

András Abonyi, PhD

I am an aquatic ecologist with a solid expertise in phytoplankton functional ecology. I am eager to progress biodiversity research by coupling community functioning to diversity (BEF) in a mechanistic way. BEDIV will be my first interdisciplinary project, which will enhance BEF research potentially. It will broaden my knowledge and network, give essential new skills and enhance my career prospects towards an independent scientist.

Education

Education

- 01.09.2009 – 09.02.2015** PhD in Environmental Sciences, Doctoral School of Chemistry and Environmental Sciences, University of Pannonia, Department of Limnology, Veszprém, Hungary (Supervisor: Prof. Judit Padisák), in co-operation with Bi-Eau Consultancy, Angers (France)
- 01.09.2003 – 15.06.2009** MSc in Environmental Sciences, University of Pannonia, Department of Limnology, Veszprém, Hungary (Supervisor: Prof. Judit Padisák)

Professional experiences

Employment

- 01.03.2019 – ongoing** Postdoctoral Researcher, LipTox and AquaScale labs, WasserCluster Lunz, Austria
- 01.04.2015 – 03.10.2015** Researcher Fellow, MTA-PE Limnoecology Research Group, University of Pannonia, Veszprém, Hungary
- 12.09.2009 – 03.01.2015** Phycology and phytoplankton biomonitoring, Bi-Eau, Angers, France (Full time, permanent job position)

Research activities

- 01.03.2019 – ongoing** Role of algal chytrid parasites in the functioning of aquatic food webs, Postdoctoral Researcher, LipTox and AquaScale labs at WasserCluster Lunz, Austria
- 01.01.2018 – 30.09.2020** [paused] Functional diversity components in BEF in phytoplankton, Postdoctoral Fellow (Awarded), National Research Development and Innovation Office (OTKA PD), MTA Centre for Ecological Research, Institute of Ecology and Botany, Vácrátót, Hungary (role: project leader)
- 01.04.2016 – 01.12.2017** Long-term functional changes in the River Danube phytoplankton, Postdoctoral Fellow (Awarded), Hungarian Academy of Sciences (MTA PD), MTA Centre for Ecological Research, Danube Research Institute, Budapest, Hungary (Supervisor: Dr Éva Ács, Dr Keve T. Kiss)
- 04.10.2015 – 31.03.2016** Functional diversity – functioning relationship in phytoplankton, Postdoctoral Fellow (Awarded), Ernst Mach Fellowship (OeAD, Austria), WasserCluster, Lunz, Austria (Supervisor: Dr Robert Ptacnik)

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- 04.01.2015 – 31.03.2015** The role of rare taxa in phytoplankton, Campus Hungary Scholarship (Awarded), WasserCluster Lunz, training and project writing (Supervisor: Dr Robert Ptacnik)
- 01.05.2013 – 01.07.2013** Functional composition of the River Loire, Campus Hungary Scholarship (Awarded), Bi-Eau, Angers, France, research supplementing full time job and PhD research (co-operation with Dr Maria Leitao, Bi-Eau, France)
- 01.09.2008 – 31.10.2008** Phytoplankton monitoring of Lake Erken, Norr Malma Limnological Field Station, Sweden (supplementing MSc research, contact via Dr Judit Padisák)
- 01.04.2008 – 31.07.2008** Cyanobacteria monitoring, Laboratoire Départemental d'Analyse et de Recherche, Dordogne, France (supplementing MSc research via the bilateral co-operation of Szolnok and Dordogne via the Embassy of France, Budapest)

Publications in ISI-referenced peer-reviewed scientific journals

(* own research idea, + independent of PhD supervisor)

