

Alfonso Siciliano

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EDUCATION

- **2014-present:** PhD candidate in Experimental Marine Ecology at the School of Biological Sciences (Marine Ecology Research Group), University of Canterbury, New Zealand.
Thesis: "*Testing when and how habitat cascades control biodiversity of marine benthic ecosystems*"
Advisors: Dist. Prof. David Schiel, Dr. Mads Thomsen.
- **2012:** Master of Science with honours in Biology and Ecology of Marine and Coastal Environment, University of Study of Messina, Italy.
Thesis: "*Photo-quadrats technique and use of CPCe software for the evaluation of the impact of recreational diving on the macroalgae coverage of "Zenobia" shipwreck (Cyprus - Mediterranean Sea)*"
Advisors: Prof. Emilio De Domenico, Dr. Antonis Petrou.
- **2009:** Bachelor degree in Biological Sciences, University of Study of Catania, Italy.
Thesis: "*Parablennius sanguinolentus (Pallas, 1814): an example of Teleost Blenniidae bioindicator*"
Advisor: Prof. Concetta Tigano, Prof. Venera Ferlito.

EMPLOYMENT AND FURTHER RESEARCH EXPERIENCE

- **2012-present:** Marine biologist: responsible of scientific activities and manager of university internships, Eco Divers - Centre of Underwater Scientific Activities, Italy.
- **2011:** Marine biologist, AP Marine Environmental Consultancy Ltd., Cyprus.
- **2009:** Biologist (ecotoxicologist), University of Study of Catania, Italy.

TEACHING EXPERIENCE

- **2017:** MSc internship student mentor (L. Mondardini), University of Canterbury, New Zealand.
- **2016-2017:** BSc student mentor (N. Ligtenbarg - Project: '*Testing the role of primary and secondary habitat-formers in shaping habitat cascades in a soft-bottom estuary*'). University of Canterbury, New Zealand, in association with Has University Den Bosch, Netherlands.
- **2016:** Laboratory demonstrator (*Biodiversity in soft-bottom estuaries' ecosystems*). University of Canterbury, New Zealand.
- **2014:** MSc internship student mentor (S. Cunsolo - Scientific diving), University of Study of Catania in association with Eco Divers - Centre of Underwater Scientific Activities, Italy.
- **2013:** BSc internship-thesis student mentor (G. Provenzani - Thesis: "*Ecological assessment of the quality of the Isola Bella's Marine Protected Area (Sicily, Italy)*"). Alma Mater Studiorum - University of Bologna in association with Eco Divers - Centre of Underwater Scientific Activities, Italy.
- **2013:** Teaching as part of COMENIUS project ('*Phylum Mollusca - Collection and identification*'; '*Global climate change - Sea level rise in the Mediterranean Sea*'; '*Coastal pollution in the Mediterranean Sea*'). High school "Giovanni Verga", Catania, Italy.

- **2011:** Seminar at the Workshop in Marine Comparative Biochemistry (*‘Dioxin, DLC and Ab-receptor: structure, mechanisms and role in marine organisms’*). University of Study of Messina, Italy.
- **2011:** Seminar at the Workshop in Elements of Environmental Law and E.I.A. Procedures (*‘Study of Environmental Impact Assessment for planning an urban wastewater treatment plant for the municipalities of Terme-Vigliatore and Barcellona P.G. (ME) in the Patti's Gulf’*). University of Study of Messina, Italy.

PUBLICATIONS

- **Siciliano A.**, Jimenez C., Petrou A., 2016, “Recreational diving and its effects on the macroalgal communities of the unintentional artificial reef *Zenobia shipwreck* (Cyprus)”, *Journal of Oceanography and Marine Research*.
- Thomsen M.S., Hildebrand T., South P.M., Foster T., **Siciliano A.**, Oldach E., Schiel D.R., 2016, “A sixth-level habitat cascade increases biodiversity in an intertidal estuary”, *Ecology and Evolution*.

