

Valerio Zupo

Born in Napoli (Italy) on 03/07/1958

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Current Position: ricercatore III° livello, Scientist

Current Affiliation:

Section Integrated Marine Ecology, Stazione Zoologica Anton Dohrn, Ischia (Italy) and Head of Unit Marine Resources for Research

Education/Training/Experience

| Institute and Location | Degree / Function | Year | Field of Study |
|-------------------------------------------------|-------------------------------------------|--------------|-----------------------|
| University of Naples. | Degree with full marks and honours at the | 1978--1984 | Biological Sciences |
| National Council of Research | Fellowship | 1987-1988 | Penaeid prawn culture |
| University "Libre" of Bruxelles | Enrolled of completed as a PhD student | 1988-1992 | Zoology |
| Florida Technology Institute. Melbourne FL. USA | Fullbright award | 1994-1994 | Decapod ecology |
| Stazione Zoologica Anton Dohrn. Napoli, Italy | Scientist | 1994-present | Benthic Ecology |

Appointments and awards

1991-1992: Italian Department of the Navy. Participated in the "Red Coral" Programme, to define the techniques of breeding and reproduction of *Corallium rubrum*.

1992-1992: Associated Zoological Management Union. Tutored 10 hours on techniques of breeding of Decapod Crustaceans in the frame of the "Theoretical & Practical Regional Course of Professional Training for Aquaculture Operators".

1992-1993: Mussel Culturers Union (E.C.O.M.) Concluded the project for the establishment of a breeding and purification center for bivalve molluscs in "Ischitella" (Naples, Italy). The project was supported financially by the European Economic Community with 2.6 Billions Lire.

1992-1994: Consulting contract to study the trophic ecology of benthic macrozoobenthos awarded by E.U. (Programme "STEP")

1995-1997 – Coordinator of the Project “Biofouling and testing of non-polluting coatings” awarded by the U.S. Office of Naval research

1997-2000: Coordinator of the project: “Ecology and management of the Santa Croce Bank” funded by the Italian Ministry of agriculture

2000-2003: SZN Coordinator of the E.U. funded project BIOMARE

2004-2008: General coordinator of the programme EU 004800 Pharmapox funded by the E.U.
(<http://pharmapox.szn.it>)

2006-present: Regional responsible for the Mediterranean Area of the International Association for Invertebrate Reproduction and Development

Students' Supervision

PhD supervisor of four Ph.D. students (internal supervisor, dir. of studies, external)

Publications

Author of 68 peer-reviewed publications on journals (h-index: 18), 20 conference papers, 12 book chapters, 11 printed books (as author) and thousands of divulgative articles on aquarium techniques on Italian and American journals.

List of publications of the last 10 years (2005-present):

Peer-reviewed

Caruso T., Falciai L. and Zupo V. (2005) Do Hermit crabs live in sponges? Paguristes eremita and Suberites domuncula: biometric data from the southern Mediterranean Sea. J. Mar. Biol. Ass. U.K. 85: 1353-1357.

Gambi M C & Zupo V. (2005) Studio della biologia del policheti Lumbrineris impatiens (Claparède) nel Golfo di Napoli ai fini della gestione della risorsa come esca. UE-SFOP Regione Campania. LE.G.M.A. Editor. Napoli: 32 pp.

Gambi M C & Zupo V. (2005) Studio della biologia del policheti Lumbrineris impatiens (Claparède) nel Golfo di Napoli ai fini della gestione della risorsa come esca. UE-SFOP Regione Campania. LE.G.M.A. Editor. Napoli: 32 pp.

Messina P., DI Filippo M., Gambi M.C., Zupo V. (2005) In vitro fertilization and larval development of Lumbrineris (Scoletoma) impatiens (Claparède) (Polychaeta, Lumbrineridae) of the Gulf of Naples (Italy) finalised to aquaculture. Invertebrate Reproduction and Development 48 (1-3): 31-40.