- ⁺**Abonyi A.**, Kiss K.T., Hidas A., Várbíró G., Borics G. & Ács É. (**major revision**) Size does matter: cell size decrease due to environmental change constraints ecosystem functioning of phytoplankton in the European large Danube River at long temporal scale (1979-2012). *Ecosystems*
- Nagy-László Zs., Padisák J., Borics G., **Abonyi A.**, B-Béres V., Várbíró G. (**major revision**). *Journal of Plankton Research*
- Selmečzy G.B., **Abonyi A.**, Kasprzak P., Casper P., Teles A., Somogyvári Z. & Padisák J. (2019) Old sins have long shadows: climate change weakens efficiency of trophic coupling of phyto- and zooplankton in a deep oligo-mesotrophic lowland lake (Stechlin, Germany)—a causality analysis. *Hydrobiologia*, **831**, 101-117. [Ind.cit.: 0]
- ⁺B-Béres V., Tóthmérész B., Bácsi I., Borics G., **Abonyi A.**, Tapolczai K., Rimet F., Bouchez Á., Várbíró G. & Török P. (2019) Autumn drought drives functional diversity of benthic diatom assemblages of continental intermittent streams. *Advances in Water Resources*, **126**, 129-136. [Ind.cit.: 1]
- ⁺Görgényi J., Tóthmérész B., Várbíró G., **Abonyi A.**, T-Krasznai E. & Borics G. (2019) Contribution of phytoplankton functional groups to the diversity of a eutrophic oxbow lake. *Hydrobiologia*, **30**, 287–301. [Ind.cit.: 0]
- ⁺Endrédi A., Jordán F. & **Abonyi A.** (2018) Trait-based paradise - or only feeding the computer with biology. *Community Ecology*, **19**, 319-321. [Ind.cit.: 0]
- ⁺**Abonyi A.**, Ács É., Hidas A., Grigorszky I., Várbíró G., Borics G. & Kiss K.T. (2018) Functional diversity of phytoplankton highlights long-term gradual regime shift in the middle section of the Danube River due to global warming, human impacts and oligotrophication. *Freshwater Biology*, **63**, 456-472. [Ind.cit.: 4]
- ⁺**Abonyi A.**, Horváth Z. & Ptacnik R. (2018) Functional richness outperforms taxonomic richness in predicting ecosystem functioning in natural phytoplankton communities. *Freshwater Biology*, **63**, 178–186. [Ind.cit.: 7]
- ⁺Wang C., B-Béres V., Stenger-Kovács C., Li X. & **Abonyi A.** (2018) Enhanced ecological indication based on combined planktic and benthic functional approaches in large river phytoplankton ecology. *Hydrobiologia*, **818**, 163–175. [Ind.cit.: 2]
- Stenger-Kovács C., Körmendi K., Lengyel E., **Abonyi A.**, Hajnal É., Szabó B., Buczkó K. & Padisák J. (2018) Expanding the trait-based concept of benthic diatoms: Development of trait- and species-based indices for conductivity as the master variable of ecological status in continental saline lakes. *Ecological Indicators*, **95**, 63-74. [Ind.cit.: 1]
- Várbíró G., Padisák J., Nagy-László Z., **Abonyi A.**, Stanković I., Gligora Udovič M., B-Béres V. & Borics G. (2018) How length of light exposure shapes the development of riverine algal biomass in temperate rivers? *Hydrobiologia*, **809**, 53–63. [Ind.cit.: 1]

- ⁺Bolgovics Á., Várbíró G., Ács É., Trábert Z., Kiss K.T., Pozderka V., Görgényi J., Boda P., Lukács B.A., Nagy-László Z., **Abonyi A.** & Borics G. (2017) Phytoplankton of rhithral rivers: its origin, diversity and possible use for quality-assessment. *Ecological Indicators*, **81**, 587-596. [Ind.cit.: 3]
- Borics G., **Abonyi A.**, Várbíró G., Padišák J. & T-Krasznai E. (2015) Lake stratification in the Carpathian basin and its interesting biological consequences. *Inland Waters*, **5**, 173-186. [Ind.cit.: 6]
- * **Abonyi A.**, Leitão M., Stanković I., Borics G., Várbíró G. & Padišák J. (2014) A large river (River Loire, France) survey to compare phytoplankton functional approaches: Do they display river zones in similar ways? *Ecological Indicators*, **46**, 11-22. [Ind.cit.: 26]
- * **Abonyi A.**, Leitão M., Lançon A.M. & Padišák J. (2012) Phytoplankton functional groups as indicators of human impacts along the River Loire (France). *Hydrobiologia*, **698**, 233-249. [Ind.cit.: 75]
- ⁺Borics G., **Abonyi A.**, Krasznai E., Várbíró G., Grigorszky I., Szabó S., Deák C. & Tóthmérész B. (2011) Small-scale patchiness of the phytoplankton in a lentic oxbow. *Journal of Plankton Research*, **33**, 973-981. [Ind.cit.: 13]
- Krasznai E., Borics G., Várbíró G., **Abonyi A.**, Padišák J., Deák C. & Tóthmérész B. (2010) Characteristics of the pelagic phytoplankton in shallow oxbows. *Hydrobiologia*, **639**, 173-184. [Ind.cit.: 28]

Selected presentations at international conferences

([<]funding applied and awarded, ⁺independent of PhD supervisor)

