Dr Pol Capdevila

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I am a population ecologist specialised in modelling populations dynamics and macroecological comparative analyses. I use quantitative tools to characterise the life history of species and their dynamics to understand their responses to global change.

Education

- 2014-2017 PhD Marine Ecology (Cum laude), University of Barcelona (Spain).
- 2012-2013 MSc Marine Sciences, University of Barcelona (Spain).
- 2008-2012 BSc Biology, University of Girona (Spain).

Academic appointments

2020-2022	Research Associate, University of Bristol (UK).
2020-2022	Research Associate, University of Oxford (UK).
2018-2020	Postdoctoral Research Fellow, University of Oxford (UK).
2017-2018	Research assistant, University of Barcelona (Spain).
2014-2017	PhD student, University of Barcelona (Spain).
2013-2014	Research technician, University of Barcelona (Spain).
2013-2014	Teaching assistant, University of Barcelona (Spain).
2012	Research assistant, University of Girona (Spain).

Funding

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2020 2020	Royal Society, UK & Natural National Science Foundation of China sDiv Working group. sMile Working Group - Synthesising plant		24,000 9.000
	Metabolomics into biodiversity, Life history & Ecology.		
2018	*Fundación Ramón Areces Postdoctoral Research Fellowship	£	46,868
2014	PhD fellowship (FI-ICIP 2013). Catalan government	£	41,568
2012	Scholarships for academic activities aimed at supporting teachers in public	£	2,665
	universities from the Catalan university system and the Open University of		
	Catalonia (AAD 2013). Catalan government		
2012	Scholarship of Collaboration. Catalan government	£	1,000
2010	SIQUE/SENECA Exchange Program. Spanish ministry of education	£	5,339

Bold: active: * Lead PI: Funded: £130,140

Awards

2019	Conference attendance. British Ecological Society Annual Meeting.	£	400
2016	Travel grant. University of Barcelona (Spain).	£	500
2014	Travel grant. Iberian Symposium on Marine Biology Studies.	£	500
2013	Tuition fees for the master program. University of Barcelona (Spain).	£	4,000
2008-2012	Tuition fees for undergraduate studies. University of Girona (Spain).	£	8,000

Publications ORCID ID 0000-0002-2842-4302; Google Scholar; h-index: 5; Cites: 59

- Capdevila, Beger, Blomberg, Hereu, Linares, Salguero-Gómez (In press). Longevity, body dimension and reproductive mode drive differences in aquatic versus terrestrial life-history strategies. Fun Ecol. https://doi.org/10.1111/1365-2435.13604
- 2. **Capdevila**, Stott, Beger, Salguero-Gómez (In press). Towards a general comparative framework of demographic resilience. *Trends Ecol Evo.* https://doi.org/10.1016/j.tree.2020.05.001
- 3. Montseny, Linares, Viladrich, **Capdevila**, Ambroso, Diaz, Gili, Gori (2020). A new large-scale and cost-effective restoration method for cold-water coral gardens. *Aquat Conserv: Mar Freshw Ecosyst.* 30: 977–987. https://doi.org/10.1002/aqc.3303
- 4. Medrano, Linares, Aspillaga, **Capdevila,** Montero-Serra, Pagès-Escolà, Zabala, Hereu (2020). Long-term monitoring of temperate macroalgal assemblages inside and outside a No take marine reserve. *Mar Environ Res* 153: 104286. https://doi.org/10.1016/j.marenvres.2019.104826
- 5. Pagès-Escolà, Hereu, Rovira, Medrano, Aspillaga, **Capdevila**, Linares (2020). Unraveling the population dynamics of the Mediterranean bryozoan *Pentapora fascialis* to assess its role as an

- indicator of recreational diving for adaptive management. *Ecol Indic* 109: 105781. https://doi.org/10.1016/j.ecolind.2019.105781.
- Capdevila, Hereu, Salguero-Gómez, Rovira, Medrano, Cebrian, Garrabou, Kersting, Linares (2019). Warming impacts on early life stages increases the vulnerability and delays the recovery of macroalgae populations. *J Ecol* 107: 1129–1140. https://doi.org/10.1111/1365-2745.13090
- Medrano, Linares, Aspillaga, Capdevila, Montero-Serra, Pagès-Escolà, Hereu (2019). No-take marine reserves control the recovery of sea urchins populations after mass mortality events. *Mar Environ Res* 145:147-154. https://doi.org/10.1016/j.marenvres.2019.02.013
- 8. **Capdevila**, Linares, Aspillaga, Riera, Hereu (2018). Effective dispersal and density-dependence in mesophotic macroalgae forests. *PlosONE* 13: e0191346. https://doi.org/10.1371/journal.pone.0191346
- 9. **Capdevila**, Hereu, Riera, Linares (2016). Unravelling the natural dynamics and resilience patterns of underwater Mediterranean forests: insights from the demography of the brown alga *Cystoseria zosteroides*. *J Ecol* 104: 1799-1808. https://doi.org/10.1111/1365-2745.12625
- 10. **Capdevila**, Linares, Aspillaga, Navarro, Kersting, Hereu (2015). Recruitment patterns in the Mediterranean deep-water algae *Cystoseira zosteroides*. *Mar Biol* 164: 1665-1174. https://doi.org/10.1007/s00227-015-2658-0

Book chapters

 Capdevila & Salguero-Gómez (2019). Prototypical r/K Selected (Fast/Slow) Species. Book Chapter in Encyclopedia of Evolutionary Psychological Science edited by Todd K. Shackelford and Viviana A. Weekes-Shackelford. Springer Nature. https://doi.org/10.1007/978-3-319-16999-6 1934-1

In review

Rodríguez-Caro, **Capdevila**, Graciá, Barbosa, Giménez, Salguero-Gómez. The demographic buffering strategy has a threshold of effectiveness to increases in environmental stochasticity. *Oikos*

Carmona,... **Capdevila**, *et al.* Mapping extinction risk in the global functional spectra across the tree of life. *Nature Eco Evo.*

Fraschetti,... **Capdevila**, *et al.* Where is more important than how: determinants of restoration success in coastal and marine ecosystems. *Conservation Letters*.

