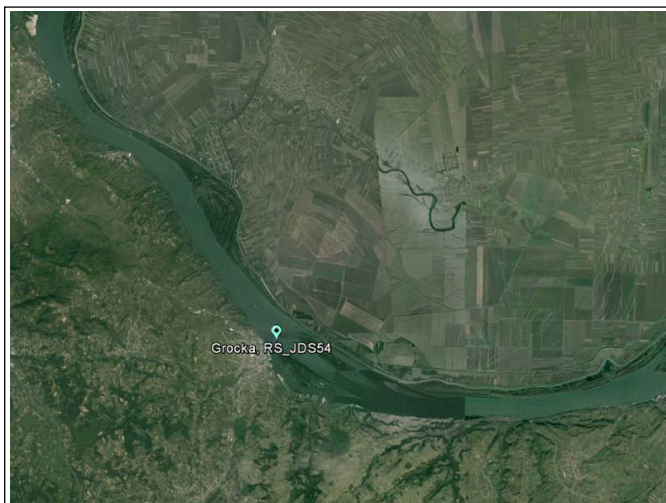


Danube**Grocka, RS_JDS54 (RS_JDS54), 06.September 2013**

FDA_ID 228



Pic. 1: Map of monitoring site / ÖK 1:50.000



Pic. 2: Monitoring site Grocka, RS_JDS54

Description of monitoring site*- no data -***Assessment****Estimated assessment of the ecological status class (FÖZ)**

Biological quality element fish	None
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Ecological status class, current survey, 06.September 2013

Biological quality element fish	FIA 3.12	Class 3	Moderate
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Former classifications

None				
None				
None				

Information about and sampling conditions and location

Table 1: Key data and information on sampling, monitoring siteGrocka, RS_JDS54

Watercourse name	Danube	Federal state	not available
Monitoring site	Grocka, RS_JDS54	District	
Monitoring site number	RS_JDS54	Community	
Turnus number		Longitude (WGS 84, decimal) O	20.72447
sampling number		Latitude (WGS 84, decimal) N	44.6813217541
Survey-ID (FDA)	228	Route-ID	
Date	9/6/2013	River-km [monitoring site]	
Contracting authority	ICPDR	Number of planing area	
Contractor	BAW-IGF	Detail waterbody	
Project manager	Vinzenz Bammer		
Reason of survey	JDS 3		
Fishing category			
Bioregion		Waters ordinal number	
Fish bioregion	Pannonian Plain Danube (1497-1075) (6)	Huet-zonation	bream zone
Biocenotic Region	Metapotamon	Adapt. Reference	113
River km mean	1,132.0	Altitude [m.a.s]	69
		Ø catchment basin [km²]	530,000
Section length [m]	2,000	Catchment-class	more than 10.000km²
Ø channel width [m]	900	Slope [‰]	0.01
Original stream character	lowland stream -river	Discharge regime	
Actual site character			
Actual impact		Reference watergauge (name, number)	
Flow [semiquant.]		Distance from source [km]	1,714.0
Average water depth [m]		Lake above	No
Maximum water depth [m]		Distance lake upstream [km]	
Geology	calcareous	Lake below	
Influence of sediment transport	slightly affected	Distance lake downstream [km]	
Ø wetted width [m]	900	Flow condition	
pH-value		Visible depth	
SBV		Fishing conditions	
Water temperature [°C] (F117)	22.8	Average annual air temperature [°C]	12.1
Conductance, 25°C [µS/cm] (F118)	360		
Methods used and effort			
Strip-fishing, day		Number of runs	1
Fished length [m]	3,300	E-devices output [kW]	11
Fished area [m²]	9,900	Output voltage	600
		Number of anodes	
		Number of strips/sections	10
and additional methods	Fished area [m²]	additional methods	Effort [UE]
E-Fishing by night	3,720		

Comments on survey:

