14,3	2,2-3 2,6	-
Y4	5	<i>Salmo trutta macrostigma</i>	11.6.04	34-97 63,6	12,4-16 14,6	14,4-19,4 16,7	15,2-20,5 17,9	3,2-4,5 3,8	-
Y4	1	<i>Salmo trutta labrax</i>	12.8.04	35	13	14,9	15,6	3,3	-
Y4	1	<i>Oncorhynchus mykiss</i>	16.5.04	57	15,5	17,4	18,4	3,8	1 Male-
Y4	2	<i>Oncorhynchus mykiss</i>	11.6.04	97-111 104	16,5-17,3 16,9	19,2-20 19,6	20,4-21,2 20,8	4,8-5 4,9	1 Male 1 Female

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y4a	10	<i>Alburnoides bipunctatus fasciatus</i>	16.5.04	8-25 14	7-9,5 8,1	8-11 9,5	9-12 10	2-3 2,6	7 Male 3 Female
Y4a	1	<i>Alburnoides bipunctatus fasciatus</i>	11.6.04	8	7	8	9	2	1 Male
Y4a	1	<i>Alburnoides bipunctatus fasciatus</i>	16.8.04	16	12	10,9	9,4	2,6	1 Male
Y4a	6	<i>Orthrias</i> sp.	16.8.04	8-10	6-10 7,9	6,5-10,5 8,2	6,7-10,8 8,5	1,7-2,0 1,7	-
Y4a	2	<i>Capoeta tinca</i>	11.6.04	25-35 30	10,2-11,7 11,0	12,5-14 13,2	14-15,5 14,8	2,4-2,5 2,5	2 Male
Y5	3	<i>Salmo trutta macrostigma</i>	16.5.04	28-41 35,7	11,2-14 12,5	13,5-15,1 14,4	14,3-16,2 15,4	2,6-2,8 2,7	-
Y5	1	<i>Oncorhynchus mykiss</i>	16.5.04	83	16,2	18,5	20	4	1 Male
Y5	1	<i>Barbus tauricus escherischii</i>	20.7.04	35	12,5	14,2	15,6	2,8	1 Male
Y5	1	<i>Barbus tauricus escherischii</i>	16.8.04	40	13	14,8	16	2,8	1 Male
Y5	3	<i>Capoeta tinca</i>	12.6.04	30-76 55,7	11-14,8 13,1	12,5-16,8 14,9	13,7-18,5 16,4	2,7-3,7 3,4	3 Male
Y5	2	<i>Capoeta tinca</i>	20.7.04	71-223 123,7	14,5-22 17,3	16,7-25 19,9	18,2-28 22,1	3,5-5,7 4,4	2 Female
Y5	1	<i>Capoeta tinca</i>	12.8.04	70	14	16	18	3,5	1 Female
Y5	1	<i>Alburnoides bipunctatus fasciatus</i>	16.5.04	15	9	10,5	11,7	2,5	1 Female
Y5	2	<i>Alburnoides bipunctatus fasciatus</i>	12.6.04	8-18 13	6,9-8,7 7,8	8,2-10,3 9,3	9-11,3 10,2	2-2,8 2,4	1 Male 1 Female
Y5	5	<i>Alburnoides bipunctatus fasciatus</i>	20.7.04	8-27 14,6	7-10 8,3	8,2-11,5 9,6	9,1-12,7 10,7	1,9-3,2 2,5	4 Male 1 Female
Y5	1	<i>Chondrostoma colchicum</i>	12.6.04	463	27,5	30,5	33	7	1 Male
Y5	1	<i>Chondrostoma colchicum</i>	20.7.04	254	23	26	28,5	5,5	1 Male
Y5	1	<i>Chondrostoma colchicum</i>	16.8.04	250	22,5	25	28	5,4	1 Female

