

# ANTONIO SARA', PhD

*Marine Biologist*

## Contact information

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## Present position

Assistant at Dip.Te.Ris., Genoa University

Founder member of the company "Studio Associato Gaia SNC" (environmental and scientific services, RTD, education & dissemination, project advisors) [www.studioassociatogaia.com](http://www.studioassociatogaia.com)

## Education

- 2002** PhD in Polar Sciences, Siena University  
**1997** Degree with honor in Biological Sciences, Genoa University

## Advanced courses

- 2007** Seminar "ERC Advanced Investigator Grants". Genoa (Italy), 14 December  
7FP Infoday. Florence (Italy), 12 January  
**2006** MANUELA workshop on integrating experimental approaches. Hel (Poland), 18-25 September  
**2005** APRE workshop: "Research Grant management under 6FP". Genoa, 22 December  
**2004** Statistics training course "Detecting changes in biological assemblages: experimental design and data analysis". Santa Margherita Ligure (Italy) 30 August – 10 September  
**2003** IV Leica Microsystems "Confocal Microscopy and applications". Bologna (Italy), 25-27 June  
**2002** APRE workshop: "VI EU R&ST Framework Programme". Genoa, 18 October

## Scientific cooperation

Dr. Gianluca Sarà, PhD. Palermo University (Italy)  
Dr. Marco Faimali, PhD. ISMAR-CNR (Genoa, Italy)  
Dr. Renata Manconi, PhD. Sassari University (Italy)  
MPA 5 Terre

**Other professional cooperation**

Developed as Studio Associato Gaia SNC

Arch. Gianfranco Damiano, Liguria International (Genoa, Italy)  
Pharos Srl (Sarzana, Italy)  
Galata Museo del Mare (Genoa, Italy)  
Sopra e Sotto il Mare Srl (Santa Margherita Ligure, Italy)  
Portofino Dive (Genoa, Italy)

**Professional experience**

**1997-today** Assistant in the scientific, teaching and tutorial activities at Dip.Te.Ris., Genoa University. Dealing with Marine Biology and Marine Zoology; particular interest in the *phyla* Cnidaria and Porifera

Experienced in u/w scientific techniques (monitoring, data acquiring, sampling, photography) and in development/ maintenance of sponge farming plants. Outstanding skills in laboratory studies (samples preparation, light microscopy, SEM, TEM) and taxonomy of marine invertebrates.

Lecturer and laboratory tutor for the following courses (Genoa University): Zoology, Underwater Photography, Scientific Underwater Techniques, Mediterranean Sponge Fauna

Lecturer for Zoology courses (Ancona University, Italy)

Tutor of graduating and PhD students

Participant in national and international research projects (see below)

**1998** Environmental awareness promoter for the tour operator Club Vacanze (Maldives)

**1984-1987** Employed by Cloe Srl (oceanographic research and monitoring activities; field and laboratory analyses, set up of submerged instrumentations)

**Affiliations**

Member of the Italian Society of Marine Biology (SIBM)

**Referee for the following journals**

Journal of the Marine Biological Association of the United Kingdom

**Research projects and European projects**

- 2008** Synergies between science and society for a shared approach to European seas – 4SEAS. A Coordination and Support Action (Coordinating) funded under the 7 Framework Programme of the European Commission (*as Studio Associato Gaia*)
- 2007** Training course: “ Environmental awareness promoter in Ligurian Marine Protected Areas”. Contract MPA 5 Terre – Dip.Te.Ris. (*as Studio Associato Gaia*)
- Evaluation of impacts by fishing and diving activities on benthic communities in the 5 Terre MPA. Contract MPA 5 Terre – Dip.Te.Ris. (*as Studio Associato Gaia*)
- 2004-2007** Sponge farming in the 5 Terre MPA. Contract MPA 5 Terre – Dip.Te.Ris. (*as Studio Associato Gaia*)
- Sponge culture and bioremediation in Libya. Grant by the Italian Ministry of Foreign Affairs (*as Studio Associato Gaia*)
- 2003-2005** Bioremediation in integrated policultures (in- and off-shore). Grant by the Italian Ministry of Agriculture and Forests
- 2003-2004** The variability of hard substrata assemblages to estimate anthropogenic effects on coastal environments. Grant by the Italian Ministry of University and Research
- 2002-2003** Sponge population survey along the Eastern coast of the Sinai Peninsula. Grant by the University of Genoa
- 1999-2003** Integrated policultures for the production of biometabolites. Grant by the Italian Ministry of Agriculture and Forests
- 1999** Demographic study on Eastern Mediterranean border islands economically relying on fisheries. EU funded project N° 97/SE/015
- 1998** Set up of a sponge farming plant at Kalymnos (Greece). Funded by the Municipality of Kalymnos.

