



International Meeting Biology & Conservation of Freshwater Bivalves Bragança, Portugal 4th-7th September 2012

Provisional Programme

	Tuesday 4 th	Wednesday 5 th	Thursday 6 th	Friday 7 th
08:30h	Secretariat opening	Invited Speaker: David Aldridge (GBR) Managing mussel populations for the benefit of freshwater ecosystems	Invited Speaker: Jurgen Geist (DEU) Towards effective conservation management strategies of endangered freshwater mussels: The step-wise approach	Social Programme Field Trips
09:00h		The invasive <i>Anodonta (Sinanodonta) woodiana</i> as an important resource subsidy Bódis E, Tóth B & Sousa R (HUN)	Temperature-dependent seasonal and annual larval production of <i>Rhipidocotyle</i> trematodes parasitizing freshwater mussel, <i>Anodonta anatina</i> Choo J & Taskinen J (FIN)	
09:15h		Data on development and collapse of invasive <i>Sinandonta woodiana</i> (Bivalvia, Unionoida) populations in Hungary Benkő-Kiss Á (HUN)	Conservation genomics of unionids: Insights gained from next generation sequencing of <i>Alasmidonta heterodon</i> , <i>A. varicosa</i> , and <i>Elliptio complanata</i> King T, Shallom J, Eackles M, Johnson R, Lubinski B, Printz J, Lellis W, Wicklow B & Hallerman E (USA)	
09:30h		<i>Corbicula fluminea</i> invasion in Lake Maggiore (Italy): population dynamics and comparison of dietary overlap with native mussels Riccardi N, Lauceri R, Guerrieri N, Kamburska L, Guarneri I, Cardeccia A, Ferin P, Boggero A & Manca M (ITA)	Phylogeography of French Unionids: Continental insularity and conservation in an age of global connections Prié V, Puilandre N & Bouchet P (FRA)	
09:45h		Physical habitat of zebra mussel (<i>Dreissena polymorpha</i>) in the lower Ebro River (Northeastern Spain) Sanz-Ronda F, López-Sáenz S & Palau-Ibars A (ESP)	The genetic variation in different age and sex groups of freshwater pearl mussels (<i>Hyriopsis cumingii</i>) from two lakes in China revealed by microsatellites Bai Z, Ming L & Li J (CHN)	
10:00h	Secretariat opening	The Asian invasive bivalve <i>Corbicula fluminea</i> in Minho and Lima estuaries: a molecular approach Gomes C, Vasconcelos V, Guilhermino L & Antunes A (PRT)	Evolution of Asymmetrical Larvae in Freshwater Mussels (Bivalvia:Unionidae) Pfeiffer J & Graf D (USA)	Field Trips
10:15h		Coffee break	Coffee break	
10:30h		European guidance on the environmental requirements of freshwater pearl mussel (<i>Margaritifera margaritifera</i> L.) Boon P (SCT)	Shell calcification on Freshwater Bivalves: An Overview Machado J & Lopes-Lima M (PRT)	
11:00h		The thick shelled river mussel (<i>Unio crassus</i>) brings LIFE+ back to rivers Bergengren J, Gezelius L, Eriksson M, Lirås V, Olsson I, Asp T, Zinko U, Herngren H, Proschwitz von T, Lundberg S & Österling M (SWE)	The Austrian Freshwater Pearl Mussel Conservation Project Gumpinger C, Scheder C & Csar D (AUT)	
11:15h		Ecology and conservation of the freshwater pearl mussel (<i>Margaritifera margaritifera</i> , Margaritiferidae) in the North-West of Russia Bespalaja Y, Bolotov I, Makhrov A & Aspholm P (RUS)	New perspectives for the conservation of the freshwater pearl mussel <i>Margaritifera margaritifera</i> in Castilla y Leon (NW Spain) Santos P, Peñín E & Palacios J (ESP)	
11:30h		How to design a database to be used effectively as a tool for conservation of freshwater mussels? The stones' way in the Central part of Brazil Callil C & Mansur M (BRA)	Reproduction biology of Indian freshwater pearl mussel <i>Lamellidens marginalis</i> (Lamark) from Neriya river in the Western Ghats, India Ramesha M & Sophia S (IND)	
11:45h		Conservation of <i>Margaritifera margaritifera</i> (Linnaeus, 1758) in the Armorican Massif (Brittany and Lower-Normandy, France) Capoulade M, Dury P, Pasco P-Y & Ribeiro M (FRA)	Anthropogenic changes of brown trout <i>Salmo trutta</i> and the impact on its parasitic mussel <i>Margaritifera margaritifera</i> Österling M & Söderberg H (SWE)	
12:00h		The relationship between endangered thick-shelled river mussel (<i>Unio crassus</i>) and its host fishes Taeubert J & Geist J (DEU)	Rediscovery of the freshwater pearl mussel (<i>Margaritifera margaritifera</i>) populations within the territory of the Baltic Sea basin in Russia Popov I & Ostrovsky A (RUS)	
12:15h		Lunch	Lunch	
12:30h				

