

### INTERNATIONAL ASSOCIATION FOR DANUBE RESEARCH The 42nd IAD Conference 2018 DANUBE - A LIFELINE GOVERNED BY MULTIPLE USES, PRESSURES AND A MULTITUDE OF ECOSYSTEM SERVICES 2 – 6 July 2018, Smolenice, Slovakia

#### **Conference Program**

Monday, July 2	, 2018		
09:00 - 13:00	Registration of participants		
13:00 - 17:00	Meeting of IAD National representatives and Expert group leaders		
	-		
Tuesday, July 3			
09:00 - 13:00	Registration of participants	8	
13:00 - 14:00	Lunch break		
14:00 - 14:30	Opening - Welcome speeches		
	Keynote lectures		
Chairman	Cristina SANDU		
14:30 - 15:00	Thomas HEIN	Changing Rivers - challenges for the management of	
		ecosystem services and biodiversity in the Danube River	
15:00 - 15:30	Jürg BLOESCH	Danube Under Pressure – A Personal Analysis	
15:30 - 16:00	Emília MIŠÍKOVÁ	Slovak Danube River Assessment Based on Intercalibrated	
	ELEXOVÁ	Biological Method for Macroinvertebrates	
16:00 - 16:20	Coffee break		
	1 <sup>st</sup> oral presentation sessi	on	
Chairman	Thomas HEIN		
16:20 - 16:35	Gertrud HAIDVOGL	Sturgeons of the Austro-Hungarian Danube and sturgeon	
		exploitation from the Middle Ages to the early 20th century	
16:35 - 16:50	Jarmila MAKOVINSKÁ	Water quality changes of the Slovak stretch of the River	
		Danube	
16:50 - 17:05	Marion GELHAUS	The application of the River Ecosystem Service Index to a	
17.05 17.20		stretch along the upper Bavarian Danube	
17:05 - 17:20	Jana FRIEDRICH	DANUBIUS-RI: A new European Research Infrastructure	
17.00 17.05		for Advanced Studies on River-Sea Systems	
17:20 - 17:35	Milan LEHOTSKÝ	Insights into spatio-temporal changes in hydrological-	
		sedimentary connectivity of the Slovak part of the Danube	
17.25 17.50		anabranching reach	
17:35 – 17:50	Jarmila MAKOVINSKÁ	Status assessment of the River Danube within two	
17.50 19.05	Miniana LENILLADDT	management plans	
17:50 - 18:05	Mirjana LENHARDT	Investigation of fish behavior at Iron Gate II Hydropower	
19.05 19.20	Srđan SUBOTIĆ	plant by acoustic telemetry	
18:05 - 18:20	Sidan SUBUTIC	Growth parameters of vimba bream (Vimba vimba) in the	
18:20 - 18:35	Dušanka CVIJANOVIĆ	Danube River near Belgrade (Serbia) Pistia stratiotes 1. 1753 – an emerging invader in serbian	
10:20 - 10:33	Dusalika UvijAlijOviU	rivers?	
		11,019 (	

Wednesday,	July	4,	2018	3		
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	Keynote lectures	
Chairman	Jürg BLOESCH	
09:00 - 9:30	Martin DOKULIL	Climate warming affects water temperature in the River
		Danube and tributaries – present and future perspectives
09:30 - 10:00	Robert BERNÝ	Discharge measurement as an important part of the
		monitoring of extreme events in the Danube basin



## INTERNATIONAL ASSOCIATION FOR DANUBE RESEARCH The 42nd IAD Conference 2018 DANUBE - A LIFELINE GOVERNED BY MULTIPLE USES, PRESSURES AND A MULTITUDE OF ECOSYSTEM SERVICES 2 – 6 July 2018, Smolenice, Slovakia

	2 – 6 July 2	2018, Smolenice, Slovakia
10:00 - 10:20	Coffee break	
10:20 - 12:20	Seminar	
	Katrin TEUBNER	Freshwaters as sentinels for tracking global environmental changes
12:20 - 13:20	Lunch break	0
	2 <sup>nd</sup> oral presentation sess	ion
Chairman	Bernd CYFFKA	
13:20 - 13:35	Maja NOVKOVIĆ	One flew over the Danube floodplain lakes (Koviljski Rit wetland area): UAVs as promising tool in aquatic vegetation assessment
13:35 - 13:50	Siniša OZIMEC	Floristic inventory and mapping of dry habitats along the Danube course in Croatia under the DANUBEparksCONNECTED project
13:50 - 14:05	Miloš RUSNÁK	UAV technology application in riverine landscape
14:05 - 14:20	Milan LEHOTSKÝ	Measurement of coarse sediment connectivity in braided rivers
14:20 - 14:35	Eugenia CIOACĂ	Ecological restoration of the Danube Delta wetland fragmented ecosystems. Sontea-Fortuna area case study
14:35 - 14:50	Katrin TEUBNER	Restoration of the urban oxbow lake Alte Donau: Response of zoo- and phytoplankton to trophic alteration from hypertrophic to mesotrophic conditions over 22 years
14:50 - 15:05	Anna KIDOVÁ	Morphological changes and their implication for management of a multi-thread river
15:05 – 15:30 <b>16:00 – 17:00</b> <b>17:00 – 19:00</b>	Coffee break EGL Floodplain ecology IAD General Assembly	-

