

Biosketch

Dr. Stefano Goffredo, Marine Science Group, Department of Evolutionary and Experimental Biology, Alma Mater Studiorum – University of Bologna, Italy.

EDUCATION

1995. M.Sc., Thesis: Growth of *Ctenactis echinata* (Pallas, 1766) and *Fungia fungites* (Linnaeus, 1758) (Scleractinia, Fungiidae) on a coral reef at Sharm el Sheikh, Red Sea, South Sinai, Egypt. Alma Mater Studiorum - University of Bologna (UNIBO), Department of Evolutionary and Experimental Biology (BES).
2000. PhD. Thesis: Population dynamics and reproductive biology of the solitary coral *Balanophyllia europaea* (Anthozoa, Scleractinia) in the Northern Tyrrhenian Sea. UNIBO, BES.
- 2001-2003. Post Doctoral Fellow. Research Topic: Reproductive biodiversity and demography in tropical and Mediterranean populations of solitary corals (Anthozoa, Scleractinia). UNIBO, BES.

AREAS OF SCIENTIFIC INTEREST AND RESPONSIBILITIES

Coral ecology and biology: Demography, growth rates and population dynamics in temperate and tropical corals and their relationships with environmental factors; reproduction; connectivity; conservation ecology and management of reefs and reef organisms, global climate change effect on coral-reef communities; the use of contemporary corals in predictive models concerning with global climate change. Citizen Science: university research, industry, and policy interdisciplinary interactions; international cooperation; volunteers in marine conservation monitoring; education, scientific literacy and naturalistic awareness. Marine Science Group (MSG): MSG is the research group, which was founded in 1996 by S.G, with the economic support of private external sponsors, raised by S.G. himself. The novel group is specialized in coral ecology and biology, and in citizen science, research fields not developed in Bologna before the establishment of MSG. In particular, S.G. perceived how to apply standard fisheries population models to corals. Past and current S.G.'s principal responsibility is the supervision and coordination of MSG (fund raising, research planning and supervision of bachelor, master, and PhD students).

ACADEMIC PROFESSIONAL EXPERIENCE

1996. Volunteer researcher. Interuniversity Institute for Marine Science of Eilat (Israel). Supervisor: Prof. Nanette E. Chadwick-Furman.
- 1996-present. Conceiver, founder, and coordinator. UNIBO, BES (Italy). Establishment of the Marine Science Group, a novel research group in Bologna.
- 2000-2001. Research fellowship (Funds by Sub Service s. r. l. - Scuba Schools International Italia). UNIBO, BES (Italy). Supervisor: Prof. Francesco Zaccanti.
- 2001-2003. Post-doctorate (Fellowship funds by UNIBO). UNIBO, BES (Italy). Supervisor: Prof. Francesco Zaccanti.
- 2003-2004. Research fellowship (Funds by Canziani Donation of the BES). UNIBO, BES (Italy). Supervisor: Prof. Francesco Zaccanti.
- July 2004 – September 2004. Researcher (Professional task for work service; funds by Canziani Donation of the BES). UNIBO, BES (Italy). Prof. Francesco Zaccanti.
- November 2004 – present. Researcher (Research assignment sustained by funds of the Association of Italian Tour Operators, the Government of Arab Republic of Egypt – Ministry of Tourism, and UNIBO). UNIBO, BES (Italy). Supervisor: Prof. Francesco Zaccanti.

- January 2005. Chief researcher (Funds by The Government of the Republic of the Maldives, Association of Italian Tour Operators, Maldives Association of Tourism Industry, Maldives Tourism Promotion Board, and Crown Company PVT LTD). Government of the Republic of the Maldives: Tsunami Interministerial Task Force (Malé, Maldives). Organization and coordination of the first investigation of Maldivian coral reefs after the 2004 Tsunami.
- March-September 2005. Visiting researcher (Funds by Marco Polo program of the UNIBO). State University of New York (USA). Supervisor: Prof. Howard R. Lasker and Prof. Mary A. Coffroth.
- August-October 2005. Visiting researcher (Funds by Marco Polo program of the UNIBO, by NOAA's National Undersea Research Program, and the NSF). Supervisor: Prof. Mary A. Coffroth.
- 2005, 2006, 2007. Visiting researcher (Funds by Prof. Howard R. Lasker: National Science Foundation, New York State Sea Grant Institute, and National Undersea Research Center at the Caribbean Marine Research Center). Oceanographic vessel of the University of Miami "R/V F. G. Walton Smith" (USA). Supervisor: Prof. Howard R. Lasker (State University of New York).