only right bank

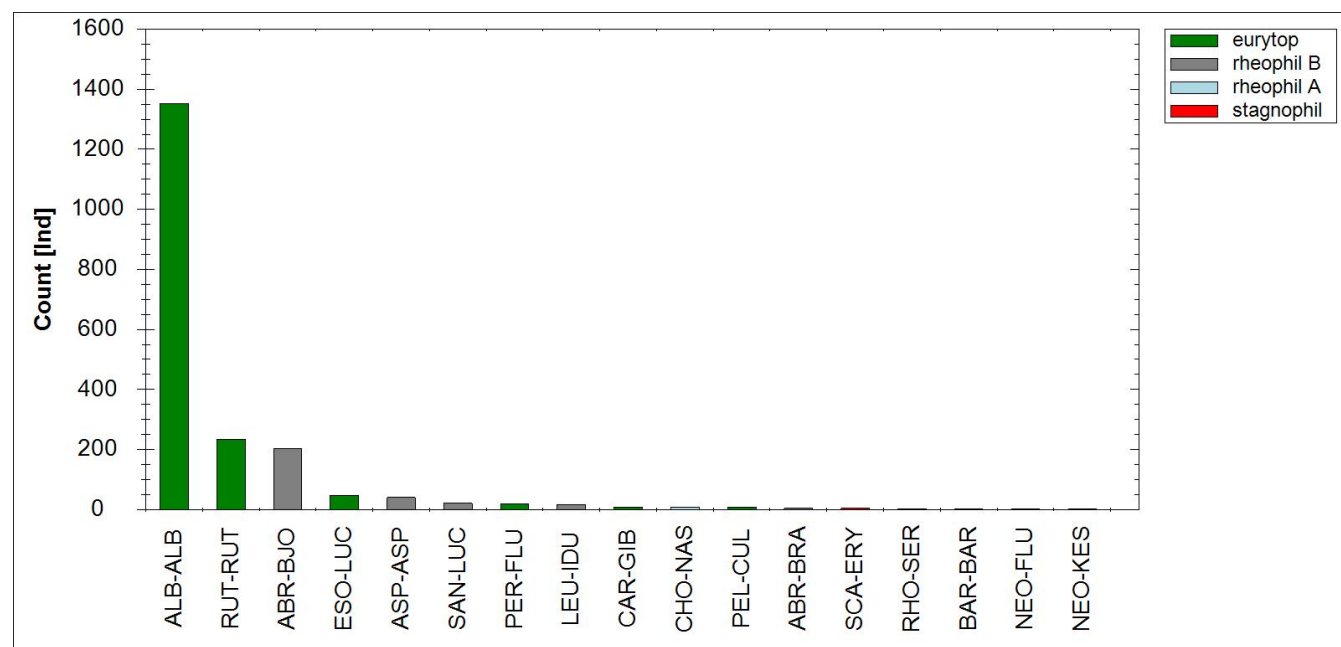
Table 2: Sampling effort at the monitoring site Grocka, RS_JDS54, September 2013

Habitat	Str. no	DG	Length [m]	Width [m]	UE	Method
other natural bank	1	1	350	3		E-fishing day boat
other natural bank	2	1	350	3		E-fishing day boat
other natural bank	3	1	350	3		E-fishing day boat
other natural bank	4	1	350	3		E-fishing day boat
other natural bank	5	1	350	3		E-fishing day boat
other natural bank	6	1	350	3		E-fishing day boat
other natural bank	7	1	300	3		E-fishing day boat
other natural bank	8	1	300	3		E-fishing night
other natural bank	9	1	290	3		E-fishing night
indefinite waterside	1	1	350	3		E-fishing day boat
indefinite waterside	2	1	300	3		E-fishing day boat
indefinite waterside	3	1	250	3		E-fishing day boat
indefinite waterside	4	1	300	3		E-fishing night
indefinite waterside	5	1	200	3		E-fishing night
bluff	1	1	150	3		E-fishing night

Table 3: Habitat weighting used at the monitoring site Grocka, RS_JDS54

Habitat	%
bluff	5
indefinite waterside	40
other natural bank	55

Catch result, fish assemblage and threatening status



Pic. 3: Species ranking diagram of catch results Danube, Grocka, RS_JDS54

Table 4: Reference fish assemblage, allochthonous species and threat status

Family	English name	Scient. name of species	Reference fish assemblage	FHH	Red List	IUCN	Count
Petromyzontidae	Ukrainian lamprey	<i>Eudontomyzon mariae</i>	s	II	VU	DD	
Cyprinidae	Asp	<i>Aspius aspius</i>	b	II	EN	DD	40
	Barbel	<i>Barbus barbus</i>	b	V	NT	LC	1
	Bleak	<i>Alburnus alburnus</i>	I	-	LC	LC	1,351
	Blue bream	<i>Abramis ballerus</i>	I	-	EN		
	Bream	<i>Abramis brama</i>	b	-	LC		4
	Carp	<i>Cyprinus carpio</i>	b	-	EN	DD	
	Chub	<i>Squalius cephalus</i>	s	-	LC	LC	
	Danubian gudgeon	<i>Romanogobio uranoscopus</i>	s	II	CR	DD	
	Gudgeon	<i>Gobio gobio</i>	b	-	LC	LC	
	Ide	<i>Leuciscus idus</i>	b	-	EN	LC	16
	Kessler's gudgeon	<i>Romanogobio kessleri</i>	b	II	EN	DD	
	Nase	<i>Chondrostoma nasus</i>	b	-	NT	LC	8
	Prussian carp	<i>Carassius gibelio</i>	I	-	LC		8
	Roach	<i>Rutilus rutilus</i>	I	-	LC	LC	235
	Tench	<i>Tinca tinca</i>	s	-	VU	LC	
	Vimba bream	<i>Vimba vimba</i>	I	-	VU	LC	
	White bream	<i>Blicca bjoerkna</i>	I	-	LC	LC	203
Esocidae	Pike	<i>Esox lucius</i>	b	-	NT		48
Gadidae	Burbot	<i>Lota lota</i>	b	-	VU		
Percidae	Danube ruffe	<i>Gymnocephalus baloni</i>	b	II; IV	VU	DD	
	Perch	<i>Perca fluviatilis</i>	b	-	LC	LC	20
	Pikeperch	<i>Sander lucioperca</i>	b	-	NT	LC	21
	Ruffe	<i>Gymnocephalus cernuus</i>	b	-	LC	LC	
	Schraetser	<i>Gymnocephalus schraetser</i>	b	II; V	VU	VU	
	Volga pikeperch	<i>Sander volgensis</i>	s	-	EN	DD	
	Zingel	<i>Zingel zingel</i>	s	II; V	VU	VU	
Siluridae	Wels catfish	<i>Silurus glanis</i>	b	-	VU	LC	
Gobiidae	Tubenose goby	<i>Proterorhinus semilunaris</i>	I	-	EN	LC	
Cobitidae	Spined loach	<i>Cobitis taenia</i>	b	II	VU	LC	
Balitoridae	Danube bream	<i>Abramis sapa</i>	b	-	EN		
Acipenseridae	Danube sturgeon	<i>Acipenser gueldenstaedtii</i>	s	V	RE	EN	
	Fringebarbel sturgeon	<i>Acipenser nudiiventris</i>	s	V	RE	EN	
	Sterlet	<i>Acipenser ruthenus</i>	b	V	CR	VU	
Cyprinidae	Bitterling	<i>Rhodeus amarus</i>		II	VU	LC	2
	Rudd	<i>Scardinius erythrophthalmus</i>		-	LC	LC	4
	Sabre carp	<i>Pelecus cultratus</i>		II; V	NT	DD	8
Gobiidae	Bighead goby	<i>Neogobius kessleri</i>		-	NE	DD	1
	Monkey goby	<i>Neogobius fluviatilis</i>		-	NE	DD	1

