

MARCO ANDRELLO

PRIMO RICERCATORE

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1 EMPLOYMENT

Jan 2023	Primo ricercatore <i>Consiglio Nazionale delle Ricerche (CNR)</i> Institute for the Study of the Anthropic Impact and Sustainability in the Marine Environment (IAS), Roma, Italy
Jan 2021 – Dec 2022	Ricercatore <i>Consiglio Nazionale delle Ricerche (CNR)</i> Institute for the Study of the Anthropic Impact and Sustainability in the Marine Environment (IAS), Roma, Italy
Dec 2018 – 2020	Chargé de recherches (permanent position) <i>Institut de Recherche pour le Développement (IRD)</i> Marine Biodiversity, Exploitation and Conservation (MARBEC), Sète, France
2018	Visiting researcher and Research associate University of Toronto Department of Ecology and Evolutionary Biology, Toronto, Canada Feb 2018 – Aug 2018 (Visiting researcher); Sept 2018 - Nov 2018 (Research associate).
2014 – 2018	Chercheur postdoctoral <i>Centre National de la Recherche Scientifique (CNRS)</i> Centre d'Ecologie Fonctionnelle et Evolutive (CEFE), Montpellier, France Sept 2014 – Jan 2018. Development of biophysical, ecological and demo-genetic models applied to marine protected areas and coral reefs. Landscape genomics analysis for crops.
2011 – 2014	Chercheur postdoctoral <i>Institut de Recherche pour le Développement (IRD)</i> Laboratoire Population Environnement Développement, Marseille, France. Oct 2011 – Jun 2014. Development of biophysical models applied to marine protected areas in the Mediterranean Sea. Development of a general demo-genetic model for simulation of evolutionary dynamics in marine species.
2010 – 2011	Attaché Temporaire d'Enseignement et Recherche <i>Université Grenoble Alpes</i> Laboratoire d'Ecologie Alpine (LECA), Grenoble, France Oct 2010 – Aug 2011. Development of population dynamic and population genetic models for conservation of Alpine plants
2007	Graduate internship Centre de Recherche Tour du Valat, Arles, France Feb 2007 – Aug 2007. Development of a population dynamic model for the population of European eel in the Camargue lagoons.
2006 –2007	Assegnista di ricerca <i>Università di Parma</i>

Dipartimento di Scienze Ambientali, Parma, Italy
Jul 2006 – Jan 2007. Development of a population genetic model for the European eel.

2 OTHER APPOINTMENTS

- 2020 Independent consultant
Wildlife Conservation Society (WCS), New York, USA
Feb 2020 – June 2020. Research and mapping of socio-economic threats to coral reefs ecosystem globally
- 2019, 2021 Incarico di didattica integrativa
Università degli Studi di Roma TRE
Dipartimento di Scienze, Roma, Italy
AA 2021/2022, AA 2019/2020, AA 2021/2022 - Analisi statistica dei dati ecologici e sistematici
- 2018 Independent consultant
World Wildlife Fund International (WWF), New York, USA
Aug 2018. Research and mapping of socio-economic pressures on coral reefs at a global scale to support conservation decision making

3 EDUCATION AND QUALIFICATIONS

- 2018 Abilitazione Scientifica Nazionale di II fascia (Italian University lecturer habilitation), settore concorsuale 05/C1 (ecologia)
Validity : Oct 8th 2018 – Oct 8th 2028
- 2013 Qualification « Maitre des Conférences » et « Maitre de Conférences du Muséum National d'Histoire Naturelle » (French University lecturer habilitation), section 67 (Biologie des populations et Ecologie).
Validity 2013-2017. Renewed in 2018, validity: 2018-2022
- 2010 Doctorat en Biologie Végétale, Université de Grenoble, Grenoble, France
Dissertation: "Estimation and analysis of effective size in populations structured by age or stage", successfully defended on Dec 3rd 2010. Advisors: Prof Oscar Gaggiotti, Dr Irène Till-Bottraud
EQUIPOLLENTE AL TITOLO DI DOTTORE DI RICERCA DELL'ORDINAMENTO UNIVERSITARIO ITALIANO
- 2006 Laurea v.o. in Scienze Ambientali, Università di Parma, Parma, Italy
Dissertation: "Un modello di genetica di popolazione per l'anguilla europea", successfully defended on Apr 11th 2006 (110/110 *cum laude*). Advisor: Prof. Giulio De Leo.

4 PUBLICATIONS

ORCID : [0000-0001-7590-2736](https://orcid.org/0000-0001-7590-2736)

Google Scholar : <https://scholar.google.com/citations?hl=en&user=wpYwhWoAAAAJ>

4.1 Journal articles (peer-reviewed)

46. Giakoumi, S., Richardson, A.J., Doxa, A., Moro, S., **Andrello, M.**, Hanson, J.O., Hermoso, V., Mazor, T., McGowan, J., Kujala, H., Law, E., Álvarez-Romero, J.G., Magris, R.A., Gissi, E., Arafah-Dalmau, N., Metaxas, A., Virtanen, E.A., Ban, N.C., Runya, R.M., Dunn, D.C., Fraschetti, S., Galparsoro, I., Smith, R.J., Bastardie, F., Stelzenmüller, V., Possingham, H.P., Katsanevakis, S., 2025. Advances in systematic conservation planning to meet global biodiversity goals. *Trends in Ecology & Evolution* 0. <https://doi.org/10.1016/j.tree.2024.12.002>
45. **Andrello, M.**, Manel, S., 2024. Evaluating different approaches to integrate genome-wide genetic diversity in spatial conservation prioritization. *Biological Conservation* 292, 110533. <https://doi.org/10.1016/j.biocon.2024.110533>
44. Casoli, E., Moro, S., Falasca, M., Montefalcone, M., Rizzo, L., Teixidó, N., Piazzì, L., Longo, C., Mercurio, M., Gennaro, P., Cecchi, E., Penna, M., Gambi, M.C., Mirasole, A., Ballesteros, E., **Andrello, M.**, Ventura, D., Mancini, G., Belluscio, A., Fraschetti, S., Ardizzone, G., Jona-Lasinio, G., 2024. Structure and diversity patterns of coralligenous cliffs across three ecoregions in the Central-Western Mediterranean Sea. *Diversity and Distributions* 30, e13833. <https://doi.org/10.1111/ddi.13833>
43. Dupaix, A., Lengaigne, M., **Andrello, M.**, Barrier, N., Dagorn, L., Gusmai, Q., Viennois, G., Capello, M., 2024. Floating objects in the open ocean: Unveiling modifications of the pelagic habitat induced by forest cover change and climate variations. *Global Environmental Change* 88, 102917. <https://doi.org/10.1016/j.gloenvcha.2024.102917>
42. Vajana, E., **Andrello, M.**, Avanzi, C., Bagnoli, F., Vendramin, G.G., Piotti, A., 2024. Spatial conservation planning of forest genetic resources in a Mediterranean multi-refugial area. *Biological Conservation* 293, 110599. <https://doi.org/10.1016/j.biocon.2024.110599>
41. **Andrello, M.**, Nielsen, E.S., D'Aloia, C.C., 2025. Introduction to the special issue: Leveraging genetics in spatial conservation prioritization. *Biological Conservation* 302, 110927. <https://doi.org/10.1016/j.biocon.2024.110927>
40. Jaquier, M., Albouy, C., Bach, W., Waldock, C., Marques, V., Maire, E., Juhel, J.B., **Andrello, M.**, Valentini, A., Manel, S., Dejean, T., Mouillot, D., Pellissier, L., 2024. Environmental DNA recovers fish composition turnover of the coral reefs of West Indian Ocean islands. *Ecology and Evolution* 14, e11337. <https://doi.org/10.1002/ece3.11337>
39. **Andrello, M.**, Manel, S., Vilcot, M., Xuereb, A., D'Aloia, C.C., 2023. Benefits of genetic data for spatial conservation planning in coastal habitats. *Cambridge Prisms: Coastal Futures* 1, e28. <https://doi.org/10.1017/cft.2023.16>
38. Mathon, L., Marques, V., Manel, S., Albouy, C., **Andrello, M.**, Boulanger, E., Deter, J., Hocdé, R., Leprieur, F., Letessier, T.B., Loiseau, N., Maire, E., Valentini, A., Vigliola, L., Baletaud, F., Bessudo, S., Dejean, T., Faure, N., Guerin, P.-E., Jucker, M., Juhel, J.-B., Kadarusman, Polanco F., A., Pouyaud, L., Schwörer, D., Thompson, K.F., Troussellier, M., Sugeha, H.Y., Velez, L., Zhang, X., Zhong, W., Pellissier, L., Mouillot, D., n.d. The distribution of coastal fish eDNA sequences in the Anthropocene. *Global Ecology and Biogeography*, Early View. <https://doi.org/10.1111/geb.13698>

