Matúš Maciak
Curriculum Vitae, March 2015

Full name:	Matúš Maciak		
Date of Birth:	20th of June, 1982	Place of Birth:	Poprad, Slovak Republic
Citizenship:	Slovak Republic	Resident:	Czech Republic
Contact address:	Pod Klikovkou 7 Praha 5, 150 00 Czech Republic		
Cell:	(420)-608-484-722		
Email:	maciak@karlin.mff.cuni.cz	Alternative:	maciak@ualberta.ca
WWW:	www.karlin.mff.cuni.cz/∼maciak	Alternative:	www.mmatthew.matfyz.cz

Education History

2011	**RNDr. (doctor of natural science) in Probability and Math. Statistics** Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic
2006 - 2011	**Ph.D. in Probability and Mathematical Statistics** Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic
2007 - 2008	**M.Sc. in Biostatistics** Centrum for Statistics, Hasselt University, Belgium
2001 - 2006	**Mgr. (equivalent to Master of Science) in Probability, Mathematical Statistics and Econometrics**, Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic

Employment History

2015 - present	**Charles University in Prague**, Czech Republic. (Research Assistant, Department of Probability and Math. Statistics)
2014 - present	**Czech University of Life Sciences Prague**, Czech Republic. (Research Assistant, Department of Genetics and Breeding)
2012 - 2013	**University of Alberta**, Edmonton, AB, Canada. (1.3 year post-doctoral fellow, Dept. of Math. and Stat. Sciences)
2010 - 2013	**T.G. Masaryk Water Research Institute**, Prague, Czech Republic. (chief statistician and data analyst)
2010 - 2014	**Petit Press: SME Newspapers**, Bratislava, Slovak Republic. (online newspaper-blog administrator)
2007 - 2009	**Charles University in Prague**, Czech Republic. (research and teaching assistant)
2006 - 2007	**Colosseum a.s.**, Prague, Czech Republic. (asset manager and data analyst)
2004 - 2006	**ETP Slovakia**, Levoča, Slovak Republic. (external statistical researcher and photographer)
2004 - 2005	**The Boston Consulting Group**, Prague, Czech Republic. (statistical researcher and data collector)

Research Keywords

nonparametric regression, smoothness, robustness;
discontinuities (change-points) and structural breaks;
sparsity, regularization, variable selection, lasso and degrees of freedom;
weak dependence, bootstrap methods, multivariate statistical methods, etc.

Invited Talks

University of British Columbia, Vancouver, Canada;
  (invited statistical seminar, Department of Statistics, 2013)
University of Alberta, Edmonton, Canada;
  (invited statistical seminar, Dept. of Math. and Stat. Sciences, 2012, 2013)
Charles University in Prague, Czech Republic;
  (invited statistical seminar, Dept. of Prob. and Math. Statistics, 2014, 2008, 2006)
ISNPS 2012 conference, Chalkidiki, Greece;
  (invited talk, conference session: Nonparametric Change Point Analysis, 2012)
European Commission Joint Research Centre, Ispra, Italy;
  (series of talks on statistical methodology in ecology, 2010 – 2011)
Scottish Environment Protection Agency, Edinburgh, Scotland, UK;
  (invited talk on statistical methodologies in a quality assessment process, 2011)
Bundesministerium für Land- und Forstwirtschatf, Vienna, Austria;
  (invited talks on statistical methodologies in a river quality assessment, 2010)
Slovak Academy of Science and Comenius University in Bratislava, Slovak Republic;
  (invited statistical seminar, Faculty of Mathematics, Physics and Informatics, 2009)
University of Hamburg, Germany;
  (invited statistical seminar, Center of Math. Statistics and Stoch. Processes, 2007)

Selection of Contributed Talks

IMS-New Researches Conference 2013, SSC 2013, PIMS-YRC 2013, ICORS 2011,
Conference on Resampling Methods and High Dimensional Data 2010, EMS 2010,
Prague Stochastics 2010, ICORS 2010, ROBUST 2014, 2008 and 2006.

Research Grants (principal investigator only)

Intercalibration of BQE fish and related research (statistical analysis);
  Principal investigator, total amount 350.000 Czk (one year support);
  State Environmental Fund of the Czech Republic, Prague, Czech Republic;

Project Participation (selection)

Neurocognitive disorders: dementia and Alzheimer disease;
  Center for Advanced Imaging Research, Mayo Clinic, Rochester, MN, USA;

CAD risk based on arterial hypertension occurrence in elderly patients;
  Central Military Hospital Ružomberok, Ružomberok, Slovak Republic;

Monitoring and judging the quality of freshwater systems;
  European Commission Joint Research Centre, Ispra, Italy;

Tutorials & Trainings

2010 – 2014	Applied Ecology and Ecology of Aquatic Organisms
	T.G.Masaryk Water Research Institute, Prague, Czech Republic;
Nov. 2008	Penalised Spline Smoothing and Geoadditive Regression
	Katholieke Universiteit in Leuven, Belgium;

Programming Skills

Programming:	C$_{++}$, Borland Pascal, Matlab;
Statistical Software:	SAS, S-plus, R, Mosek, NCSS, SPSS, Statistica;
Web Tools:	HTML, JavaScript, CSS, PHP, SQL;
Others:	LaTeX, Mathematica, MuPad, WealthLab;