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13:45h	Opening Session			
14:00h	Invited Speaker: Chris Barnhart (USA) Host-specificity of Unionoid mussels: an arms race, or just keeping pace?	Invited Speaker: Rafael Araujo (ESP) Knowing and conserving the European (and North African) naiads. Reflections from the South of Europe	Invited Speaker: Arthur Bogan (USA) Phylogeny of the Unionida: A current assessment	
14:45h	A critical role of population level differences in host compatibility of freshwater mussels: <i>Unio crassus</i> host matching in fragmented river Douda K, Kubíková L & Horký P (CZE)	Biogeography and conservation of freshwater mussels (Bivalvia: Unionidae) in Texas: drivers of diversity and threats Burlakova L, Karataev A (USA)	Conservation Status of Freshwater Bivalves in South America: State of the Art, Perspectives and Future Challenges Dreher-Mansur M, Pereira D, Pimpão D, Callil C, Ituarte C, Parada E, Peredo S, Darrigran G, Scarabino F, Clavijo C, Lara G, Miyahira I (BRA)	
15:00h	Freshwater Mussels of a Western American River Basin - a Prehistoric Perspective Tait C (USA)	The freshwater pearl mussel (<i>Margaritifera margaritifera</i>) in Bavaria – population status, conservation efforts and challenges Denic M & Geist J (DEU)	Juvenile <i>Margaritifera margaritifera</i> (Bivalvia, Unionida) – the survival of the cleanest. Sedimentation studies on a selection of rivers Moorkens E & Killeen I (IRL)	
15:15h	The actual map of <i>Margaritifera margaritifera</i> (L.) in Galicia (NW Iberian Peninsula): A critical area for conservation of freshwater pearl mussel in the south of Europe Lois S, Ondina P, Outeiro A, Amaro R & San Miguel E (ESP)	The first millimetre – Rearing of juvenile Freshwater Pearl Mussels (<i>Margaritifera margaritifera</i>) in plastic boxes Thielen F, Eybe T, Muller T, Bohn T & Sures B (LUX)	Influence of Difference Environment on Growth of Freshwater mussel, <i>Hyriopsis (Hyriopsis) bialatus</i> Kovitvadhi S & Kovitvadhi U (THA)	
15:30h	Freshwater mussels in western North America: contrasting phylogeographies in a common landscape Mock K, Brim Box J, Chong J, Howard J & Furnish J (USA)	Conservation of freshwater bivalves in Uruguay: opportunities and challenges Clavijo C, Scarabino F, Carranza A, Martínez G & Soutullo A (URY)	Reproductive cycle and <i>in vitro</i> culture of freshwater mussel glochidia (Bivalvia: Unionidae) Kovitvadhi U & Kovitvadhi S (THA)	
15:45h	Use of distance sampling to estimate population size and density of the Texas hornshell (<i>Popenaias popeii</i> , Lea 1857) in the Black River, NM, USA Inoue K, Levine T, Lang B & Berg D (USA)	Identification of the factors responsible for the decline of the Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) in the North Tyne, North-East England, in order to develop a restoration plan for the species. Gosselin M-P, Lavictoire L & Sweeting R (GBR)	Growth and survival of <i>Margaritifera margaritifera</i> glochidia on host fish gills and of juvenile mussels in climate chambers Scheder C, Lerchegger B, Jung M, Csar D & Gumpinger C (AUT)	
16:00h	Coffee break	Coffee break	Coffee break	
16:30h	Invited Speaker: Mary Seddon (GBR) Update on the status of the Global Freshwater Mollusc Assessment Seddon M, Darwall W, Bohn M, Allen D & Smith K	Liming saves the Freshwater Pearl Mussel <i>Margaritifera margaritifera</i> (L.) from acidification Henrikson L & Söderberg H (SWE)	Type material of <i>Diplodon ellipticus</i> (Spix in Wagner, 1827) (Unionida, Hyriidae) rediscovered Miyahira I, Mansur M & Santos S (BRA)	Social Programme Field Trips