Observed:: reference fish assemblage 12Taxa :: 34Taxa

Taxa complete 17

Count species of reference fish assemblage 1,955

Total count 1,971

Fish ecological reference fish assemblage (Haunschmid et al., 2006)

- I Dominant species
- b Subdominant species
- s Rare species
- a! Allochthon

NI Neozoa

FFH...Fauna-Flora-Habitat-Directive (Council Directive 92/43/EEC of 21.Mai 1992)

II Species listed in Annex II of the FFH- Directive (nature reserves have to be set out for this species)

IV Species listed in Annex IV of the FFH- Directive (strict protection of animals and plants)

V Species listed in Annex V of the FFH- Directive (species whose collection and use is subject to administrative control)

RE Regionally extinct

CR Critically endangered

EN Endangered

VU Vulnerable

NT Near threatened

LR Lower risk

LC Least concern

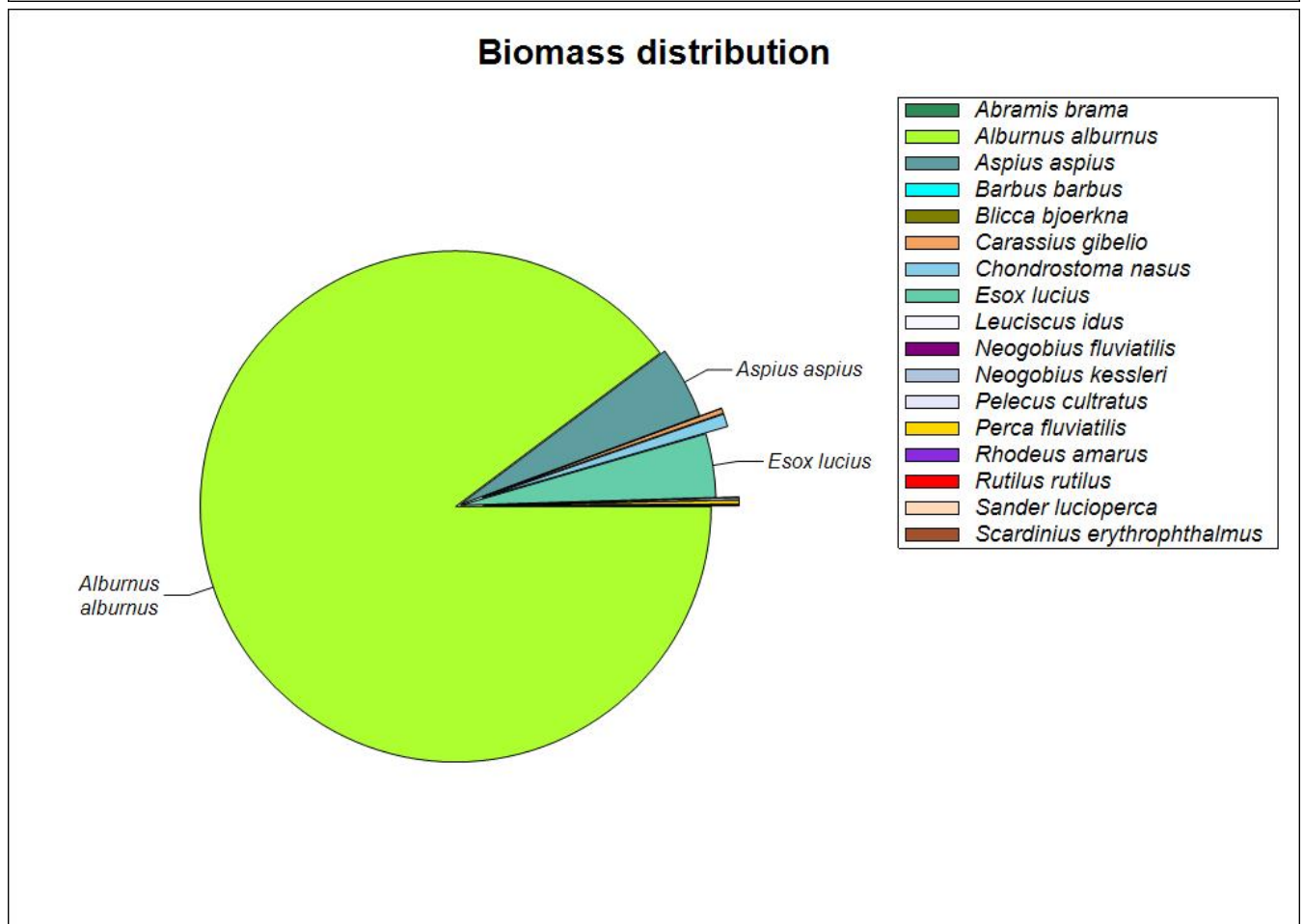
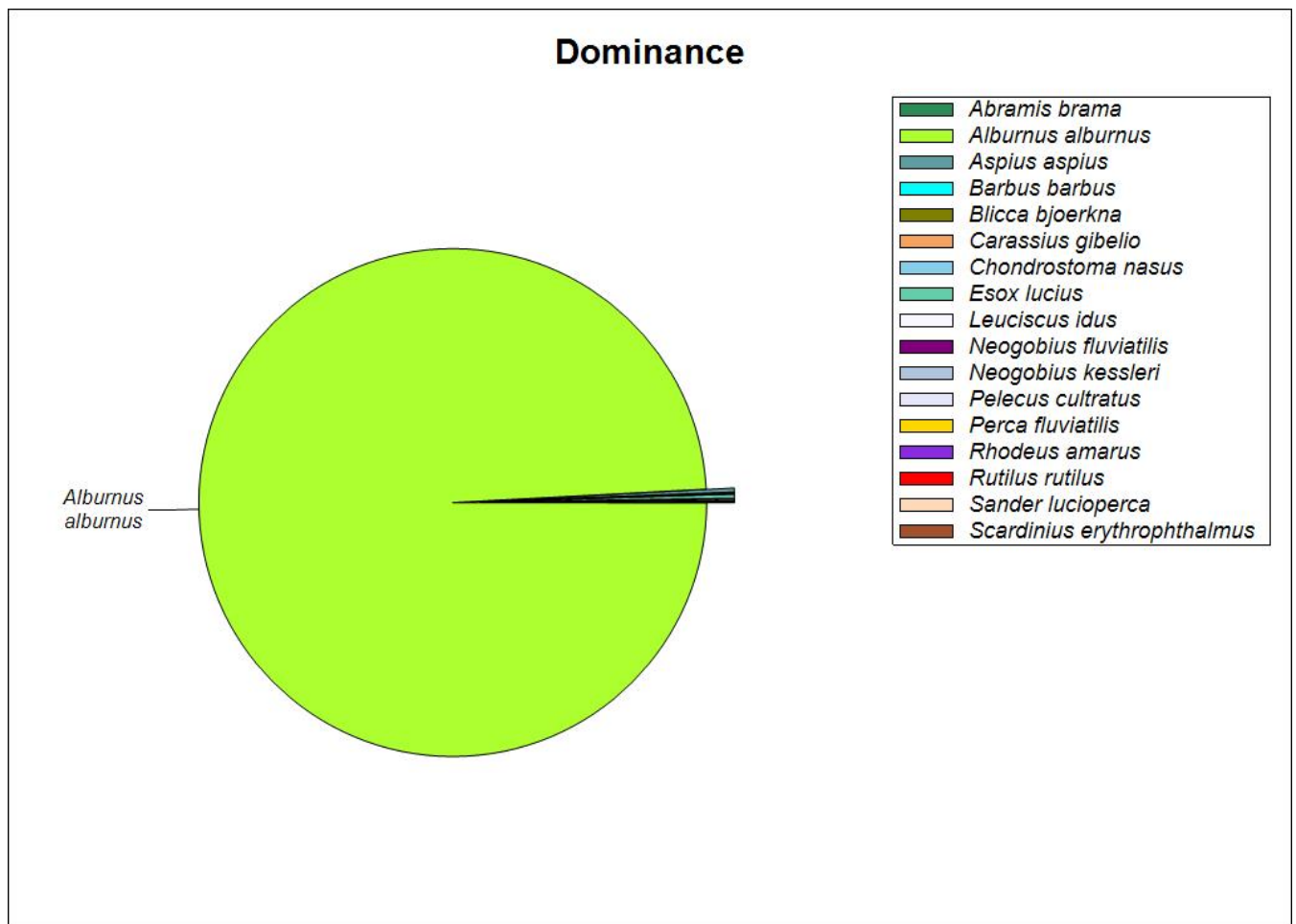
DD Available data is not sufficient for classification (data deficient)