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y6	5	<i>Barbus tauricus escherischii</i>	16.5.04	16-40 25,2	9,3-13 11	10,3-14,5 12,1	11,6-16,2 13,7	2,0-3,0 2,5	5 Male
Y6	8	<i>Barbus tauricus escherischii</i>	12.6.04	12-34 21,5	8,5-12,5 10,5	10-14 11,9	11,2-15,6 13,3	1,8-3,0 2,3	7 Male 1 Female
Y6	1	<i>Capoeta tinca</i>	16.5.04	43	13,2	14,5	15,9	3,3	1 Male
Y6	10	<i>Capoeta tinca</i>	11.6.04	25-90 47,7	11-16,5 13,4	13,5-15,5 15,5	15,3-21 16,7	2,5-4,5 3,2	9 Male 1 Female
Y6	5	<i>Alburnoides bipunctatus fasciatus</i>	16.5.04	15-34 24,2	9,3-10,8 10,0	10,7-12,5 11,6	12-14 12,8	3,0-4,0 3,3	4 Male 1 Female
Y6	1	<i>Alburnoides bipunctatus fasciatus</i>	11.6.04	7	7	8	9	2	1 Male
Y6	1	<i>Chondrostoma colchicum</i>	11.6.04	13	9,5	11,3	12,5	2	1 Male
Y6	1	<i>Oncorhynchus mykiss</i>	16.5.04	32	12,8	13,7	15,5	3	-
Y7	3	<i>Barbus tauricus escherischii</i>	12.6.04	10-155 64	8,5-20 13,4	10-23,5 15,8	11,1-26 17,5	2,0-4,5 3,0	2 Male 1 Female
Y7	1	<i>Barbus tauricus escherischii</i>	12.8.04	50	14	16	18,5	3	1 Male
Y7	3	<i>Capoeta tinca</i>	16.5.04	35-75 52,6	11-14 13	12,0 -16,5 14,5	13,5-18,3 16,4	2,5-3,5 3,4	3 Male
Y7	8	<i>Capoeta tinca</i>	11.6.04	40-62 48,0	11-13 12,7	13-15 14,2	15,2-17,6 16,5	2,6-3,2 2,9	6 Male 2 Female
Y7	3	<i>Capoeta tinca</i>	16.8.04	45-56 49,6	12-13 12,5	13,5-14,6 14,0	15,2-16,8 15,8	2,5-3,0 2,8	3 Male
Y7	1	<i>Capoeta capoeta sieboldi</i>	16.5.04	32	13	13,9	15,3	3	1 Male
Y7	3	<i>Capoeta capoeta sieboldi</i>	12.6.04	19-30 23	10,5-12 11,2	12,5-14,5 13,3	13,8-16 14,6	2,0-2,5 2,2	2 Male 1 Female
Y7	1	<i>Chondrostoma colchicum</i>	12.6.04	50	14,5	17	18,7	3,2	1 Male
Y7	5	<i>Alburnoides bipunctatus fasciatus</i>	16.5.04	14-33 24	9-10,5 9,8	10,4-11,9 11,3	11,7-13,3 12,7	3,0-4,0 3,3	4 Male 1 Female

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y7	1	<i>Alburnoides bipunctatus fasciatus</i>	12.6.04	31	10,5	12,5	14	3	1 Male
Y7	4	<i>Leuciscus cephalus orientalis</i>	16.5.04	75-86 83	15-17 15,8	16,3-18,5 17,6	17,8-20,3 19,2	3,0-5,0 4,8	4 Male
Y7	2	<i>Leuciscus cephalus orientalis</i>	12.6.04	11-19 15	9-10 9,5	10,4-11,5 11,0	11,3-12,7 12	2,2-2,5 2,4	2 Male
Y8	5	<i>Barbus tauricus escherischii</i>	15.5.04	30-130 82,8	13,0-20,0 16,8	14,1-21,0 17,9	15,8-23,0 20,2	2,7-5,1 4,2	5 Male
Y8	12	<i>Barbus tauricus escherischii</i>	12.6.04	7-68 37,8	7-15,5 12,5	8,5-18,0 14,5	9,6-26,1 17,1	1,5-4,0 2,9	10 Male 1 Female 1 Immature
Y8	2	<i>Barbus tauricus escherischii</i>	16.8.04	11-15 13	8,9-9,2 9,1	9,9-10,2 10,1	10,6-12,0 11,3	1,6-2,0 1,8	2 Male
Y8	5	<i>Capoeta tinca</i>	15.5.04	17-380 105	8,7-25,6 13,5	9,7-27,8 15,2	12,0-30,5 17,6	3,0-4,0 3,3	5 Male
Y8	11	<i>Capoeta tinca</i>	11.6.04	14-51 30,2	10,0-14,5 12,2	11,3-17,0 14,2	12,5-19,0 15,8	2,0-3,5 2,7	7 Male 4 Female
Y8	1	<i>Capoeta tinca</i>	12.8.04	60	16,5	18,7	20,5	3,5	1 Female
Y8	2	<i>Capoeta capoeta sieboldi</i>	15.5.04	165-347 256	20,0-27,0 23,5	22,0-29,5 25,8	25,3-31,5 28,4	5,0-7,0 6	2 Male
Y8	1	<i>Capoeta capoeta sieboldi</i>	12.6.04	29	12	14	15	3	1 Male
Y8	1	<i>Chondrostoma colchicum</i>	12.6.04	221	23	27	30	5,5	1 Female
Y8	1	<i>Alburnoides bipunctatus fasciatus</i>	12.6.04	25	10,5	12	13	3	1 Male
Y8	2	<i>Leuciscus cephalus orientalis</i>	12.6.04	37-735 386	12-29 20,5	14-34 24	15,3-36 25,7	3,5-9 6,3	2 Male
Y8	1	<i>Orthrias sp.</i>	12.6.04	1	2	2,5	3	1,2	Immature
Y9	6	<i>Barbus tauricus escherischii</i>	15.5.04	32-123 54,3	13,3-18,5 14,6	14,2-20,5 16,5	15,9-22,6 18,2	2,8-4,8 3,3	5 Male 1 Female