INTERNATIONAL ADVISORY

REFEREEING EXPERIENCE. Journals: Marine and Freshwater Research, Molecular Ecology, Bulletin of Marine Science, Biodiversity and Conservation, Coral Reefs, Marine Biology, Journal of Natural History, BMC Evolutionary Biology, Marine Ecology Progress Series, Journal of Theoretical Biology. Agencies: National Oceanic and Atmospheric Administration NOAA (The University of Puerto Rico Sea Grant College Program). EDITORIAL ADVISORY BOARD. The Open Conservation Biology Journal.

INTERNATIONAL RESEARCH PROJECT PARTICIPATIONS

2005. Coordinator and principal investigator. Tsunami survey expedition: investigation of Maldivian coral reefs after the 2004 Sumatra earthquake. The Government of the Republic of the Maldives, Association of Italian Tour Operators (ASTOI, Italy).
- 2004-present. Co-investigator. Population dynamics modeling of Giant Sea Anemones in the Northern Red Sea. Prof. Nanette E. Chadwick-Furman (Auburn University). International Research Experiences for Students (IRES, USA), National Science Foundation (NSF, USA).
- 2005-present. Co-investigator. Population ecology of coral reef organisms in the Bahamas, Caribbean and Florida. Prof. Howard R. Lasker (State University of New York). NSF (USA), New York State Sea Grant Institute, and National Undersea Research Center at the Caribbean Marine Research Center (USA).
- 2005-present. Co-coordinator and Co-investigator. Population structure of algal and coral genome in the Mediterranean symbiotic system *Balanophyllia europaea*. Prof. Mary A. Coffroth (State University of New York) and PI (UNIBO). Marco Polo program of the UNIBO (Italy), the Canziani Donation of the BES, UNIBO (Italy), NOAA's National Undersea Research Program (USA), and the NSF (USA).
- 2006-2010. Co-coordinator and Co-investigator. STE: Scuba Tourism for the Environment. Red Sea biodiversity monitoring program. PI, Prof. Corrado Piccinetti, and Prof. Francesco Zaccanti (UNIBO). Ministry of Tourism of the Arab Republic of Egypt, Project AWARE Foundation (Switzerland), ASTOI (Italy), Scuba Nitrox Safety International (Egypt), Scuba Schools International (Italy), TuttoTurismo Magazine (Italy), and Neos airlines (Italy).

SUPERVISION OF STUDENTS

Graduated Master's students (topic, name, academic year of graduation)

Coral sexual reproduction: Silvia Arnone, 1999/2000; Josipa Radetić, 2002/2003; Valentina Airi, 2003/2004; Giulia Marconi, 2006/2007; Gabriella Gasparini, 2006/2007; Coral population genetics: Lucia Mezzomonaco, 2002/2003; Theodora Sideratou, 2004/2005; Sabrina di Ceglie, 2005/2006.

Environmental parameters and coral population demography: Erik Caroselli, 2005/2006.

Environmental biodiversity monitoring and citizen science: Antonio Orlandi, 2003/2004; Patrizia Neri, 2004/2005; Maria Scola Gagliardi, 2005/2006; Angela Velardi, Francesco Pensa, 2006/2007.

Current Research Doctorate students (PhD) (Topic and name)

Environmental parameters and coral population demography: Erik Caroselli.