37. **Andrello, M.**, D'Aloia, C., Dalongeville, A., Escalante, M.A., Guerrero, J., Perrier, C., Torres-Florez, J.P., Xuereb, A., Manel, S., 2022. Evolving spatial conservation prioritization with intraspecific genetic data. *Trends in Ecology & Evolution* 37, 553–564. <https://doi.org/10.1016/j.tree.2022.03.003>
36. Greiner, A., **Andrello, M.**, Darling, E., Krkošek, M., Fortin, M.-J., 2022 Limited spatial rescue potential for coral reefs lost to future climate warming. *Global Ecology and Biogeography* 31 (11): 2245-2258. <https://doi.org/10.1111/geb.13571>
- National Champion for Canada for Frontiers Planet Prize (2023)**
35. Mathon, L., Marques, V., Mouillot, D., Albouy, C., **Andrello, M.**, Baletaud, F., Borrero-Pérez, G.H., Dejean, T., Edgar, G.J., Grondin, J., Guerin, P.-E., Hocdé, R., Juhel, J.-B., Kadarusman, Maire, E., Mariani, G., McLean, M., Polanco F., A., Pouyaud, L., Stuart-Smith, R.D., Sugeha, H.Y., Valentini, A., Vigliola, L., Vimono, I.B., Pellissier, L., Manel, S., 2022. Cross-ocean patterns and processes in fish biodiversity on coral reefs through the lens of eDNA metabarcoding. *Proc. R. Soc. B.* 289, 20220162. <https://doi.org/10.1098/rspb.2022.0162>
34. **Andrello M***, Darling E*, Wenger, A., Suárez-Castro, A.F., Gelfand, S., Ahmadi, G.N., 2022. A global map of human pressures on tropical coral reefs. *Conservation Letters* 15, e12858. <https://doi.org/10.1111/conl.12858> * co-first authorship.
33. Stauffer, S., Jucker, M., Keggin, T., Marques, V., **Andrello M**, Bessudo, S., Cheutin, M.-C., Borrero-Pérez, G.H., Richards, E., Dejean, T., Hocdé, R., Juhel, J.-B., Ladino, F., Letessier, T.B., Loiseau, N., Maire, E., Mouillot, D., Mutis Martinezguerra, M., Manel, S., Polanco Fernández, A., Valentini, A., Velez, L., Albouy, C., Pellissier, L., Waldock, C. 2021. How many replicates to accurately estimate fish biodiversity using environmental DNA on coral reefs? *Ecology and Evolution* 11, 14630–14643. <https://doi.org/10.1002/ece3.8150>
32. **Wötzel S***, **Andrello M***, Albani MC, Koch MA, Coupland G, Gugerli F. 2021. *Arabidopsis thaliana*: A perennial model plant for ecological genomics and life-history evolution. *Molecular Ecology Resources*. * co-first authorship. <https://doi.org/10.1111/1755-0998.13490>
31. Dupaix A, Capello M, Lett C, **Andrello M**, Barrier N, Viennois G, Dagorn L., 2021. Surface habitat modification through industrial tuna fishery practices. *ICES Journal of Marine Science*. <https://doi.org/10.1093/icesjms/fsab175>
30. **Andrello M**, Noirot, C., Débarre, F., Manel, S., 2021. METAPOPGEN 2.0: A multilocus genetic simulator to model populations of large size. *Molecular Ecology Resources* 21, 596–608. <https://doi.org/10.1111/1755-0998.13270>
29. Xuereb A, D'Aloia CC, **Andrello M**, Bernatchez L, Fortin MJ. 2021. Incorporating putatively neutral and adaptive genomic data into marine conservation planning. *Conservation Biology*. 35(3): 909-920 doi.org/10.1111/cobi.13609
28. Boulanger E, Dalongeville A, **Andrello M**, Mouillot D and Manel S. 2020. Spatial graphs highlight how multi-generational dispersal shapes landscape genetic patterns. *Ecography*, 43: 1167-1179. doi: 10.1111/ecog.05024