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y9	6	<i>Barbus tauricus escherischii</i>	12.6.04	24-69 41,2	11-16 13,2	12,6-18 15	14-19,7 16,7	2,5-3,5 2,8	6 Male
Y9	1	<i>Barbus tauricus escherischii</i>	16.8.04	55	15,0	17,0	19,0	3,0	1 Male
Y9	12	<i>Capoeta tinca</i>	15.5.04	31-411 158,2	12,0-26,5 19,1	13,2-30,0 21,4	14,8-32,5 23,6	2,8-6,5 4,4	6 Male 6 Female
Y9	6	<i>Capoeta tinca</i>	12.6.04	26-219 75	11,0-22,0 14,8	13,5-26,0 17,3	15,0-28,3 19,2	2,5-5,0 3,3	5 Male 1 Female
Y9	2	<i>Capoeta capoeta sieboldi</i>	15.5.04	173-547 360	22,0-30,5 26,3	24,3-35,0 29,7	26,6-37,2 31,9	5,0-7,5 6,3	2 Male
Y9	3	<i>Capoeta capoeta sieboldi</i>	12.6.04	356-568 438,7	27,0-30,0 28,2	31,5-35,0 32,8	34,5-38,5 36,2	6,0-6,5 6,2	3 Male
Y9	2	<i>Chondrostoma colchicum</i>	15.5.04	72-172 122	15,8-20,3 18,1	18,1-23,3 20,7	20,1-25,7 22,9	3,5-5,0 4,3	1 Male 1 Female
Y9	1	<i>Alburnoides bipunctatus fasciatus</i>	16.8.04	30	10,5	12,4	14,1	3	1 Female
Y10	1	<i>Barbus tauricus escherischii</i>	15.5.04	60	15,5	17,5	19,7	3	1 Male
Y10	3	<i>Barbus tauricus escherischii</i>	12.6.04	32-46 39	13,2-14,2 13,5	14,9-16,2 15,7	16,4-18,1 17,4	2,8-3,0 2,9	3 Male
Y10	2	<i>Barbus tauricus escherischii</i>	16.8.04	10-14 12	8,4-9,0 8,7	9,4-10,5 10,0	10,5-11,7 11,1	1,7-2,1 1,9	2 Male
Y10	2	<i>Capoeta tinca</i>	15.5.04	28-31 29,5	11,0-12,0 11,5	13,4-13,5 13,5	14,9-15,0 15,0	2,4-2,5 2,5	2 Male
Y10	12	<i>Capoeta tinca</i>	12.6.04	30-95 51,6	10,0-15,0 13,0	13,0-18,0 15,0	15,0-20,0 16,5	2,5-4,0 3,0	9 Male 1 Female
Y10	3	<i>Capoeta tinca</i>	16.8.04	26-219 106	11,0-22,0 16,3	13,5-26,0 19,3	15-28,3 21,3	2,5-5,0 3,7	3 Male
Y11	2	<i>Barbus tauricus escherischii</i>	12.6.04	10-14 12	8,5-9,0 8,8	9,5-10,5 10,0	10,5-11,8 11,2	1,7-2,0 1,9	2 Male

Table D3. (Cont.) Morphometric Measurements of the Fish Species Captured in the Study Area