PAPERS IN PEER-REVIEW / IMPACT-FACTOR JOURNALS

1	Goffredo S. , Telò T. 1998: Hermaphroditism and brooding in the solitary coral <i>Balanophyllia europaea</i> (Cnidaria, Anthozoa, Scleractinia). Italian Journal of Zoology , 65: 159-165.
2	Goffredo S. , Chadwick-Furman N. E. 2000: Abundance and distribution of mushroom corals (Scleractinia, Fungiidae) on a coral reef at Eilat, northern Red Sea. Bulletin of Marine Science , 66: 241-254.
3	Goffredo S. , Telò T., Scanabissi F. 2000: Ultrastructural observations of the spermatogenesis of the hermaphroditic solitary coral <i>Balanophyllia europaea</i> (Anthozoa, Scleractinia). Zoomorphology , 119: 231-240.
4	Chadwick-Furman N. E., Goffredo S. , Loya Y. 2000: Growth and population dynamic model of the reef coral <i>Fungia granulosa</i> Klusinger, 1879 at Eilat, northern Red Sea. Journal of Experimental Marine Biology and Ecology , 249: 199-218.
5	Goffredo S. , Arnone S., Zaccanti F. 2002: Sexual reproduction in the Mediterranean solitary coral <i>Balanophyllia europaea</i> (Scleractinia, Dendrophylliidae). Marine Ecology Progress Series , 229: 83-94.
6	Goffredo S. , Chadwick-Furman N. E. 2003: Comparative demography of mushroom corals (Scleractinia, Fungiidae) at Eilat, northern Red Sea. Marine Biology , 142: 411-418.
7	Goffredo S. , Zaccanti F. 2004: Laboratory observations on larval behaviour and metamorphosis in the Mediterranean solitary coral <i>Balanophyllia europaea</i> (Scleractinia, Dendrophylliidae). Bulletin of Marine Science , 74: 449-458.
8	Goffredo S. , Mattioli G., Zaccanti F. 2004: Growth and population dynamics model of the Mediterranean solitary coral <i>Balanophyllia europaea</i> (Scleractinia, Dendrophylliidae). Coral Reefs , 23: 433-443.
9	Goffredo S. , Piccinetti C., Zaccanti F. 2004: Volunteers in marine conservation monitoring: Mediterranean <i>Hippocampus</i> Mission, a study on the distribution of seahorses carried out in collaboration with recreational scuba divers. Conservation Biology , 18: 1492-1503.

10	Goffredo S. , Mezzomonaco L., Zaccanti F. 2004: Genetic differentiation among populations of the Mediterranean hermaphroditic brooding coral <i>Balanophyllia europaea</i> (Scleractinia, Dendrophylliidae). Marine Biology , 145: 1075-1083.
11	Goffredo S. , Radetić J., Airi V., Zaccanti F. 2005: Sexual reproduction of the solitary sunset cup coral <i>Leptopsammia pruvoti</i> (Scleractinia, Dendrophylliidae) in the Mediterranean. 1. Morphological aspects of gametogenesis and ontogenesis. Marine Biology , 147: 485-495.
12	Goffredo S. , Airi V., Radetić J., Zaccanti F. 2006: Sexual reproduction of the solitary sunset cup coral <i>Leptopsammia pruvoti</i> (Scleractinia, Dendrophylliidae) in the Mediterranean. 2. Quantitative aspects of the annual reproductive cycle. Marine Biology , 148: 923-931.
13	Gektidis M., Dubinsky Z., Goffredo S. 2006: Microendoliths of the Shallow Euphotic Zone in open and shaded habitats at 30° N - Eilat, Israel - paleoecological implications. Facies , 53: 43-55.
14	Goffredo S. , Lasker H. R. 2006: Modular growth of a gorgonian coral can generate predictable patterns of colony growth. Journal of Experimental Marine Biology and Ecology , 336: 221-229.
15	Goffredo S. , Piccinetti C., Zaccanti F. 2007: Tsunami survey expedition: preliminary investigation of Maldivian coral reefs two weeks after the event. Environmental Monitoring and Assessment , 131: 95-105.
16	Goffredo S. , Caroselli E., Pignotti E., Mattioli G., Zaccanti F. 2007: Variation in biometry and population density of solitary corals with solar radiation and sea surface temperature in the Mediterranean Sea. Marine Biology , 152: 351-361
17	Goffredo S. , Caroselli E., Mattioli G., Pignotti E., Zaccanti F. 2008: Relationships between growth, population structure and sea surface temperature in the temperate solitary coral <i>Balanophyllia europaea</i> (Scleractinia, Dendrophylliidae). Coral Reefs , DOI: 10.1007/s00338-008-0362-y
18	Goffredo S. , Lasker H. R. 2008: An adaptive management approach to an octocoral fishery based on the Beverton-Holt model. Coral Reefs , in press.