27. Crochelet E, Barrier N, **Andrello M**, Marsac F, Spadone A and Lett C. 2020. Connectivity between seamounts and coastal ecosystems in the Southwestern Indian Ocean. *Deep-Sea Research Part II: Topical Studies in Oceanography*. 176, 104774. doi.org/10.1016/j.dsr2.2020.104774
26. **Andrello M.**, de Villemereuil P., Carboni M., Busson D., Fortin M.-J., Gaggiotti O. E. and Till-Bottraud I. 2020. Accounting for stochasticity in demographic compensation along the elevational range of an alpine plant. *Ecology Letters*, 23(5): 870-880. doi.org/10.1111/ele.13488.
25. Moretti M, Caretti P, Bricalli A and **Andrello M**. 2020. Genetic diversity and reproductive ecology of the sage-leaved rockrose, *Cistus salviifolius* L., in the Swiss Alps. *Plant ecology*, 221: 361–374. doi.org/10.1007/s11258-020-01013-4.
24. Handal W, Szostek C, Hold N, **Andrello M**, Thiébaud E, Harney E, *et al.* (2020). New insights on the population genetic structure of the great scallop (*Pecten maximus*) in the English Channel, coupling microsatellite data and demogenetic simulations. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 30, 1841–1853. Doi: 10.1002/aqc.3316
23. Huang J. L., **Andrello M.**, Martensen A. C., Saura S., Liu D. F., He J. H. and Fortin M. J. 2020. Importance of spatio-temporal connectivity to maintain species experiencing range shifts. *Ecography*, 43(4): 591-603. doi.org/10.1111/ecog.04716
22. Manel S, Loiseau N, **Andrello M**, Fietz K, Goñi R, Forcada A, Lenfant P, Kininmonth S, Marcos C, Marques V, Mallol S, Pérez-Rufaza A, Breusing C, Puebla O, Mouillot D. 2019. Long-distance benefits of marine reserves: myth or reality? *Trends in Ecology and Evolution*, Vol. 34, Issue 4, p342–354. doi.org/10.1016/j.tree.2019.01.002. ISI:000461826200010
21. Manel S.*, **Andrello M.***, Henry K., Verdelet D., Darracq A., Guerin P.E., Desprez B. and Devaux P. 2018. Predicting genotype environmental range from genome–environment associations. *Molecular Ecology*, 27: 2823-2833, doi: 10.1111/mec.14723. ISI:000436113300004. * **equal contribution**.
20. Dalongeville A., **Andrello M.**, Mouillot D., Lobreaux S., Fortin M. J., Lasram F., Belmaker J., Rocklin D., Manel S. 2018. Geographic isolation and larval dispersal shape seascape genetic patterns differently according to spatial scale. *Evolutionary Applications*, accepted, doi: 10.1111/eva.12638. ISI:000442210300019
19. Guerrero J., **Andrello, M.**, Burgarella, C. and Manel, S. 2018. Soil environment is a key driver of adaptation in *Medicago truncatula*: new insights from landscape genomics. *New Phytologist*, 219 (1): 378-390, doi: 10.1111/nph.15171. ISI:000434153200037
18. Magris R.A., **Andrello M.**, Pressey R.L., Mouillot D., Dalongeville A, Nilsson Jacobi M and Manel S. 2018. Biologically representative and well-connected marine reserves enhance biodiversity persistence in conservation planning. *Conservation Letters*, e12439, doi: 10.1111/conl.12439. ISI:000441238500007
17. **Andrello M.**, Devaux C., Quétier F. and Till-Bottraud I. 2018. Paying for conservation: a bioeconomic analysis of the effects of land management options on the viability of an endangered species, *Eryngium alpinum*. *Journal of Applied Ecology*, 55: 1940-1950, doi: 10.1111/1365-2664.13112. [doi: 10.1111/1365-2664.13112](https://doi.org/10.1111/1365-2664.13112). [ISI:000434970200035](https://doi.org/10.1111/1365-2664.13112)

16. Marandel F., Lorance P., **Andrello M.**, Charrier G., Le Cam S. and Trenkel V. M. 2018. Insights from genetic and demographic connectivity for the management of rays and skates. *Canadian Journal of Fisheries and Aquatic Sciences*, 75(8): 1291–1302, doi: 10.1139/cjfas-2017-0291. ISI:000439863600009
15. **Andrello M.**, F. Guilhaumon, C. Albouy, V. Parravicini, J. Scholtens, P. Verley, M. Barange, U. R. Sumaila, S. Manel, D. Mouillot. 2017. Global mismatch between fishing dependency and larval supply from marine reserves. *Nature communications*, 8:16039, doi: 10.1038/NCOMMS16039. ISI:000405115100001
14. **Andrello, M.**, K. Henry, P. Devaux, D. Verdelet, B. Desprez and S. Manel. 2017. Insights into the genetic relationships among plants of *Beta* section *Beta* using SNP markers. *Theoretical and Applied Genetics*, 130 (9): 1857–1866, doi:10.1007/s00122-017-2929-x. ISI:000408120800007
13. **Andrello, M.**, K. Henry, P. Devaux, B. Desprez, and S. Manel. 2016. Taxonomic, spatial and adaptive genetic variation of *Beta* section *Beta*. *Theoretical and Applied Genetics* 129:257–271. ISI:000368991100005
12. Dalongeville, A., **M. Andrello**, D. Mouillot, C. Albouy, and S. Manel. 2016. Ecological traits shape genetic diversity patterns across the Mediterranean Sea: a quantitative review on fishes. *Journal of Biogeography* 43:845–857. ISI:000373154000018
11. Rattray, A., **M. Andrello**, V. Asnaghi, S. Bevilacqua, F. Bulleri, E. Cebrian, M. Chiantore, J. Claudet, S. Deudero, J. Evans, S. Fraschetti, G. Guarnieri, L. Mangialajo, P. Schembri, A. Terlizzi, and L. Benedetti-Cecchi. 2016. Geographic distance, water circulation and environmental conditions shape the biodiversity of Mediterranean rocky coasts. *Marine Ecology Progress Series* 553:1–11. ISI:000383800600001
10. **Andrello, M.**, M. N. Jacobi, S. Manel, W. Thuiller, and D. Mouillot. 2015a. Extending networks of protected areas to optimize connectivity and population growth rate. *Ecography* 38:273–282. ISI:000350751200006
9. **Andrello, M.**, D. Mouillot, S. Somot, W. Thuiller, and S. Manel. 2015b. Additive effects of climate change on connectivity between marine protected areas and larval supply to fished areas. *Diversity and Distributions* 21:139–150. ISI:000347462900002
8. **Andrello, M.**, and S. Manel. 2015. MetaPopGen: an R package to simulate population genetics in large size metapopulations. *Molecular Ecology Resources* 15:1153–1162. ISI:000359631600014
7. Lagabriele, E., E. Crochelet, **M. Andrello**, S. R. Schill, S. Arnaud-Haond, N. Alloncle, and B. Ponge. 2014. Connecting MPAs – eight challenges for science and management. *Aquatic Conservation: Marine and Freshwater Ecosystems* 24:94–110. ISI:000345206000010
6. **Andrello, M.**, D. Mouillot, J. Beuvier, C. Albouy, W. Thuiller, and S. Manel. 2013. Low Connectivity between Mediterranean Marine Protected Areas: A Biophysical Modeling Approach for the Dusky Grouper *Epinephelus marginatus*. *PLoS ONE* 8:e68564. ISI:000321692000030
5. **Andrello, M.**, F. Nicolè, I. Till-Bottraud, and O. E. Gaggiotti. 2012a. Effect of Stage-Specific Vital Rates on Population Growth Rates and Effective Population Sizes in an Endangered Iteroparous Plant. *Conservation Biology* 26:208–217. ISI:000301981100004

