

# Thomas J. Del Santo O'Neill

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## Education

### PhD. Biological Sciences

Sept 2019 - Sept 2023

*Department of Organismal Biology, Queen Mary University of London*

- Thesis: "Methods and policy pathways to optimize production of mixed stocks of biological resources."
- Funded by a BBSRC LIDo DTP iCASE scholarship in collaboration with the *Centre for Environment, Fisheries and Aquaculture Sciences (CEFAS)*

### MSc. Freshwater and Marine Ecology – 1<sup>st</sup> Class Honours (81.2%)

2017 - 2018

*Department of Organismal Biology, Queen Mary University of London*

- Thesis: "Assessment of management options to attain Maximum Sustainable Yield from multiple interacting stocks in the North Sea." – 1<sup>st</sup> Class Honours (85%)

### BSc. Marine Sciences – Upper-Second Class Honours (67%)

2012 - 2016

*Marine and Environmental Sciences Faculty, University of Cadiz*

- Thesis: "Usage of MS-222 as a soothing anaesthetic for gilthead sea bream juveniles (*Sparus aurata*) under a simulated stress condition of transport." – 1<sup>st</sup> Class Honours (76%)

### A levels – Biology (A), English (A), Maths (B)

2010 - 2012

*IES Las Encinas, Madrid*

## Experience

### Marine Conservation NGO Collaboration

Jul 2018

*Maio Biodiversity Foundation, Island of Maio, Cape Verde*

- *Object:* support the development of the "Turtle Protection" and "Marine Conservation" programmes
- *Duties:* (i) nocturnal beach patrolling to decrease poaching, morphometric measurements and movement tags deployment on nesting sea turtles; (ii) cetacean, coral reef and Kentish plover surveys for predictive distribution/population-dynamics studies; and (iii) BRUVs usage as non-invasive survey technique

### Lab Research Assistant Internship

Oct 2015 - Jun 2016

*Department of Fish Physiology & Endocrinology, University of Cadiz, Spain*

- *Object:* improve aquaculture practices by mitigating the stress response of different farmed teleosts
- *Duties:* (i) lab inventory tracking; (ii) fish/tanks maintenance; (iii) biometric sampling and blood collection by caudal puncture; and (v) quantitative determination of plasmatic metabolites

### Oceanographic Campaign

Jun 2014

*Spanish Navy Hidrographic Institute, Bay of Cadiz, Spain*

- *Object:* oceanographic data collection and hydrographic characterisation of the Bay of Cadiz
- *Duties:* (i) manual CTD and Niskin bottles carousel deployment; (ii) bathymetric surveys; (iii) neuston and plankton sampling with bongo ring nets

## Relevant Working Experience

### Team-Leader Fundraiser

Sept - Present

*Barnardo's Charity, Crystal Palace, London, UK*

- *Outline:* Inspiring prospective donors with less than 12% attrition rate and exceeding £6,000 raised (yearly projection)

## English Language Assistant

Sept 2016 - Jun 2017

*Bilingual School Programme, Madrid Ministry of Education and Research, Spain*

- *Outline:* During an academic year my roles were diverse, including administrative responsibilities, resource production and front of class teaching

## Skills

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### Operating systems

- UNIX-like kernels (e.g. Mac OS and GNU/LINUX)
- Windows

### Programming Languages

- R, Python, C++, Visual Basic .NET and MATLAB

### Scientific Report Writing

- $\text{\LaTeX}$  alongside its *BEAMER* class for presentations
- *Markdown* via the R packages *Rmarkdown* / *bookdown* and *blogdown* for creating websites

### GUI Software

- Ecopath with Ecosim (EwE), Ocean Data View (ODV), GraphPad Prism, ArcGIS, Inkscape, Adobe and MS Office

## Publications

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### Journal

Jerez-Cepa, I., Fernandez-Castro, M., **Del Santo O'Neill, T. J.**, Martos-Sitcha, J. A., Martinez-Rodriguez, G., Mancera, J. M. and Ruiz-Jarabo, I. (May) 2019. Transport and recovery of gilthead seabream (*Sparus aurata* L.) sedated with clove oil and MS-222: effects on stress axis regulation and intermediary metabolism. *Frontiers in Physiology*, 10:612. DOI: [10.3389/fphys.2019.00612](https://doi.org/10.3389/fphys.2019.00612).

### Talks

Jerez-Cepa, I., Castro, M. F., **Del Santo O'Neill, T. J.**, Lopez, M. A., Manzano, G. G., Jarabo, I. R. and Mancera, J. M. (October) 2018. Sedation as an alternative to reduce the stress of farmed fish during transport. *1<sup>st</sup> Congress of Young Marine Researchers*, Cadiz. [Book of abstracts \(pp. 177-179\)](#).

### Blog

**Del Santo O'Neill, T. J.**, Francelle, P., Goodwin, A., Grey, J., Nash, L. and Nye, A. (December) 2017. Wood-plumpton Brook restoration: baffle-ing results! [The Wild Trout Trust Blog](#).

### Posters

Castro, M. F., **Del Santo O'Neill, T. J.**, Jerez-Cepa, I. and Mancera, J. M. (July) 2017. Potential use of the anaesthetic MS-222 and clove oil to mitigate the stress response during transport in gilthead sea bream (*Sparus aurata*). *11<sup>th</sup> Congress of the Iberian Association for Comparative Endocrinology*, Vigo. [Link to file](#).

**Del Santo O'Neill, T. J.**, Castro, M. F., Jerez-Cepa, I. and Mancera, J. M. (June) 2016. Usage of MS-222 as a soothing anaesthetic for gilthead sea bream juveniles (*Sparus aurata*) under a simulated stress condition of transport. *8<sup>th</sup> Meeting for the Aquaculture in the South Atlantic Littoral*, Huelva. [Link to file](#). | **-Note:** 1<sup>st</sup> prize for best poster (€300).

Del Santo O'Neill, T. J., Castro, M. F., Jerez-Cepa, I. and Mancera, J. M. (May) 2016. Effect of MS-222 (tricaine methanesulfonate) on the stress system of gilthead sea bream juveniles (*Sparus aurata*). 2<sup>nd</sup> Scientific Symposium of the Marine and Environmental Sciences Faculty, Cadiz. [Link to file](#). | -Note: 1<sup>st</sup> prize for best poster (€100).

## Courses & Conferences Attended

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### Courses

- **Improving your statistical inferences** (online) Feb 2019  
*Eindhoven University of Technology*
- **Game Theory** (online) Mar 2018  
*Stanford University and the University of British Columbia*
- **Sustainable urban mobility. Planification, management and innovations** Mar 2016  
*Vice-chancellorship of Social Responsibility, Cultural Extension and Services, University of Cadiz*
- **Aquaculture in southern Europe: basic and applied aspects** Jul 2015  
*2<sup>nd</sup> International Summer School, Cadiz Marine Research Laboratory* | -Note: fully-funded place
- **PADI Open Water Diver** Aug 2012

### Conferences

- **Aquaculture in the Bay of Cadiz: cultivating the future** Nov 2015
- **15<sup>th</sup> National and 1<sup>st</sup> Iberian Aquaculture Congress** Oct 2015

## Society Memberships

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- British Ecological Society Jan 2019