

# DR. MARGHERITA GIORIA, PhD

Institute of Botany, Department of Invasion Ecology  
Czech Academy of Sciences  
Zámek 1, CZ-252 43 Průhonice, Czech Republic  
Phone: +39 348 6988 426

**ORCID iD:** 0000-0002-0574-4688

**ResearcherID:** G-6390-2014

**Email:** [margheritagioria1@gmail.com](mailto:margheritagioria1@gmail.com)

**Skype:** margheritagioria

Nationality: Italian, Date of Birth: 31<sup>st</sup> July 1974

---

## Academic appointments

**Researcher, Project Coordinator and Principal Investigator** 2014 – present  
**Institute of Botany, Czech Academy of Sciences, Průhonice, Czech Republic**

Sono ricercatore senior presso l'Istituto di Botanica dell'Accademia delle Scienze della Repubblica Ceca.

Sono il coordinatore e Principal Investigator di un progetto triennale da me scritto e finanziato dalla Czech Science Foundation (2019–2022). In tale ruolo, coordino le attività di ricerca di una ricercatrice full-time, tre ricercatori part-time, un tecnico di laboratorio e un giardiniere part-time. Durante questo periodo sono stata Coordinator and Principal Investigator di un altro progetto triennale finanziato dalla Czech Science Foundation (2015–2017).

**Research Fellow** 2017 – 2018  
**UCD School of Biology and Environmental Science, University College Dublin**

In questo ruolo, ho svolto attività di ricerca per un progetto scritto personalmente e finanziato dalla Environmental Protection Agency irlandese. Ho coordinato le fasi iniziali del progetto e portato a termine due workpackages di tale progetto.

**Visiting Lecturer (Honorary)** 2014 – 2018  
**UCD School of Biology and Environmental Science, University College Dublin**

Sono stata nominata Visiting Lecturer per 5 anni dalla UCD School of Biology and Environmental Science, durante cui ho svolto attività di insegnamento in corsi facenti parte di taught M.Sc. programmes della School stessa. Durante questo periodo, sono stata docente del corso 'Cell and Plant Biology (BIOL10030)', rivolto a studenti del primo anno del corso di laurea in Biologia.

**Professor (W1) of Plant Ecology, GeoEcology and Modelling** 2012 – 2013  
**Institute of Plant Ecology, Justus-Liebig University Giessen, Germany**

Professore W1 presso il dipartimento di Plant Ecology e direttore del gruppo di ricerca 'Plant Ecology, Geoecology and Statistical Modelling'. In questo ruolo, ho sviluppato due nuovi moduli (30h), di cui sono stata coordinatrice e docente: 'Stress Ecology' e 'Plant Community Ecology'. Sono stata anche co-docente dei moduli 'Topics in Plant Ecology', 'Ecosystem Modelling', 'Global Change and Adaptation Strategies', and 'Plant-Soil-Atmosphere', rivolti a studenti del corso di laurea 'M.Sc. Biology' presso la Justus-Liebig University. In questo ruolo ho anche supervisionato le tesi di laurea di tre studenti del corso M.Sc. Biology.

**Research Fellow, Principal Investigator**

2008 – 2011

**UCD School of Agriculture and Food Science, University College Dublin**

Principal Investigator di un progetto triennale scritto personalmente e finanziato dalla Environmental Protection Agency irlandese (EPA) dopo aver vinto un bando intitolato 'Science, Technology, Research & Innovation for the Environment Fellowship', un programma di ricerca altamente competitivo. In questo ruolo, mi sono occupata di tutte le attività inerenti al progetto, oltre a quelle di ricerca, quali il reclutamento di studenti, e tutta la gestione e contabilità dei fondi, e approvvigionamento di field- and lab equipment. Durante questo periodo, ho svolto attività di insegnamento presso la facoltà di Agricoltura (UCD School of Agriculture, Food Science, and Veterinary Medicine) e la UCD School of Biology and Environmental Science.

**Post-doctoral Researcher**

10.07 – 01.08

**School of Life Sciences, Arizona State University, 87287 Tempe, AZ**

In questo ruolo, ho svolto attività di ricerca volte a esaminare i costi in termini di Ecosystem Services associati con le invasioni biologiche da specie aliene. Ero anche Officer della sezione ecoSERVICES di DIVERSTAS, una framework internazionale per la ricerca sulla biodiversità.

**Visiting Academic Positions**

- **Visiting Fellow** Nov. 2019  
**Department of Biology, University of Pisa, Italy**
- **Visiting Researcher** 10.11 – 06.12  
**Department of Applied Ecology, University of Siena, Siena, Italy**  
In questo ruolo, ho svolto attività di ricerca insieme a colleghi dell'università di Siena, che hanno condotto alla pubblicazione di 5 pubblicazioni in riviste scientifiche internazionali.
- **Visiting Researcher** 10.11 – 06.12  
**Ecology, Department of Biology, University of Konstanz, Germany**  
In questo ruolo, ho svolto attività di ricerca (su piante aliene asiatiche introdotte in Europa in giardini botanici) e insegnamento (inclusi 3 seminari), presso la facoltà di Biologia dell'Università di Costanza.
- **Visiting Researcher** 04.10 – 06.10  
**Botany Department, University of Hawaii at Manoa, 96822 Honolulu, HI**  
In questo ruolo, ho svolto attività di ricerca inerenti agli 'species traits' delle piante aliene introdotte in 9 arcipelaghi e ho tenuto un breve corso per graduate students in analisi multivariata di biodiversity data.