NE Not evaluated, usually widespread and replicating alien species

Abundance and biomass

Table 5: abundance and biomass (e-fishings)Danube, Grocka, RS_JDS54, 9/6/2013

English name	Species Code	Count	Abu [Ind/ha]	95% Konfid.	Biom [kg/ha]	95% Konfid.	Weight [g] median	Mean Weight [g] total	Population structure	Reference fish assemblage
Asp	ASP-ASP	40	79.8		15.3		22.2	192.2	2	b
Barbel	BAR-BAR	1	0.0		0.0	0.0	13.0	0.0	4	b
Bighead goby	NEO-KES	1	2.5		0.0		8.5	9.0	4	
Bitterling	RHO-SER	2	0.0		0.0	0.0	4.8	0.0	4	
Bleak	ALB-ALB	1,351	31,022.6		299.6		9.3	9.7	1	I
Bream	ABR-BRA	4	5.1		0.0		12.9	8.4	4	b
Ide	LEU-IDU	16	0.0		0.0	0.0	11.3	0.0	3	b
Monkey goby	NEO-FLU	1	0.0		0.0	0.0	7.0	0.0	4	
Nase	CHO-NAS	8	20.4		2.7		24.8	133.0	3	b
Perch	PER-FLU	20	17.8		0.8		12.6	46.3	2	b
Pike	ESO-LUC	48	79.4		13.4		28.6	169.1	3	b
Pikeperch	SAN-LUC	21	0.0		0.0	0.0	18.2	0.0	3	b
Prussian carp	CAR-GIB	8	5.1		1.1		19.1	208.5	3	I
Roach	RUT-RUT	235	20.9		0.3		8.8	13.1	1	I
Rudd	SCA-ERY	4	0.0		0.0	0.0	8.9	0.0	3	
Sabre carp	PEL-CUL	8	32.8		0.5		14.8	15.4	4	
White bream	ABR-BJO	203	5.6		0.0		10.7	2.7	1	I
12 species of 34	Total	1,971	31,292.0		333.8					



Pic. 4: Dominance und Biomass distribution

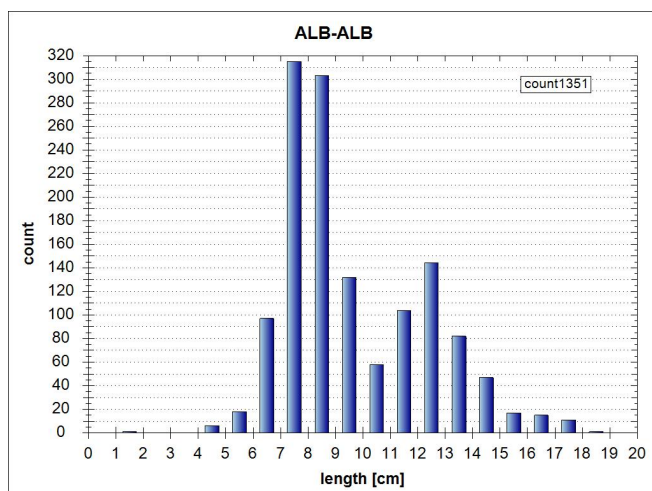
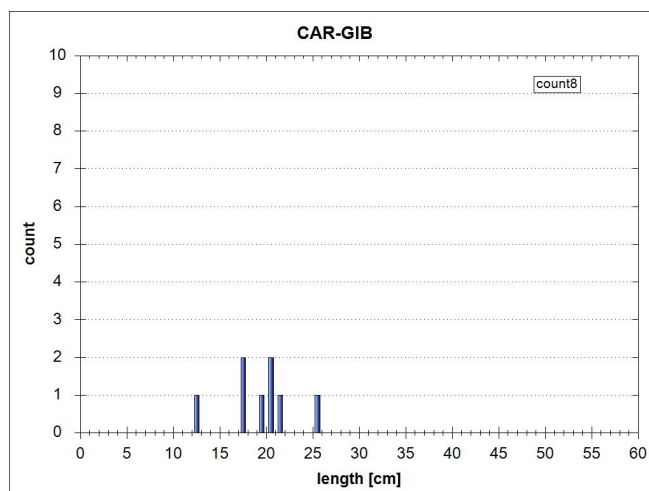
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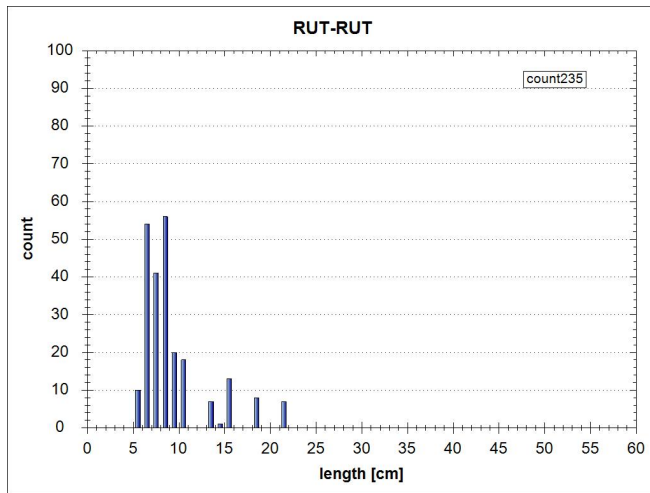
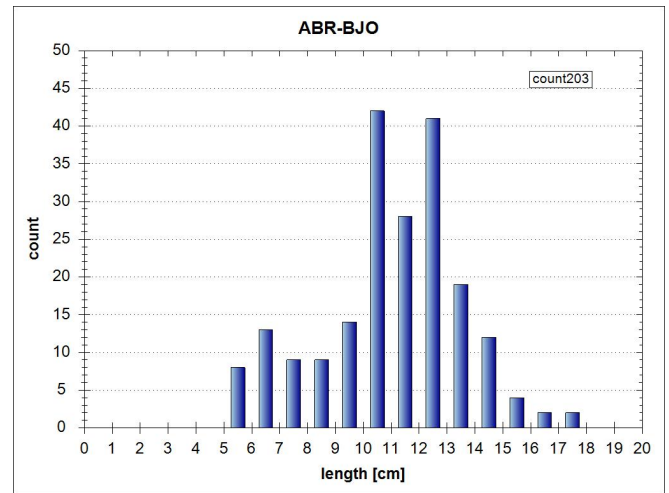
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Biometrics and catch rate