4. **Andreello, M.***, J.-P. Bizoux*, M. Barbet-Massin, M. Gaudeul, F. Nicolè, and I. Till-Bottraud. 2012b. Effects of management regimes and extreme climatic events on plant population viability in *Eryngium alpinum*. *Biological Conservation* 147:99–106. ISI:000302972700013 * **equal contribution**.
3. **Andreello, M.**, D. Bevacqua, G. E. Maes, and G. A. De Leo. 2011. An integrated genetic-demographic model to unravel the origin of genetic structure in European eel (*Anguilla anguilla* L.). *Evolutionary Applications* 4: 517–533. ISI:000294924100001
2. Pujolar, J. M., D. Bevacqua, **M. Andreello**, F. Capoccioni, E. Ciccotti, G. A. De Leo, and L. Zane. 2011. Genetic patchiness in European eel adults evidenced by molecular genetics and population dynamics modelling. *Molecular Phylogenetics and Evolution* 58:198–206. ISI:000287888700006
1. Bevacqua, D., **M. Andreello**, P. Melià, S. Vincenzi, G. A. D. Leo, and A. J. Crivelli. 2011. Density-dependent and inter-specific interactions affecting European eel settlement in freshwater habitats. *Hydrobiologia* 671:259–265. ISI:000291740900021

4.2 Book chapters

Alloncle N, Porro B, **Andreello M**, Guizien K, Bierne N, Arnaud-Haond S (2019). La connectivité dans la création et la gestion des aires marines protégées. In *Connectivité et protection de la biodiversité marine. Dynamique spatiale des organismes marins* (eds. Porro B, Alloncle N, Bierne N and Arnaud-Haond). Editions Quae, ISBN: 978-2-7592-2994-9

Xuereb A, D'Aloia CC, Daigle RM, **Andreello M**, Dalongeville A, Manel S, Mouillot D, Guichard F, Côté IM, Curtis JMR, Bernatchez L, Fortin M-J. (2019). Marine Conservation and Marine Protected Areas. In *Population Genomics: Marine Organisms* (eds. Oleksiak MF and Rajora OP). 10.1007/13836_2018_63

4.3 Conference proceedings

Andreello, M. Les objectifs génétiques et démographiques pour obtenir une population viable dans le cas d'une réintroduction. *Actes du colloque CORA Faune Sauvage et LPO « Les réintroductions : un atout pour conserver les écosystèmes ? »* Lyon, France, 11-12 Feb 2012

4.4 Other publications

Greiner, A, **Andreello, M**, Krkošek, M and Fortin, M-J. 2024. How The Spread Of Young Coral Can Help Save Coral Reefs. *Front. Young Minds* 12:1308034. doi: 10.3389/frym.2024.1308034

Mouillot, D., **M. Andreello** and S. Manel. Impact of the Mediterranean MPA network on the conservation and exploitation of living marine resources: the example of the dusky grouper. In *Les dossiers d'Agropolis International. Marine and coastal sciences in Occitanie*, 24, Jul 2019. Eds: Bandelier, J., B. Hubert, C. Jeandel, P. Lebaron, M. Petit, H. Rey-Valette and P. Soler. Agropolis International, Montpellier, France

Mouillot, D., **M. Andreello** and S. Manel. L'impact du réseau d'AMP en Méditerranée sur la conservation et l'exploitation des ressources marines vivantes : exemple du mérrou brun. In *Les dossiers d'Agropolis International*, 24, Feb 2019. *Sciences marines et littorales en Occitanie*. Eds: Bandelier, J., B. Hubert, C. Jeandel, P. Lebaron, M. Petit, H. Rey-Valette and P. Soler. Agropolis International, Montpellier, France.

Andreello M., D. Kaplan, C. Lett, S. Manel and D. Mouillot. Connectivity of marine populations: individual-based modelling of grouper larval exchanges within a Mediterranean network of marine protected areas. In

Les dossiers d'Agropolis International. Complex systems: from biology to landscapes, 23, Feb 2019. Eds: N. Arnaud, T., B. Jouve and J. P. Müller. Agropolis International, Montpellier, France.

Andrello M., D. Kaplan, C. Lett, S. Manel and D. Mouillot. Connectivité des populations marines : modélisation individu-centrée des échanges de larves de mérou au sein du réseau d'aires marines protégées de la Méditerranée. In *Les dossiers d'Agropolis International. Systèmes complexes : de la biologie aux territoires*, 23, Jun 2018. Eds: N. Arnaud, T., B. Jouve and J. P. Müller. Agropolis International, Montpellier, France.

5 CONFERENCES AND SEMINARS

5.1 Invited

Andrello M.

Effect of climate change on the dispersal of marine organisms in the Mediterranean Sea.
Seminar for the PhD Program in Molecular, Cellular and Environmental Biology, Dipartimento di Scienze, Università Roma Tre, Roma. 11th June 2025.

Andrello, M.

Leveraging genetics for spatial conservation planning
International Workshop on the Integration of Genomic and Geographic Information System data for wildlife conservation (WIGGIS), Piacenza, Italy, 15th-16th September 2022.

Andrello, M.

Connettività globale delle riserve marine.
Dipartimento di Scienze, Università degli studi di Roma TRE. Roma, Italy, 25 Jun 2019

Andrello, M.

Connectivity of marine protected areas for biodiversity protection and management of fisheries: the case of the Mediterranean sea
CIBNOR, La Paz, Mexico, 19 Aug 2016

Andrello, M.

Local adaptation in beets
AGAP, Montpellier, France, 15 Jan 2015

Andrello, M.

Connectivité entre Aires Marines Protégées (AMPs) en Mer Méditerranée : modélisation de la dispersion larvaire.
LPED, Marseille, France, 24 Oct 2013

Andrello, M.

Connectivité entre Aires Marines Protégées (AMPs) en Mer Méditerranée : modélisation de la dispersion larvaire
Les jeudi de EME, Sète, France, 20 Jun 2013

Andrello, M.

Self-recruitment and low connectivity among marine protected areas in the Mediterranean Sea. A

modelling approach for the dusky grouper (*Epinephelus marginatus*)
Ecosym, Montpellier, France, 12 Jun 2012

Andrello, M.

Les objectifs génétiques et démographiques pour obtenir une population viable dans le cas d'une réintroduction.