**Abilitazione Scientifica Nazionale 05/A1 Botanica II Fascia (06/04/2017)****Accreditation (Abilitazione) as 'Lector' in Life Sciences****Agència per a la Qualitat del Sistema Universitari de Catalunya (11/03/2020)****Education****Ph.D. Botany** (2007), University College Dublin, Ireland**Postgraduate Certificate in Research Methods** (2005) (96/100), University College Dublin, Ireland**M.Sc.(Agr.) Environmental Resource Management** (2002) (1<sup>st</sup> Honours), University College Dublin**Laurea in Economia e Commercio** (1999) (110/110 Lode e menzione per la tesi), Università degli Studi di Torino

## Editorial work

### **Associate Editor:** *Biological Invasions* (2017 – present)

Sono Associate Editor della rivista *Biological Invasions* dal 2017, occupandomi principalmente di gestire manoscritti che si occupano di diversi aspetti della biologia riproduttiva delle piante aliene.

### **Subject Editor:** *Ecosphere* (2010–2019)

Per 10 anni sono stata Subject Editor di *Ecosphere*, occupandomi principalmente di gestire manoscritti che si occupavano di plant-animal interactions.

### **Guest Editor.** *Frontiers in Ecology and Evolution*. Research Topic: ‘Biological Invaders: Always the Bad Guys?’ (2021–2022)

Sono stata guest co-editor di uno special topic sugli effetti delle piante aliene su comunità ed ecosistemi nativi.

## Outreach activities

### **Board of Directors of the Society for Conservation Biology – Europe Section** 2010 – 2013

Sono stata membro del Board of Directors della sezione europea della Society for Conservation Biology per tre anni, occupandomi principalmente dell’organizzazione dei congressi triennali della società, acting nel scientific committee e occupandomi anche degli aspetti economici.

### **Science Ambassador for Ireland** 2007 – 2011

Sono stata Science Ambassador in Irlanda per promuovere lo studio di materie scientifiche fra studenti di scuola secondaria superiore.

## Funded projects

- |           |   |
|-----------|---|
| 2019-2021 | GACR – Czech Science Foundation – <b>Principal Investigator</b> . Project: Live long, spread fast: the role of seed persistence in plant invasions. (5 million CKR, ca. €250,000)<br>Ho personalmente scritto e ottenuto fondi per lo svolgimento di un progetto triennale finanziato dalla Czech Science Foundation.   |
| 2015-2017 | GACR – Czech Science Foundation – <b>Principal Investigator</b> . Project: Timing is everything: the role of soil seed banks in plant invasions (5 million CKR, ca. €200,000)<br>Ho personalmente scritto e ottenuto fondi per lo svolgimento di un progetto triennale finanziato dalla Czech Science Foundation.   |
| 2014-2016 | LOEWE (Centre of Research Excellence of Hesse) FACE2FACE – <b>Young Scientist</b> and co-coordinator of two work packages (overall grant: €4.5 million)   |
| 2007-2011 | Environmental Protection Agency Ireland – <b>Principal Investigator</b> . Project: The effects of agriculture on freshwater biodiversity (€230,000) (Science, Technology, Research & Innovation for the Environment Fellowship)<br>Ho personalmente scritto e ottenuto fondi per lo svolgimento di un progetto triennale finanziato dalla Agenzia di Protezione Ambientale irlandese per svolgere un progetto sull’impatto delle attività agricole sulla biodiversità; questa ‘Call’ for funds ricadeva in un prestigioso programma STRIVE (Science, Technology, Research & Innovation for the Environment Fellowship). In questo ruolo, mi sono occupata di tutti gli aspetti scientifici e amministrativi del progetto. |

## Professional experience

### **Treasury Officer**

12.02 – 12.03

EMRO Finance Ltd, International Financial Services Centre, Dublin 1, Ireland

<b>Financial Controller</b>	04.01 – 08.01
BPM Ireland Plc, International Financial Services Centre, Dublin 1, Ireland	
<b>Financial Officer</b>	01.00 – 04.01
Banca Popolare di Milano S.p.A., Milan, Italy	

