PERSONAL DATA	
Birthdate, place:	October 4, 1971; Debrecen, Hungary
Address:	Hungarian Academy of Sciences (HAS), Centre for Ecological Research
	(CER), Danube Research Institute (DRI), Department of Tisza River
	Research, 4026 Debrecen, Bem tér 18/c, Hungary; Phone/fax: +36 (52)
	509-200/11635, mobile: +36 (30) 488-2067
E-mail:	lengyel.szabolcs@okologia.mta.hu, szabolcslengyel@yahoo.com
Web:	http://okologia.mta.hu/en/Szabolcs.LENGYEL
Family status:	married, two children (Adam - 2003, Abigail - 2005)

#### EDUCATION

Doctor of the Biological Sciences (DSc), Hungarian Academy of Sciences, 2014
Habilitation in the Biological Sciences, University of Debrecen (UD), 2012
PhD, Program in Ecology, Evolution & Conservation Biology, University of Nevada, Reno, USA, 2001

University Diploma in Biology Teaching, UD, 1996

University Diploma in Biology/Ecology and English Translation, UD, 1995

### PROFESSIONAL HISTORY

Scientific Advisor (full professor), HAS CER DRI, 2014-

Senior Research Fellow, HAS CER DRI, 2012-2014

Assistant Professor, Department of Ecology, UD, 2006-2012

Visiting Scientist, North Carolina State University, Department of Biology, 2007-2008

Research Fellow, HAS - UD Evolutionary Ecology and Conservation Biology Research Group, 2003-2006

Ecological Supervisor, Hortobágy National Park Directorate, 2001-2003

### **RESEARCH INTERESTS**

- 1. restoration ecology: impacts of habitat restoration and management on biological diversity
- 2. community organization, formation and operation of landscape-level patterns in biodiversity
- 3. systematic conservation planning: optimal conservation area networks in Europe
- 4. theory and practice of biodiversity monitoring, scale-dependence of conservation strategies
- 5. evolutionary ecology of plant-animal seed dispersal mutualisms

6. life history, habitat selection, reproduction and conservation of endangered animal species

### PUBLICATIONS

**78** journal articles (in ISI journals: **44**, cumulative IF: **106.6**), 8 book chapters, 8 conference papers, 10 popular science writings, 19 invited seminars, 77 conference talks

1578 citations, of which independent: 1109, H-index: 18

### AWARDS, PRIZES

Bolyai János Research Fellowship, Hungarian Academy of Sciences, 2009-2012 Békésy György Post-doctoral Fellowship, Ministry of Education, Hungary, 2002-2005 PhD Study Scholarship, Ministry of Environment, Hungary, 1998

Jay Dow, Sr. Scholarship, University of Nevada, Reno, USA, 1997

Supplementary Grant for Postgraduate Studies, Soros Foundation, Hungary, 1996, 1997 Commemorative Medal, UD, for academic achievement and community work, 1995 Second best paper, National Scientific Conference for Undergraduate Students, 1995 FUNDING (PI - Principal Investigator)