Colloque CORA Faune Sauvage et LPO. Les réintroductions : un atout pour conserver les écosystèmes ?
Lyon, France, 11-12 Feb 2012

5.2 Non-invited, with abstract publication

Andrello M, D'Amen M, Azzurro E. Developing a model for the expansion of *Pterois miles* in the Mediterranean Sea. In Azzurro E., Bongiorno L., Cherubini L., Pollegioni P., Fontaneto D., Rosati I. eds. 2024. *Biodiversity Change in the Anthropocene: Priorities for research*. Book of Abstract. April 10th - 11th 2024, No. 704. Rome, CNR. <https://doi.org/10.32095/BIOCHANGE2024>

Jaquier M, Albouy C, Bach W, Waldock C, Marques V, Maire E, **Andrello M**, Valentini A, Manel S, Dejean T, Mouillot D, Pellissier L. 2021. Environmental DNA diffusion of reef fishes along a distance gradient from four isolated islands of the Western Indian Ocean. *ARPHA Conference Abstracts 4*: e65060. <https://doi.org/10.3897/aca.4.e65060>. Presented at : 1st DNAQUA International Conference (March 9-11, 2021)

Mathon L, Marques V, Mouillot D, Albouy C, **Andrello M**, Baletaud F, Borrero-Pérez G, Dejean T, Edgar GJ, Grondin J, Guerin P-E, Hocdé R, Juhel J-B, Kadarusman K, Maire E, Mariani G, McLean M, Polanco F A, Pouyaud L, Stuart-Smith RD, Sugeha HY, Valentini A, Vigliola L, Vimono IB, Pellissier L, Manel S. 2021. Circumglobal distribution of fish environmental DNA in coral reefs. *ARPHA Conference Abstracts 4*: e64792. <https://doi.org/10.3897/aca.4.e64792>. Presented at: First DNAQUA International Conference. 9-11 March 2021.

Andrello M, Bevacqua D, Piovani P & De Leo GA. 2006. A simulation model of population genetics to unravel the panmictic nature of the European eel. *Journal of Fish Biology*, 69 (Supplement C), p. 242. Presented at: *Annual Symposium of the Fisheries Society of the British Isles*, Aberdeen, UK, July 2006

5.3 Non-invited

Raschetti S, Gissi E, D'Amen M, Garofalo G, Menegon S, Mulazzani A, Ramieri E, Barbanti A, **Andrello M**. Integrating biodiversity protection into different socio-economic scenarios of maritime spatial planning for the Italian seas. *2nd Conference of Conservation Biology for Early Career Researchers*, L'Aquila, Italy, 6th-9th May 2025

La Bella G, Greta La Bella, Ancillotto L, **Andrello M**, Cerretti P, Di Giulio A, Giuliani M, Martelli F, Russo LF, Santini L, Carboni M. Ecosystem Services in Rome: the interplay between human disturbance and green areas' spatial pattern. *2nd Conference of Conservation Biology for Early Career Researchers*, L'Aquila, Italy, 6th-9th May 2025

Andrello M, Manel S. Evaluating different approaches to integrate genome-wide genetic diversity in spatial conservation prioritization. *7th European Congress of Conservation Biology: Biodiversity positive by 2030*. 17-21 June 2024, Bologna, Italy.

Raschetti S, Gissi E, Menegon S, Ramieri E, Bongiorno L, Barbanti A, **Andrello M**, D'Amen M. Integrating marine connectivity in the maritime spatial planning of Italian seas. *7th European Congress of Conservation Biology: Biodiversity positive by 2030*. 17-21 June 2024, Bologna, Italy.

Andrello M, D'Amen M, Azzurro E. A role for marine connectivity in the secondary expansion of Lessepsian immigrants in the Mediterranean Sea? *7th International conference on Marine Connectivity: Advancing research for improved management*. 27-31 May 2024, Montpellier, France

Mirzaei MR, Quattrocchi G, Cucco A, Sinerchia M, **Andrello M**. Effects of climate change on larval dispersal connectivity of Mediterranean coastal fishes. *7th International conference on Marine Connectivity: Advancing research for improved management*. 27-31 May 2024, Montpellier, France

McDowell J, **Andrello M**, Mouillot D, Pollock L. Interacting effects of fishing and connectivity on spillover of biodiversity from marine reserves: a global analysis. Annual Meeting of the Ecological Society of America, Portland, Oregon, USA. August 6-11, 2023

Greiner A., Darling E., **Andrello M.**, Nand Y., Mangubhai S., Jupiter S., Fortin M.J. and Krkošek M. Consequences of Multiple Stability and Connectivity in Coral Reef Ecosystems
Canadian Society for Ecology and Evolution Conference, PhD Award Symposium, Montreal, Canada, 17 August 2022

Andrello, M. L'approvisionnement en larves des réserves marines dans les pays dépendants de la pêche côtière pour l'économie, les emplois et la sécurité alimentaire. Colloque sur les vulnérabilités du patrimoine récifale, Montpellier, Dec 10-12, 2019. <https://vulpare.sciencesconf.org/program>

Guerrero J., **Andrello M.**, Burgarella C. and Manel S. Soil environment is a key driver of adaptation in *Medicago truncatula*: new insights from landscape genomics. 4th Mexico Population Genomics Meeting, Mexico City, Mexico, January 11, 2019.

Andrello M., Devaux C., Quétier F. and Till-Bottraud I. 2018. Paying for conservation: a bioeconomic analysis of the effects of land management options on the viability of an endangered species, *Eryngium alpinum*. North American Congress for Conservation Biology, Toronto, Canada, July 23 - 25, 2018

Xuereb A., D'Aloia C.C., Daigle R.M., **Andrello M.**, Dalongeville A., Manel S., Mouillot D., Guichard F., Côté I.M., Curtis J., Bernatchez L., Fortin M.J. Incorporating evolutionary perspectives and genomics into marine reserve network design. North American Congress for Conservation Biology, Toronto, Canada, July 23 - 25, 2018

Andrello M., F. Guilhaumon, C. Albouy, V. Parravicini, J. Scholtens, P. Verley, M. Barange, U. R. Sumaila, S. Manel, D. Mouillot. Global mismatch between fishing dependency and larval supply from marine reserves. 4th World Conference of Marine Biodiversity (WCMB), May 13 – 16, 2018, Montreal, Canada.

Andrello M., de Villemereuil P., Busson D., Gaggiotti O.E. and Till-Bottraud I. Demography of natural populations of *Arabis alpina* across an elevational gradient. 3rd Symposium on *Arabis alpina* research, Koeln, Germany, 5th-7th February 2018.

Marandel F., Lorange P., **Andrello M.**, Charrier G., Le Cam S., Trenkel V.M.
Connectivités démographique et génétique pour la gestion des raies : quels apports ? 13^{ème} colloque de l'association française d'Halieutique. 28-30 June 2017, Nantes, France

Andrello M. and Manel S.

MetaPopGen : an R package to simulate genetics in large size metapopulations

4th plenary session of the Groupe de recherche en Connectivité Marine (MarCo), Sète, France, 2-3 June 2014

Andrello M., Mouillot D, Thuiller W, Manel S.

Connectivity between Mediterranean marine protected areas: larval dispersal, effects of climate change and optimization of the future network.

International Marine Protected Areas Congress (IMPAC3), Marseille, France, October 2013.