Pre-prints

Rodríguez-Caro, **Capdevila**, Graciá, Barbosa, Giménez, Salguero-Gómez. The demographic buffering strategy has a threshold of effectiveness to increases in environmental stochasticity. *bioRxiv* https://doi.org/10.1101/2020.05.15.098095

Roper, **Capdevila**, Salguero-Gómez (2019). Senescence: Still an unsolved problem of biology. *bioRxiv* 739730. https://doi.org/10.1101/739730

Talks

14 oral contributions in national (2, Spain) and international (12, Ireland, Turkey, UK, Iceland, Italy and Slovenia) conferences, 4 of them by mentored students. 3 invited talks in Spain (University of Barcelona), Australia (University of Queensland) and the UK (University of Reading); 3 poster contributions in one national (Spain) & 2 international (Italy and UK) conferences.

Special features

Guest Editor for a British Ecological Society Journal of Ecology and Journal of Applied Ecology crossjournal special feature on "Resilience without borders: predicting the resistance and recovery of ecological systems across kingdoms and levels of organisation", coming in 2021.

Organised workshops/symposia

3 workshops at international institutions (University of Queensland, University of Oxford, and University of Barcelona); 2 thematic sessions organised for national (1st Iberian Ecological Society Meeting, Spain) and international (British Ecological Society, UK) ecological societies; 1 session discussion (4th Workshop on Trait-Based Approaches to Ocean Life, UK).

Participation in research projects

- 2016-2020 MERCES: Marine Ecosystem Restoration in Changing European Seas. Funded by the European Union, ref. 689518, PI: Dr Danovaro.
- 2016-2017 Monitoring of the marine biodiversity of the Cap de Creus Natural Park and the Montgrí, Medes Islands and Baix Ter Natural Park. ref. 307912. Pl: Dr Hereu.
- 2014-2015 Avoiding Ghost Fishing. Protocol for removing nets and other fishing gear in the Montgrí, Medes Islands and Baix Ter, Natural Park. PI: Dr Hereu.
- 2014-2015 Monitoring of Bryozoan Populations in the Parc Natural del Montgrí, les Illes Medes i el Baix Ter. ref. 307958. Pl: Dr Hereu.
- Monitoring of the marine biodiversity of the Cap de Creus Natural Park and the Montgrí, Medes Islands and Baix Ter Natural Park. Pl: Dr Hereu.
- 2013-2015 CORCLIM: Response coralline community in the Natural Park of Cabrera climate change. ref. 579. IP: Dr Linares.
- 2013-2015 SMART: Resilience of long-lived marine species and structural face of global change: sustainable management measures and restoration. ref. CGL2012-32194. PI: Dr Linares.
- 2013-2014 Indicateurs espéces thermophobes: État des populations de la gorgone blanche *Eunicella singularis* dans le Parc National de Port Cros. PI: Dr Hereu.

Teaching

Lectured in 1 BSc course (Ecology of populations and communities) and acted as teaching assistant in 3 BSc courses (Biology, Management of Protected Areas, Marine Biology) and 4 MSc courses (Marine Reserves, Techniques for the study of marine benthos, Macroscale Practicum, Population Viability analyses) and 1 Doctoral Training Program (Biodiversity, Ecology and Evolutionary processes). My teaching expertise is spread through 3 different university centres, the University of Barcelona, the University of Vic and the University of Oxford, with a total of **505 teaching hours**.

Mentorship and supervision 2 Undergrads, 1 Msc, 1 PhD.

- 2018-... Co-advisor PhD Student. Mark Roper. PhD thesis topic: The drivers of senescence worldwide. University of Oxford, UK
- 2019 Undergraduate student. Abir Patwary. Undergraduate summer intern. Comparative marine demography. University of Oxford, UK
- 2017 Undergraduate student. Albert Francisco González. Reproductive patterns and survival of *Cystoseira zosteroides*: restoration applications. University of Barcelona, Barcelona.

Msc Student. Graciela Rovira. Temperature effects on the early stages of the deepwater algae *Cystoseira zosteroides*. University of Barcelona, Barcelona.

Academic service

- 2020-... Guest Editor for British Ecological Society cross-journal special issue "Resilience without borders" (Journal of Ecology & Journal of Animal Ecology)
- 2017-... Reviewer in SCI journals (14): Ecology Letters (1), Global Change Biology (1), Journal of Animal Ecology (2), Journal of Ecology (2), Ecology and Evolution (1), Marine Ecology Progress Series (2), Marine Environmental Research (1), PlosONE (2), Hydrobiology (1), European Journal of Phycology (1), Aquatic Conservation: Marine and Freshwater Ecosystems (1).

Memberships

2018-... British Ecological Society (BES)

Outreach

10 press releases, 8 outlets, 7 blog posts.