- National Scientific Research Fund, Hungary, research grant (K 106133), PI, "Formation of landscape-level patterns in biodiversity", **36 194 000 HUF**, 2013-2016
- National Scientific Research Fund, Hungary Norway Financing Mechanism research grant (NNF 85562), PI, "Integrated research in conservation ecology to protect grassland biodiversity: the effect of restoration and management on ecosystem services", 10 000 000 HUF, 2011-12
- **EU FP7 Theme 6, Large-scale Integrative Project**, 1 of 19 consortium members, "Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities (BIOFRESH)", **106 400 EURO**, 2009-2014
- National Scientific Research Fund, Hungary Norway Financing Mechanism research grant (NNF 78887) "Integrated botanical and zoological research in conservation ecology to restore, conserve and increase grassland biodiversity", **24 997 000 HUF**, 2009-11
- **EU FP7 Theme 6, Large-scale Integrative Project**, 1 of 28 consortium members, "Securing the Conservation of Biodiversity Across Administrative Levels and Spatial, Temporal, and Ecological Scales (SCALES)", **67 200 EURO**, 2009-2013
- EU LIFE-Nature programme, local coordinator, "Conservation of the Lesser White-fronted Goose *Anser erythropus* on the European flyway", Hortobágy National Park, **229 000** EURO, 2005-09
- EU LIFE-Nature programme, chief coordinator, "Grassland restoration and marsh protection in Egyek-Pusztakócs", Hortobágy National Park and University of Debrecen, 1040 000 EURO, 2004-08
- National Scientific Research Fund, Hungary, travel grant, 200 000 HUF, 2002
- Department of Environment, research grant, co-PI: "Survey of colonies and study of colony structure in the Long-tailed Mayfly", **1 000 000 HUF**, 2002
- National Scientific Research Fund, Hungary, conference organization, \$1000, 2000
- Department of Environment, research grant, co-PI: "Biomonitoring of alkaline water bodies of Kiskunság National Park", **1 000 000 HUF**, 1999-2000
- National Scientific Research Fund, Hungary, research grant (F 30403): "Kin selection and territory quality: the population biological and ecological background of adoption in the Pied Avocet", **3 276 000 HUF**, 1999-2002
- National Scientific Research Fund, Hungary, research grant (F 26394): "Adoption of chicks in the colonially nesting Pied Avocet (*Recurvirostra avosetta*)", **1 200 000 HUF**, 1998-2001
- National Scientific Research Fund, Hungary, research grant (F 26212), co-PI: "The effect of vegetation structure and microclimate on the composition of grass-dwelling arthropod (Araneae, Orthoptera) communities", **1 800 000 HUF**, 1998-2001
- Graduate Student Association, University of Nevada, Reno, travel grant, USD 500, 1998 Association for the Study of Animal Behaviour, travel grant, GBP 400, 1996
- University of Nevada, Reno Foundation, travel grant, USD 600, 1995
- Pro Renovanda Cultura Hungariae Foundation, Hungary, research grant for
  - undergraduates: "The role of nest material in the behavior of Kentish Plovers (*Charadrius alexandrinus*)", **10 000 HUF**, 1993

Research grants total: c. 541 000 EURO

Conservation and research grants total: c. 1 605 000 EURO

# INVITED TALKS AND SEMINARS

- "Grassland restoration and marsh management in Egyek-Pusztakócs: results and experiences" Nature Conservation Seminars 13, Nimfea Nature Conservation Society, Túrkeve, Hungary, 2015
- "The importance of Tisza Lake and the role of the regional Natura 2000 network in the conservation of freshwater biodiversity", Conference of the European Large Lowland Lakes international cooperation network, Tisza Lake Region Leader Association, Abádszalók, Hungary, 2013
- 3. "Impacts of grassland restoration and conservation management in Egyek-Pusztakócs, with special consideration to the food base of Red-footed Falcons", First workshop of EU LIFE+ programme "Conservation of Red-footed Falcons in the Carpathian Basin", Tarnaszentmiklós, Hungary, 2013
- "Scale-specificity of current conservation strategies", 3rd European Congress of Conservation Biology, Glasgow, UK (co-authors Gunton R, Ölvedi TB, Kosztyi B, Schmeller DS, Tóthmérész B, Kunin WE, Henle K), 2012
- "Using low-diversity regional seed mixtures in large-scale grassland recovery and weed suppression: A promising example from Hungary", 3rd European Congress of Conservation Biology, Glasgow, UK (co-authors Török P, Valkó O, Tóthmérész B), 2012
- 6. "Rehabilitation of grasslands and protection of marshes in the Egyek-Pusztakócs marsh system", "Twenty years of the LIFE programme - Exhibit of our most protected natural values" conference, Ministry of Rural Development and Budapest Zoo, Budapest (co-authors Szabó Gy, Lontay L), 2012
- "The importance of conserving biodiversity the planning of conservation research projects", Natura 2000 Awareness-Raising Conference, Vinca Minor Association, Csomád-Bálványos Stewardship, Sepsiszentgyörgy - Sfântu Gheorghe, Romania, 2011
- 8. "Design of conservation research projects", closing conference of project "Assessment of natural values of Bükk National Park Directorate", Felsőtárkány, Hungary, 2011
- 9. "Darwin's abominable mystery: the role of seed dispersal mutualisms in the diversification of angiosperms", Scientific Seminar series of the Department of Evolutionary Zoology and Human Biology, **University of Debrecen**, 2010
- 10. "Habitat monitoring in Europe: current situation and future perspectives", **2nd European Congress of Conservation Biology**, Prague, Czech Republic, (co-author Seliskar A), 2009
- "Darwin's abominable mystery: the role of seed dispersal mutualisms in the diversification of angiosperms", plenary talk, **10th Biologist Days, Babes-Bolyai University**, Kolozsvár - Cluj Napoca, Romania, 2009
- 12. "What to do with a PhD in Ecology, Evolution and Conservation Biology? Science with action, basic with applied, and ecology with conservation", special seminar, **University of Nevada, Reno**, USA, 2008
- 13. "Habitat monitoring: benefits and costs", **final conference of "EuMon" FP 6 research project**, Leipzig, Germany, 2008
- 14. "Nature conservation in practice: habitat reconstruction and species protection", **Winter School of Eötvös Loránd University**, Budapest, 2007
- 15. "Grassland restoration and habitat management in marshes in Egyek-Pusztakócs", **Nature Conservation Seminars 3**, Nimfea Nature Conservation Society, Túrkeve, Hungary, 2006
- "Restoration of grasslands and protection of marshes in Egyek-Pusztakócs (Hortobágy National Park). Nature Conservation Seminars 2, Nimfea Nature Conservation Society, Túrkeve, Hungary, 2005
- 17. "Conservation research in Hortobágy National Park", guest lecture, **Szent István University**, **Zoological Institute**, Budapest, Hungary, annually between 2002 and 2007
- 18. "The chick-adopting behaviour of avocets", seminar, **Szent István University**, Zoological Institute, Budapest, Hungary, 2001
- 19. "GIS applications in ecology", seminar, **Szent István University**, Zoological Institute, Budapest, Hungary, 1998

