

Alfonso Siciliano, Ph.D.

Senior Fishery Ranger, Taupo Fishery
Department of Conservation, New Zealand Government

Phone: NZ: +64 27 616 49 68
E-mail: sicilianoalfonso@gmail.com
Website: www.alfonsosiciliano.com

EDUCATION

2018: Ph.D. in Marine Ecology, 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.*

2012: M.Sc. 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).*

2009: B.Sc. in Biological Sciences, University of Study of Catania, Italy.

Thesis: *Parablennius sanguinolentus (Pallas, 1814): an example of Teleost Blenniidae bioindicator.*

WORK EXPERIENCE

2018 - to date: Senior Fishery Ranger at 'Taupo Fishery', Department of Conservation, New Zealand Government.

Specific: Fishery management; Freshwater ecological research; Native and non-native fish monitoring; Data analysis and reporting; Policies writing and review; Compliance.

Accountabilities: Providing technical advice and expertise; Delivering scientific research; Coordination of technical projects and monitoring programs; Delivering the biodiversity work plan, promoting high standards of quality; Supporting and promoting excellent standards of Health and Safety; Training and supervising staff, and monitoring staff performances; Annual and monthly maintenance plan and business plan organization and review; Influencing, building and maintaining collaborative relationships; Presenting data for a technical and not technical audiences.

2012 - 2015: Technical Advisor and Project Manager at 'Eco Divers - Centre of Underwater Scientific Activities', Italy.

Specific: Ecological research based on underwater studies, benthic communities, artificial reefs; Anthropogenic Impact Assessment; Coordinator of scientific projects and internships in collaboration with Universities and MPAs.

Accountabilities: Providing technical advice and expertise; Delivering scientific research; Coordination of technical projects and monitoring programs; Delivering the biodiversity work plan, promoting high standards of quality; Supporting and promoting excellent standards of Health and Safety; Training and supervising staff, and monitoring staff performances; Annual and monthly maintenance plan and business plan organization and review; Influencing, building and maintaining collaborative relationships; Presenting data for a technical and not technical audiences.

2011: Marine biologist at 'AP Marine Environmental Consultancy Ltd.', Cyprus.

Delivering ecological research based on Anthropogenic Impact Assessments, shipwrecks' ecology, artificial reefs and species interactions in benthic communities.

2009: Biologist at 'Department of Biological Sciences', University of Study of Catania, Italy.

Delivering ecological research based on Anthropogenic Impact Assessments and marine ecotoxicology, analysis of biomarkers and bioindicators.

RECENT TEACHING AND MENTORING

2020: Mentor (Luke Poulsen - Drone surveys), Kaitiaki Whenua Trainee Ranger, Nelson Marlborough Institute of Technology.

2017: Laboratory demonstrator (*'Habitat formers' effects on estuarine biodiversity*), University of Canterbury, New Zealand.

2017: M.Sc. student mentor (L. Mondardini), University of Canterbury, New Zealand.

2017: B.Sc. 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: M.Sc. internship student mentor (S. Cunsolo - Scientific diving), University of Study of Catania in association with Eco Divers - Centre of Underwater Scientific Activities, Italy.

2013: B.Sc. 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.

TECHNICAL SKILLS

Ecology

- Species interactions, meta-community, ecosystem functioning, population dynamics;
- Habitat assessment, monitoring, conservation and restoration;
- Artificial habitats and reefs, shipwreck ecology;
- Experimental designs, multi-factorial analysis and quantitative ecology;
- Benthic studies in canopy-forming seaweeds-dominated systems, rocky shores, seagrasses beds and soft-bottom estuaries;
- Macroinvertebrate taxonomy, stereo and compound microscopes;
- Biological underwater sampling and underwater video-photographic techniques;
- Fractals and morphometric analysis, 3D modelling and printing, Image analysis and processing;
- Environmental/Anthropogenic Impact Assessment: Analysis of bioindicators/biomarkers and matrices; Cyto/histological and molecular analysis for ecotoxicological assessment;
- Fishery management, legislation, law enforcement and compliance;
- Freshwater fish biology, native and non-native fish monitoring;
- Electric-fishing; Echo-sounding; Drone surveys;
- VAKI RiverWatcher scanner monitoring and morphometric studies.