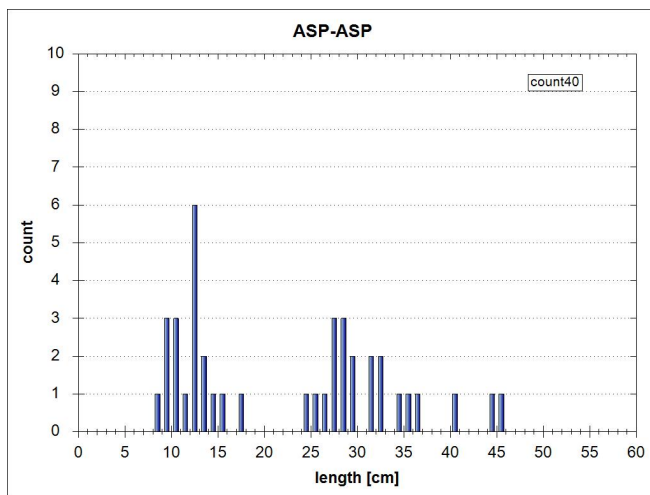
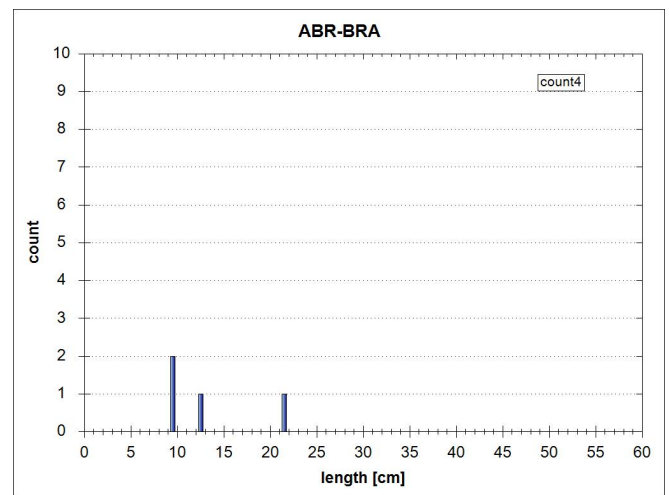
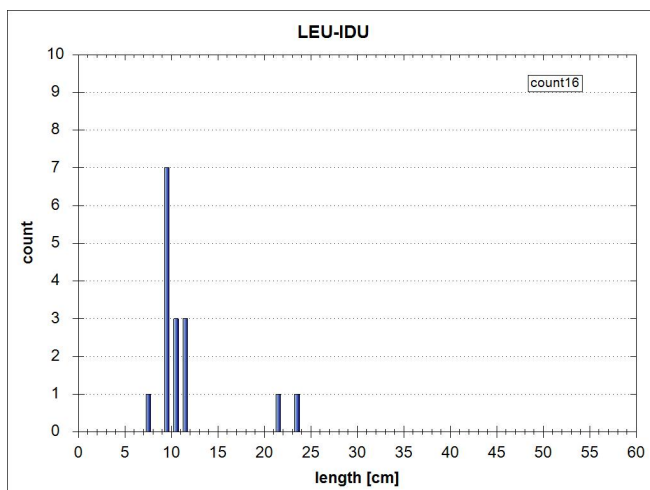
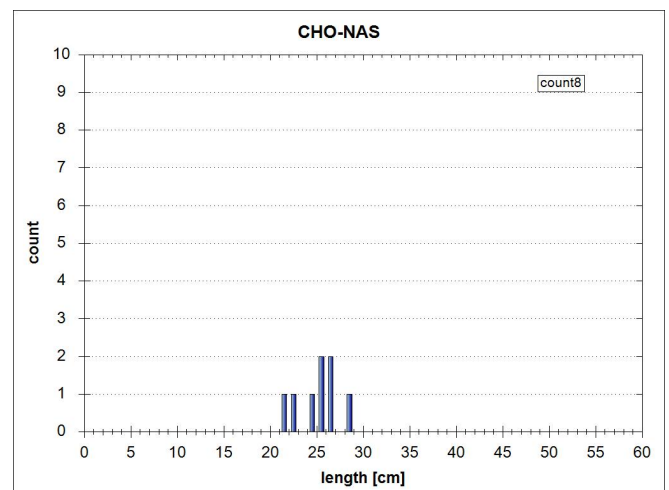
Table 6: biometrics of each species and catch specific parameters