### MEMBERSHIPS

- Intergovernmental Platform on Biodiversity & Ecosystem Services (IPBES), Deliverable 2b: Regional Assessment for Europe and Central Asia, Lead Author, 2015-2018
- National Scientific Research Fund (OTKA), Hungary, Supraindividual Biology Scientific Panel, 2015-2018
- **IPBES**, Deliverable 2a: Guide for Assessments, Lead Author, 2014-2015
- European Ecological Federation, board member, 2014-
- Natural Sciences Doctoral Council, University of Debrecen, 2014-
- Scientific Council of HAS Centre of Ecological Research, 2014-
- Pál Juhász-Nagy Doctoral School, University of Debrecen, core member, 2014-
- UNESCO Man and Biosphere Programme, Hungarian National Committee, 2012-
- OTKA, Life Sciences College, ad hoc committee for ranking postdoctoral proposals, 2012
- HAS Scientific Committee for Ecology, 2011-2014
- HAS Young Researchers' Advisory Board of the President, 2008-2014
- Debrecen Committee of the HAS, Chair of Population Biology Group, 2005-14, three terms
- HAS Committee for Nature Conservation and Conservation Biology, 2002-11, three terms
- Hungarian Biological Society, Environmental Protection and Nature Conservation Division, Steering Committee member, 2001-
- Ecological Society of America 2009-, Society for Conservation Biology Europe Section, 2006-, American Ornithologists' Union, 1997-2004, Association for the Study of Animal Behaviour, 1996-2004, Hungarian Ethological Society, 1992-2004, MME - BirdLife Hungary, 1988-

### EDITORIAL AND REVIEWER ACTIVITY

*Ornis Hungarica*, Editorial Board Member, 2012-*Nature Conservation*, Subject Editor, 2011-*Aquila*, Editorial Board Member, 1999-

Reviews in ISI journals: Acta Ornithologica, Acta Zoologica Hungarica, American Naturalist, Applied Vegetation Science, Ardeola, Basic and Applied Ecology, Biodiversity & Conservation, Biological Conservation, Central European Journal of Biology, Conservation Letters, Earth System Science Data, Ecography, Ecological Engineering, Ecological Indicators, Ecological Research, Environmental Monitoring and Assessment, Journal for Nature Conservation, Journal of Applied Ecology, Journal of Field Ornithology, Journal of Insect Conservation, Journal of Insects, Journal of Oceanography and Marine Science, Journal of Public Health and Epidemiology, Nature Conservation, New Zealand Journal of Ecology, Ostrich, PLoS ONE, Population Ecology, Waterbirds

