

## CURRICULUM VITAE – MAIN ACHIEVEMENTS

### PERSONAL INFORMATION

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### MAJOR RESEARCH INTERESTS

My major research interests consider molecular ecology of marine organisms focussing on population genetic structure and the way population connectivity may be impacted by changing environmental conditions. Research areas are the Antarctic, the Mediterranean and the Adriatic. At present, a major element of this research is the impact of climate change at interspecific level with a particular focus on potential outcomes of secondary contacts among Antarctic icefish species and their species limits. Specific Research Topics are:

- Hybridization among Antarctic notothenioid species of the icefish family,
- Population connectivity of pelagic Antarctic notothenioid species,
- Longevity and ageing in Antarctic notothenioid fish.

### CURRENT RESEARCH STAYS AND VISITS

From 23-02-2020 to 01-06-2020: Investigating the phylogenetic position of pelagic Antarctic fish in relation to their longevity and other life history traits (funded by a UNIPD SEED grant) during a three-months research stay at the University of Basel, Zoological Institute, Switzerland. The research will be conducted in the lab of Professor W. Salzburger and Dr. M. Matschner.

### RESEARCH EXPERIENCE

For what concerns the connectivity of Antarctic fish populations, my present research is focussed on the effects of present and past climate changes in terms of population and species differentiation in particular for the potential outcomes of secondary contacts among Antarctic icefish species. I and my research team are investigating these aspects by analysing genome-wide genetic variability.

In the framework of the longevity research line, I am also studying the effects of climate change and exploitation in marine organisms as a potential perturbators of lifespan limits and ageing pace. This is a challenging yet very exciting new research line for me and it fulfils my interests in combining my passion for molecular ecology of marine organisms, in particular Antarctic fish, and the need to provide multidisciplinary and complete background information for sound

management and conservation of marine resources in terms of biodiversity, populations and abundance.

Along this line of research, my recent collaboration with Prof.s Chackrabarti and Stoger of the University of Nottingham is focussed on the study of mitochondrial functionality in Antarctic fish. This type of investigation may also have possible implications for the understanding of human mitochondrial diseases.

My growing international network of collaborations has been instrumental for my research achievements to refine biological questions and acquire new methodological skills. I have spent several periods abroad in particular at the Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Bremerhaven, (Germany) with a Marie Curie intra-European scholarship (2014 -2016) and other fellowships, in collaboration with Prof. Pörtner and Dr. Lucassen. Between 2009 and 2018, I participated in three scientific sampling cruises and one field campaign in Antarctica.

## EDUCATION

- 24.03.2006     **Doctor of Philosophy** in Evolutionary Biology, XVIII cycle,  
University of Padova, Italy  
Thesis Title: Phylogeny and population genetics of notothenioid fish  
(Perciformes)  
Supervisors: Prof.s Alessandro Minelli, Tomaso Patarnello, Lorenzo Zane
- 21.03.2002     **Master of Science** in Natural Sciences, Grade: 110/110 summa cum laude,  
University of Padova, Italy  
Thesis Title: Population genetics of the Northern Atlantic krill  
*Meganyctiphanes norvegica*  
Supervisors: Prof.s Tomaso Patarnello, Lorenzo Zane

## RECENT PUBLICATIONS

Five most recent and relevant publications.

- Bargelloni, L., Babbucci, M., Ferrareso, S., Papetti C. et al.  
Draft genome assembly and transcriptome data of the icefish *Chionodraco myersi* reveal the key role of mitochondria for a life without hemoglobin at subzero temperatures.  
(2019) *Communication Biology* 2, 443 DOI:10.1038/s42003-019-0685-y
- Papetti, C., Schiavon, L., Milan, M., Lucassen, M., Caccavo, J.A., Paterno, M., Boscari, E., Marino, I.A.M., Congiu, L., Zane, L.  
Genetic variability of the striped venus *Chamelea gallina* in the northern Adriatic Sea.  
(2018) *Fisheries Research*, 201, pp. 68-78, DOI: 10.1016/j.fishres.2018.01.006
- Papetti, C., Lucassen, M., Pörtner, H.-O.  
Integrated studies of organismal plasticity through physiological and transcriptomic approaches: Examples from marine polar regions.  
(2016) *Briefings in Functional Genomics*, 15 (5), pp. 365-372, DOI: 10.1093/bfpg/elw024
- Agostini, C., Patarnello, T., Ashford, J.R., Torres, J.J., Zane, L., Papetti, C.  
Genetic differentiation in the ice-dependent fish *Pleuragramma antarctica* along the Antarctic Peninsula.  
(2015) *Journal of Biogeography*, 42 (6), pp. 1103-1113, DOI: 10.1111/jbi.12497