## Publications

- Gioria M**, Richardson DM, Hulme PE, Pyšek P. (2023) Why are invasive plants successful? *Annual Review of Plant Biology* 74, 635–670
- Moravcová L, Carta A, Pyšek P, Skálová H, **Gioria M\*** (2022) Long-term seed burial reveals differences in the seed-banking strategies of naturalized and invasive alien herbs. *Scientific Reports* 12, 8859, <https://doi.org/10.1038/s41598-022-12884-0>
- Gioria M**, Osborne BA, Pyšek P (2022) Soil seed banks under a warming climate. In: Baskin C, Baskin J. (eds) *Plant regeneration from seeds: a global warming perspective*. Academic Press, 285–298
- Carta A, Vandeloos F, Fernández-Pascual E, Rosbakh S, Saatkamp A, **Gioria M**, Rivière S, Müller JV, Mattana E (2022) Climate shapes the seed germination niche of temperate flowering plants: a meta-analysis of European seed conservation data. *Annals of Botany* 7, 775–786
- Gioria M**, Carta A, Baskin CC, Dawson W, Essl F, Kreft H, Pergl J, van Kleunen M, Weigelt P, Winter M, Pyšek P (2021) Persistent soil seed banks promote naturalization and invasiveness in flowering plants. *Ecology Letters* 24, 1655–1667
- Gioria M**, Pyšek P, Baskin C, Carta A (2020) Phylogenetic relatedness mediates persistence and density of soil seed banks. *Journal of Ecology* 108, 2121–2131
- Gioria M**, Le Roux JJ, Hirsch H, Moravcová L, Pyšek P (2019) Characteristics of the soil seed bank of invasive and non-invasive plants in their native and alien distribution range. *Biological Invasions* 21: 2313–2332
- Gioria M**, O’Flynn C, Osborne B (2019) Managing invasions by terrestrial alien plants in Ireland: challenges and opportunities. *Biology and Environment, Proceedings of the Royal Irish Academy* 119B: 37–61
- Gioria M**, O’Flynn C, Osborne B (2018) A review of the impacts of major terrestrial invasive alien plants in Ireland. *Biology and Environment, Proceedings of the Royal Irish Academy* 118B: 157–179
- Gioria M**, Pyšek P, Osborne B (2018) Timing is everything: does early and late germination favor invasions by herbaceous alien plants? *Journal of Plant Ecology* 11: 4–16
- Osborne B, **Gioria M** (2018) Plant Invasions. *Journal of Plant Ecology* 11: 1–3 (editorial paper)
- Gioria M**, Pyšek P (2017) Early bird catches the worm: germination as a critical step in plant invasion. *Biological Invasions*, Elton Review Series n. 1, 19: 1055–1080
- Gioria M**, Pyšek P (2016) The legacy of plant invasions: changes in the soil seed bank of invaded plant communities. *BioScience* 66: 40–53.
- Bacaro G, Maccherini S, Chiarucci A, Jentsch A, Rocchini D, Torri D, **Gioria M**, Tordoni E, Martellos S, Otto R, Escudero CG, Fernandez-Lugo S, Fernandez-Palacios JM, Arévalo JR (2015) Distributional patterns of endemic, native and alien species along a roadside elevational gradient in Tenerife, Canary Islands. *Community Ecology* 16: 223–234
- Bacaro G, Rocchini D, Diekmann M, Gasparini P, **Gioria M**, Maccherini S, Marcantonio M, Torri D, Altobelli A, Chiarucci A (2015) Shape matters in sampling plant diversity: evidence from the field. *Ecological Complexity* 24: 37–45

- Gioria M**, Osborne B (2014) Resource competition in plant invasions: emerging patterns and research needs. *Frontiers in Plant Science* 5: 501, doi: 10.3389/fpls.2014.00501
- Saunders M, Tobin B, Sweeney C, **Gioria M**, Benanti G, Cacciotti E, Osborne B (2014) Impacts of exceptional and extreme inter-annual climatic events on the net ecosystem carbon dioxide exchange of a Sitka spruce forest. *Agricultural and Forest Meteorology* 184: 147–157
- Gioria M**, Jarošík V, Pyšek P (2014) Impact of invasions by alien plants on soil seed bank communities: Emerging patterns. *Perspectives in Plant Ecology, Evolution and Systematics* 16: 132–142
- Bacaro G, **Gioria M**, Ricotta C (2013) Beta diversity reconsidered. *Ecological Research* 28: 537–540
- Gioria M**, Osborne B (2013) Biological Flora of the British Isles Series: *Gunnera tinctoria* (Molina) Mirbel. *Journal of Ecology* 101: 243–264
- Gioria M**, Pyšek P, Moravcová L (2012) Soil seed banks in plant invasions: promoting species invasiveness and long-term impact on plant community dynamics. *Preslia* 84: 327–350
- Saunders M, Tobin B, Black K, **Gioria M**, Nieuwenhuis M, Osborne B (2012) Thinning effects on the net ecosystem carbon exchange of a Sitka spruce forest are temperature-dependent. *Agricultural and Forest Meteorology* 157: 1–10
- Bacaro G, **Gioria M**, Ricotta C (2012) Testing for differences in beta diversity from plot-to-plot dissimilarities. *Ecological Research* 27: 285–292
- Gioria M**, Dieterich B, Osborne B (2011) Battle of the giants: primary and secondary invasions by large herbaceous species. *Biology and Environment, Proceedings of the Royal Irish Academy* 111: 177–193
- Maccherini S, Marignani M, **Gioria M**, Renzi M, Rocchini D, Santi E, Torri D, Tundo J, Honnay O (2011) Determinants of plant community composition of remnant biancane badlands: a hierarchical approach to quantify species-environment relationships. *Applied Vegetation Science* 14: 378–387
- Gioria M**, Bacaro G, Feehan J (2011) Evaluating and interpreting cross-taxon congruence: potential pitfalls and solutions. *Acta Oecologica* 37: 187–194
- Gioria M**, Bacaro G, Feehan J (2010) Identifying the drivers of pond biodiversity: the agony of model selection. *Community Ecology* 11: 179–186
- Gioria M**, Osborne B (2010) Similarities in the impact of three large invasive plant species on soil seed bank communities. *Biological Invasions* 12: 1671–1683
- Gioria M**, Schaffers A, Bacaro G, Feehan J (2010) The conservation value of farmland ponds: Predicting water beetle assemblages using vascular plants as a surrogate group. *Biological Conservation* 143: 1125–1133
- Gioria M**, Osborne B (2009) The impact of *Gunnera tinctoria* Molina (Mirbel) on soil seed bank communities. *Journal of Plant Ecology* 2: 153–167
- Gioria M**, Osborne B (2009) Assessing the impact of plant invasions on soil seed bank communities: use of univariate and multivariate statistical approaches. *Journal of Vegetation Science* 20: 547–556
- Becerra Jurado G, Callanan M, **Gioria M**, Baars J-R, Harrington R, Kelly-Quinn M (2009) Comparison of macroinvertebrate community structure and driving environmental factors in natural and wastewater treatment ponds. *Hydrobiologia* 634: 153–165
- Gioria M**, Osborne B (2008) Soil seed banks associated with two invasive species, *Gunnera tinctoria* and *Heracleum mantegazzianum*. In: Tokarska-Guzik B, Brock J, Brundu G, Child L, Daehler C, Pyšek P (eds.). *Plant Invasions: human perception, ecological impacts and management*, pp. 217–233. Backhuys Publishers, Leiden, The Netherlands