**Language skills**            Italian: mother language  
                                  English: fluent  
                                  French: good speaking skills

**Computer skills**            Operative system MS Windows, Microsoft Office package  
                                  Software: Word, Excel, Power Point, Front Page, Paint Shop Pro, Corel  
                                  Draw, Adobe In Design, Adobe Illustrator, Premier 6 Beta, GraphPad,  
                                  Prism 4

**Other skills**                **1980-** Diving since 1980, currently more than 200 logged dives  
                                  **today**

**1978-** Study of piano  
                                  **1974**

**1984-** Waterpolo player in minor leagues  
                                  **1974**

**Hobbies and interests**            Traveling and discovering cultures. Planned and performed tours in  
                                  Europe, Central America, Australia, Asia and North Africa

## List of publications

## Full papers

- 2008** MILANESE M., SARÀ A., MANCONI R., BEN ABDALLA A. & PRONZATO R. Commercial sponge fishing in Libya: historical records, present status and perspectives. *Fisheries Research* 89(1): 90-96
- 2007** PRONZATO R., CORRIERO G., MANCONI R., SARÀ A., FERRETTI C., MILANESE M., CERRANO C., NONNIS MARZANO C., LONGO C., MERCURIO M., LEDDA F., ORTU F., SERUSI A. & CUBEDDU T. La spongicoltura nelle Aree Marine Protette italiane: una nuova possibilità imprenditoriale subacquea. In: MARINI L. (ED) Workshop proceedings: Le attività subacquee nelle Aree Marine Protette e gli impatti sull'ambiente: esperienze mediterranee a confronto, Palombi Editori, Roma. 205-212
- 2005** VACCA S., MILANESE M., SARÀ A., FERRETTI C. & PRONZATO R. Analisi del sistema acquifero di *Chondrilla nucula* (Porifera, Demospongiae). *Biologia Marina Mediterranea*, 12(1): 351-353
- 2004** SARA' M. & SARÀ A. A revision of Australian and New Zealand *Tethya* (Porifera: Demospongiae) with a preliminary analysis of species-groupings. *Invertebrate Systematic*, 18: 117-156
- CERRANO C., CALCINAI B., CUCCHIAI E., DI CAMILLO C., NIGRO M., REGOLI F., SARÀ A., SCHIAPARELLI S., TOTTI C. & BAVESTRELLO G. Are Diatoms a food source for Antarctic sponges? *Chemistry and Ecology*, 20 (S1): S57-S64
- 2003** MILANESE M., CHELOSSI E., MANCONI R., SARÀ A., SIDRI M. & PRONZATO R. The marine sponge *Chondrilla nucula* Schmidt, 1862 as an elective candidate for bioremediation in integrated aquaculture. *Journal of Biomolecular Engineering*, 20: 363-368
- SARÀ M. & SARÀ A. A new species of the genus *Stellitethya* (Porifera: Demospongiae) from Western Australia. *Italian Journal of Zoology*, 70: 65-68
- 2002** SARÀ M. & SARÀ A. Three remarkable new genera of Tethyidae (Porifera, Demospongiae) from Australia. *Italian Journal of Zoology*, 69: 163-173
- SARÀ A., CERRANO C. & SARÀ M. Viviparous development in the Antarctic sponge *Stylocordyla borealis* Loven, 1868. *Polar Biology*, 25: 425-431
- 2001** SARÀ M., SARÀ A., NICKEL M. & BRÜMMER F. Three new species of *Tethya* (Porifera: Demospongiae) from German Aquaria. *Stuttgarter Beiträge zur Naturkunde Ser A*, 631: 1-15
- SARÀ M., GOMEZ P. & SARÀ A. East Pacific Mexican *Tethya* (Porifera: Demospongiae) with descriptions of five new species. *Proceedings of the Biological Society of Washington*, 114(3): 794-821