- Papetti, C., Di Franco, A., Zane, L., Guidetti, P., De Simone, V., Spizzotin, M., Zorica, B., Keč, V.C., Mazzoldi, C.  
Single population and common natal origin for Adriatic *Scomber scombrus* stocks: Evidence from an integrated approach.  
(2013) ICES Journal of Marine Science, 70 (2), pp. 387-398, DOI: 10.1093/icesjms/fss201

#### RECENT FUNDING

2019-2020	Seed funding “Live cool, live long? Exploring longevity and ageing in Antarctic fish.” - Biology Department – University of Padova – 6900€
2018-2019 2017	Funding by “the Mohamed bin Zayed Species Conservation Fund” (8000\$). Italian Ministry of Research and Education “Finanziamento delle attività base di ricerca” (Funding for basic activities related to research FFABR) total funding 3,300€
2016	Biology Department – University of Padova - Research Funding (PRID 2016), total funding 59,355€ (grant number BIRD164793)
2013	Marie Curie Intra-European Fellowship (contract started May 2014) score 94.4/100, total funding 217,000€

#### RESEARCH TEAM

My research team consists of a PhD student working on the hybridization among Antarctic notothenioid species and two research fellows working on the connectivity among population of notothenioid fish. For more information about my team and master students working with me, please visit my web site <https://chiarapapetti.wixsite.com/Papettilab>.

#### TEACHING EXPERIMENTS

Each year, my team and I train between three to five master students in my research topics and methodologies. During the last academic year, I have taught three courses: *Elements of demography and molecular ecology of marine organisms* (first time), *Biological responses to climate change* and *Ecology methods for environmental sciences*. I’m volunteering in an Intercultural Peer Observation activity and I’m now part of a group of *change agents* from different disciplinary fields aimed at supporting the development of innovative teaching for adult learning. As a *change agent* in the midst of the covid-19 emergency, I’m presently helping my colleagues in the transition to online teaching by coordinating some meetings to exchange good teaching practices. (<https://www.unipd.it/t4l-together>).

#### TEACHING ACHIEVEMENTS

2018-2019	Student course evaluation <i>Ecology methods for environmental sciences</i> : general satisfaction 8.73, organization 8.67, teaching action 8.89
2018-2019	Student course evaluation <i>Ecology methods for environmental sciences</i> : general satisfaction 8.00, organization 8.25, teaching action 8.06

## SUPERVISION OF STUDENTS

At present, four students are working with me and with my collaborators abroad over a range of different research topics and target species, from population genetics of fish to ecology and adaptation of invertebrates.

## CONTINUING EDUCATION

- 2019-2020 Volunteer participant in the Intercultural Peer Observation activity for the project *Erasmus+ Key Action 2 - Cooperation for Innovation and the Exchange of Good Practices: Key Action 203 - Strategic Partnerships for higher education* (PI Alessio Surian, UNIPD)
- 2019 Course title *Teaching and communicating in English* (30 hours course, March-May 2019, UNIPD)
- 2018-2020 Course title *T4L – Teaching for learning, change agents*. Advanced training course for University teachers organized by the University of Padova. Still ongoing
- 2018 Course title *T4L – Teaching for learning*. Training course for University teachers organized by the University of Padova at the Botanical Garden of Padova

## COMMITTEE ACTIVITIES (LAST 4 YEARS)

- 2019- 2020 Member of the Scientific Liaison Panel (SLP) to conduct the scientific evaluation of the EUROFLEETS+ proposals (first evaluation meeting 21-23 January 2020, Bremen, Germany) see panel at: <https://www.eurofleets.eu/access/scientific-liaison-panel-slp/>
- 2019-2020 Member of the Departmental Commission for Projects and Postdocs (CDPA)
- 2019 Member of the PhD Commission (32<sup>nd</sup> cycle) in “Veterinary Sciences” (16.12.2019)
- 2019 Member of the Departmental Commission for the evaluation of candidates for two fellowships to study the distribution and ecology of *Salamandra atra aurorae* in Asiago (Italy) Call number 20-2019.
- 2017-2019 Member of the Italian Society for Evolutionary Biology directive and scientific board
- 2017 Member of the PhD Commission (29th cycle) in “Science of Crop Production – Crop Protection” (10.03.2017)
- 2017 Member of a Commission for the appointment of a tenured researcher, Ancona, CNR (21.04.2017)