

## Luigi Musco

Associate Professor of Zoology

University of Salento, Dipartimento di Scienze e Tecnologie Biologiche ed Ambientali, Centro Ecotekne Pal. B - S.P. 6, Lecce - Monteroni - Lecce (Italy)

### Scientific interests

LM research interest deals with biology and marine ecology particularly focused on taxonomy, biogeography and ecology of marine invertebrates. Protection of biodiversity should rely on a deep knowledge of both organisms' diversity and, intra- and interspecific relationships determining ecosystem functioning. In this context taxonomy is crucial since an in-deep knowledge of the species and their identity can allow the understanding of diversity patterns and, consequently, ecosystem functioning. Particularly, Annelida are the focus of large part of LM research dealing with taxonomy (5 new species to the science), faunal analyses, biogeography, reproductive biology.

### Education

2007 PhD in Fundamental Ecology (University of Salento, excellent)

2002 degree in Biological Sciences (University of Salento, summa cum laude)

### Professional Experience

Since December 2020 Associate Professor of Zoology, University of Salento (Lecce).

October 2020 – December 2020 Senior Researcher at SZN.

June 2016 – October 2020 Researcher (Marine Biodiversity Conservation) at SZN.

2014 - 2016 Researcher (Marine Ecology and Biology) at CNR

2012-2013 Senior Post-doc research grant at the CNR (National Research Council).

2009-2010 Post-doc research grant at the DiSTeBA (University of Salento)

2003- 2007 Research grants at the CoNISMa (Rome)

### Awards

2020: the paper "Protocooperation among small polyps allows the coral *Astroides calycularis* to prey on large jellyfish" (Musco et al. 2018) wins the "Top Downloaded Paper" award by the journal Ecology

2019: Certificate of scientific merit awarded by the Municipality of Galatone (Italy)

2019: Winner of the "Terre di Campania" award

2018: Winner of the Anton Dohrn Best Researcher Award 2018

2018: Qualified Associate Professor of Ecology

2014: Qualified Associate Professor of Zoology

2010: Member of the Scientific committee of the 10<sup>th</sup> International Polychaete Conference

Top Reviewer Award to Luigi Musco in recognition of outstanding contributions to the journal Estuarine Coastal & Shelf Science"

### Tutorial and Teaching activities

LM successful supervised Eugenia Schimmenti (01/2014 – 09/2017, University of Palermo). At present, co-supervisor of 4 PhD candidates (Silvia Filogna -Scuola Superiore Sant'Anna di Pisa, Erika Fabbrizzi- University Federico II of Naples, Chiara Silvestrin - Polytechnic University of Marche, Raffaele Panzuto - Tuscia University of Viterbo). Internal/external Supervisor of 10 MSc and 14 undergraduate students' theses, and 2 master students. Advisor of a post-doc researcher and 2 research fellows. Member of the Advisory Board of the PhD course of the Stazione Zoologica Anton Dohrn (2016-2020).

Seminar for the PhD Course in Biology at the Federico II University of Naples. 2020. - Teacher for the 1st International Summer School on Marine ecotoxicology, (SSME1), 2019 Stazione Zoologica Anton Dohrn/Ordine Nazionale dei Biologi. - La Sapienza University, Rome (2017-2020). Two seminars for the Master degree in "Monitoring and environmental rehabilitation", Prof. Fausto Manes. - Polytechnic University of Marche, 2017/2018, 2 seminars for the Degree in Marine Biology, Master degree in marine Biology and IMBRSea Master. - Institut national des études territoriales (INET) de Strasbourg, 2018. Seminar for the students. - University of Palermo 2014/2015, Integrative didactic activity: Marine Zoology course, Degree in Biological Sciences. Prof. Sabrina Lo Brutto. - Seminar "Marine Biogeography" course of Biogeography, Master degree in Natural Sciences, 2013 University of Palermo, Prof Federico Marrone

### **External funding**

- Principal Investigator of ABBACO funded by MIUR (budget 3.700.000 €)
- "Blue Biotechnologies for restoring marine ecosystems of the contaminated Site of National Interest (SIN) ex Montedison (Falconara M.ma) – BIOBLUTECH. Fondazione CARIVERONA
- AFRIMED. Implementation of the European Maritime and Fisheries Fund Work Programme 2017 Action 1.2.1.12 - Sustainable Blue Economy S4- Restoring marine ecosystems in the Med.
- Progetto Premiale EARTH CRUISERS "EARTH's CRUst Imagery for investigating SEismicity, volcanism and marine natural Resources in the Sicilian offshore"
- CLUSTER-ITEM
- FEAMP Campania