Zupo V., Mazzella L., Buia M.C., Gambi MC, Lorenti M., Scipione MB, Cancemi G. (2006) Spatial structure of a Posidonia oceanica meadow off the Island of Ischia (Gulf of Naples, Italy): an investigation based on the Kriging technique. Aquatic Botany 84(2): 101-109

Zupo V. (in 2006) Decapod associations from “Banco di Santa Croce” (Bay of Naples): a key pathway in local food webs. Biologia Marina Mediterranea 13(1):456-466

Bianco P.G., Zupo V. and Ketmaier V. (2006) Unusual occurrence of the mesopelagic scalloped ribbonfish *Zu cristatus* (Lampridiformes) in the coastal waters of the central Tyrrhenian Sea, Italy. Journal of fish biology 68(suppl A): 150-155.

Gambi M.C., Trani B., Cigliano M., Zupo V. (2006) The “Kriging” approach to study the relationships between *Posidonia oceanica* meadow structure and distribution of associated fauna: an example with borer polychaetes. Biologia Marina Mediterranea 13(4): 139-144

Mezali K., Zupo V., Francour P. (2006) Population dynamics of *Holothuria (Holothuria) tubulosa* and *Holothuria (Lessonothuria) polii* of an Algerian *Posidonia oceanica* meadow. Biologia Marina Mediterranea 13(4): 157-161

Zupo V. and Messina P. (2007) How do dietary diatoms cause the sex reversal of the shrimp *Hippolyte inermis* Leach (Crustacea, Decapoda). Marine Biology 151:907-917

Zupo V, Buia M C, Gambi M C, Lorenti M, Procaccini G (2006) Temporal variations in the spatial structure of a *Posidonia oceanica* (L.) Delile meadow and its relationships with the patterns of genetic diversity. PSZNI Marine Ecology 27: 328-338.

Messina P., Di Filippo M., Saggiomo F., Piro G., Zupo V. (2006) Tecniche di allevamento in sistema chiuso del policheti da esca *Lumbrineris impatiens* (Lumbrineridae) e primi dati sull’ecologia trofica. Biologia Marina Mediterranea 13(1): 531-535.

Raniello R., Iannicelli M., Nappo M., Avila C. & Zupo V. (2007) Production of *Coccconeis neothumensis* (Bacillariophyceae) biomass in batch cultures and bioreactors for biotechnological applications: light and nutrient requirements. Journal of Applied Phycology 19:383-391.

Zupo V, Messina P, Buttino I, Sagi A, Avila C, Nappo M, Bastida J, Codina C, Zupo S (2007) Do benthic and planktonic diatoms produce equivalent effects in crustaceans? Marine and Freshwater Behaviour and Physiology 40(3) 1-13.

Zupo V, Messina P, Carcaterra A, Aflalo E D., Sagi A (2008) Experimental evidence of a sex reversal process in the shrimp *Hippolyte inermis*. Invertebrate Reproduction and Development, 52:(1-2) (2008) 93–100.

Nappo, M., Avila, C., Taboada, S., Bastida, J., Codina, C., Sagi, A., Aflalo, D.E., Manor, R., Weil, S., Ventura, T., Zupo, S., Volta, C., Messina, P., Raniello, R., Zupo, V (2008) Towards the characterization of a new apoptotic factor from the marine benthic diatom *Coccconeis scutellum*. Proceedings of the XIV Simposio Ibérico de Estudios de Biología Marina.

Nappo M, Berkov S, Codina C, Avila C, Messina P, Zupo V, Bastida J (2009) Metabolite profiling of the benthic diatom *Coccconeis scutellum* by GC-MS. J Appl Phycol 21(3): 295-306 DOI 10.1007/s10811-008-9367-8

Zupo V. and Patti F. (2009) Laboratory spawning, larval development and metamorphosis of the marine snail *Nassarius reticulatus* (Caenogastropoda, Nassariidae). Journal of Invertebrate Reproduction and Development 53(1): 23-31.

Jüttner F., Messina P., Patalano C., Zupo V. (2010) Odour compounds of the diatom *Coccconeis scutellum*: effects on benthic herbivores living on *Posidonia oceanica*. Marine Ecology Progress Series Vol. 400: 63–73.