Editor of conference proceedings, Hungarian Conservation Biology Conference series, 2002-English linguistic reviewer, Ornis Hungarica 1999-2005

# ADVISED STUDENTS

## Past PhD students

Eszter DÉRI, 2011, Title: Changes, influencing factors, monitoring and enhancement of habitat-level biological diversity

- András KELEMEN, 2013, Title: The role of phytomass in grassland restoration, spontaneous succession and dynamics of natural grasslands (co-advised)
- Kristóf MÁLNÁS, 2015, Title: Population genetic relationships and threats in populations of the long-tailed mayfly (Palingenia longicauda) in the Carpathian Basin (co-advised)

# Student before defense

Thomas Oliver MÉRŐ, 2015, Title: The effects of habitat restoration and management on grassland mammals and wetland birds

# **Current PhD students**

Gyula SZABÓ (2009-), Felícia KAPUSI (2010-), Beatrix KOSZTYI (2010-), László POLYÁK (co-advised, 2010-), Nastasia Julianna COZMA (2011-), Béla MESTER (2011-), Márton SZABOLCS (2013-), Csaba SZEPESVÁRY (2015-)

# University (MS and BS) students

Theses advised: 36 (1 won national prize) Student research advised: 12 (national first prize: 3, second: 4, special recognition: 1) Please see *List of publications* for details

# OTHER SCIENTIFIC ACTIVITIES

## Committee service

Opponent/reviewer in PhD defenses: 18 occasions

University of Debrecen: Róbert MÁTICS 2003, Péter BATÁRY 2004, Péter László PAP 2005, Gábor CSORBA 2006, Sándor BOLDOGH 2006, Emil BOROS 2007, Ervin ÁRNYAS 2008, Gábor HOLLÓ 2009, Ádám KŐRÖSI 2009, Ferenc MÓNUS 2011, Zoltán D. SZABÓ 2011

*Eötvös University Budapest:* Márton HORVÁTH 2010, Zsófia BENEDEK 2011, Ákos MOLNÁR 2014, Miklós BLAHÓ 2015

University of Pécs: Kornélia KURUCZ 2011

Szent István University Gödöllő: Anikó KOVÁCS 2012, Péter PALATITZ 2012 Committee member in PhD defenses: 9 occasions, UD: András KOSZTOLÁNYI 2002, Roland HORVÁTH 2005, Péter SÓLYMOS 2005, Judit BERECZKI 2008, Gábor VÁRBÍRÓ 2010, Jácint TÖKÖLYI 2011, István JÁNOS 2012; Eötvös University Budapest: István SZENTIRMAI 2006, Balázs VÁGI 2015

Academic Curriculum Committee, Institute of Biology, UD, 2007-2008

# Consultation activities (2002-2004)

Preparation of EU LIFE-Nature applications: Hortobágy NP (2 proposals), Bükk NP (1) Strategic Development Plan of Hortobágy National Park Directorate (2003-2008) National Environmental Plan II. (2003-2008), preparation of plan of actions National Nature Conservation Base Plan I. (2003-2008), planning, reviewing Northern Great Plains Regional Development Concept (2004-2006), chapter development Debrecen City Operative Programme (2004-2006), chapter development Vásárhelyi Plan Extension (2002-2004) for water management in Tisza Basin review of rural development plans, county environmental and conservation plans

## Conference organization

- member of organizing committee (OC), Hungarian Conservation Biology Conference series: 1st HCBC Sopron 2002 – 450 participants, 3rd HCBC Eger – 410, 5th HCBC Nyíregyháza 2008 – 280, 9th HCBC Szeged – 270
- chair of OC, 2nd HCBC Debrecen 2004 55 participants, 4th HCBC Tokaj 2007 110, 7th HCBC Debrecen 350

Coordinator, Scientific Seminar Series, UD Department of Evolutionary Zoology, 2003 Organizer, 5th and 6th national courses in behavioral ecology, Debrecen; 2000, 2002 member of OC, Joint Conference of Wader Study Group and International Waterfowl and