SARÀ A., BAVESTRELLO G., CALCINAI B., CERRANO C. & SARÀ M. Rivestimenti di sedimento in *Tectitethya keyensis* Sarà e Bavestrello 1996 (Porifera, Demospongiae). (Sediment coat in *Tectitethya keyensis* Sarà & Bavestrello 1996 (Porifera, Demospongiae)). *Biologia Marina Mediterranea*, 8(1): 264-270

CERRANO C., MAGNINO G., SARÀ A., BAVESTRELLO G. & GAINO E. Necrosis in a population of *Petrosia ficiformis* (Porifera, Demospongiae) in relation with environmental stress. *Italian Journal of Zoology*, 68: 131-136

CERRANO C., BAVESTRELLO G., CALCINAI B., CATTANEO-VIETTI R., CHIANTORE M., GUIDETTI M. & SARÀ A. Bioerosive processes on Antarctic seas. *Polar Biology*, 24: 790-792

**2000** PRONZATO R., CERRANO C., CUBEDDU T., MAGNINO G., MANCONI R., PASTORE S., SARÀ A. & SIDRI M. The millennial history of commercial sponges: from harvesting to farming and integrated aquaculture. (La storia millenaria delle spugne commerciali: dalla pesca, all'allevamento all'acquacoltura integrata). *Biologia Marina Mediterranea*, 7(2): 132-143

CERRANO C., BAVESTRELLO G., CALCINAI B., CATTANEO-VIETTI R. & SARÀ A. Asteroids eating sponges from Tethys Bay, East Antarctica. *Antarctic Science*, 12(4): 425-426

**1999** PRONZATO R., BAVESTRELLO G., CERRANO C., MAGNINO G., MANCONI R., PANTELIS G., SARÀ A. & SIDRI M. Sponge farming in the Mediterranean Sea: new perspectives. *Memoirs of the Queensland Museum*, 44: 485-491

MAGNINO G., SARÀ A., LANCIONI T. & GAINO E. Endobionts of the coral reef sponge *Theonella swinobei* (Porifera, Demospongiae). *Invertebrate Biology*, 118: 213-220

MAGNINO G., PRONZATO R., SARÀ A. & GAINO E. Fauna associated with the horny sponge *Anomoianthella lamella* Pulitzer-Finali & Pronzato, 1999 (Ianthellidae, Demospongiae) from Papua-New Guinea. *Italian Journal of Zoology*, 66: 175-181

GAINO E., BAVESTRELLO G., CERRANO C., LANZA S., MACCARONE M., MAGNINO G., SARÀ A. & PRONZATO R. Le spugne commerciali dell'isola di Ustica. Commercial sponges from Ustica Island. *Biologia Marina Mediterranea*, 6(1): 253-255

BAVESTRELLO G., CATTANEO-VIETTI R., CERRANO C., LANZA S., MACCARONE M., MAGNINO G., SARÀ A. & PRONZATO R. Distribuzione dei popolamenti di gorgonie dell'Isola di Ustica. (Distribution of the gorgonian populations of Ustica Island). *Biologia Marina Mediterranea*, 6(1): 237-239