16:45h		Monitoring survival and growth of laboratory-cultured endangered mussels, <i>Epioblasma capsaeformis</i> and <i>E. brevidens</i> , released into the Powell River, Tennessee, USA Hua D, Neves R & Jiao Y (USA)	New aspects and implications for the conservation of the thick-shelled river mussel (<i>Unio crassus</i>) Stoeckl K & Geist J (DEU)	
17:00h		Monitoring freshwater pearl mussels, practicalities and interpretation Killeen I & Moorkens E (IRL)	Captive rearing of the freshwater pearl mussel <i>Margaritifera margaritifera</i> in the UK – Lessons learned Sweeting R & Lavictoire L (GBR)	
17:15h	Comparing two measurement methods for inter- and intraspecific variations of year-class cohorts of young Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) in three rivers in the Pasvik watershed catchment in Northern Norway Aspholm P (NOR)	Host specificity in freshwater pearl mussel <i>Margaritifera margaritifera</i> populations in Norway – experimental studies Larsen B, Saksgård R & Forseth T (NOR)	Within-river spatio-temporal relationship between the freshwater pearl mussel <i>Margaritifera margaritifera</i> and its fish host <i>Salmo trutta</i> Taskinen J, Ranta M, Välijä S, Salonen J & Oulaskirta P (FIN)	
17:30h	Molecular species identification of European and Thai freshwater mussels (Unionida) Zieritz A, Geist J, Kuehn R, Gum B, Vannarattanarat S, Kanchanaketu T, Kovitvadhi U, Hongtrakul V & Kovitvadhi S (AUT)	Fish Tales and Mussels: Role Reversal in a Fish-Mussel Symbiosis Dimock R & Aldridge D (USA)	Behavioural and physiological impacts of freshwater mussel glochidia on juvenile brown trout intermediate hosts Thomas G & Garcia de Leaniz C (WLS)	
17:45h	Spatial -Temporal Dynamics of a Freshwater Mussel Unispecific Bed. Effects on Benthic Macroinvertebrate Assemblages Lara G, Parada E & Peredo S (CHL)	Standard Methods for Evaluating Dam Impacts on Freshwater Mussels Reis J, Rosa P, Martinez A, Menéndez D & Malveiro S (PRT)	Modern conditions of freshwater pearl mussel <i>Margaritifera margaritifera</i> (L., 1758) populations in loose floating rivers of the basin of the White Sea south coast (North-west of Russia) Vikhrev I, Bolotov I & Makhrov A (RUS)	
18:00h	Long-term changes in unionid assemblages in the Rio Grande, one of the World's top 10 Rivers at Risk Karataev A, Miller T & Burlakova L (USA)	Novel approach for stimulation of the freshwater mussel <i>Lamellidens corrianus</i> (Lea, 1834) to release glochidia larvae Yusufzai S, Singha H, Shirdhankara M & Lende S (IND)	Allometry and population ecology of the Indian freshwater pearl mussel (Bivalvia: Unionida) <i>Lamellidens marginalis</i> (Lamark) from the river Neriya in the Western Ghats, India Ramesha M (IND)	
18:15h	Development of captive breeding protocols for the critically endangered freshwater pearl mussel <i>Margaritifera margaritifera</i> : Impacts of substrate Lavictoire L, Moorkens L, Ramsey A, Sinclair B & Sweeting R (GBR)	Distribution, biology, and life cycle of Unionidae species In Tunisia Khaloufi N & Boumaïza M (TUN)		
18:30h	Invited Speaker: Dave Strayer (USA) An exploration of selected aspects of the relationships between nutrients and freshwater mussels (Unionida)	Poster Session		Conference Dinner
20:00h	Welcome "Ice Breaker" cocktail			



