

GUILHAUMON François

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Date of birth: 22/01/1979

Citizenship: French

Address (professional): 'Rui Nabeiro' Biodiversity chair
CIBIO - Universidade de Évora
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Education

- 2010 **PhD in ecology:** Under supervision of Pr David Mouillot and Dr Olivier Gimenez. (*University of Montpellier II, Montpellier, France*)
- 2004 – 2005 **MASTER of computer science (with honours):** Professional Computer science specialization. (*University of the Mediterranean, Marseille, France*)
- 2003 – 2004 **MASTER of biostatistics:** Research master in biostatistics. (*SupAGRO : National Superior School of Agronomy of Montpellier, Montpellier, France*)
- 2002 – 2003 **MASTER B.P.E. (with honours):** 1st year of master degree, specialization in ecology. (*University of Montpellier II, Montpellier, France*)
- 2001 – 2002 **BACHELOR in Biology of Marine Organisms.** (*C.O.M. : Oceanological Center of Marseille, Marseille, France*)

Professional experience

- 2010 – today **Post-doctoral researcher.** 'Rui Nabeiro' Biodiversity chair (University of Évora, Évora, Portugal).
- 2009 – 2010 **ATER (full time Research and Teaching Assistant) :** Ecology, Biostatistics & Computer Science (University of Montpellier II, Montpellier, France).
- 2005 – 2008 **CNRS engineer.** U.M.R. 5119 (University of Montpellier II, Montpellier, France). Collaboration to several research projects and personal projects : statistical methods and computer science applications in Ecology and Conservation Biology.

Students supervision

- 2011 – today **PhD candidate supervision :** Joana Boa Vida Portugal (University of Évora, Portugal) ; co-supervision with Miguel B. Araújo.
- 2012 **Master student trainee supervision :** Florent Mazel (ENS Lyon, France) ; co-supervision with Wilfried Thuiller and David Mouillot.
- 2009 **Master student trainee supervision :** Laure Velez (University of Montpellier II, France) ; co-supervision with David Mouillot.
Vasiliki Orfanou (University of Oxford, United Kingdom) ; co-supervision with Paulo Borges & Robert J. Whittaker.
- 2006 – 2009 **PhD candidate supervision :** Frida Ben Rais Lasram (INAT, Tunisia ; University of Montpellier II, France), co-supervision with David Mouillot and Thang Do Chi.

Publications

- P1.** Mouchet M, **Guilhaumon F**, Villéger S, Mason N, Tomasini JA, and Mouillot D. 2008. Towards a consensus for calculating dendrogram-based functional diversity indices
Oikos. 117(5) : 794 – 800.
- P2.** Trape S, **Guilhaumon F**, and Balde C. 2008. Fish predation by the water snake *Afronatrix anoscopus* in a Guinean rainforest stream
Journal of Freshwater Ecology. 23(3) : 495-49.
- P3.** Lasram FBR, Tomasini JA, **Guilhaumon F**, Romdhane MS, Do Chi T, and Mouillot D. 2008. Ecological correlates of dispersal success in Lessepsian fishes
Marine Ecology Progress Series. 363 : 273 – 286.
- P4.** **Guilhaumon F**, Gimenez O, Gaston KJ, and Mouillot D. 2008. Taxonomic and regional uncertainty in species-area relationships and the identification of richness hotspots
Proceedings of the National Academy of Sciences (PNAS). 105(40): 15458-15463.
- P5.** Poulin R, Luque JL, **Guilhaumon F**, and Mouillot D. 2008. Species abundance distributions and numerical dominance in gastrointestinal helminth communities of fish hosts
Journal of Helminthology. 82 : 193 – 202.
- P6.** Diouf K, **Guilhaumon F**, Aliaume C, Ndiaye P, Do Chi T and Panfili J. 2009. Effects of the environment on fish juvenile growth in West African stressful estuaries
Estuarine coastal and Shelf Science. 83 : 115 – 125.
- P7.** Trape S, Durand JD, **Guilhaumon F**, Vigliola L and Panfili J. 2009. Recruitment patterns of young-of-the-year mugilid fishes in a West African estuary impacted by climate change
Estuarine coastal and Shelf Science. 85 : 357 – 367.
- P8.** Bonnet D, Harris RP, Yebra L, **Guilhaumon F**, Conway DVP, and Hirst AG. 2009. Temperature effects on *Calanus helgolandicus* (Copepoda: Calanoida) development time and egg production
Journal of Plankton Research. 31 : 31 – 44.
- P9.** **Guilhaumon F**, Gimenez O, Gaston KJ, and Mouillot D. 2009. Reply to Bode and Murdoch: A proper integration of species–area relationship uncertainties into return on investment analyses is needed
Proceedings of the National Academy of Sciences (PNAS). 106:E12.
- P10.** Lasram FBR, **Guilhaumon F**, and Mouillot D. 2009. Fish diversity patterns in the Mediterranean Sea: deviations from a mid-domain model
Marine Ecology Progress Series. 376 : 253 – 267.
- P11.** **Guilhaumon F**, Mouillot, D and Gimenez, O. 2010. mmSAR : an R-package for multimodel species-area relationship inference
Ecography. 33 : 420 – 424.