Station No.	Fish No.	Species	Sampling Date	Weight (g)	Length (mm)			Dorsal height (mm)	Sex
					Standart	Fork	Total		
Y11	5	<i>Barbus tauricus escherischii</i>	21.7.04	13-45 25,6	8,0-12,5 10,3	9,5-14,5 12,0	10,5-16,5 13,5	2,0-3,0 2,4	4 Male 1 Female
Y11	4	<i>Barbus tauricus escherischii</i>	16.8.04	26-55 38,3	11,0-15,0 12,9	13,5-17,3 15,1	15,0-19,2 16,8	2,5-3,5 3,0	4 Male
Y11	10	<i>Capoeta tinca</i>	15.5.04	33-121 63,4	12,0-18,7 14,9	13,6-21,1 16,8	15,3-23,3 18,6	3,1-4,5 3,6	8 Male 2 Female
Y11	6	<i>Capoeta tinca</i>	12.6.04	18-491 111	8,5-26,0 14,2	9,5-30,0 16,2	12,1-33,5 18,5	2,0-7,5 3,4	5 Male 1 Female
Y11	5	<i>Capoeta tinca</i>	16.8.04	31-110 63,2	12,0-18,5 15,0	13,2-21,0 16,9	14,8-23,0 18,7	2,8-4,0 3,4	5 Male
Y11	1	<i>Alburnoides bipunctatus fasciatus</i>	15.5.04	15	8,6	9,6	10,6	3	1 Male
Y11	4	<i>Alburnoides bipunctatus fasciatus</i>	12.6.04	9-16 12,5	7,3-8,0 7,7	8,5-9,5 9,0	9,7-10,7 10,2	2,0-2,8 2,4	1 Male 3 Female
Y11	3	<i>Alburnoides bipunctatus fasciatus</i>	21.7.04	8-18 12,7	7,0-9,0 8,0	8,0-10,6 9,2	9,0-11,7 10,3	2,0-2,8 2,4	3 Male
Y11	5	<i>Alburnoides bipunctatus fasciatus</i>	16.8.04	9-18 13,6	7,3-8,7 7,9	8,5-10,3 9,3	9,7-11,3 10,4	2,0-2,8 2,5	4 Male 1 Female

Table D4. The Distribution of the Identified Fish Species in Turkey and their Economic Importance

Species	Basins in the study area where the species is observed	Distribution in Turkey	Economic Importance	Other Threats
<i>Cyprinus carpio</i>	— (not captured)	Marmara, N Aegean, Black Sea, N Central Anatolia	Economic importance in Turkey	Water pollution, habitat degradation
<i>Alburnoides bipunctatus</i>	Coruh, Barhal, Tortum	Marmara, N Aegean, Black Sea, N Central Anatolia, E, SE Anatolia	None	Water pollution, exotic species, habitat degradation
<i>Barbus tauricus escherischii</i>	Coruh, Barhal, Oltu, Tortum	Marmara, W Mediterranean, Central Anatolia, Black Sea, East Anatolia	Economic importance in the area	Water pollution, exotic species, habitat degradation
<i>Capoeta tinca</i>	Coruh, Barhal, Oltu, Tortum	E Marmara, N Central Anatolia, Black Sea	Economic importance in the area	Water pollution, exotic species, habitat degradation
<i>Capoeta capoeta sieboldi</i>	Coruh, Barhal	Black Sea, N Central Anatolia	Economic importance in the area	Water pollution, exotic species, habitat degradation
<i>Chondrostoma colchicum</i>	Coruh, Oltu		Economic importance in the area	Water pollution, exotic species, habitat degradation
<i>Chalcalburnus chalcoides</i>	Coruh, Tortum	N Aegean, E Black Sea, Marmara	Economic importance in the area	Water pollution, exotic species, habitat degradation
<i>Leuciscus cephalus orientalis</i>	Coruh, Oltu	Throughout Turkey	Economic importance in the area	Water pollution, exotic species, habitat degradation
<i>Orthrias sp.</i>	Coruh, Barhal			Water pollution, exotic species, habitat degradation
<i>Salmo trutta labrax</i>	Barhal, Tekkale	E Black Sea	Economic importance in Turkey	Water pollution, exotic species, habitat degradation
<i>Salmo trutta macrostigma</i>	Barhal, Tekkale	S Marmara, E Black Sea, E Anatolia, Mediterranean	Economic importance in Turkey	Water pollution, exotic species
<i>Oncorhynchus mykiss</i>	Barhal, Coruh	— (exotic species)		Water pollution, habitat degradation

**Table D5. Field Observations at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers**

Station No.	Station	River	Date	Time	Coast	River bottom	Current	Weather	Wind	Wind direction	Water color
Y1	Asagicala	Coruh	15.5.04	14.50	Gravel, sand	Gravel, sand	Fast	Overcast	Calm		Brown
Y1	Asagicala	Coruh	11.6.04	12.45	Gravel, sand	Gravel, sand	Medium, fast	Clear, sunny	Calm		Brown
Y1	Asagicala	Coruh	20.7.04	11.05	Gravel, sand	Gravel, sand	Medium, fast	Clear, sunny	Calm		Brown
Y1	Asagicala	Coruh	16.8.04	10.35	Gravel, sand	Gravel, sand	Medium, fast	Clear, sunny	Calm		Clear
Y1a	Dokumacilar	Coruh	15.5.04	14.20	Boulder, gravel,	Gravel, cobble, boulder	Fast	Overcast	Calm		Clear
Y1a	Dokumacilar	Coruh	11.6.04	12.45	Boulder, gravel,	Gravel, cobble, boulder	Fast	Clear, sunny	Calm		Clear
Y1a	Dokumacilar	Coruh	20.7.04	9.55	Boulder, gravel,	Gravel, cobble, boulder	Fast	Clear, sunny	Calm		Clear
Y1a	Dokumacilar	Coruh	16.8.04	9.45	Boulder, gravel,	Gravel, cobble, boulder	Medium	Clear, sunny	Calm		Clear
Y2	Coruh	Coruh	15.5.04	17.00	Gravel, sand, cobble	Sand, gravel, cobble, clay, plant detritus	Medium, fast	Overcast	Calm		Brown
Y2	Coruh	Coruh	12.6.04	19.25	Gravel, sand, cobble	Sand, gravel, cobble, clay, plant detritus	Medium, Fast	Clear, sunny	Calm		Brown
Y2	Coruh	Coruh	20.7.04	12.00	Gravel, sand, cobble	Sand, gravel, cobble, clay, plant detritus	Medium, Fast	Clear, sunny	Calm		Brown
Y2	Coruh	Coruh	16.8.04	11.40	Gravel, sand, cobble	Sand, gravel, cobble, clay, plant detritus	Medium, fast	Clear, sunny	Calm		Clear