**Gioria M**, Osborne B (2006) The soil seed bank associated with invasive populations of *Heracleum mantegazzianum* Sommier & Levier. *Proceedings of the 15<sup>th</sup> Irish Environmental Researchers' Colloquium*, pp. 13–17. Environmental Sciences Association of Ireland

### Book chapters

**Gioria M**, Feehan J (2023) Chapter 10. Habitats supporting dytiscid life. In: *Ecology, Systematics and the Natural History of Predaceous Diving Beetles (Coleoptera: Dytiscidae)*, 2<sup>nd</sup> edition. D Yee (ed.), 2<sup>nd</sup> edition, Springer Science

**Gioria M** (2014) Chapter 7. Habitats. In: *Ecology, Systematics and the Natural History of Predaceous Diving Beetles (Coleoptera: Dytiscidae)* D Yee (ed.), Springer Science, pp. 306–362

### Published reports / Technical note

**Gioria M**, Osborne B (2017) Information on measures and related costs in relation to species included on the Union list: *Gunnera tinctoria*. A IUCN technical note produced under EC contract No. 07.0202/2016/739524/SER/ENV.D.2.

**Gioria M** (2011) *Freshwater biodiversity in the Irish agricultural landscape: the significance of ponds*. Environmental Protection Agency, STRIVE Report Series 80, pp. 68 (ISBN: 978-1-84095-412-8), Wexford, Ireland

Feehan J, **Gioria M**, Kaye B, Sheridan H, Whelan J (2008) *The control of bracken (Pteridium aquilinum) in the Glen of Imaal, Co. Wicklow. A report for the Department of Defence*. Entograph Ltd., Shankill, Ireland

### Teaching activities

#### Coordinator and Lecturer

In questo ruolo, ho sviluppato due nuovi moduli da 30 ore, coordinato tutte le attività di laboratorio e provveduto all'insegnamento di tutto il contenuto teorico:

- **Stress Ecology**, M.Sc. Biology (M-PÖ-STÖ), Justus-Liebig University, Giessen, Germany (2013, 2014)
- **Plant Community Ecology**, M.Sc. Biology (M-PÖ-PCE), Justus-Liebig University, Giessen, Germany (2014)

#### Lecturer

In questo ruolo, ho dato lezioni come co-docente per i seguenti moduli da 30 ore:

- **Cell and Plant Biology** (BIOL10030), 1<sup>st</sup> year Biology module, University College Dublin, Ireland (2018)
- **Ecosystem Modelling**, M.Sc. Biology (M-PÖ-ÖUM), Justus-Liebig University Giessen, Germany (2013)
- **Global Change and Adaptation Strategies**, M.Sc. Biology (M-PÖ-APS), Justus-Liebig University, Giessen, Germany (2013)
- **Plant-Soil-Atmosphere**, M.Sc. Biology (M-PÖ-PSA), Justus-Liebig University, Giessen, Germany (2013)
- **Topics in Plant Ecology**, M.Sc. Biology (M-PÖ-SEM, 10h), Justus-Liebig University, Giessen, Germany (2012, 2013)

### Short courses

In this role, I developed and lectured on topics related to the collection and analysis of biodiversity data.

- **Analysis of Multivariate Data.** Postgraduate Seminar Course. Ecology, Department of Biology, University of Konstanz, Germany (2011)
- **Simple and Canonical Analysis.** Postgraduate Seminar Course. Ecology, Department of Biology, University of Konstanz, Germany (2011)
- **Research Methods.** M.Sc. Environmental Resource Management (ERM), University College Dublin, Ireland (2009, 2010)
- **Biological Monitoring.** M.Sc. Rural Environmental Conservation and Management (RECM), University College Dublin, Ireland (2010, 2011)
- **Measuring Biodiversity.** M.Sc. Rural Environmental Conservation and Management programme (RECM), University College Dublin, Ireland (2010)
- **Diversity in the Rural Landscape.** Undergraduate course (2<sup>nd</sup> year Agriculture and Environmental Science degree), University College Dublin, Ireland (2008)

### Invited lectures

- *Biological invasions by alien plants.* Corso di laurea magistrale in Scienze Ambientali, insegnamento "Distribuzione delle piante e cambiamenti climatici", Università di Pisa (2h, 8 Marzo 2022)
- *Biological invasions by alien plants.* Corso di laurea triennale in Scienze naturali, insegnamento "Fitogeografia", Università di Pisa (2h, 9 Marzo 2022)
- *Role of soil seed banks in plant invasions.* Seminar Series, Department of Biology, Università di Pisa, Italy (2h, 2019)
- *The biodiversity-ecosystem functioning paradigm.* Department of Environmental Science, Università di Siena, Italy (2h, 2011)
- *Freshwater biodiversity in the agricultural landscape.* Graduate course. Limnological Institute, Department of Biology, University of Konstanz, Germany (2h, 2011)

### Invited seminars

Gioria M. 2016. *Invasions by alien plants: current knowledge, gaps and challenges.* University of Trieste, Italy

Gioria M. 2013. *Seed banks and plant invasions.* Institute of Botany, Justus-Liebig University, Giessen, Germany