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Poster presentations

Molecular detoxification - a powerful resource to environmental adaptation and survival in Bivalves
Almeida D, Vasconcelos V, Antunes A (PRT)

LIFE11 NAT/LU/857 Restoration of *Unio crassus* rivers in the luxemburgish Ardennes: a summary description of a new project 2012-2018
Arendt A, Thielen F (LUX)

Origin and Routes of Expansion of Freshwater Pearl Mussels (*Margaritifera*)
Artamonova V, Bolotov I, Klishko O, Bespalaja Y, Voroshilova I, Makhrov A & Frolov A (RUS)

Corrosion rates in shells from dead Freshwater Pearl Mussel (*Margaritifera margaritifera*) from the Pasvik watershed catchment in Northern Norway
Aspholm P (NOR)

Changes of some mussel populations in Hungary
Benkő-Kiss Á (HUN)

The thick shelled river mussel (*Unio crassus*) brings LIFE+ back to rivers
Bergengren J, Gezelius L, Eriksson M, Lirås V, Olsson I, Asp T, Zinko U, Herrgren H, Proschwitz von T, Lundberg S & Österling M (SWE)

Dreissena impacts on Unionidae: general trends in North America and Europe and recent findings from Lake Erie
Burlakova L, Karataev A, Zanatta D, Tulumello B, Lucy F & Mastitsky S (USA)

Ecological correlates of the *Anodontites trapesialis* (Lamarck, 1819) (Mycetopodidae: Unionoida): The greater freshwater mussel of South America
Callil C, Surubim M, Colle A & Silva F (BRA)

Conservation of *Margaritifera margaritifera* (Linnaeus, 1758) in the Armorican Massif (Brittany and Lower-Normandy, France)
Capoulade M, Dury P, Pasco P-Y & Ribeiro M (FRA)

Critical reduction of *Cyanocyclas* geographic distribution in Uruguay: the shadow of *Corbicula*
Clavijo C (URY)

The importance of close cooperation of engineering, water legislation and nature conservation for the protection of endangered mussel species
Csar D, Scheder C & Gumpinger C (AUT)

Expression of HSP70 by *Utterbackia imbecillis* (Bivalvia: Unionidae) in Response to Copper
White M, Johnson E & Dimock R (USA)

The biotic homogenisation of host communities as a threat to local affiliate species: a case study with *Anodonta anatina* (Unionidae)
Douda K, Lopes-Lima M, Hinzmann M, Machado J, Varandas S, Teixeira A & Sousa R (CZE)

The relative importance of temperature and food to juvenile growth of *Margaritifera margaritifera* in its natural habitat
Douda K, Simon O, Dort B & Švanya J (CZE)

Influence of time of excystment on the breeding success of juvenile Freshwater Pearl Mussels (*Margaritifera margaritifera*)
Eybe T, Thielen F, Muller T, Bohn T & Sures B (LUX)

Metabolism adjustment and resistance in the Asian clam *Corbicula fluminea* (Müller, 1774) to osmotic stress in the River Miño estuary
Ferreira N & Pardo I (ESP)

CONBI: Biodiversity and Conservation of Bivalves –Ecogeographic, Genetic and Physiological information
Froufe E, Teixeira A, Lopes A, Cardoso J, Reis J, Machado J, Hinzmann M, Fonseca M, Araujo R, Sousa R, Sobral C, Varandas S, Cortes R & Lopes-Lima M

Development of microsatellite markers and Multiplexed PCR for *Potomida littoralis*
Froufe E, Sobral C, Teixeira A, Lopes A, Sousa R, Varandas S & Lopes-Lima M



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Isolation and characterization of microsatellite loci for *Unio delphinus* and cross-species amplification in other *Unio* species
Froufe E, Lopes A, Sobral C, Teixeira A, Sousa R, Varandas S, Araujo R, Machado J & Lopes-Lima M