Informatic Skills

- Advanced knowledge of Windows OS, MS Office, Internet, HTML, CSS, Mail;
- Statistical packages: PRIMER v6, PERMANOVA+, PAST, Minitab, SigmaPlot;
- GIS: Quantum GIS;
- Work management and planning: MyPM, SAP, AMIS, Risk Manager;
- Image/video and 3D modelling: CPCe, ImageJ, Photoshop, GIMP, Adobe Premiere, Pinnacle, Autodesk Memento.

PROJECT MANAGEMENT SKILLS

- Technical advisory: Provide technical advice and expertise to the Manager, internal/external team, and partners; Propose, design, plan, coordinate and undertake research projects; Development and management of reports, policies, Standard Operating Procedures, operating and safety plans; Development and management of large databases; Statistical analysis and data interpretation; Communicate findings to scientific and not scientific public;
- Work management: Analyse and monitor the capacity and delivery of work; Allocation of assets and budget monitoring; Annual, monthly, weekly scheduling plans and monitoring performances; Support the building of the team's skills and competencies; Identifying critical issues and risks, recommending solutions to ensure they are effectively raised and addressed; Ensuring the highest standards of quality are achieved in all tasks; Ensuring any work is compliant with consents, permissions, Standard Operating Procedures, operations and safety plans;
- Collaboration: Communicating effectively within the team, across other teams and externally; Seek, build and maintain collaborative relationships with partners and stakeholders.

OTHER SKILLS AND COMPETENCIES

Field work

- Warrant Officer toward the Conservation Act 1987, Department of Conservation, New Zealand;
- Basic Life Support: First Aid, CPR, AED habilitation, oxygen provider; PLBs and EPIRBs; River crossing and self-rescue in remote locations;
- 4WD in off-road environment and UBCO dual electric drive motor bike;
- Drones - Advanced Remote Pilot Certificate, Part 102;
- Electric Fishing Machine Operator.

Boating and Diving Skills

- Scientific Diving, Occupational Diving Certificate of Competency, Worksafe NZ;
- Boat Master; MF, HF, VHF Marine Radio Operator and EPIRB, Maritime Restrictive Radio Operator;

- Dive master CMAS; III level Apnea Academy;
- Nitrox EAN 40%; Full Face Mask operator; excellent underwater video and photographic skills (www.alfonsosiciliano.com).

Languages

- Italian (native), English (fluent), Spanish (fluent).

RECENT PUBLICATIONS

- Thomsen M.S., Metcalfe I., **Siciliano A.**, South P.M., Gerrity S., Alestra T., Schiel D.R., 2020, “*Earthquake-driven destruction of an intertidal habitat cascade*”, Aquatic Botany.
- Siciliano A.**, Thomsen M.S., Schiel D.R., 2019, “*Effects of local anthropogenic stressors on an habitat cascade in a estuarine seagrass system*”, Marine and Freshwater Research.
- Siciliano A.**, Thomsen M.S., Schiel D.R., 2018, “*Testing when and how habitat cascades control biodiversity of marine benthic ecosystems*”, Ph.D. thesis, University of Canterbury.
- 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.
- 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.
- Provenzani G., **Siciliano A.**, 2013, “*Ecological assessment of the current state of the Isola Bella’s Marine Protected Area (Sicily, Italy)*”, B.Sc. thesis, Alma Mater Studiorum - University of Bologna.
- Siciliano A.**, Thomsen M.S., Schiel D.R., **submitted to Journal of Experimental Marine Biology and Ecology**, “*Are long habitat-formation cascades common? - A test with an estuarine 4-level interaction chain*”.

RECENT CONFERENCE PAPERS

- Siciliano A.**, 2018. “*Implementing a VAKI River-watcher fish counter in the Taupo Fishery*”. Tongariro Power Scheme Annual Consultative Hui. Genesis Tokaanu Power Station, New Zealand, 5 December.
- 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.

OTHER ACHIEVEMENTS

- 2017:** BioSoc photo-competition 2017, University of Canterbury (New Zealand).
Winner of 'Best underwater picture' category (www.alfonsosiciliano.com).
- 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).