Gioria M. 2012. *Plant invasions: mechanisms and impacts.* Institute of Plant Physiology, Justus-Liebig University, Giessen, Germany

Gioria M. 2012. *Invasions by alien plants: mechanisms and impacts.* Interdisciplinary Natural Sciences Centre, Justus-Liebig University, Giessen, Germany

Gioria M. 2011. *Evaluating community patterns.* Conservation Biology Department, University of Bern, Switzerland

Gioria M. 2011. *Explaining and predicting biodiversity patterns: univariate and multivariate approaches.* Ecology, Department of Biology, University of Konstanz, Germany

Gioria M. 2010. *Advances in regression analysis.* School of Biology and Environmental Science. University College Dublin, Ireland

Gioria M. 2010. *Modelling cross-taxa relationships using univariate and multivariate analytical approaches*. Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, The Netherlands

Gioria M. 2010. *Plant Invasions in Ireland*. Botany Department, University of Hawaii at Manoa, HI

Gioria M. 2009. *Irish farmland ponds: a neglected habitat?* School of Biology and Environmental Science, University College Dublin, Ireland

Gioria M. 2007. *Assessing the effects of plant invasions on soil seed bank communities: univariate and multivariate statistical approaches*. University of Massachusetts, Amherst, MA

### **Member of the Examination Committee: M.Sc. Global Change, Ecosystem Science and Policy**

Joint MSc programme:

University College Dublin, Ireland – Justus-Liebig University Giessen, Germany 2012 – 2013

### **Internal MSc Assessor: M.Sc. Environmental Resource Management**

School of Agriculture, Food Science and Veterinary Medicine 2008 – 2011

### **Senior Postgraduate Demonstrator (2004-2006)**

#### **UCD School of Biology and Environmental Science, University College Dublin**

In questo ruolo, ho coordinato le attività dei seguenti laboratori, sotto la supervisione dei rispettivi docenti.

- *Biology*, 4 semesters (36 h each), 40 undergraduate students (1<sup>st</sup> year Science)
- *Environment, Plants and Vegetation*, 1 semester (36 h + 3 field trips), 10 students (2<sup>nd</sup> year Science)
- *Plant Growth and Nutrients Assimilation*, 1 semester (36 h), 10 students (3<sup>rd</sup> year Botany)
- *Mycology*, 1 semester (36 h), 20 students (3<sup>rd</sup> year Botany)

### **External Examiner, Ph.D. dissertation, University of Stellenbosch, South Africa (2015)**

### **Supervising activities (dissertations/theses)**

Nei miei ruoli di W1 Professor e Research Fellow, ho supervisionato i seguenti progetti di laurea quadriennale o laurea magistrale:

- Philipp Körner (2012-2013). MSc Project: Use of desert bunchgrass *Panicum turgidum* for the production of biofuel under salt and draught stress.
- Florian Süssel (2012-2013). MSc Project: Sustainable utilization of untreated sewage of fish farms for the cost-effective production of biomass plants.
- Kaia Bauer (2012-2013). MSc Project: The eco-physiological effects of the utilisation of unconventional water resources on fallow land for the aim of economically profitable and environmentally sustainable energy production.
- Loti Ching'oma (2009-2010). MSc Project: The social dimension of climate change: a case study from Malawi.
- Mark Burke (2009-2010). MSc Project: The role of urban golf courses in maintaining freshwater biodiversity and increasing habitat connectivity.



- Selena Reynolds (2008-2009). MSc Project: Assessing the conservation value of freshwater habitats in Dundalk Bay.
- Nigel Mills (2009-2010). BSc Project: The biodiversity value of an esker pond system after gravel extraction.
- Gabriel Gaffney (2009-2010). BSc Project: The potential conservation value of two quarry ponds in Clorhane, Co. Offaly.
- David Walsh (2008-2009). BSc Project: The biodiversity value of freshwater springs in the Burren, Co. Clare.

**Teaching accreditation: 24 CFU, Università degli Studi di Torino, Turin, Italy (2018/19)**

Subjects: Educational Technology; Educational Research; Teaching models and strategies; Developmental psychology; Psychology of cognitive processes; Social psychology; Dynamic psychology; School and Teacher Education

**Project/manuscript reviewer**

- Swiss National Science Foundation (2013): Project evaluation
- BiodivERsA Network (2013): Project evaluation
- Participation to British Ecological Society policy consultation (2013): Call for Evidence: Environment and Climate Change
- USGS (United States Geological Survey) (2010): Manuscript review
- CSIRO (The Commonwealth Scientific and Industrial Research Organisation) (2011): Manuscript review

**Reviewer for international journals**

Annals of Applied Biology; Applied Vegetation Science; Australian Journal of Botany; Biodiversity and Conservation, Biological Invasions; Community Ecology; Ecography; Ecological Modelling; Ecological Indicators; Ecosphere; Evolutionary Ecology; Folia Geobotanica; Global Change Biology; Insect Conservation and Diversity; Journal of Biogeography; Journal of Ecology; Journal of Plant Ecology; Journal of Soil and Water Conservation; Journal of Vegetation Science; Oikos; Plant Ecology; Preslia; PLoS ONE; Weed Research

**Conference activities**

**Vice Chair of Organising Committee**, 10<sup>th</sup> International Conference on Biological Invasions: New Directions in Invasion Biology (NEOBIOTA), Dun Laoghaire, Ireland, 4-7 September 2018

**Member of Scientific Committee**, Member of the Scientific Committee, 3<sup>rd</sup> European Congress of Conservation Biology (ECCB) 2013, 28.08-1.09 2012, Glasgow, UK

