Ridouan Bani

Ph.D Candidate
Guichard Lab, N4/17
Department of biology, McGill University
1205 Dr Penfield Ave, Montreal, QC H3A 1B1

Phone: 1 (348) 346 5044
Email : ridouan.bani@mail .mail.ca

Education

2014-2018: **Ph.D** candidate, Biology. McGill University. Thesis title: Marine Metapopulation: Traits-dependent effect of dispersal heterogeneity.

2012-2013: **Master of Science,** Applied Mathematics. Northeastern Illinois University. Thesis title: Mathematical methods for understanding Complex Epidemiological systems.

2010-2012: **Bachelor of Arts**, Interdisciplinary studies & Mathematics. Northeastern Illinois University.

2005-2008: **Agrégation de mathématiques**. Ecole Normal Superieure, Marrakech, Morocco.

2001-2003: **Mathematiques & Physiques** (MP). Classes Preparatoires aux Grandes Ecoles d Ingenieures, Meknes, Morocco.

Teaching Assistantships (McGill University)

Bio 111: Principles: Organismal Biology. (Fall 2015-16-17)
Bio 112: Cell & Molecular Biology. (Winter 2014-15-16-17-18)
Bio 308: Ecological Dynamics. (Fall 2014)
Bio 309: Mathematical models in Biology. (Fall 2014)

Publications and Research Papers

- Ridouan Bani, Marie-Josee Fortin, Remi Daigle, Frederic Guichard. A framework to incorporate species response to scenarios of future climate and ocean transport variability in the design of marine reserve networks. (In progress)
- Ridouan Bani, Marie-Josee Fortin, Remi Daigle, Frederic Guichard. Can stochasticity dispersal mitigate negative effects of climate change at local level and allow marine species to persist at regional level. (In progress)
- Ridouan Bani, Marie-Josee Fortin, Remi Daigle, Frederic Guichard. Trait-dependent effects of spatiotemporal heterogeneity in larval dispersal on marine metapopulations. (Submitted)
- Bani, R., Hameed, R., Szymanowski, S., Greenwood, P., Kribs-Zaleta, C., & Mubayi, A. (2013). Influence of environmental factors on college alcohol drinking patterns. Mathematical biosciences and engineering, 10(5-6), 1281-1300.
- Ridouan Bani, Anna D. Broido, Andrew F. Brouwer, Shih-Han Chang, Kihoon Jang,Qianqian Ma, and Jiani Yin (2013). Burden of Chlamydia in the United States Trend Analysis of Incidence Rates. IMSM. 10.13140.

- Ridouan Bani, Daniel Tisch, Mohammed D. Yunusa, Anuj Mubayi. Modeling the transmission dynamics and control of lymphatic filariasis (Wuchereria bancrofti parasites) in Papua New Guinea. (project)

- Rasheed Hameed, Ridouan Bani, Paul J. Gruenewald, Anuj Mubayi. Methamphetamine Abuse Dynamics in the state of California. (project)

Workshops

- The 2013 Industrial Mathematical and Statistical Modeling Workshop for Graduate Students, North Carolina State University, July 15-23, 2013.
- Stochastic Modeling of Biological Processes. Institute for Mathematics and its Applications (IMA), University of Minnesota, May 12-17, 2013.
- SAMSI-SAVI workshop on environmental statistics, March 4-6, 2013. 1st
- Workshop on mathematical & statistical modeling with application in epidemiology and finance, Northeastern Illinois University, December 14-16, 2012.

Presentations (Oral & Poster)

- Quebec Centre for Biodiversity Science (QCBS) annual meeting Dec 11-13, 2017. Title: Can stochasticity dispersal mitigate negative effects of climate change at local level and allow marine species to persist at regional level.
- Ecological Society of America (ESA) 102st annual meeting August 6-11, 2017.Title: Trait-dependent effects of spatiotemporal heterogeneity in larval dispersal on marine metapopulations.
- Quebec Centre for Biodiversity Science (QCBS) annual meeting Dec 14-16, 2016. Title: Trait-dependent effects of spatiotemporal heterogeneity in larval dispersal on marine metapopulations.
- Ecological Society of America (ESA) 101st annual meeting August 7-12, 2016. Title: Trait-dependent effects of spatiotemporal heterogeneity in larval dispersal on marine metapopulations.
- Center for Applied Mathematics in Bioscience and Medicine (CAMBAM)5th Annual End of Year Meeting April 28, 2015. Title: The interplay of biotic and abiotic variabilities in shaping the ecosystems.
- Center for Applied Mathematics in Bioscience and Medicine (CAMBAM) seminar, March 5th, 2015. Title: Spatio-temporal connectivity: Implications for metapopulation, metacommunity and application in marine reserves.
- The SIAM Annual Meeting (AN13), San Diego, July 8-13, 2013. Title: Role of climate factors in predicting leishmaniasis incidence.
- The SMB annual meeting, Arizona state University, June 9-13, 2013. Title: Lymphatic filariasis: transmission dynamics and diagnostics during Mass Drug Administration.
- SAMSI-SAVI workshop on environmental statistics March 4-6, 2013. Title: Influence of environmental factors and intervention programs on control of college alcohol drinking patterns.

Awards

- Graduate Excellence Fellowship 2014-15
- Molson and Hilton Hart Fellowships in Science 2015
- Writing-year award 2015
- Biology department at McGill: Research & Great travel awards
- QCBS Excellence award & intensive course award

Computational Skills

Operating systems : Windows, MacOS, Linux
Languages : MatLab, R, MiniTab , Python (Pandas, SQLAlchemy), C++, LeTex
Parallel computing : MPI, openMPI, MatLab, R

Languages

English: highly proficient in spoken and written
French: highly proficient in spoken and written
Tamazight: native speaker
Arabic: highly proficient in spoken and written