Zupo V., Pessani D., Lumare D., Lumare L. & Lumare F. (2010) Produzione ed allevamento di larve di crostacei decapodi. In: Socal et al. (Eds), Metodologie di studio del plancton marino. Manuali e Linee Guida 56. ISPRA Publ.: 563-586

Zupo V. & Stubing D. (2010) Diet of fish populations in Posidonia oceanica meadows off the Island of Ischia (Gulf of Naples, Italy): assessment of spatial and seasonal variability. Natural Science 2(11): 1274-1286.

Scipione M.B., Zupo V. (2010) Crustacean amphipods from the seagrasses *Zostera marina*, *Cymodocea nodosa* and *Posidonia oceanica* in the Adriatic Sea (Italy): a first comparison. Zool. baetica, 21: 15-32.

Zupo V., Maibam C. (2011) Ecological role of benthic diatoms as regulators of invertebrate physiology and behaviour. Book chapter in: J.C. Compton (Ed) Chpt. 6 - Diatoms: Classification, Ecology and Life Cycle. Nova Publisher, New York: 149-168.

Lorenti M., Gambi M.C., Guglielmo R., Patti F.P., Scipione M.B., Zupo V., Buia M.C. (2011) Soft-bottom macrofaunal assemblages in the Gulf of Salerno, Tyrrhenian Sea, Italy, an area affected by the invasion of the seaweed *Caulerpa racemosa* var. *cylindracea* Marine Ecology an evolutionary perspective: 1-15.

Zupo V., Carnesecchi R., Messina P., Falciai L. (2011) Occurrence of gastroliths in the marine shrimp *Hippolyte inermis* Leach and their possible role during the intermolt cycle. Mus. Reg. Sci. Nat. Torino. IX Colloquium Crustacea Mediterranea. Torino. September 2-6 2008, pp 357-371.

Michela Nappo, Strahil Berkov, Carlotta Massucco, Valentina Di Maria, Jaume Bastida, C. Codina, Conxita Avila, Patrizia Messina, Valerio Zupo, Simona Zupo (2011) Apoptotic activity of the marine diatom *Cocconeis scutellum* and eicosapentaenoic acid in BT20 cells. Pharmaceutical Biology 1-7. DOI: 10.3109/13880209.2011.611811

Zupo V. Patalano C., Messina P. (2011) Culture conditions influence the growth dynamics and the production of *Cocconeis scutellum* Ehrenberg (Bacillariophyta). Journal of Phycology 47, 1433–1444.

Zupo V., Jüttner F., Maibam C., Butera E. and Blom J.F. (2014) Apoptogenic Metabolites in Fractions of the Benthic Diatom *Cocconeis scutellum parva*. Marine Drugs 2014, 12, 547-567; doi:10.3390/md12010547

Maibam C, Fink P, Romano G, Buia MC, Gambi MC, Scipione MB, Patti FP, Lorenti M, Butera E, Zupo V (2014) Relevance of wound-activated compounds produced by diatoms as toxins and infochemicals for benthic invertebrates. Marine Biology. DOI 10.1007/s00227-014-2448-0

Garrard SL; Gambi MC, Scipione MB, Patti FP, Lorenti M, Zupo V, Paterson DM, Buia M.C. (2014) Indirect effects may buffer negative responses of seagrass invertebrate communities to ocean acidification. Journal of Experimental Marine Biology and Ecology 461 (2014) 31–38.

Maibam C., Fink P., Romano G., Buia MC, Butera E, Zupo V. (2015) *Centropages typicus* (Crustacea, Copepoda) reacts to volatile compounds produced by planktonic algae. Marine Ecology, an Evolutionary Perspective.

Zupo V, Maibam C, Fink P. and von Elert E (2015) Effect of storage on the fatty acid content of foods for post-larvae of the crustacean decapod Hippolyte inermis. Invertebrate Reproduction and Development 1 - 12. DOI <http://dx.doi.org/10.1080/07924259.2014.1001498>

Corriero G., Pierri C, Zupo V., et al. (2015) Ecosystem vulnerability to alien and invasive species: a case study on marine habitats along the Italian coast. Aquatic Conserv: Mar. Freshw. Ecosyst. Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/aqc.2550