Wetland Research Bureau, Hajdúszoboszló, 1992, 115 participants

## Session chair at conferences

13th Conference of the European Ecological Federation, Roma, Italy, 2015
22nd Annual Meeting of the Society for Conservation Biology, Chattanooga, USA, 2008
6th Scientific Conference of the Hungarian Ornithological Society, Debrecen, Hungary, 2004
16th Annual Meeting of the Society for Conservation Biology, Canterbury, UK, 2002
5th Scientific Conference of the Hungarian Ornithological Society, Budapest, Hungary, 1999

## OTHER EXPERIENCE

## Languages

Hungarian – native; English – advanced (PhD in English; TOEFL 97% in 1995); Russian - basic, French, German – rudimentary

## International experience

- Visiting Scientist, North Carolina State University, Department of Biology, with Robert R. Dunn, Raleigh, USA; 20 months total, 2007-2009
- PhD studies, University of Nevada, Reno, USA; courses in conservation biology, evolution, ecological modelling, community ecology, research design, experimental design, general linear models, scientific communication, GIS, etc.; 32 months total, 1996-2001
- Research Assistant, University of Nevada, Reno; ecological field research in California, Oregon and Utah, USA; 10 months total in 1993, 1994, 1995

### Short courses and workshops

Systematic Conservation Planning with ZONATION, Glasgow, United Kingdom, 2012 Systematic Conservation Planning with MARXAN, University of Queensland, Brisbane, Australia, 2009

**Communicating Science** workshop, North Carolina State University, Raleigh, USA, 2009 **ArcGIS 9.x** for Advanced Users GIS workshop, UD, 2004

- Convention on International Trade in Endangered Species of Wild Fauna and Flora training, Hortobágy National Park, 2003
- Grant Writing and Project Management in the EU LIFE Programme workshop, Slovenia, 2001
- Workshops of Behavioural Ecology Group (UD) in Evolution, Experimental Design and Parametric Statistics, Non-parametric Statistics, Evolutionary Comparative Method, Coevolution, Analysis of Variance, Modern Behavioural Ecology, Modelling, and Programming in the R Statistical Environment; 1991-2005

## Self-financed study trips

Taiwan (Taroko NP), 2012
Kenya (Mount Kenya, Lake Nakuru, Kakamega Forest, Masai Mara NP), 2010
Indonesia (Gunung Leuser NP), Thailand (Koh Lanta), Malaysia (Taman Negara NP), 2010
Australia (Lamington NP, Badgingarra NP etc.), 2009
US national parks in Virginia, North Carolina, South Carolina, Florida, 2008
Peru (Colca, Manu NP, Titicaca), Bolivia (Altiplano), Venezuela (H. Pittier, Canaima, Los Roques), 2001-2002
Mexico (Guerrero state), 2000
US national parks in California, Oregon, Washington, 2000
US national parks in Nevada, California, Arizona, Colorado, Utah, 1997-2004

# TEACHING

## Most recent courses taught

Evolutionary Ecology – BS level (senior year, fall semester) Conservation Biology – BS (senior year, spring semester) and MS level Scientific Communication – MS level

I developed these courses as Special Topics in Evolutionary Ecology in 2002, in Conservation Biology in 2003, and in Research Design in 1998. Each course became part of the core curriculum in 2005 (the latter reformulated as Scientific Communication) at the University of Debrecen.

## Experience at other universities

I have helped teaching Evolution at Babes-Bolyai University in Kolozsvár/Cluj Napoca between 2003 and 2007, in teaching Scientific Communication at University of Nairobi in Kenya (organized by the non-profit Training Centre in Communication foundation) in 2010 and 2011 (three occasions), and worked as a Teaching Assistant at University of Nevada, Reno (USA) in 1997-98 and 2000-2001. I also taught one semester of Conservation Biology at Szent István University (Faculty of Veterinary Sciences, Zoological Institute) in 2002. I taught nearly 1200 students in 48 semesters.