- ^{<+}**Abonyi, A.**, Botta-Dukát Z., Borics G., Várbíró G., & Ptacnik R. Independent functional diversity components predict ecosystem functioning highly on top of taxonomic richness in natural lake phytoplankton communities. **Gfö Meeting**, 48th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Vienna, 10-14/09/2018. BOKU. [poster presentation]
- ⁺**Abonyi A.**, Ács É., Hidas A., Grigorszky I., Várbíró G., Borics G., Földi A. & Kiss K.T. Phytoplankton functional diversity shifted gradually due to global warming, human impacts and oligotrophication in the Danube River at long-term scale. In: 1st **Conference on Community Ecology**, Budapest, 28-29/7/2017. Akadémiai Kiadó. [oral presentation]
- ⁺**Abonyi, A.**, Horváth Z. & Ptacnik R. Functional identity matters to ecosystem functioning in natural phytoplankton communities. **Fresh Blood for Fresh Water**, České Budějovice, 09/04-13/04/2017. Biology Centre CAS. [oral presentation]
- ^{<+}**Abonyi, A.**, Ács É., Várbíró G. & Kiss K.T. Long-term trends in the functional composition of the River Danube phytoplankton. **XXXIII SIL**, 31/7-5/8/2016, Torino, Italy, 2016. [oral presentation]
- ⁺**Abonyi, A.**, Ács É., Grigorszky I., Tóth B., Várbíró G. & Kiss K.T. Call to enhance the “Danube connectivity”! Or, potamoplankton of the River Danube at long-term scale. In: SIL Austria, Illmitz, Austria, 14-16/10/2015. [oral presentation]
- Abonyi, A.**, Leitão M. & Padišák J. Does the best ecosystem functioning occur under high phytoplankton richness in river environment as well? **Fresh Blood for Fresh Water**, Mondsee, Austria, 15-17/04/2015. University of Innsbruck, Research Institute for Limnology. [oral presentation]
- ⁺**Abonyi, A.**, Phytoplankton functional group composition along the River Loire (France). The aspects of river continuum, ecological status indication, and diversity. **WasserCluster**, Lunz, Lunz am See, Austria, 11/03/2015. [oral presentation]
- ⁺Sarmento, H., **Abonyi A.**, Jati S., Lançon A.M., Leitão M., Rodrigues L.C. & Train S. A comparative study of potamoplankton community and size structure in large temporal and geographical scales: The tropical river Parana (Brazil) and the temperate river Loire (France). 17th Workshop of the **International Association of Phytoplankton Taxonomy and Ecology** (IAP), Kastoria (Greece), 14-21/09/2014. [oral presentation]
- [<]**Abonyi, A.**, Moatar F., Leitão M. & Padišák J. Functional groups of river phytoplankton are reflecting longitudinal processes along the River Loire (France). In: Tóth, V., Z. Heiszler & R. Hohol (eds) 32nd

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Congress of the International Society of Limnology (SIL), Budapest, Hungary, 4-9/08/2013. Balaton Limnological Institute, Hungarian Academy of Sciences, Centre for Ecological Research, p 96. [oral presentation]

[†]Leitão, M., **Abonyi A.**, Mischke U., Borics G. & Várbíró G. Applying phytoplankton indices along the River Loire (France). In: Meyer, E. (ed) 8th **Symposium for European Freshwater Sciences (SEFS)**, Münster, Germany, 1-5/07/2013. [oral presentation]

[†]Leitão, M., **Abonyi A.** & Lançon A.M. The phytoplankton monitoring of the river Loire (France). In: Ortega P.M., Piñas F.F., Urizar E.P., García R.R., Calvo E.G. & Cortés S.S. (Eds) **Use of Algae for Monitoring Rivers**, Alcalá de Henares, 19-22/06/2012. Madrid, p 35. [oral presentation]

Abonyi, A., Leitão M., Lançon A.M. & Padisák J. Application of the phytoplankton functional group concept for the characterization of functional sections and anthropogenic impacts in the River Loire (France). In: Salmaso N., et al. (Eds) 16th Workshop of the International Association of Phytoplankton Taxonomy and Ecology (IAP), San Michele all'Adige (Trento), Italy, 21-28/08/2011. p 21. [oral presentation]