Alloncle, N., **Andrello M.**, Arnaud-Haond S.

Collaboration between scientists and managers to address connectivity issues within MPA networks.

International Marine Protected Areas Congress (IMPAC3), Marseille, France, October 2013.

Crochelet E, **Andrello M.**, Lagabriele E.

Connectivity in the Mediterranean Sea and across the current MPA system.

International Marine Protected Areas Congress (IMPAC3), Marseille, France, October 2013.

Andrello, M.

Connectivité et design d'Aires Marines Protégées (AMPs)

MPA session of the Groupe de recherche en Connectivité Marine (MarCo), Marseille, France, 5 June 2013

Andrello M. and Manel S.

A lagrangian model to estimate connectivity between Mediterranean marine protected areas and larval supply to fished areas.

3rd plenary session of the Groupe de recherche en Connectivité Marine (MarCo), Marseille, France, 3-4 June 2013

Andrello M and Till-Bottraud, I.

Effets des modes d'utilisation des terres sur la conservation d'une espèce menacée, le Chardon bleu des Alpes, *Eryngium alpinum*.

Le réveil du Dodo, IV colloque francophone en biologie de la conservation, Dijon, France, 2 – 4 May 2012

Andrello M. and Manel S.

The Fishconnect project: estimating connectivity between marine protected areas in the Mediterranean Sea.

1st plenary session of the Groupe de recherche en Connectivité Marine (MarCo), Sète, France, 7-10 November 2011

Andrello M., Gaudeul M, Till-Bottraud I, Gaggiotti OE.

Contrasting estimates of effective population size based on demographic and genetic data in *Eryngium alpinum* L. (*Apiaceae*).

The Population Genetics Group Meeting (POPGROUP), Hull, UK, 5 – 7 January 2011

Bevacqua D, Melià P, **Andrello M.**, Vincenzi S, Crivelli AJ, & De Leo GA.

Ecological interactions between European catfish and European eel affect eel settlement in a freshwater habitat.

20th Congress of The Italian Society of Ecology (SItE), Rome, Italy, 27-30 September 2010

Andrello M, Gaudeul M, Till-Bottraud I & Gaggiotti OE.

Incongruency between model-based and genetic-based estimates of effective population size.

PhD student seminar : Modèles en écologie évolutive, Montpellier, France, June 2010

Pujolar JM, Bevacqua D, **Andrello M**, Zane L.

Bringing together molecular genetics and population dynamics modeling: disentangling the influence of fisheries and climate variation in the endangered European eel.

Climate Change Effects on Fish and Fisheries, Sendai, Japan, 25-29 April 2010,

Andrello M, Nicolè F, Till-Bottraud I & Gaggiotti OE.

Demographic-based estimates of effective population size for the perennial plant *Dracocephalum austriacum*.

The Population Genetics Group Meeting (POPGROUP), Cardiff, UK, 17 – 19 December 2008

Andrello M, Bevacqua D, Melià P, Crivelli AJ & De Leo GA.

Impact of the invasive European catfish on the dynamics of a European eel population in a freshwater canal.

Managing Alien Species for Sustainable Development of Aquaculture and Fisheries (MALIAF), Firenze, Italy, 5 – 7 November 2008

Andrello M, Bevacqua D, Piovani P & De Leo GA.

A hybrid demographic-genetic model to probe the origin of genetic differentiation in European eel sub-populations.

European Conference on Ecological Modelling (ECEM), Trieste, Italy, 27 – 30 November 2007

Bevacqua D, **M. Andrello**, P. Piovani, P. Melià, G.A. De Leo and M. Gatto.

How variations in the oceanic conditions can affect population genetics of a catadromous fish. The case of the European eel.

ECSA 41st International Conference, Venice, Italy, 15-20 October 2006

Andrello M, Bevacqua D, Piovani P & De Leo GA.

An interdisciplinary approach to population genetics of European eel.

16th Congress of The Italian Society of Ecology (SIte), Viterbo, Italy, September 2006

Bevacqua D, Crivelli AJ, Melià P, **Andrello M**, De Leo GA & Gatto M.

Effectiveness of different measures for the recovery of the European eel (*Anguilla anguilla*) stock: an analysis for the Camargue lagoons.

Annual Science Conference of International Council for the Exploration of the Sea (ICES), Maastricht, The Netherlands, September 2006

5.4 Posters

Raschetti S, Barbanti A, **Andrello M**. Integrating marine connectivity in the maritime spatial planning of Italian seas. *7th International conference on Marine Connectivity: Advancing research for improved management*. 27-31 May 2024, Montpellier, France

Mahafina, J.A., Frederich, B., Henitsoa, J., **Andrello, M.**, Reisser, C., Volkaert, F., Durand, J.-D., Nomenisoa, A., Ravelohasina, H., Ranivoarivelo, L., Lepoint, G., Mkare, T., Rougeot, C., Collet, A., Rasolofonirina, R.,

Mwaluma, J., 2022. Overview and progress of consortium research related to the biology, ecology and aquaculture of rabbitfish. *12th WIOMSA Scientific Symposium*, Durban, South Africa 10-15 october 2022

Guerrero J., **Andrello M.**, Burgarella C. and Manel S. Soil environment is a key driver of adaptation in *Medicago truncatula*: new insights from landscape genomics. II Joint Congress on Evolutionary Biology, Montpellier, August 19-22, 2018

Andrello M., Henry K, Devaux P, Desprez B, Manel S. Taxonomic, spatial and adaptive genetic variation of Beta section Beta and *Beta vulgaris* subsp. *maritima*. 75th Congress of the International Institute for Beet Research, Brussels, Belgium, 16-17 February 2016

Andrello M. and Choler P. Population persistence of semiarid grassland plants and the link to long-term climatic dynamics. Popbio 2014. Plant Population Biology Conference, Konstanz, Germany, May 2014.

Andrello M. Self-recruitment, connectivity and larval export in Mediterranean marine protected areas: a modelling approach for the dusky grouper *Epinephelus marginatus*. Forum of Marine Protected Areas in the Mediterranean, Antalya, Turkey, November 2012

Bevacqua D., **Andrello M.**, S. Vincenzi, P. Melià, A.J. Crivelli & G.A. De Leo 2010. Environmental and ecological factors affecting European eel settlement in a freshwater canal. Estuarine & Coastal Sciences Association 47th Symposium, Figueira da Foz, Portugal, 14-19 September.

Andrello M., Bevacqua D, Crivelli AJ & De Leo GA. Demographic analysis of the European eel in a Mediterranean freshwater canal. The Buffon Legacy, Dijon, France, September 2007

5.5 Participation without formal contributions

FAO (Food and Agriculture Organization of the United Nations) International Symposium on Fisheries Sustainability. Strengthening the Science-Policy Nexus. 18-21 November 2019, Rome, Italy.