	5, 2018	
	Keynote lectures	
Chairman	Milan LEHOTSKÝ	
09:00 - 9:30	Teodora TRICHKOVA	Invasive alien species in the Danube Region and DIAS activities towards strategy development
09:30 - 10:00	Cristina SANDU	Sturgeon conservation in the Danube River Basin – past and perspectives
10:00 - 10:20	Coffee break	
10:20 - 12:00	Poster session	
Chairman	Georg A. JANAUER	
12:00 - 13:00	Lunch break	
13:00 - 17:00	Workshop	
	Andrea FUNK	Impact of hydromorphological alteration and restoration in the light of biodiversity and ecosystem services – exploring synergies for the WFD
19:00	Festive dinner	

#### Friday, July 6, 2018

08:30 - 16:00

**Excursion:** fluvial geomorphology/ hydrobiology of the Váh River (Leopoldov) and old Danube channel (Gabčíkovo, Vojka)

INTERNATIONAL ASSOCIATION FOR DANUBE RESEARCH



**The 42nd IAD Conference 2018** 62 years of Danubian cooperative research in the framework of IAD

2 – 6 July 2018, Smolenice, Slovakia

Organized by: Institute of Geography, Slovak Academy of Sciences IAD General Secretariat Slovak Limnological Society

Under the Patronaje of Vice President of Slovak Academy of Sciences Dr. Pavol Siman



DANUBE - A LIFELINE GOVERNED BY MULTIPLE USES, PRESSURES AND A MULTITUDE OF ECOSYSTEM SERVICES

# **Book of Abstracts**

Editors: Milan Lehotský, Anna Kidová, Miloš Rusnák, Jozef Dudžák

# DANUBE – A LIFELINE GOVERNED BY MULTIPLE USES, PRESSURES AND A MULTITUDE OF ECOSYSTEM SERVICES

**Book of Abstracts** 

The 42<sup>nd</sup> IAD Conference 2018 Smolenice, Slovakia 2 – 6 July 2018

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Bratislava 2018 Institute of Geography of SAS

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### Growth parameters of vimba bream (*Vimba vimba*) in the Danube River near Belgrade (Serbia)

# Srđan Subotić<sup>a</sup>, Milica Gavrilović<sup>a</sup>, Željka Višnjić-Jeftić<sup>b</sup>, Jasmina Krpo-Ćetković<sup>a</sup>, Mirjana Lenhardt<sup>c</sup>

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Age, growth, and length-weight relationship of the vimba bream (*Vimba vimba*) were analysed on a sample of 43 individuals from a commercial catch, caught between March and May 2017 in the Danube River near Belgrade. Total body length of the sampled fish ranged from 26.3 to 34.5 cm, and body weight from 223 to 554 g. Age of the sampled fish, determined from scales, ranged from 5+ to 8+, with the largest percentage of individuals in the age class 6+. The regression coefficient of the length-weight relationship was b = 3.28, which indicates a positive allometry. The parameters of the von Bertalanffy function were  $L\infty = 543.82$ , K = 0.09, and  $t_0$ = -2.41. The estimated phi-prime growth performance index ( $\phi$ ) was 4.44. The Fulton's condition factor ranged from 1.04 to 1.42, with the mean value of 1.23. The length-at-age was back-calculated with the method of Monastyrsky, and the greatest relative growth increment was observed during the first two years of life.

**Keywords:** length-at-age, condition factor, length-weight relationship, allometric growth, back-calculation, large river.

# Age, growth, and length-weight relationship of common nase (*Chondrostoma nasus*) in the Danube River near Belgrade (Serbia)

#### Srđan Subotić<sup>a</sup>, Željka Višnjić-Jeftić<sup>b</sup>, Jasmina Krpo-Ćetković<sup>a</sup>, Mirjana Lenhardt<sup>c</sup>

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Growth parameters, length-weight relationship, and condition of the common nase (*Chondrostoma nasus*) in the Danube River near Belgrade were analysed on a sample (n=30) from the commercial catch, caught between March and May 2017. The total body length of the sampled individuals ranged from 26.8 to 40.1 cm, and body weight from 195 to 875 g. Age was determined from scales and individuals aged 5+, 6+ and 7+ were present in the sample, in approximately the same percentage. The regression coefficient of the length-weight relationship was b = 3.28. The value of b > 3 indicates a positive allometry, which denotes that the weight growth rate is greater than the length growth rate. The Fulton's condition factor ranged from 0.90 and 1.36, with the mean value of 1.07. The parameters of the von Bertalanffy function were  $L\infty = 697.84$ , K = 0.08, and  $t_0 = -1.72$ . The estimated phi-prime growth performance index ( $\phi$ ') was 4.60. The lengths were back-calculated using the method of Monastirsky, and the greatest relative growth increment was observed in the first and second year of life.

**Keywords:** length-weight relationship, condition factor, length-at-age, back-calculation, allometric growth, large river.