**Conference abstracts reviewer**, reviewer for 100 abstracts submitted for presentation at the 25<sup>th</sup> International Congress for Conservation Biology (ICCB), Auckland, New Zealand, 5-9 December 2011

**Session organizer**

Session: *Evaluating the drivers of biodiversity patterns: plant-animal interactions and relationships with environmental variables*. Ecological Society of Germany, Austria and Switzerland (GfÖ) Annual Meeting 2011, Oldenburg, Germany

### Session chair

- *Spatial Ecology and Conservation*. 3<sup>rd</sup> European Congress of Conservation Biology, 28 August-1 September 2012, Glasgow, UK
- *Planning, Management and Conservation Strategies*. 3<sup>rd</sup> European Congress of Conservation Biology, 28 August-1 September 2012, Glasgow, UK
- *Evaluating the drivers of biodiversity patterns: plant-animal interactions and relationships with environmental variables*. 2011 Ecological Society of Germany, Austria and Switzerland (GfÖ) Annual Meeting 2011, Oldenburg, Germany
- *Biodiversity and Society*. 2010 Ecological Society of Germany, Austria and Switzerland (GfÖ) Annual Meeting, Giessen, Germany
- *Invasions: Community effects*. 2010 Ecological Society of America Annual Meeting, Pittsburgh, PA
- *Invasions: Species interactions II*. 2009 Ecological Society of America Annual Meeting, Albuquerque, NM
- *Rivers and Floodplains*. 2009 Ecological Society of America Annual Meeting, Albuquerque, NM
- *Agro-ecology II*. 2009 British Ecological Society Annual Meeting, Hertfordshire, UK

### First-authored oral contributions at international meetings

- Gioria M**, Carta A, Moravcová L, Skálová H, Pyšek P (2022) Soil seed banking strategies of naturalized plants at home and abroad. Abstracts of the 12<sup>th</sup> International Conference on Biological Invasions, 12-16 September 2022, Tartu, Estonia
- Gioria M**, Carta A, Moravcová L, Skálová H, Pyšek P (2022) Invasive plants use similar seed banking strategies at home and abroad. Abstracts of the 64<sup>th</sup> Annual Symposium of International Association for Vegetation Science. June 27<sup>th</sup> - July 1<sup>st</sup> 2022, Madrid, Spain
- Gioria M**, Moravcová L, Dawson W, Essl F, Kreft H, Pergl J, Weigelt P, Winter M, van Kleunen M, Pyšek P (2021) Seed persistence in the soil promotes local establishment, naturalization, and invasiveness in alien seed plants. 63<sup>rd</sup> IAVS (International Association for Vegetation Science) Symposium, 20-23 September 2021, Virtual Symposium
- Gioria M**, Moravcová L, Dawson W, Essl F, Kreft H, Pergl J, Weigelt P, Winter M, van Kleunen M, Pyšek P (2020) Seed persistence in the soil promotes naturalization and invasiveness in seed plants. Abstracts of the VI Seed Ecology Meeting, 16-18 September 2020, Vodice, Croatia
- Gioria M**, Moravcová L, Dawson W, Essl F, Kreft H, Pergl J, Weigelt P, Winter M, van Kleunen M, Pyšek P (2019) Plant species forming a persistent soil seed bank have a higher probability of becoming naturalized. Abstracts of the 15<sup>th</sup> International Conference on Ecology and Management of Alien Plant Invasions (EMAPi 2019), 9-13 September 2019, Prague, Czech Republic
- Gioria M**, Moravcová L, Dawson W, Essl F, Kreft H, Pergl J, Weigelt P, Winter M, van Kleunen M, Pyšek P (2019) Importance of the characteristics of soil seed banks in the invasion process. Abstracts of the VI Seed Ecology Meeting, 28 July-2 August 2019, Regensburg, Germany
- Gioria M**, Fornara D, Mantoani M, McIlroy J, Osborne B (2018) Contrasting long-term impacts of two large herbaceous invasive alien plants. Abstracts of the 10<sup>th</sup> International Conference on Biological Invasions - NEOBIOTA 2018, 3-7 September 2018, Dun Laoghaire, Ireland
- Gioria M**, Le Roux JJ, Moravcová L, Pyšek P (2017) Seed bank density and persistence as predictors of species invasiveness. Abstracts of the 14<sup>th</sup> International Conference on Ecology and Management of Alien Plant Invasions (EMAPi 2017), 4-8 September 2017, Lisbon, Portugal