## Other teaching activities

consultations and exams in **Ethology**, UD, 2003, 2005 selected lectures in **Evolution** and **Biogeography**, UD, 2004-2006 guest lecture, **Applied Ecology**, University of Veszprém, 2007 guest lecture, **Community Ecology**, North Carolina State University, 2008 participation in teaching **Foundations of Ecology**, UD, 2007-2012 invited lecture: Tropical Rainforests, UD Arany János Primary School, grade 4a, 2010

### All courses taught

Total teaching activity: 54 semesters (full courses including lecture plus lab: 26, labs only: 20, special topics: 8; total c. 1200 students). For details, please see table below.

Year, semester Full courses including lectu	Course name, level, university, number of students
	vres and labs
2011/2012, S 2	Conservation Biology 1, BS, University of Debrecen (UD), 49 *
2011/2012, S 2	Conservation Biology 2, MS, UD, 13 *
2011/2012, S 2	Scientific Communication, MS, UD, 5
2011/2012, S 1	Evolutionary Ecology, BS, UD, 42 *
2011/2012, S 1	Scientific Communication, MS, UD, 36 *
2010/2011, S 2	Conservation Biology 1, BS, UD, 61 *
2010/2011, S 2	Conservation Biology 2, MS, UD, 10
2010/2011, S 2	Scientific Communication, MS, UD, 6
2010/2011, S 2	Scientific Communication, MS/PhD, University of Nairobi, Kenya, 46
2010/2011, S 1	Conservation Biology 2, MS, UD, 12 *
2010/2011, S 1	Evolutionary Ecology, BS, UD, 29 *
2010/2011, S 1	Scientific Communication, MS, UD, 51 *
2010/2011, S 1	Scientific Communication, MS/PhD, University of Nairobi, Kenya, 36
2009/2010, S 2	Conservation Biology 1, BS, UD, 68 *
2009/2010, S 2	Scientific Communication, MS/PhD, University of Nairobi, Kenya, 29
2009/2010, S 1	Evolutionary Ecology, BS, UD, 54 *
2009/2010, S 1	Introduction to Field Research, MS, UD, 7
2008/2009, S 2	Conservation Biology 1, BS, UD, 50 *
2008/2009, S 2	Evolutionary Ecology, BS, UD, 40 *
2006/2007, S 2	Evolutionary Ecology, BS, Babes-Bolyai University (BBU), Kolozsvár/Cluj, 36 *
2005/2006, S 2	Evolutionary Ecology, BS, BBU, 46 *
2004/2005, S 2	Evolutionary Ecology, BS, BBU, 64 *
2004/2005, S 2	Introduction to Field Research, MS, UD, 58
2003/2004, S 2	Introduction to Field Research, MS, UD, 32
2003/2004, S 1	Evolutionary Ecology, BS, BBU, 69 *
2002/2003, S 1	Conservation Biology, BS, Szent István University, Zoological Institute, 12
Total <b>26 semesters</b>	* labs separately, total <b>16 semesters</b>
<u> </u>	
Special topics courses	Present Derive MS received to P
2005/2006, S 1	Research Design, MS special topics, UD, 8
2004/2005, S 1	Evolutionary Ecology, MS special topics, UD, 7
2003/2004, S 2 2003/2004, S 1	Conservation Biology, MS special topics, UD, 12 Research Design, MS special topics, UD, 21
2003/2004, S 1 2002/2003, S 2	Conservation Biology, MS special topics, UD, 21
2002/2003, S 2 2002/2003, S 1	Evolutionary Ecology, MS special topics, UD, 10
2002/2003, S 1 2001/2002, S 1	Conservation Biology, MS special topics, UD, 14
1998/1999, S 1	Research Design, MS special topics, UD, 14
Total 8 semesters	Research Design, MS special topics, OD, 55
Labs only (as teaching assi	istant)
2000/2001, S 2	Ecology & Population Biology, BS lab, University of Nevada, Reno (UNR), 22
2000/2001, S 1	Ecology & Population Biology, BS lab, UNR, 25
1997/1998, S 1	Principles & Applications: Introduction to Biology, BS lab, UNR, 94
1995/1996, S 2	Vertebrate Taxonomy, BS lab, UD, 30
Total 4 semesters	

# HOBBIES

NBA basketball, running, blues music, Rolling Stones, guitar playing, landscape painting, nature photography, travel