**Table D5. (Cont.) Field Observations at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers**

Station No.	Station	River	Date	Time	Coast	River bottom	Current	Weather	Wind	Wind direction	Water color
Y3	Tekkale	Barhal	16.5.04	17.45	Gravel, cobble	Gravel, cobble, boulder	Fast	Overcast	Calm		Clear
Y3	Tekkale	Barhal	11.6.04	18.05	Gravel, cobble	Gravel, cobble, boulder	Fast	Clear,sunny	Calm		Clear
Y3	Tekkale	Barhal	20.7.04	14.00	Gravel, cobble	Gravel, cobble, boulder	Fast	Clear,sunny	Calm		Clear
Y3	Tekkale	Barhal	16.8.04	12.50	Gravel, cobble	Gravel, cobble, boulder	Fast	Clear,sunny	Calm		Clear
Y4	End of reservoir section on Barhal River	Barhal	16.5.04	8.15	Sand, gravel,cobble	Gravel,sand, cobble	Fast	Overcast	Calm		Clear
Y4	End of reservoir section on Barhal River	Barhal	12.6.04	10.15	Sand, gravel,cobble	Gravel,sand, cobble	Medium, fast	Clear,sunny	Calm		Clear
Y4	End of reservoir section on Barhal River	Barhal	20.7.04	18.00	Sand, gravel,cobble	Gravel,sand, cobble	Medium, fast	Clear,sunny	Calm		Clear
Y4	End of reservoir section on Barhal River	Barhal	16.8.04	15.00	Sand, gravel,cobble	Gravel,sand, cobble	Medium	Clear,sunny	Calm		Clear
Y4a	Tributary of Barhal River	Barhal	16.5.04	9.00	Gravel, sand, cobble	Gravel,sand, cobble	Fast	Partly cloudy	Calm		Clear
Y4a	Tributary of Barhal River	Barhal	12.6.04	11.20	Gravel, sand, cobble	Gravel,sand, cobble	Fast	Clear,sunny	Calm		Brown
Y4a	Tributary of Barhal River	Barhal	20.7.04	17.00	Gravel, sand, cobble	Gravel,sand, cobble	Medium, fast	Clear,sunny	Calm		Clear
Y4a	Tributary of Barhal River	Barhal	16.8.04	15.45	Gravel, sand, cobble	Gravel,sand, cobble	Medium	Clear,sunny	Calm		Clear

**Table D5. (Cont.) Field Observations at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers**

Station No.	Station	River	Date	Time	Coast	River bottom	Current	Weather	Wind	Wind direction	Water color
Y5	Barhal River	Barhal	16.5.04	9.45	Gravel, sand	Gravel, sand	Fast	Partly cloudy	Calm		Clear
Y5	Barhal River	Barhal	12.6.04	11.45	Gravel, sand	Gravel, sand	Fast	Clear, sunny	Calm		Clear
Y5	Barhal River	Barhal	21.7.04	16.15	Gravel, sand	Gravel, sand	Medium, fast	Clear, sunny	Calm		Clear
Y5	Barhal River	Barhal	16.8.04	16.30	Gravel, sand	Gravel, sand	Medium, fast	Clear, sunny	Calm		Clear
Y6	Coruh-Barhal Confluence	Coruh	16.5.04	10.30	Boulder, gravel,	Gravel, cobble, Boulder, sand	Fast	Overcast	Light	NE	Brown
Y6	Coruh-Barhal Confluence	Coruh	12.6.04	17.50	Boulder, gravel,	Gravel, cobble, Boulder, sand	Fast	Clear, sunny	Calm		Brown
Y6	Coruh-Barhal Confluence	Coruh	21.7.04	8.25	Boulder, gravel,	Gravel, cobble, Boulder, sand	Fast	Clear, sunny	Calm		Brown
Y6	Coruh-Barhal Confluence	Coruh	17.8.04	11.30	Boulder, gravel,	Gravel, cobble, Boulder, sand	Fast	Clear, sunny	Calm		Clear
Y7	Yagcilar	Coruh	16.5.04	12.30	Boulder, gravel, sand	Sand, gravel, cobble	Fast	Overcast	Calm		Brown
Y7	Coruh	Coruh	11.6.04	17.00	Boulder, gravel, sand	Sand, gravel, cobble	Fast	Clear, sunny	Calm		Brown
Y7	Coruh	Coruh	20.7.04	19.15	Boulder, gravel, sand	Sand, gravel, cobble	Fast	Clear, sunny	Calm		Brown
Y7	Coruh	Coruh	16.8.04	17.45	Boulder, gravel, sand	Sand, gravel, cobble	Medium, fast	Clear, sunny	Light	NW	Brown