Language Skills

English	- fluent (spoken and written)
German	- fair (spoken and written)
Spanish	- basic
Czech	- fair
Slovak	- mother tongue

Professional Memberships

STATSPOL:	Czech Statistical Society;
National Geographic:	National Geographic Society, Washington, D.C.;
OEAV:	Oesterreichischer Alpenverein;
ACC:	Alpine Club of Canada, Edmonton;

Individual Interests

Music:	playing the guitar and the bass guitar;
Literature:	books, literary production (newspaper blogs);
Mountaineering:	rock/climbing, back-country & cross-country, mountain hiking;
Sport activities:	skiing, cycling, tennis, swimming, and others;
Photography:	professional wedding and coverage photography;

References   v

Matías Salibián-Barrera   *matias [at] stat.ubc.ca*
Associate Professor, Department of Statistics
The University of British Columbia, Vancouver, Canada

Ivan Mizera   *imizera [at] ualberta.ca*
Associate Professor, Department of Mathematical and Statistical Sciences
University of Alberta, Edmonton, Canada

Published

Horký, P., Douda, K., Maciak, M., Závorka, L., and Slavík, O. (2014). Parasite-induced alterations of host behaviour in a riverine fish: the effects of glochidia on host dispersal. *Freshwater Biology, 59 (7)*, 1452–1461.

Maciak, M. and Opatřilová, L. (2014). Intercalibration Process of Assessment Methods for Biological Quality Elements of Ecological Status in Surface Waters: Macro-nvertebrates and Phytobenthos. *VTEI (Czech: Water Management Technical and Economic Information Journal) 6/2014*, 1–9.

Kadlecová, K., Bilý, M., and Maciak, M. (2012). Movement Patterns of the Co-occurring Species Astacus Astacus (Noble Crayfish) and Austropotamobius Torrentium (Stone Crayfish). *Fundamental and Applied Limnology/Archiv für Hydrobiologie*, 180, 351-360.

Slavík, O., Maciak, M., and Horký, P. (2012). Shelter Use of Familiar and Un-familiar Groups of Juvenile European Catfish Silurus Glanis. *Applied Animal Behaviour Science*, 142, 116–123.

Kubíková, L., Simon, O., Tichá, K., Douda, K., Maciak, M., and Bílý, M. (2012). The Influence of Mesoscale Habitat Conditions on the Macroinvertebrate Composition of Springs in a Geologically Homogeneous Area. *Freshwater Science*, 31, 668–679.

Maciak, M. (2010). Bootstrapping of M-smoothers. *Acta Universitatis Carolinae - Mathematica et Physica*, Vol.52, No.1, 37–46.

Maciak, M. (2009). Spline Models with Change-points. *In Antoch, J. and Dohnal, G., editors, Robust 2008 Conference Proceedings*, 239–246, JČMF, Prague.

Maciak, M. (2007). M-smoothers in Testing and Estimating. *In Šafránková, and Pavlů, J., editors, WDS'07 Proceedings of Contributed Papers [Part I]: Mathematics and Computer Sciences*, 169–174. MatfyzPress, Prague.

Accepted & Submitted

Slavík, O., Maciak, M., and Horký, P. (2015). Ostracism of an Albino Individual by a Group of Pigmented Catfish. *PLoS One Journal (accepted)*.

Slavík, O., Horký, P., and Maciak, M. (2014). Familiarity and Prior Residency Decrease the Movement Activity of the European Catfish. *Journal of Ethology (accepted)*.

Ochecová, P., Tlustoš, P., Szaková, J., Mercl, F., and Maciak, M. (2015). Changes in nutrient (Ca, K, P, Mg) plant availability in loam and sandy clay loam soils after wood fly and bottom ash amendment. *European Journal of Soil Science (submitted)*.

Technical Reports & Others (peer reviewed)

Maciak, M., Opatřilová, L, Wildová, P., and Horký, P. (2012). Instruction Manual for Intercalibrating National Assessment Systems for Macro-Invertebrates and Phytobenthos (Eastern Continental GIG). *Technical Report, Prague, Czech Republic*.

Maciak, M. (2011). Analysis Report on Boundary Harmonization. *Technical Report for the IC Validation Workshop on Rivers and Lakes.* (Nov. 16, 2012), Ispra, Italy.

Maciak, M. and Opatřilová, L. (2011). Benchmark Selection - Justification Report. *WFD Intercalibration Phase 2: Milestone 6, Prague, Czech Republic*.

Marvan, P., Opatřilová, L., Heteša, J., Maciak, M., and Horký, P. (2011). Metodika hodnocení ekologického stavu útvarů povchovvých vod tekoucích (kategorie řeka) pomocí biologické složky fytobentos. *Certifikovaná metodika.* MŽP (in Czech).

Opatřilová, L., Kokeš, J., Němejcová, D., Syrovátka V., Zahrádková, S., Maciak, M., and Horký, P. (2011). Metodika hodnocení ekologického stavu útvarů povchovvých vod tekoucích (kategorie řeka) pomocí biologické složky makrozoobentos. *Certifikovaná metodika.* MŽP (in Czech).

van de Bund, W. et al. (2010). Guidance on the intercalibration process (Annex V). *Technical report. JRC: Institute for Environment and Sustainability*, Ispra, Italy.