## Abstracts and communications

- 2007** 38° Congresso della Società Italiana di Biologia Marina. Santa Margherita Ligure 28/5 – 2/7
- GALLUS L., ALUIGI M.G., CHELOSSI E., FAIMALI M., MILANESE M., SARÀ A. & SCINTO A. Primo ritrovamento di *Perrierella audouiniana* come ospite nella spugna mediterranea *Haliclona (Reniera) sarai*: considerazioni ecotossicologiche
- 2006** 41<sup>th</sup> European Marine Biology Symposium. Cork (Ireland) September 4-8
- MILANESE M., SARÀ A., MANCONI R. & PRONZATO R. Sponge fishing in Libyan waters: past, present and future (*oral communication*)
- SARÀ A., BERTOLLA S., MILANESE M., PRONZATO R. Measuring human impacts on hard bottom assemblages: the Portofino Promontory Marine Protected Area
- 2005** Le Aree Marine Protette e gli impatti sull'ambiente: esperienze mediterranee a confronto. Rome (Italy) February 17-18
- PRONZATO R., CORRIERO G., MANCONI R., SARÀ A., FERRETTI C., MILANESE M., CERRANO C., NONNIS MARZANO C., LONGO C., MERCURIO M., LEDDA F., ORTU F., SERUSI A. & CUBEDDU T. La spongicoltura nelle Aree Marine Protette italiane: una nuova possibilità imprenditoriale subacquea.
- 2004** Aquaculture Europe 2004, Biotechnologies for quality. Barcelona (Spain) October 20-23
- MILANESE M., CHELOSSI E., FAIMALI M., FERRETTI C., GRECO G., MANCONI R., SARÀ A. & PRONZATO R. Sponge farming approaches: biomass production, natural products and marine bioremediation (*oral communication-extended abstract*)
- SARÀ A., CERRANO C., CORRIERO G., FERRETTI C., MANCONI R., MILANESE M., NONNIS MARZANO C. & PRONZATO R. Sponge farming: flexible approaches for sponge biomass production (*extended abstract*)
- 39<sup>th</sup> European Marine Biology Symposium. Genoa (Italy) July 21-24
- MILANESE M., CHELOSSI E., SARÀ A. & PRONZATO R. Sponge farming for marine bioremediation: clues from clearance tests
- 35° Congresso della Società Italiana di Biologia Marina (SIBM). Genoa (Italy) July 19-20
- VACCA S., FERRETTI C., MILANESE M., SARÀ A. & PRONZATO R. Analysis of the aquiferous system of the marine sponge *Chondrilla nucula*

- 2003** 38<sup>th</sup> European Marine Biology Symposium. Aveiro (Portugal) September 8-13
- SIDRI M., CERRANO C., MANCONI R., MILANESE M., PRONZATO R. & SARÀ A. Sponge farming as a technique to sustain sponge biodiversity
- MILANESE M., SARÀ A., MANCONI R. & PRONZATO R. Sponge population survey along the South-Eastern coast of the Sinai Peninsula
- Marine Biotechnology Symposium. Matalascañas (Spain) February 25-March 1
- MILANESE M., CHELOSSI E., MANCONI R., SIDRI M., SARÀ A. & PRONZATO R. *Chondrilla nucula* as an elective candidate for bioremediation in integrated aquaculture
- 2002** VI International Sponge Conference. Rapallo (Italy) September 29-October 5
- GIANGRANDE A., MANCONI R., FERRETTI C., FASSIN E., Sarà A. & PRONZATO R. Polychaete in fauna associated to *Ircinia strobilina*
- CERRANO C., CALCINAI B., DI CAMILLO C., NIGRO M., REGOLI F., SARÀ A., SCHIAPARELLI S., TOTTI C. & BAVESTRELLO G. The seasonal relationships between Antarctic sponges and diatoms
- 2001** 62° Congresso Nazionale Unione Zoologica Italiana (UZI). Sanremo (Italy) September 23-27
- SARÀ A., ANSALDI R. & PRONZATO R. Resistenza alla degenerazione in ambiente controllato di *Aphysina cavernicola* Vacelet, 1959 (Porifera, Demospongiae)
- 2000** 2° Convegno Nazionale delle Scienze del Mare (CoNISMA). Genova (Italy) November
- PRONZATO R., CERRANO C., MAGNINO G., MANCONI R., PANSINI M., SARÀ A. & SIDRI M. Interventi di tutela dei banchi spongiferi in mediterraneo dopo la moria del 1999
- 61° Congresso Nazionale Unione Zoologica Italiana (UZI). S. Benedetto del Tronto (Italy) September 24-28
- PRONZATO R., CERRANO C., MAGNINO G., MANCONI R., PANSINI M., SARÀ A. & SIDRI M. Interventi di tutela dei banchi spongiferi in mediterraneo dopo la moria del 1999
- CERRANO C., CALCINAI B., SARÀ A. & BAVESTRELLO G. Stelle di mare predatrici di spugne a Baia Terra Nova (Antartide)