- Gioria M**, Pyšek P (2016) Germination strategies and plant invasions: current knowledge, gaps and challenges. Abstracts of the 9<sup>th</sup> International Conference on Biological Invasions - NEOBIOTA 2016, 12-14 September 2016, Vianden, Luxembourg
- Gioria M**, Le Roux JJ, Janovský Z, Moravková L, Pyšek P (2016) Assessing soil seed bank traits as potential predictors of the invasiveness of alien plants and their importance in the non-native range. Abstracts of the 7<sup>th</sup> International Weed Science Congress, 19-25 June 2016, Prague, Czech Republic
- Gioria M**, Pyšek P (2015) The legacy of plant invasions: changes in the soil seed bank of invaded plant communities. Abstracts of the 13<sup>th</sup> International Conference on the Ecology and Management of Alien Plant Invasions (EMAPI 2015), 20-24 September, Hawai'i Island, HI, USA
- Gioria M**, Pyšek P (2014) Comparative assessment of the soil seed bank of invasive and non-invasive congeners in their native and alien range. Abstracts of the 8<sup>th</sup> European Conference on Biological Invasions: NEOBIOTA 2014, 3-8 November, Antalya, Turkey
- Gioria M**, Osborne B (2014) The role of competition in plant invasions. Abstracts of the Plant Biology Europe FESPB/EPSO 2014 Congress, 22-26 June 2014, Dublin, Ireland
- Gioria M**, Jarošík V, Pyšek P (2013) Impact of plant invasions on soil seed banks. Abstracts of the 12<sup>th</sup> International Conference on the Ecology and Management of Alien Plant Invasions (EMAPI 2013), 22-26 September, Pirenópolis, Brazil
- Gioria M**, Jarošík V, Pyšek P (2012) The role of soil seed banks in plant species invasions. Abstracts of the 7<sup>th</sup> European Conference on Biological Invasions: NEOBIOTA 2012, 12-14 September, Pontevedra, Spain
- Gioria M** (2011) Identifying the drivers of biodiversity: the role of plant-animal interactions. Abstracts of the 41<sup>st</sup> Ecological Society of Germany, Austria and Switzerland (GfÖ) Annual Meeting 2011, 5-9 September, Oldenburg, Germany
- Gioria M**, Yu F-J, Ning L, Keser L, Dawson W, van Kleunen M (2011) From ornamental to invasive: the role of introduction history, species traits, and climate in explaining the fate of Asian woody species in Europe. Abstracts of the 11<sup>th</sup> International Conference on the Ecology and Management of Alien Plant Invasions (EMAPI), 30 August-3 September 2011, University of Hungary, Szombathely, Hungary
- Gioria M** (2011) Patterns of plant diversity in farmland ponds: drivers and function. Abstracts of the 54<sup>th</sup> Symposium of the International Association for Vegetation Science (IAVS), University of Lyon, France
- Gioria M** (2010) Predictors of dytiscid species composition in Irish farmland ponds. Invited presentation within the symposium 'An Inordinate Neglect of Dytiscids: International Endeavors to Understand the Behavior, Ecology, and Systematics of Predaceous Diving Beetles', 2010 Entomological Society of America Annual Meeting, 12-15 December 2010, San Diego, CA, USA
- Gioria M** (2010) Modelling biodiversity patterns in ponds. Abstracts of the 2010 British Ecological Society Annual Meeting, 7-9 September 2010, University of Leeds, UK
- Gioria M** (2010) Use of cross-taxon congruence analysis to identify potential surrogate taxa for freshwater biodiversity. Abstracts of the 40<sup>th</sup> GfÖ Ecological Society of Germany, Austria and Switzerland Annual Meeting 2010, 30 August-3 September 2010, University of Giessen, Germany
- Gioria M**, Bacaro G, Schaffers A (2010) Assessing the conservation value of farmland ponds: use of predictive techniques to identify surrogate groups. Abstracts of the 95<sup>th</sup> Ecological Society of America Annual Meeting, 1-6 August 2010, Pittsburgh, Pennsylvania, PA, USA, in: *Nature Precedings*, doi:10.1038/npre.2010.5214.1
- Gioria M**, Bacaro G (2009) The power of plant community composition in predicting patterns in water beetle assemblages in farmland ponds. Abstracts of the workshop: Supporting life: vascular plants as determinants of biodiversity, University of Florence, Italy

- Gioria M**, Feehan J (2009) Irish farmland ponds: a neglected habitat? Abstracts of the 2009 British Ecological Society Annual Meeting, 7-10 September 2009, University of Hertfordshire, UK
- Gioria M**, Feehan J (2009) The significance of ponds in maintaining biodiversity in an intensively farmed landscape. Abstracts of the 94<sup>th</sup> Ecological Society of America Annual Meeting, 2-7 August 2009, Albuquerque, NM, USA, in: *Nature Precedings*, doi:10.1038/npre.2009.3596.1
- Gioria M**, Osborne B (2008) Characterising the effects of invasive species on soil seed bank communities: univariate and multivariate techniques. Abstracts of the 5<sup>th</sup> European Conference on Biological Invasions: NEOBIOTA 2008, 23-26 September 2008, Prague, Czech Republic
- Gioria M**, Osborne B (2008) Alteration in soil seed bank communities associated with invasive plant species. Abstracts of the 5<sup>th</sup> International Weed Science Congress, British Columbia University, 23-27 June 2008, Vancouver, Canada
- Gioria M**, Osborne B (2007) The impact of three invasive species on the diversity of soil seed bank communities. Abstracts of the Ecological Genetics Group Annual Meeting, University of Leicester, UK
- Gioria M**, Osborne B (2006) Comparative assessment of the impact of *Fallopia japonica* and *Gunnera tinctoria* on the soil seed bank. Abstracts of the 4<sup>th</sup> European Conference on Biological Invasions: NEOBIOTA 2006, 27-29 September 2006, Vienna, Austria
- Gioria M**, Osborne B (2006) Comparative assessment of the impact of three invasive species on the soil seed bank. Abstracts of the International Symposium on Intractable Weeds and Plant Invaders, 17-21 July 2006, University of the Azores, Ponta Delgada, São Miguel Island, Azores, Portugal
- Gioria M**, Osborne B (2006) The impact of invasive plant species on biodiversity. The significance of the soil seed bank. Abstracts of the 14<sup>th</sup> International Conference on Aquatic Invasive Species, 14-17 May 2006, Kay Biscane, FL
- Gioria M**, Osborne B (2005) Soil seed bank dynamics and the long-term impact of three invasive species. Abstracts of the 8<sup>th</sup> International Conference on the Ecology and Management of Alien Plant Invasions, 5-12 September 2005, University of Silesia, Katowice, Poland
- Gioria M**, Osborne B (2005) The impact of invasive species on the soil seed bank: some implications for habitat restoration. Abstracts of the International Workshop: Limiting Factors in Restoration. 7-9 April 2005, Justus Liebig University, Giessen, Germany
- Gioria M**, Osborne B (2005) The impact of *Heracleum mantegazzianum* on the soil seed bank. Abstracts of the International Workshop: The Ecology and Management of the Giant Alien *Heracleum mantegazzianum*. 21-23 February 2005, Justus Liebig University, Giessen, Germany