**Table D5. (Cont.) Field Observations at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers**

Station No.	Station	River	Date	Time	Coast	River bottom	Current	Weather	Wind	Wind direction	Water color
Y8	Oltu-Coruh Confluence	Coruh	16.5.04	13.30	Gravel, cobble	Gravel, sand, cobble	Fast	Overcast	Moderate	NE	Brown
Y8	Oltu-Coruh Confluence	Coruh	12.6.04	16.00	Gravel, cobble	Gravel, sand, cobble	Medium	Clear, sunny	Calm		Brown
Y8	Oltu-Coruh Confluence	Coruh	21.7.04	9.45	Gravel, cobble	Gravel, sand, cobble	Medium	Clear, sunny	Calm		Brown
Y8	Oltu-Coruh Confluence	Coruh	17.8.04	10.45	Gravel, cobble	Gravel, sand, cobble	Medium	Clear, sunny	Calm		Blue-green
Y9	Oltu-Aspisen Confluence	Coruh	16.5.04	14.15	Cobble, gravel, sand	Gravel, cobble, boulder	Fast	Overcast	Calm		Brown
Y9	Oltu-Aspisen Confluence	Coruh	12.6.04	12.00	Cobble, gravel, sand	Gravel, cobble, boulder	Medium, fast	Clear, sunny	Calm		Brown
Y9	Dokumacilar	Coruh	21.7.04	10.50	Cobble, gravel, sand	Gravel, cobble, boulder	Medium	Clear, sunny	Calm		Brown
Y9	Oltu-Aspisen Confluence	Coruh	17.8.04	10.00	Cobble, gravel, sand	Gravel, cobble, boulder	Medium	Clear, sunny	Calm		Brown
Y10	Tivasor	Oltu	16.5.04	14.55	Cobble, gravel, sand	Gravel, cobble, boulder	Fast	Overcast	Calm		Brown
Y10	Tivasor	Oltu	11.6.04	13.30	Cobble, gravel, sand	Gravel, cobble, boulder	Fast	Clear, sunny	Calm		Brown
Y10	Tivasor	Oltu	21.7.04	11.45	Cobble, gravel, sand	Gravel, cobble, boulder	Medium	Clear, sunny	Calm		Brown

Table D5. (Cont.) Field Observations at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers

Station No.	Station	River	Date	Time	Coast	River bottom	Current	Weather	Wind	Wind direction	Water Color
Y10	Tivasor	Oltu	17.8.04	8.30	Cobble, gravel, sand	Gravel, cobble, boulder	Medium, fast	Clear, sunny	Calm		Brown
Y11	Tortum	Tortum	16.5.04	16.05	Cobble, gravel, sand	Gravel, cobble, boulder	Fast	Overcast	Calm		Grey-white
Y11	Tortum	Tortum	12.6.04	16.00	Cobble, gravel, sand	Gravel, cobble, boulder	Fast	Clear, sunny	Calm		Brown
Y11	Tortum	Tortum	20.7.04	12.50	Cobble, gravel, sand	Gravel, cobble, boulder	Medium, fast	Clear, sunny	Calm		Clear
Y11	Tortum	Tortum	16.8.04	9.15	Cobble, gravel, sand	Gravel, cobble, boulder	Fast	Clear, sunny	Calm		Clear

Table D6. Characteristics of the Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers