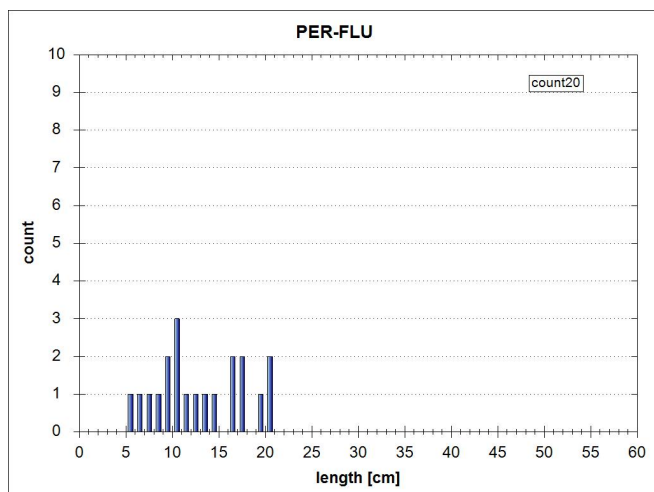
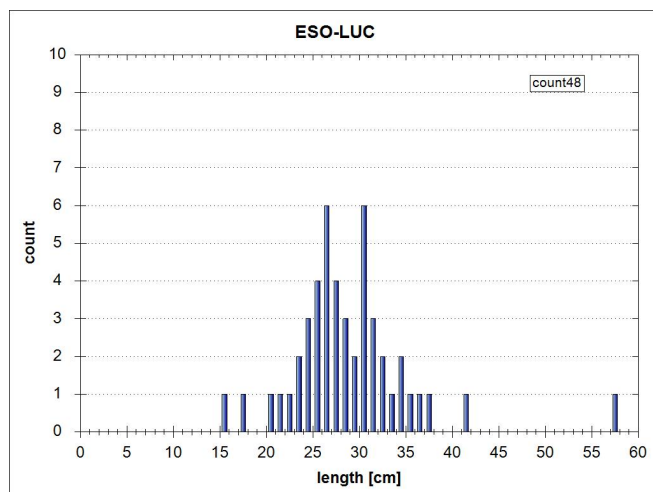
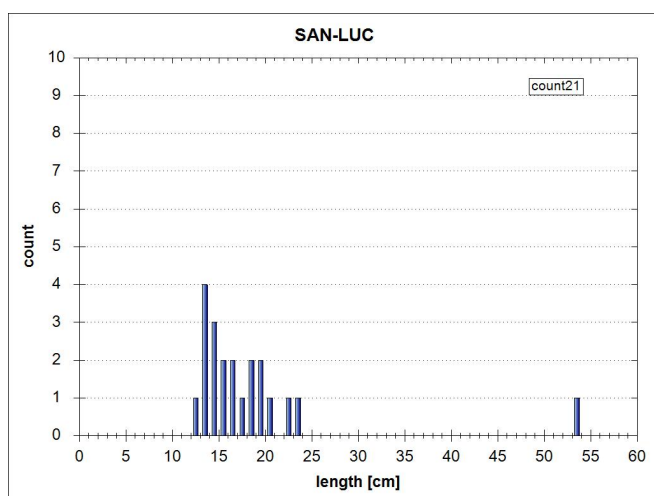
Fish species	Lt [cm]		n	Statist.	Catch-	Catch-effectivity		
	Min	Max		Method	Probability [%]	Min	MW	Max
Asp	8.5	22.2	45.0	40		0.15	0.29	0.40
Barbel	13.0	13.0	13.0	1		0.30	0.30	0.30
Bighead goby	8.5	8.5	8.5	1		0.30	0.30	0.30
Bitterling	4.5	4.8	5.0	2		0.30	0.30	0.30
Bleak	1.0	9.3	18.0	1,351		0.01	0.07	0.30
Bream	9.0	12.9	21.0	4		0.30	0.33	0.40
Ide	7.5	11.3	23.5	16		0.20	0.23	0.30
Monkey goby	7.0	7.0	7.0	1		0.30	0.30	0.30
Nase	21.0	24.8	28.0	8		0.30	0.30	0.30
Perch	5.0	12.6	20.0	20		0.30	0.34	0.40
Pike	15.0	28.6	57.0	48		0.25	0.30	0.40
Pikeperch	12.5	18.2	53.0	21		0.25	0.31	0.40
Prussian carp	12.5	19.1	25.5	8		0.25	0.30	0.40
Roach	5.0	8.8	21.0	235		0.10	0.13	0.40
Rudd	6.0	8.9	15.5	4		0.30	0.30	0.30
Sabre carp	14.0	14.8	15.0	8		0.10	0.26	0.30
White bream	5.0	10.7	17.0	203		0.10	0.14	0.30
17 species		Sum	1,971					