Evolution of parental care in Sphaeriinae (Bivalvia)
Fuentelba C, Núñez D & Hernández C (CHL)

Impact of *in vitro* and *in vivo* exposure to cytostatics, 5-FU, etoposide and cisplatin on haemocytes of freshwater mussels *Unio pictorum* and *Unio tumidus* using alkaline comet assay
Gačić Z, Kolarević S, Sunjog K, Kračun M, Paunović M, Knežević-Vukčević J & Vuković-Gačić B (SRB)

Resilience of adaptive responses in freshwater bivalves (Unionidae) from different populations
Gnatyshyna L, Falfushynska H & Stolar O (UKR)

Comparison of advanced culture methods for grow-out of freshwater mussels (BIVALVIA:UNIONIDAE) in a controlled environment
Hua D, Neves R & Jiao Y (USA)

Biogeochemical diagnostics and estimation of ecological condition of freshwater pearl mussels (Margaritiferidae)
Klishko O & Bespalaya Y (RUS)

Monitoring of DNA damage in haemocytes of freshwater mussel *Sinanodonta woodiana* sampled from the Velika Morava River in Serbia with the comet assay
Kolarević S, Knežević-Vukčević J, Paunović M, Kračun M, Vasiljević B, Tomović J, Vuković-Gačić B & Gačić Z (SRB)

Freshwater pearl mussel *Margaritifera margaritifera*: Host specificity and genetic variation in Norway
Larsen B & Karlsson S (NOR)

Recovery of the freshwater pearl mussel *Margaritifera margaritifera* population in an acidified Norwegian river
Larsen B & Saksgård R (NOR)

Captive rearing of the freshwater pearl mussel *Margaritifera margaritifera* in the UK
Lavictoire L & Sweeting R (GBR)

Portuguese Naiads Life History Traits: Reproductive Cycle and Host Fish Determination
Lopes-Lima M, Hinzmann M, Sousa R, Varandas S, Machado J, Teixeira A

The thick-shelled river mussel (*Unio crassus* Philipsson, 1788) in Sweden: Distribution, ecology, status, threats and conservation
Lundberg S, von Proschwitz T & Bergengren J (SWE)

The unionoid freshwater mussels of Sweden, status and distribution
Lundberg S, von Proschwitz T, Bergengren J

Brooding strategies of *Mytilopsis* from the Amazon River (Dreissenidae)
Dreher-Mansur M, Bergonci P & Figueiredo G (BRA)

Molecular adaptations of indigenous and non-indigenous bivalve species to cyanotoxins: the role of glutathione S-transferases
Martins J, Campos A & Vasconcelos V (PRT)

Practical implementation of freshwater pearl mussel measures in the Republic of Ireland and Northern Ireland
Moorkens E, McGee M, Killeen I, McNally T, Glasgow G & Downes S (IRL)

Assessing the morphological variability of *Unio delphinus* Spengler in the Guadiana basin (SW-Iberian Peninsula, Europe) through geometric morphometric analyses
Morais P, Rufino M, Reis J (PRT)

Captive breeding of the endangered pearl mussel *Margaritifera auricularia*. Large scale laboratory production of juveniles
Nakamura Antonacci K, Elbaile Pérez E, Muñoz Yanguas M, Catalá Roca C & Salinas Yuste C (ESP)

Size-specific growth pattern of fresh water mussel *Margaritifera auricularia* in the Ebro river channels (Spain)
Nakamura Antonacci K, Muñoz Yanguas M, Elbaile Pérez E, Catalá Roca C & Salinas Yuste C (ESP)



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The impact of land use on *Margaritifera margaritifera* and its host fish *Salmo trutta*
Österling M & Högberg J (SWE)

Restoration of freshwater pearl mussel populations with new methods – an EU Interreg project in the northern Fennoscandia
Oulasvirta P, Aspholm P, Kangas M, Larsen B, Luhta P-L, Olofsson P & Taskinen J (FIN)

Life Margal Ulla, recovery of *Margaritifera margaritifera* (L.) in the Ulla basin (Galicia, NW of Iberian Peninsula)
Ondina P, Lois S, Outeiro A, Mascato R, Bouza C, San Miguel E & Amaro R (ESP)