31<sup>e</sup> Congresso della Società Italiana di Biologia Marina (SIBM). Sharm el Sheikh (Egipt) May 13-20

SARÀ A., BAVESTRELLO G., CALCINAI B., CERRANO C. & SARÀ M. Rivestimenti di sedimento in *Tectitethya* (Porifera Demospongiae)

**1998** Aquaculture Europe 1998, Aquaculture and Water: Fish Culture, Shellfish Culture and Water Usage. Bordeaux (France) October 7-10

PRONZATO R., CERRANO C., CUBEDDU T., LANZA S., MAGNINO G., MANCONI R., PANTELIS J., SARÀ A. & SIDRI M. Sustainable development in coastal areas: role of sponge farming in integrated aquaculture  
V International Sponge Symposium. Brisbane (Australia) June 27 – July 4

PRONZATO R., BAVESTRELLO G., CERRANO C., MAGNINO G., MANCONI R., PANTELIS J., SARÀ A. & SIDRI M. Sponge farming in the Mediterranean Sea: new perspectives

### **Technical reports**

**2007** PRONZATO R., MILANESE M., SARÀ A., FERRETTI C., CERRANO C., PANSINI M., MANCONI R. & CHELOSSI E. Bioremediation in OFF and In shore integrated policulture. Integrated and environmentally friendly sponge-farming (policulture) aimed at the production of biofilters, bioactive molecules and biodiversity restoration in affected environments. Final Report. VI Piano Triennale Ministero Politiche Agricole e Forestali, project N° 6 C 90

**2003** PRONZATO R., MANCONI R., MILANESE M., SARÀ A., FERRETTI C., CERRANO C., PANSINI M. & CHELOSSI E. Experimental use of Porifera in integrated aquaculture for marine bio-remediation and production of bioactive molecules. Final report. V Piano Triennale Ministero Politiche Agricole e Forestali, project N° 5 C 155

### **Other publications**

**2003** Assistant Editor: PANSINI M., PRONZATO R., BAVESTRELLO G. & MANCONI R. (EDS). Sponge Sciences in the New Millennium. Proceedings to the VI International Sponge Conference. Bollettino dei Musei e degli Istituti Biologici dell'Università di Genova, 68.

**1999** Assistant Editor: Il corallo rosso, l'oro del Mediterraneo (Precious Red Coral, the Mediterranean gold). Proceedings to the Red Coral workshop held in Santa Margherita Ligure. Bollettino dei Musei e degli Istituti Biologici dell'Università di Genova, 64-65.

## Patents

- 2004** MANCONI R., PRONZATO R., SARÀ A., CUBEDDU T., MILANESE M., FERRETTI C., LEDDA F.D., STOCCHINO G.A., GAVINA C. & VACCA S.M. Sistemi naturali di biofiltrazione, di produzione e di emissione di antifouling naturali a base di spugne per l'abbattimento dell'inquinamento organico e inorganico in ambienti portuali, porti canale, ambienti lagunari, impianti di acquicoltura e industriali. SAFEAQUAPLAN (Sponges as Active Filterfidfers against AQUAtic organic and inorganic Pollution in harbours Lagoons, Aquaculture and iNdustrial plants). Brevetto per invenzione industriale, Camera di Commercio di Genova, GE2004, A000057