- P12.** Lasram FBR, **Guilhaumon F**, Albouy C, Somot S, Thuiller W and Mouillot D. 2010. The Mediterranean Sea as a “cul-de-sac” for endemic fishes facing climate change
Global Change Biology. 16 : 3233 – 3245.
- P13.** Coll M, Piroddi C, Steenbeek J, Kaschner K, Lasram FBR, Aguzzi J, Ballesteros E, Bianchi CN, Corbera J, Dailianis T, Danovaro R, Estrada M, Frogliola C, Galil BS, Gasol JM, Gertwagen R, Gil J, **Guilhaumon F**, et al. The Biodiversity of the Mediterranean Sea: Estimates, Patterns, and Threats
PLoS ONE. 5(8): e11842.
- P14.** Poulin R, **Guilhaumon F**, Randhawa HS, Luque JL, and Mouillot D. 2011. Identifying hotspots of parasite diversity from species-area relationships: host phylogeny versus host ecology
Oikos. 120 : 740 – 747.
- P15.** Coll M, Piroddi C, Albouy C, Ben Rais Lasram F, Cheung WWL, Christensen V, Karpouzi V, **Guilhaumon F**, Mouillot D, Paleczny M, Palomares ML, Steenbeek J, Trujillo P, Watson R and Pauly D. 2011. The Mediterranean Sea under siege: spatial overlap between marine biodiversity, cumulative threats and marine reserves
Global Ecology and Biogeography. In press.
- P16.** Mouillot D, Albouy C, **Guilhaumon F**, Ben Rais Lasram F, Coll M, Devictor V, Meynard C, Pauly D, Tomasini JA, Trousselier M, Velez L, Watson R and Mouquet N. 2011. Protected and threatened components of fish biodiversity in the Mediterranean Sea
Current Biology. 21: 1044-1050.
- P17.** Albouy C, **Guilhaumon F**, Villéger S, Mouchet M, Mercier L, Culioli JM, Tomasini JA, Le Loc'h F and Mouillot D. 2011. Predicting trophic guild and diet overlap from functional ecomorphological traits: opportunities and limitations for fish ecology
Marine Ecology Progress Series. 436 : 17-28.
- P18.** **Guilhaumon F**, Krasnov BR, Poulin R, Shenbrot GI and Mouillot D. 2011. Latitudinal mismatches between the components of mammal-flea interaction networks
Global Ecology and Biogeography. In press.
- P19.** Triantis K*, **Guilhaumon F*** and Whittaker RJ*. 2011. The island species–area relationship: biology and statistics
Journal of Biogeography. Accepted, * All authors contributed equally to this work.
- P20.** **Guilhaumon F**, Basset A, Barbone E and Mouillot D. 2012. Species-area relationships as a tool for the conservation of benthic invertebrates in Italian coastal lagoons
Estuarine coastal and Shelf Science. In press.
- P21.** Cameron R, Triantis K, Parent C, **Guilhaumon F**, Alonso M, Ibáñez M, Frias Martins A, Ladle R and Whittaker RJ. Snails on oceanic islands: testing the general dynamic model of oceanic island biogeography using linear mixed effect models
Journal of biogeography. Accepted.

P22. Albouy C*, **Guilhaumon F***, Araújo MBA, Mouillot D and Leprieur F. Mapping combined projected changes in species richness and composition reveal climate change impacts on coastal Mediterranean fish assemblages

Global Change Biology. Accepted, * co-first authors.