Action plan for *Margaritifera margaritifera* in the Czech Republic (Central Europe) – concepts, targets and realization
Peltanová A, Hruška J, Simon O, Dort B, Spisar O, Bílý M, Kladivová V, Patzenhauerová H & Douda K (CZE)

Toxicity of *Bacillus thuringiensis* sv. *israelensis* on golden mussel, *Limnoperna fortunei* and on ecotoxicological indicators, *Pimephales pomelas* (Pisces), *Ceriodaphnia dubia* (Crustacea), and *Pseudokirchneriella subcapitata* (Algae)
Pereira D, Padula-Paz I, Sofia-Souza A, Tanaka-Suzuki M, Azevedo J, Dreher-Mansur M & Raya-Rodriguez M (BRA)

Phylogenetic reanalysis confirms *Lamprotula* (Mollusca: Bivalvia: Unionidae) Polyphyly
Pfeiffer J & Graf D (USA)

Comparative larval morphology of native and invasive freshwater bivalves species
Pinheiro-Santos C, Dreher-Mansur M, Mansur-Pimpão D, Aydos-Bergonci P & Figueiredo G (BRA)

Electro fishing as a new method to find freshwater pearl mussel (*Margaritifera margaritifera*) populations
Salonen J, Taskinen J & Kangas M (FIN)

The freshwater pearl mussel *Margaritifera margaritifera* (Linnaeus, 1758) and the thick shelled river mussel *Unio crassus* Philipsson, 1788 in Latvia: the conditions of populations and the survival possibilities
Rudzīte M & Rudzītis M (LVA)

Phylogeography of *Unio crassus* in Central Europe
Sell J, Mioduchowska M, Kaczmarczyk A, Kilikowska A, Wysocka A, Zajac K, Zajac T, Trichkova T & Ivinskis P (POL)

The situation of *Margaritifera margaritifera* in the Czech Republic – several successfully rejuvenated populations but the absence of natural reproduction
Simon O, Douda K, Peltanová A, Patzenhauerová H, Spisar O & Hruška J (CZE)

Detritus from springs as a possible food source for freshwater pearl mussel (*Margaritifera margaritifera*): composition, quantity and origin
Simon O, Tichá K, Kubíková L, Douda K & Benáková A (CZE)

The nervous system of the peppery furrow shell *Scrobicularia plana* (da Costa, 1778): unveiling morphological features by computer-assisted 3D reconstruction
Tantiwisawaruji S, Kovitvadhi U, Pardal M, Maria M & Rocha E (THA)

Growth of *Anodonta anatina* (Unionidae) in lakes differing by their productivity and physical & chemical properties of water
Taskinen J, Saarinen-Valta M & Suonpää A (FIN)

Culturing *Unio crassus* (L.), first trials from Luxembourg
Thielen F, Eybe T & Muller T (LUX)

Phylogeography and population genetics of the endangered freshwater pearl mussel (*Margaritifera margaritifera*) studied using mitochondrial DNA
Välijä S, Knott E & Taskinen J (FIN)

The translocation of the thick-shelled river mussels (*Unio crassus*) from the area of a bridge improvement project in Finland
Valovirta I (FIN)

Distribution and composition of freshwater fish communities in northeastern rivers (Douro basin, Portugal): Implications for mussel conservation strategies
Varandas S, Teixeira A, Lopes-Lima M, Cortes R & Sousa R (PRT)

Distribution and composition of brown trout in river Paiva(Douro basin, Portugal) and its linkage with freshwater pearl mussel
Varandas S, Teixeira A, Lopes-Lima M, Cortes R & Sousa R (PRT)

Comparative study of genotoxic response of freshwater mussels *Unio tumidus* and *Unio pictorum* to environmental stress
Vuković-Gačić B, Kolarević S, Sunjog K, Tomović J, Knežević-Vukčević J, Paunović M & Gačić Z (SRB)

Good population in bad habitat: on the ecology of the largest population of *Unio crassus* in Poland
Zajac K, Zajac T, Adamski P, Bielański W, Ćmiel A, Lipińska A & Klich M