Station No.	Station	River	Date	Description of the location
Y 1	Asagicala	Coruh	15.5.04-16.08.04	On Coruh River, colour of water is brown and not very clear. River bottom and coast structure is composed of gravel and sand. Generally Cyprinid species are present in the stream.
Y1 A	Dokumacilar	Coruh	15.5.04-16.08.04	This stream is a tributary of Coruh River. It is very close to Y1 (Asagicala Station). Water is clear. River bottom is composed of gravel, cobble and boulder whereas coast structure made up boulder and gravel. Generally Cyprinid species are found in this stream.
Y2	Coruh	Coruh	15.5.04-16.08.04	On Coruh River. Colour of water is brown and not very clear. River bottom is composed of gravel, clay, plant detritus and cobble. Coast is made up gravel, sand and cobble. This stream is suitable region for young Cyprinid species.
Y3	Tekkale	Coruh	15.5.04-16.08.04	This stream is a tributary of Coruh river. Water is very clear and always rapid flow. Bottom of the river is composed of boulder, gravel and cobble and the coast structure is made up gravel and cobble. <i>Salmo trutta labrax</i> and <i>Salmo trutta macrostigma</i> are found only in this river.
Y4	Barhal	Barhal	15.5.04-16.08.04	Water is very clear. Both the coast and bottom structure of the river is composed of sand, gravel and cobble. Cyprinid species and Salmonid species are found in this stream.
Y4A	Barhal	Barhal	15.5.04-16.08.04	This stream is tributaries of Barhal River and all the time the water is very clear. It is important region for Salmonid species.. Bottom and coast structure made up gravel, sand and cobble.
Y5	Barhal	Barhal	15.5.04-16.08.04	On Barhal River, water is very clear. Flow is usually fast. Bottom and coast structure is composed of gravel and sand.
Y6	Barhal-Coruh Confluence	Coruh	15.5.04-16.08.04	This station is at the confluence of Barhal and Coruh River. The colour of the water is brown and more turbid than the other stations. Coast structure of this station made up boulder and gravel whereas the bottom is composed of gravel, sand, cobble and boulder. Generally Cyprinid species are found in this stream.
Y7	Yagcilar	Coruh	15.5.04-16.08.04	This station is located after Coruh, Oltu and Barhal confluence zone. Water colour is brown and the water is very turbid. Coast structure of this stream is composed of boulder, gravel and sand and the bottom is made up with sand, gravel and cobble.

Table D6. (Cont.) Characteristics of the Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers

Station No.	Station	River	Date	Description of the location
Y8	Oltu-Coruh Confluence	Coruh	15.5.04-16.08.04	This station is located after Oltu and Coruh confluence zone. The colour of the water is brown and blue-green. Gravel and cobble are found in the coast of the river and gravel, sand and the cobble are in the bottom. Generally, Cyprinid species are found in this stream.
Y9	Oltu-Aspisen Confluence	Coruh	15.5.04-16.08.04	Confluence zone of Oltu and Aspisen streams. Water is polluted and colour of the water is brown. Coast and bottom structure are both composed of gravel, cobble sand and boulder. Cyprinid species are found in this stream.
Y10	Tivasor	Oltu	15.5.04-16.08.04	On the Oltu River. The colour of the water is brown, not very turbid. Coast and bottom structure of the river is composed of gravel, sand, cobble and boulder. Cyprinid species are found in this stream.
Y11	Tortum-Kinalicam	Tortum	15.5.04-16.08.04	The water colour is grey-white and brown. Flow is fast. Bottom and coast structure is composed of gravel, boulder and cobble. Some villages are found in the vicinity. Cyprinid species are found in this stream.

**Table D7. Water Quality Measurements at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers**

Station No.	Station	River	Date	Water depth (cm)		pH	Salinity (ppt)	EC, 25°C (µmhos/cm)	DO (ppm)	Temperature (°C)	
				max.	min.					Water	Air
Y1	Asagicala	Coruh	15.5.04			7.4	0	200	9.7	11	15.8
Y1	Asagicala	Coruh	11.6.04			8.0	0	180	8.3	17.5	23
Y1	Asagicala	Coruh	20.7.04			7.9	0	220	7.8	20	24
Y1	Asagicala	Coruh	16.8.04			8.5	0	316	7.8	20	25
Y1a	Dokumacilar	Coruh	15.5.04			8.4	0	70	9.2	9	15
Y1a	Dokumacilar	Coruh	11.6.04			8.5	0	40	8.7	11	23
Y1a	Dokumacilar	Coruh	20.7.04			6.8	0	110	7.5	16	24
Y1a	Dokumacilar	Coruh	16.8.04			8.3	0	192	7.3	17	25
Y2	Coruh	Coruh	15.5.04			7.8	0	170	9.8	12	16
Y2	Coruh	Coruh	12.6.04			8.3	0	190	9.3	14.3	18
Y2	Coruh	Coruh	20.7.04			7.9	0	240	8.2	20	24
Y2	Coruh	Coruh	16.8.04			8.5	0	324	7.8	22	25
Y3	Tekkale	Barhal	16.5.04			8.2	0	50	9.7	8	15
Y3	Tekkale	Barhal	11.6.04			7.8	0	50	9.4	9	20
Y3	Tekkale	Barhal	20.7.04			7.3	0	80	7.9	15	24
Y3	Tekkale	Barhal	16.8.04	20	100	8.1	0	123	7.7	16	26
Y4	End of reservoir section on Barhal River	Barhal	16.5.04			7.6	0	60	10.8	8	15
Y4	End of reservoir section on Barhal River	Barhal	12.6.04			7.3	0	50	10.8	8	20
Y4	End of reservoir section on Barhal River	Barhal	20.7.04			7.9	0	250	7.7	22	24
Y4	End of reservoir section on Barhal River	Barhal	16.8.04	10	100	8.4	0	110	8.0	20	26