3rd Conference of the Groupe de recherche en Génomique Environnementale, Montpellier, France, 26-28 octobre 2015

5th plenary session of the Groupe de recherche en Connectivité Marine (MarCo), Montpellier, France, 18-20 September 2015

DyBRES, Research group on Ecological spatial networks, Montpellier, France, 15-16 September 2014.

Rencontres internationales de la biodiversité marine et côtière, Brest, France, 13-14 Novembre 2012

2nd Stanford workshop in Biodemography, Stanford University, November 2009. Invited with remission of travel and lodging expenses.

6 FIELD CAMPAIGNS

April 2019 Oceanographic expedition, French Scattered Islands (Îles Éparses)

7 AWARDS, FELLOWSHIPS AND GRANTS

2024- 2027	BIODIVERSA+ BioDivMon. Monitoring the Open-Ocean Biodiversity with Fishers. PI: Manuela Capello (IRD, Sète), total budget: €1,488,811. Role: head of research unit, budget: €161,220 .
2023 - 2025	PRIN 2022 - 2022Y7MY32 UrBiS - Biogeography of urban green spaces: direct and indirect drivers of biodiversity and ecosystem services in Rome. PI: Luca Santini (Università la Sapienza, Roma), total budget: €231,458. Role: head of research unit, budget: €8,560 .
2022 - 2025	PRIN 2020 - Preserving coastal marine ecosystem functions and services under climate change pressure and overfishing. PI: Lorenzo Zane (University of Padova), total budget: €647,316. Role: head of research unit, budget €98,272 .
2020 - 2022	WIOMSA – MASMA: Fish juvenile recruitment in coastal habitats of Western Indian Ocean. PI: Jamal Mahafina (IHSM, Toliara, Madagascar), total budget: US\$109,270
2020	ANR Project LISSOM – Dispersal of <i>Siganus sutor</i> for marine protected areas in Southern Madagascar. €201,000 - Principal Investigator. Project on French funding not feasible due to taking office at CNR (Italy).
2020 - 2022	CeMEB project TREES@SEA - Floating objects in the open ocean: unveiling modifications of the pelagic habitat induced by global change. €20,000 – Co-PI
2014 - 2017	Programme AKER, France Post-doctoral research fellowship
2011 - 2014	Fondation Total and Fondation pour la recherche sur la biodiversité, France Post-doctoral research fellowship through the project FISHCONNECT
2011	Muséum National d'Histoire Naturelle, Paris, France Teaching and research fellowship (ATER) (declined)
2010	Université Grenoble Alpes Teaching and research fellowship (ATER)
2009	2nd Stanford Biodemography Workshop Travel expenses \$850
2007 - 2010	French Ministry of Education, Université Joseph Fourier, Grenoble, France Graduate research scholarship, €50,700
2007	French Ministry of Education, Muséum National d'Histoire Naturelle, Paris, France Graduate research scholarship (declined)
2003	Socrates-Erasmus programme Mobility grant, €4500
2003 - 2004	Erasmus student, 9 months Institute of Technology, Sligo, Ireland
2000 - 2004	University of Parma, Italy Tuition remission, €1750
2000 - 2004	Student Service, University of Parma, Italy Undergraduate study scholarship, € 8500
2001	Degree course in Environmental Sciences, University of Parma Student with best annual scores

8 INVOLVEMENT IN RESEARCH PROGRAMS

2014 - 2017	AKER Betterave 2020. Improving sugar beet performance in the face of increasing world demand. Project Coordinator: Bruno Desprez
2014 - 2017	SEACONNECT. Optimize the network of marine protected areas in response to global change by combining studies of genetic connectivity and biophysical models. Project coordinator: Stéphanie Manel.
2011 - 2014	FISHCONNECT. Optimizing networks of marine protected areas in the Mediterranean Sea. Project coordinator: Stéphanie Manel

9 REVIEWING AND EDITORIAL SERVICE

Publons profile : <https://publons.com/researcher/312513/marco-andrello/>

Associate editor, *Diversity and Distributions*, 2024-ongoing

Guest editor for the special issue of *Biological Conservation*: “Leveraging genetics for spatial conservation planning”, 2022-2024

“Review editor” *Frontiers in marine sciences*, 2020-2021

Reviewers for *Nature communications*, *Communications biology*, *Proceedings of the Royal Society of London - Series B*, *Alpine Botany*, *Bioinformatics*, *Diversity and Distributions*, *Ethology Ecology & Evolution*, *Ecological Applications*, *Evolutionary Applications*, *F1000Research*, *Heredity*, *ICES Journal of Marine Sciences*, *Journal of the Royal Society Interface*, *Marine Ecology Progress Series*, *Molecular Ecology*, *Molecular Ecology Resources*, *PLoS One*, *Progress in Oceanography*.

Expert Reviewer for the *Second Order Draft of the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* (SROCC), Dec 2018

External reviewer for the *German Academic Exchange Service’s PRIME postdoctoral funding programme*.

External reviewer for the *EUROFLEETS+ “REGIONAL” call for use of marine infrastructures*.

10 TEACHING ACTIVITIES

10.1 Academics

2022	Modelli matriciali in dinamica di popolazioni, 9 ore, Dottorato di ricerca in Biologia Molecolare, Cellulare e Ambientale, Università Roma TRE
2019, 2021	Analisi statistica dei dati ecologici e sistematici (SECS-S/02), 4 hours, Laurea Specialistica in Biodiversità e gestione degli ecosistemi, Università degli Studi Roma TRE
2015 – 2016	“Methods for plant demographic surveys”, 1.5 hours, Master degree in Ecological engineering and management of biodiversity, University of Montpellier
2014 – 2015	“Seascape genetics” in the course “Genetics and evolution of marine organisms”, 2 hours, doctoral school SIBAGHE, University of Montpellier

2011 – 2012	Jury member for Master degree defenses, 5 students, Master degree in Biodiversity, Ecology and Environment, UGA
2010 – 2011	“Ecology and Evolution”, 12 hours, Master degree in Biodiversity, Ecology and Environment, UGA “Population genetics and conservation biology”, 30 hours, Master degree in Biodiversity, Ecology and Environment, UGA “Ecology”, 15 hours, Bachelor degree in Biology, UGA “Biodiversity”, 28 hours, Bachelor degree in Biology, UGA “Ecology and Evolution”, 21 hours, Master degree in Biodiversity, Ecology and Environment, UGA “Introductory biology”, 8 hours, Bachelor degree in Biology, UGA
2009 – 2010	“Ecology and Evolution”, 8 hours, Master degree in Biodiversity, Ecology and Environment, UGA “Population genetics and conservation biology”, 6 hours, Master degree in Biodiversity, Ecology and Environment, UGA “Introductory biology”, 6 hours, Bachelor degree in Biology, UGA “Genetics”, 3 hours, Bachelor degree in Biology, UGA “Biodiversity”, 9 hours, Bachelor degree in Biology, UGA
2008 – 2009	“Population genetics and conservation biology”, 12 hours, Master degree in Biodiversity, Ecology and Environment, UGA