Population structure of dominant species and subdominant species (total catch)Bleak (*Alburnus alburnus*), 1Prussian carp (*Carassius gibelio*), 3

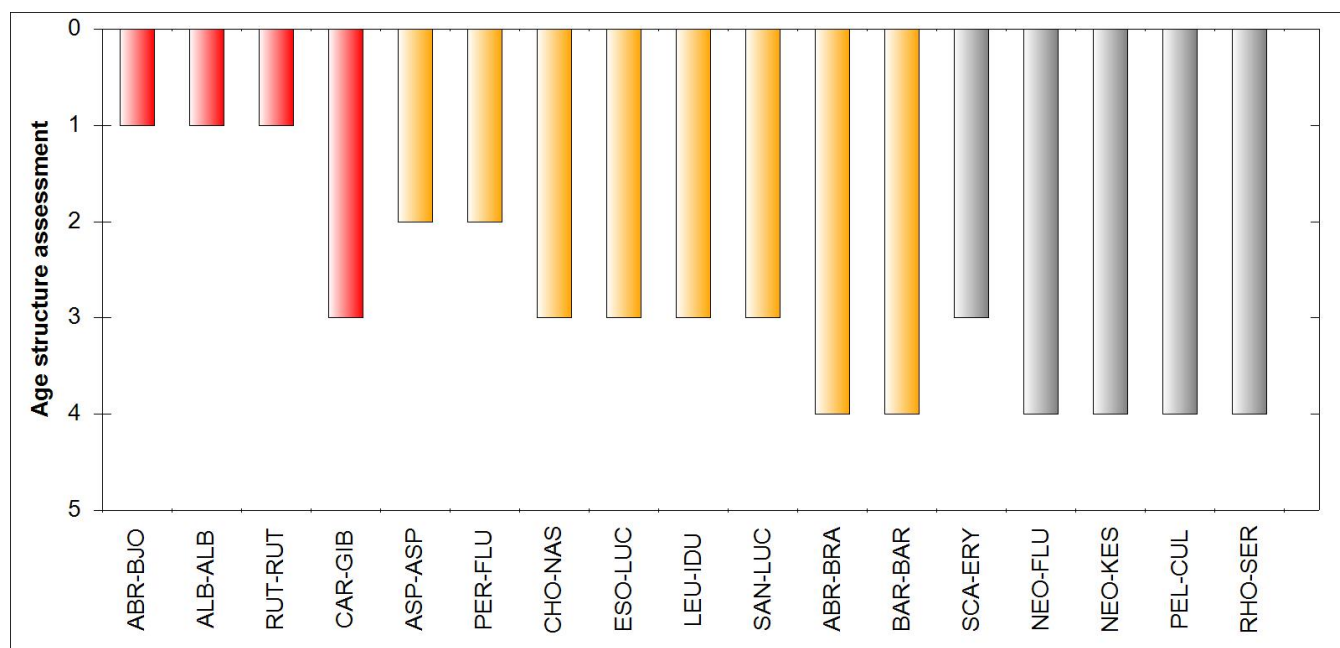
Roach (*Rutilus rutilus*), 1White bream (*Blicca bjoerkna*), 1

Pic. 5: Length-frequency diagram of dominant species (n>3), Sep. 2013

Asp (*Aspius aspius*), 2Bream (*Abramis brama*), 4Ide (*Leuciscus idus*), 3Nase (*Chondrostoma nasus*), 3

Perch (*Perca fluviatilis*), 2Pike (*Esox lucius*), 3Pikeperch (*Sander lucioperca*), 3

Pic. 6: Length-frequency diagram of subdominant species (n>3), Sep. 2013



Pic. 7: Age structure of present species

Comment on population structure of dominant and subdominant species

- no comment -

Fish ecological assessment (FIA, FISH INDEX AUSTRIA)

Table 7: fish ecologic assessment, Danube, Grocka, RS_JDS54, 9/6/2013

Rating					
Stock data	Abundance Ind/ha	Biomass kg/ha			ko-criterion biomass
	31,256.7	333.3			OK

1. Species	Reference fish assemblage	actual (current)	Ratio/Deviation	Partial rating	
Species					
Dominant species	7	4	57%	4.0	
Subdominant species	19	8	42%	3.0	
Rare species	8	0	0%	5.0	
				4.0	
Ecological guilds					
Flow	5	3	2	3.0	
Reproduction	6	3	3	4.0	
				3.5	
Species diversity & guilds overall					3.8

2. Dominance	Reference fish assemblage	actual (current)	Difference		
Fish region index	6.4	6.4	0.0		1.0

3. Population structure	Reference fish assemblage	actual (current)		Partial rating (1-5)	
Dominant species	7	4		3.0	
Subdominant species	19	8		4.2	
					3.4

Fishindex Austria without active ko-criterion					3.12
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Biological quality element fish	FIA 3.12	Class 3	Moderate
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Date of Assessment:3/3/2014

Comment BAW-IGF

- no comment -

Discussion of fish ecological assessment, plausibility, deficits and measures (AN)

Recommended improvements with priority ranking if possible;