Awards and recognition

- 15.06.2018** **Youth Award** for international conference attendance, Hungarian Academy of Sciences, Gfö Meeting, Vienna, 2018
- 15.06.2016** Youth Award for international conference attendance, Hungarian Academy of Sciences, SIL Torino, Italy, 2016
- 15.09.2015** **Outstanding Youth Researcher** of the Academic Committee of Veszprém, Hungarian Academy of Sciences, Hungary
- 15.01.2015** **Campus Hungary Mobility Award**, WCL, Lunz, Austria (3 months)
- 15.07.2013** **Wetzel Travel Award** of SIL, 32nd SIL, Budapest
- 15.05.2013** Campus Hungary Mobility Award, Bi-Eau, France (3 months)
- 15.05.2010** **TÁMOP Student Award**, University of Pannonia, Veszprém, Hungary
- 15.11.2009** MSc **Diploma competition** of the Hungarian Hydrological Society, II. Place, Budapest, Hungary
- 15.04.2009** National **Student competition** in Biology, III. Place, Veszprém, Hungary
- 15.03.2008** National Student competition in Environmental Sciences, II. Place, Nyíregyháza, Hungary
- 15.10.2007** XLIX. HBN, **Best poster prize**, Annual Meeting of Hydrobiologists, Balaton Limnological Institute, Tihany, Hungary

Project funding

- 01.05.2019 – 31.05.2019** Postdoctoral researcher (Awarded): **Abonyi A.** Functional diversity loss of phytoplankton affects ecosystem functioning and feedback mechanisms between aquatic primary and secondary producers (FEEDBEF) AQUACOSM: 2nd Transnational Access, LMU Munich, Seon Limnological Field Station, Germany [Budget covering travel, stay and per diem: not funded yet/soon]
- 03.06.2018 – 29.07.2018** Postdoctoral participant (Awarded): Bengtsson M.M., Murray D., **Abonyi A.**, Mironova K. & Endrédi A. Microbial diversity and resilience as a function of spatial connectivity in alpine lake ecosystems (MicroDISCO). AQUACOSM: 1st Transnational Access, WCL Lunz, Lunz am See, Austria [Group budget covering travel, stay and per diem: 29,800 euros (2 month)]
- 01.01.2018 – 30.09.2020** [paused] Postdoctoral Fellow (Awarded): **Abonyi A.** The functional diversity-ecosystem functioning relationship in natural phytoplankton communities. NRDI OTKA PD, MTA Centre for Ecological Research,

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Institute of Ecology and Botany, Vácrátót, Hungary [Budget covering position, with no expenditures: 48,400 euros (3 year)]

International conferences organized

23-27.04.2019 **Fresh Blood for Fresh Water 2019**, Tihany, Hungary (chief organizer: application for funding, scientific program, invited speakers; <http://fbfw2019.okologia.mta.hu>)

Supervising, mentoring

01.09.2016 – 15.07.2018 **MSc Thesis**, Botond Polgári, University of Veterinary Medicine, Budapest, Institute of Biology (Autecology of the freshwater jellyfish (*Craspedacusta sowerbii*) in a food web context based on experimental approaches), in **co-operation** with **Prof H. Stibor, LMU, Munich, Germany**

Invited presentations

03.11.2016 **INRA UMR CARTELE, Thonon-les-Bains, France: Andras Abonyi**, Groupes fonctionnels du phytoplancton dans le bassin versant de La Loire. Les aspects du continuum de la rivière, l'indication de l'état écologique, et de la diversité

11.03.2015 **WasserCluster Lunz, Lunz am See, Austria: Andras Abonyi**: Phytoplankton functional group composition along the River Loire (France): The aspects of river continuum, ecological status indication and diversity

Memberships

01.09.2019. - National representative in the **International Society of Limnology (SIL)**

01.01.2019. - **Associate Editor of Journal of Limnology**

01.07.2018. - Elected national **representative** in the **European Federation for Freshwater Sciences (EFFS)**

01.07.2018. - **Board member** in the **Limnology Section** of the Hungarian Hydrological Society

01.01.2016. - Public member of **Ecology section of the Hungarian Academy of Sciences**

15.07.2011. - Member of the **International Society of Limnology (SIL)**

15.07.2007. - Member of the Limnology Section of the **Hungarian Hydrological Society**

Languages

English (**professional** in oral, written), French (**fluent** in oral), Hungarian (native)

Scientific activities

>75 review for 20 WoS journals¹

CV comment

Gaps in my publication list might occur between 2009 and 2014, when I had a permanent working position in phycology at the Bi-Eau Consultancy (Angers, France) in parallel with my PhD project (in co-operation with Bi-Eau, using my own data from work). Also, between 2014 and 2018, when I moved home from France to Hungary, won several short-term Postdoctoral positions, and worked on several projects within a short period of time. Articles published from this period appeared in 2018.

¹ <https://publons.com/researcher/1183716/andras-abonyi/>