10.2 Workshops and summer schools

2022	Teacher for the workshop “Introduction to Genetic Tools for Estimating Connectivity”, 15 hours, online
2016	Teacher for the summer school “Computer simulators in conservation genetics”, 24 hours, CIBNOR, La Paz, Mexico
2014	Teacher for the workshop “Oceanographic modelling”, 4 hours, Sète, France

11 ADVISING ACTIVITIES

11.1 Graduate students

Although I have not officially advised any graduate student so far, I have contributed significantly to the advising of the following graduate students:

2018-	Ariel Grainer University of Toronto. Advisor: Marie-Josée Fortin
2015-2018	Amanda Xuereb University of Toronto. Advisor: Marie-Josée Fortin
2014-2017	Alicia Dalongeville Université de Montpellier. Advisors: Stéphanie Manel, David Mouillot

11.2 Undergraduate students

2024	Valentina Valeri Corso di Laurea triennale in Scienze Biologiche, Università Roma TRE Ecosistemi corallini di acqua fredda: impatti antropici e tecniche di ripristino ecologico
2022	Sara Salatini Corso di Laurea triennale in Scienze Biologiche, Università Roma TRE Impatti delle specie invasive in ambiente marino polare
2019	Amaël Dupaix Ecole Normale Supérieure de Lyon, 4 months Modeling of dispersal of floating objects in the ocean
2017	Christelle Noirot Ecole Nationale Agronomique de Rennes, 4 months Genetic modeling of the spatial scale of adaptation
2016	Daphné Cahours Master degree in Ecology, Biodiversity and Evolution, University Pierre et Marie Curie, Paris, 2 months Genetic data analysis of <i>Beta</i> section <i>Beta</i>
2015	Louis Nerrière Master degree in Biology, Université de Montpellier, 2 months (co-advised with David Mouillot) Modeling dispersal of coral larvae
2014	Delphine Busson Master degree in Biology, Ecole normale Supérieure des Sciences Agronomiques de Bordeaux, 3 months Demographic data analysis on <i>Arabis alpina</i>
2013	Médéric Mouterde Master degree in Biodiversity, Ecology and Environment, UGA, 2 months (co-advised with Pierre de Villemereuil) Demographic data analysis on <i>A. alpina</i>
2012	Caroline Devaux. Master degree in Biodiversity, Ecology and Environment, UGA, 6 months (co-advised with Irène Till-Bottraud) Demographic and bioeconomic data analysis on <i>Eryngium alpinum</i>
2012	Blaise Tymen Master degree in Biology, Ecole Normale Supérieure de Lyon, 2 months (co-advised with Irène Till-Bottraud) Demographic data analysis on <i>E. alpinum</i>
2010	Elodie Chapurlat Master degree in Biology, Ecole Normale Supérieure de Lyon, 2 months (co-advised with Irène Till-Bottraud) Demographic data analysis on <i>E. alpinum</i>
2010	Lucas Hemery Bachelor degree in Biology, UGA, 3 months Field demographic study of <i>A. alpina</i>
2010	Anne-Lise Bartalucci Master degree in Biodiversity, Ecology and Environment, UGA, 3 months Field demographic study and data analysis on <i>A. alpina</i> , laboratory analysis

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|------|---|
| 2009 | Elsa Jullien
Bachelor degree in Biology, UGA, 3 months
Field demographic study and data analysis on <i>A. alpina</i> , laboratory analysis |
| 2009 | Jérémy Camazzola
Master degree in Biodiversity, Ecology and Environment, UGA, 3 months
Field demographic study and data analysis on <i>A. alpina</i> |
| 2008 | Stefan Willhoit
Master degree in Biodiversity, Ecology and Environment, UGA, 2 months
Field demographic study of <i>A. alpina</i> |
| 2008 | Blaise Tymen
Bachelor degree in Life sciences, Ecole Normale Supérieure de Lyon, 3 months
Field demographic study and data analysis on <i>A. alpina</i> |

12 SCIENTIFIC MEMBERSHIPS

- | | |
|-------------|--|
| 2022 - 2024 | <i>Chapter Italiano della Society for Conservation Biology</i> |
| 2016 - 2017 | <i>Société française d'écologie (Sfé)</i> |
| 2006 | <i>Società italiana di Ecologia (SIte)</i> |

13 LANGUAGES

Italian (mother tongue), English (proficient), French (proficient), Spanish (good).

TEF (Test d'Evaluation du Français pour le Canada), June 2018 :

Compréhension écrite : 289 / 300 (C2)

Compréhension orale : 345 / 360 (C2)

Expression écrite : 387 / 450 (C1)

Expression orale : 442 / 450 (C2)

TOEFL (Test Of English as a Foreign Language), Sep 2006. Grade: 112/120

Cambridge Certificate in Advanced English, Jun 2004. Grade: B

14 SKILLS

14.1 Statistical analysis

Excellent skills in analyses using linear models, ANOVA, GLM, GLMM, GAM, GAMM, GLS, GEE, Bayesian models, longitudinal data, transect data, regression trees, ordination techniques (PCA, PCoA, MDS), canonical analysis (RDA, CCA), discriminant analysis, cluster analysis, spatial analysis (variograms, Mantel tests, MEM, AEM), network analysis.

14.2 Genetic data analysis

Excellent skills in estimation of allele frequencies, diversity, disequilibrium, population structure, linkage, phylogeny, selection, demographic estimation using discrete-population or individual-based data, dominant

and codominant markers, SNP, genome sequences, coalescent approaches. Softwares: adegenet, gINLAnd, LDNe, LFMM, MLNE, MSMC, NeESTIMATOR, OneSamp, STRUCTURE.

14.3 Modeling

Population dynamics modeling using age- and stage-classified matrix population models (estimation, projection, asymptotic and transient analysis, life-cycle analysis, sensitivity and elasticity, LTRE, stochastic models, stochastic LTRE), individual-based models, integral-projection models.

Population genetics modeling using demographic models of effective population size, diffusion approximation, individual-based models (EASYPOP, Nemo, RMetaSim, Populus, Pedagog).

Development of a genetic-demographic simulation model (MetaPopGen).

Modelling marine plankton dispersal using regional (Nemo) and global (Glorys) hydrodynamics models and Lagrangian models (Ichthyop).

14.4 Geographic information systems

Analysis of geographical data and creation of maps using ArcMap, QGIS and R.

14.5 Programming

Excellent programming skills in R and Matlab

15 SOFTWARE DEVELOPMENT

ConnMatTools (with D. Kaplan), R package for the analysis of connectivity and fisheries dynamics.

MetaPopGen, a model for simulating population genetics in large size metapopulations.

<https://github.com/MarcoAndrello/MetaPopGen>