#### First-authored oral contributions at national meetings

- Gioria M** (2010) *The conservation value of ponds in the Irish agricultural landscape*. Abstracts of the Workshop: Wetland Conservation in Ireland, Trinity College Dublin, Ireland
- Gioria M** (2009) *Predicting the conservation value of farmland ponds: use of cross-taxon congruence analysis*. UCD AFSVM Research Day, University College Dublin, Ireland
- Gioria M**, Osborne B (2009) *Long-term implications of plant invasions: The significance of the soil seed bank*. 2009 Invasive Species Ireland Forum, 6-7 April 2009, Queen's University Belfast, Northern Ireland
- Gioria M**, Feehan J (2009) *Aquatic Coleoptera assemblages in the Irish agricultural landscape*. Abstracts of the 19<sup>th</sup> Irish Environmental Researchers' Colloquium, 18-20 February 2009, Waterford Institute of Technology, Ireland
- Gioria M**, Osborne B (2006) *Alterations in composition and size of the seed bank associated with three invasive species*. Abstracts of the 2006 Irish Plant Scientists' Association Meeting, 10-12 April 2006, National University of Ireland, Galway, Ireland

**Gioria M**, Osborne B (2006) *The impact of *Gunnera tinctoria* and *Fallopia japonica* on the soil seed bank*. Abstracts of the 16<sup>th</sup> Irish Environmental Researchers' Colloquium, 27-29 January 2006, University College Dublin, Ireland

**Gioria M**, Osborne B (2005) *The impact of invasive plant species on biodiversity. The significance of the soil seed bank*. Abstracts of the 15<sup>th</sup> Irish Environmental Researchers' Colloquium, 28-30 January 2005, IT Sligo, Ireland

**Gioria M**, Osborne B (2005) *The long-term impact of invasive species on soil seed bank dynamics*. Abstracts of the 2005 Irish Plant Scientists' Association Meeting, University College Dublin, Ireland

**Gioria M**, Osborne B (2004) *The impact of invasive species on biodiversity. The role of the soil seed bank*. Abstracts of the 2004 Irish Plant Scientists' Association Meeting, 23-25 April 2005, Queens University Belfast, Northern Ireland

## Environmental Protection Agency Ireland – SEMINAR SERIES

**Gioria M** (2009) Water beetle assemblages in farmland ponds. Abstracts of the 2009 EPA Ireland Seminar Series, Dublin

**Gioria M**, Feehan J (2008) Aquatic Coleoptera assemblages in the Irish agricultural landscape: The significance of ponds. Abstracts of the 2008 EPA Ireland Seminar Series, Dublin

**Gioria M**, Osborne B (2005) Soil seed bank dynamics and the long-term impact of three invasive species. Abstracts of the 2005 EPA Ireland Seminar Series, Wexford, Ireland

**Gioria M**, Osborne B (2004) The impact of invasive species on biodiversity. The significance of the soil seed bank. Abstracts of the 2004 EPA Ireland Seminar Series, Dublin

## Professional development courses

### Species distribution models

Summer School: *Geo-Ecological Data Analysis*, 11-17 July 2010. Institute for Biodiversity and Ecosystem Dynamics, Computational Ecology, University of Amsterdam

### R programming / modelling

- Training Course: *Advances in population and community ecology*. 18-30 January 2010, Imperial College London, UK. Course held by Mick Crawley, Russel Lande, and Daniel Reuman
- Training Course: *Using R to assess trends in biodiversity*. 11-17 May 2009, University of Siena, Italy

### Structural Equation Modeling

ESA Workshop: *Structural Equation Modeling*. 2 August 2009, ESA Annual Meeting, Albuquerque, NM

### Meta-analysis

ECCB 2012 Workshop: *Introduction to meta-analysis and research synthesis in ecology*. 23 August 2012, Glasgow. Course held by Elena Kulinskaya (University of East Anglia) and Julia Koricheva (Royal Holloway University of London)

### Multivariate analysis of biodiversity data

International Course: *Detecting changes in biodiversity: experimental design and data analysis*. 4-15 September 2006, University of Pisa, Italy. Organized by the University of Pisa (Italy), the University of Auckland (New Zealand), and the Plymouth Marine Laboratory (UK)

### **GIS and remote sensing**

- GIS training course, 12-13 January 2010, Urban Institute, University College Dublin, Ireland
- GIS training course: 40-h credit course (2001-2002), Faculty of Agriculture, University College Dublin, Ireland
- Remote sensing: 40-h credit course (2001-2002), Faculty of Agriculture, University College Dublin, Ireland

### **Registered expert**

DAISIE (Delivering Alien Invasive Species Inventories for Europe)

NABS (North American Benthological Society) Taxonomic Expert (Aquatic plants and Coleoptera)

### **Society memberships**

EPSO: European Plant Science Organisation (2008 - present)

### **Driving Licence**

Driving Licence - Type B

Ghemme, 12 giugno 2023

Margherita Gioria