CONFERENCES

- **Siciliano A.**, Thomsen M.S., Schiel D.R., 2017. “Host variety enhances diversity: the role of multiple secondary habitat-forming seaweeds in facilitating estuarine invertebrates’ communities”. New Zealand Marine Science Society. University of Canterbury, New Zealand, 4-7 July.
- Thomsen M.S., Metcalfe I., **Siciliano A.**, Alestra T., Lilley S., Gerrity S., Schiel D.R., 2017. “Habitat cascades destroyed in the Kaikoura earthquake”. New Zealand Marine Science Society. University of Canterbury, New Zealand, 4-7 July.
- **Siciliano A.**, Thomsen M.S., Schiel D.R., 2016. “Effects of seaweeds, nutrients and sedimentation on seagrass and seagrass-associated fauna”. Annual Biology Conference. University of Canterbury, New Zealand, 20 October.
- **Siciliano A.**, Thomsen M.S., Schiel D.R., 2016. “Variability in habitat cascades across sites, environmental conditions, host and epiphyte species and underpinning mechanistic test-factors”. Australian Marine Science Association - New Zealand Marine Science Society. Victoria University of Wellington, New Zealand, 4-7 July.
- **Siciliano A.**, Thomsen M.S., Schiel D.R., 2016. “Epiphytism as key driver of biodiversity in canopy-forming seaweeds-dominated systems”. 11th International Temperate Reefs Symposium. University of Pisa, Italy, 26-30 June.
- **Siciliano A.**, Thomsen M.S., Schiel D.R., 2015. “Cascading effects of epiphytism associated with co-occurring congeneric hosts”. New Zealand Ecological Society. University of Canterbury, New Zealand, 16-19 November.
- **Siciliano A.**, Thomsen M.S., Schiel D.R., 2015. “Cascading effects of epiphytism associated with co-occurring congeneric hosts”. Annual Biology Conference. University of Canterbury, New Zealand, 23 October.

WORKSHOPS ATTENDANCE

- **2017:** “Science communication workshop”. New Zealand Marine Science Society. University of Canterbury, New Zealand, 7 July.
- **2014:** “Facilitation Cascades across ecosystems and scales”. Centre for Integrative Ecology. Christchurch, New Zealand, 29 June.
- **2008:** “Food safety: legislation, control, self-control and traceability”. University of Study of Catania, Italy. May 2008.
- **2008:** “Microbiological samples (air, water, surfaces) in confined environments: legislation, operating procedures, interpretation of results and their formalization”. University of Study of Catania, Italy. May 2008.
- **2008:** “Environmental management system according to UNIEN ISO 14001:2004”. University of Study of Catania, Italy. May 2008.

SCIENTIFIC SKILLS AND COMPETENCIES

Experimental ecology

- Habitat and facilitation cascade, species interactions and meta-community;
- Ecosystem functioning and biodiversity;
- Experimental design, factorial analysis and quantitative ecology;
- Canopy-forming seaweeds-dominated systems, seagrasses beds and soft-bottom estuaries;
- Fractals, morphometric analysis, 3D models and bioprinting;
- Software for image analysis and processing: ImageJ, Adobe Photoshop, Autodesk Memento.

Shipwrecks' ecology, artificial reefs and Environmental/Anthropogenical Impact Assessments

- Ecological surveys and monitorings, population dynamics;
- Biological underwater sampling and underwater video-photographic techniques;
- Benthic studies through specific software: ImageJ, CPCe;
- Artificial reefs and wrecks studies;
- Extraction and reading of otholiths;
- Underwater video/photography for education and sensibilization.

Marine ecotoxicology

- Sampling and analysis of bioindicators/biomarkers and matrices;
- Cyto/histological and molecular analysis for ecotoxicology;
- Chemical analysis on matrices and biomarkers.

OTHER SKILLS AND COMPETENCIES

Diving Skills

- Dive master (3 stars) CMAS (over 1000 logged dives in almost all conditions and for scientific purposes);
- I, II and III level Apnea Academy;
- Basic Life Support: CPR, AED abilitation, oxygen provider;
- Nitrox EAN 40% specialty PADI;
- excellent video and photographic abilities (www.alfonsosiciliano.com).

Informatic Skills

- European Computer Driving License and Advanced knowledge of MS Office, Internet and Mail;
- Statistical packages: PRIMER v6, PERMANOVA+, PAST, Minitab, SigmaPlot;
- Software for image/video analyzing and processing: ImageJ, Photoshop, Adobe Premiere, Pinnacle.

LANGUAGES

- Italian (mother tongue), English (fluent), Spanish (conversational).

AWARDS AND ACHIEVEMENTS

- **2016:** BioSoc photo-competition 2016, University of Canterbury (New Zealand)
Winner of 'Laboratory', 'Videos' and 'Others' categories (www.alfonsosiciliano.com).
- **2014-2017:** Royal Society of New Zealand, Marsden Fund project (13-UOC-106, 20,000 NZ\$)
- **2013:** Video-competition "*Live the Sea*", Auxiliary Coast Guard (Italy)
Video-documentary: "*The simplicity of life...*" (www.alfonsosiciliano.com).

REFEREES

- **Dist. Prof. David Schiel** (PhD supervisor)
School of Biological Sciences, University of Canterbury, New Zealand
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- **Dr. Mads Thomsen** (PhD supervisor)
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- **Dr. Carlos Jimenez** (collaborator and co-author)
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