Book chapters & reports

B1. Ben Rais Lasram F, **Guilhaumon F** and Mouillot D. 2010. Global warming and exotic fishes in the Mediterranean Sea: introduction dynamic, range expansion and spatial congruence with endemic species. in FISH INVASIONS of the MEDITERRANEAN SEA Change and Renewal. Edited by Daniel Golani & Brenda Appelbaum-Golani. Pensoft Publishers Sofia–Moscow.

B2. Araújo MB, **Guilhaumon F**, Rodrigues Neto D, Pozo Ortego I, and Gómez Calmaestra R . 2011. Evaluación de los impactos, vulnerabilidad y adaptación al cambio climático de la fauna en España. Tomo II (Fichas). Pp. 639. Subdirección General de Biodiversidad, Ministerio de Medio Ambiente, y Medio Rural y Marino & Museo Nacional de Ciencias Naturales, Consejo Superior de Investigaciones Científicas. Madrid

Oral presentations & Posters

C1. **Guilhaumon F**, Gimenez O, Gaston KJ, and Mouillot D. Taxonomic and regional uncertainty in species-area relationships and the identification of richness hotspots. 93rd Ecological Society of America Annual Meeting. Milwaukee, Wisconsin, USA 2008, 3-8 August. (Submitted presentation)

C2. **Guilhaumon F**, Gimenez O, Gaston KJ, and Mouillot D. Taxonomic and regional uncertainty in species-area relationships and implications for conservation biogeography. 4th Biennial conference of the International Biogeography Society. Merida, Mexico 2009, 8-12 January. (Submitted presentation)

C3. **Guilhaumon F**, Basset A, Barbone E and Mouillot D. Taxonomic uncertainties in species-area relationships and implications for lagoons conservation . 4th European Conference on Coastal Lagoon Research, Montpellier, France 2009, 14-18 December. (Submitted presentation)

C4. **Guilhaumon F**. Multimodel Species-Area Relationships : a tool for conservation biogeography. Conference cycle : Knowing and protecting nature, 2010 International Year of Biodiversity. Hangra do Heroísmo, Açores, Portugal 2010, 29 October. (Invited presentation)

C5. **Guilhaumon F**, Rangel TF, Diniz-Filho JAF and Araújo MB. A BENCHMARK FOR ENSEMBLE FORECASTING OF SPECIES RANGE SHIFT UNDER CLIMATE- CHANGE. 5th Biennial conference of the International Biogeography Society. Heraklion, Crete, Greece 2011, 7-11 January. (Poster)

C6. **Guilhaumon F**, Krasnov BR, Poulin R, Shenbrot GI and Mouillot D. Latitudinal mismatches between the components of mammal-flea interaction networks. Web of life in a changing world – Montpellier, France 2012, 5 June. (Poster)

Prizes, honours, and awards:

2011 : Young scientist Award, French Society of Ecology (“Prix jeune chercheur”, Société Française d'Écologie) (<http://www.sfecologie.org>).

Research projects

2010-2013 : “**JEAI (IRD) Laboratoire de Biologie et d'Ecologie des Poissons – Afrique de l'Ouest**”.

Funded by: IRD, Institut de recherche pour le développement (<http://www.ird.fr>)

Position: Collaboration with Diouf Goudiaby K and Panfili J as an expert in otolith microchemistry data analysis.

Total budget (€): ~60.000

2011-2015 : “**Conservation Physiology of Marine Fishes**”.

Funded by: COST, European Cooperation in Science and Technology

(http://www.cost.esf.org/domains_actions/fa/Actions/FA1004)

Position: member of WG2 (Integrating physiology into forecasting), Portugal representation.

Total budget (€): ~400.000

2012-2015 : “**Biodiversity on oceanic islands: towards a unified theory**”.

Funded by: FCT, Portugal (<http://www.fct.pt/>)

Position: collaboration to 6 tasks over 9 (mathematical modelling, prediction testing)

Total budget (€): 99.000

Reviews and Peer Assessment

Scientific Journal Reviews: Biology Letters, Diversity & Distributions, Ecography, Ecological Applications, Journal of Biogeography, Global Ecology & Biogeography, Theoretical Ecology, PLOS One.

PhD evaluation: Diogo André Alves Salgado Rodrigues Alagador, “Quantitative methods in spatial conservation planning”. Supervised by Miguel B. Araújo & Jorge O.L. Cerdeira. Lisbon, 2011. (co-evaluation with Henrique M. Pereira, <http://webpages.fc.ul.pt/~hmlpereira/>).