Table D7. (Cont.). Water Quality Measurements at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers

Station No.	Station	River	Date	Water depth (cm)		pH	Salinity (ppt)	EC, 25°C (µmhos/cm)	DO (ppm)	Temperature (°C)	
				max.	min.					Water	Air
Y4a	Tributary of Barhal River	Barhal	16.5.04	10	100	8.5	0	80	10.6	9	15
Y4a	Tributary of Barhal River	Barhal	12.6.04			8.4	0	100	10.0	11	22
Y4a	Tributary of Barhal River	Barhal	20.7.04			7.2	0	70	8.9	16	25
Y4a	Tributary of Barhal River	Barhal	16.8.04	10	100	8.7	0	330	7.4	24	26
Y5	Barhal River	Barhal	16.5.04			8.2	0	70	10.4	8.5	15
Y5	Barhal River	Barhal	12.6.04			8.3	0	60	9.7	11	22
Y5	Barhal River	Barhal	21.7.04			7.8	0	90	8.2	18	28
Y5	Barhal River	Barhal	16.8.04	10	150	8.5	0	130	7.8	20	26
Y6	Coruh-Barhal Confluence	Coruh	16.5.04			8.5	0	180	9.9	11	14
Y6	Coruh-Barhal Confluence	Coruh	12.6.04			8.6	0	180	9.0	15	20
Y6	Coruh-Barhal Confluence	Coruh	21.7.04			8.0	0	190	8.6	18.5	24
Y6	Coruh-Barhal Confluence	Coruh	17.8.04	20	150	8.5	0	280	7.8	21	26
Y7	Yagcilar	Coruh	16.5.04			8.1	0	210	9.5	12	14
Y7	Yagcilar	Coruh	11.6.04			8.2	0	210	8.8	15	20
Y7	Yagcilar	Coruh	20.7.04			7.9	0	250	7.9	20	25
Y7	Yagcilar	Coruh	16.8.04	20	100	8.4	0	370	7.5	22	27

Table D7. (Cont.). Water Quality Measurements at Aquatic Sampling Stations on Coruh, Barhal, Oltu and Tortum Rivers

Station No.	Station	River	Date	Water depth (cm)		pH	Salinity (ppt)	EC, 25°C (µmhos/cm)	DO (ppm)	Temperature (°C)	
				max.	min.					Water	Air
Y8	Oltu-Coruh Confluence	Coruh	16.5.04			8.5	0	210	10.0	11	13.5
Y8	Oltu-Coruh Confluence	Coruh	12.6.04			8.4	0	210	8.8	16	24
Y8	Oltu-Coruh Confluence	Coruh	21.7.04			7.3	0	250	8.4	18	25
Y8	Oltu-Coruh Confluence	Coruh	17.8.04	10	150	8.4	0	370	7.7	22	27
Y9	Oltu-Aspisen Confluence	Coruh	16.5.04			8.4	0	250	9.8	11	13
Y9	Oltu-Aspisen Confluence	Coruh	12.6.04			8.7	0	320	8.6	16	23
Y9	Oltu-Aspisen Confluence	Coruh	21.7.04			8.4	0	410	7.9	20	25
Y9	Oltu-Aspisen Confluence	Coruh	17.8.04	15	150	8.3	0	830	7.5	22	27
Y10	Tivasor	Oltu	16.5.04			8.9	0	290	9.7	11	13
Y10	Tivasor	Oltu	11.6.04			8.6	0	400	8.2	18	24
Y10	Tivasor	Oltu	21.7.04			7.7	0	800	7.6	21	25
Y10	Tivasor	Oltu	17.8.04	20	150	8.5	0	500	7.8	20	27
Y11	Tortum	Tortum	16.5.04			8.8	0	270	9.4	12	13.5
Y11	Tortum	Tortum	12.6.04			8.5	0	230	8.5	16	24
Y11	Tortum	Tortum	20.7.04			7.6	0	290	7.9	19	25
Y11	Tortum	Tortum	16.8.04	50	150	8.5	0	340	7.7	20	27