### **Participation in other projects**

- PRIN 2010-2011 - Biocostruzioni costiere: struttura, funzione, e gestione.
- RITMARE. Preparazione di un database per implementare modelli trofodinamici nello Stretto di Sicilia Progetto RITMARE, MIUR. SP2
- FIRB 2012. "Unveiling hidden relationships between biodiversity and ecosystem functioning in Mediterranean rocky reefs HI-BEF project"
- Caulerpa. Esecuzione di ricerche e studi degli effetti dell'invasione di caulerpe aliene sulle biocenosi costiere. Convenzione N. 364.174 CNR IAMC - ARPA Sicilia
- ISRAELE CMCC. Accordo di Programma per attività di ricerca internazionale nell'ambito della cooperazione Italia-Israele su ambiente ricerca e sviluppo.
- "ACTIBIOMAR" Estrazione di principi attivi da biomasse marine e loro potenziale utilizzazione in farmaceutica e dietetica. Accordo di Programma Quadro in Materia di ricerca Scientifica nella Regione Puglia – Progetti strategici
- MATTM 4 AMP – ECOSISTEMI MARINI
- REPORT – Riduzione dell'epibiosi attraverso la policoltura di ostriche e ricci nei mari di Taranto. Progetto Esplorativo PE\_054
- MarBEF - Marine Biodiversity and Ecosystem Functioning EU Network of Excellence
- FIRB RS BOERO (Biodiversità). Biodiversità ed organizzazione delle comunità di differenti contesti ambientali
- ICRAM "Identificazione e distribuzione nei mari italiani di specie non indigene"

### **Management and Organization**

Scientific responsible for the research agreements (2017) among SZN and CNR, ISS; INGV, ENEA, University Federico II of Naples, CoNISMa, University of Campania Vanvitelli, Polytechnic University of Marche, Parthenope University of Naples. Responsible for the agreement (2017) between SZN and INVITALIA for common actions aimed at the rehabilitation of the Bagnoli area. Responsible for the research agreement between CNR and Area Marina Protetta del Plemmirio (2013).

### **Editorial and peer review activities**

Guest Editor of the Special Issue "Industrial Impact at Sea" (Marine Environmental Research),  
Guest Editor of the Special Issue "Marine Biodiversity in the Anthropocene" (Journal of Marine Science and Engineering, section Marine Biology) and Associated Editor of JMSE.  
Reviewer for 24 peer reviewed ISI Journals.  
External evaluator of a Consolidator Grant for the ERC panel "Evolutionary, Population, and Environmental Biology"

### **External collaborations**

LM directly collaborates with Researcher from 8 Italian Universities, 5 Research Institutions. The international network includes researchers from USA, UK, Mexico, Turkey, Egypt, Sweden, Argentina, Greece, Spain.

### **Member of scientific Societies**

- "Marine Organisms Taxonomy" MOTax
- "Society for the Management of Electronic Biodiversity Data" SMEBD ([www.smebd.eu](http://www.smebd.eu))

### **Symposia and conferences**

LM participated to 27 conferences. Awarded with the best poster award at the 47° Congresso della SIBM, Torino, 2016. Member of the organizing and scientific committees of the 10th “International Polychaete Conference”. Member of the organizing committee of the conference “Proteggere, Valorizzare, Recuperare, Esplorare il mare” ProVaRE. Università Federico II di Napoli, Stazione Zoologica Anton Dohrn. Stati Generali del Mare 2017

### Outreach and dissemination

LM’s research was reported by BBC, SciMag, The National Geographic, The New York Times, LaVanguardia, Eurekalert, YahooNews, The Telegraph, The Economist among others).

Interviewed by the Italian Television RAI (Linea Blu, Linea Verde, Rai 3 Puliamo il Mondo). Interviews for the Italian newspapers/agencies La Repubblica, Corriere della Sera, Il Mattino, Ansa, Il Sole 24 ore, Il Manifesto, SkyTg24, GreenReport and several local/regional newspapers).

LM participated as a speaker to several dissemination events such as Pint of Science Naples 2019, Naples Shipping Week 2018.

### Patents

Alagna A, Badalamenti F, Musco L. Supporting structure and method of culturing and PLANTing of seagrass units grown from SEEDS (PLANTSEEDS). (n 102020000009046, 27/04/2020)

### Publications

LM is authors of 69 articles in ISI journals. Total citations: 1401. Hirsch (H) index: 20 (Google Scholar, visited on 01 February 2021)

### Papers on ISI Journals

1. Rizzo L, Musco L, Crocetta F (2021) Cohabiting with litter: Fish and benthic assemblages in coastal habitats of a heavily urbanized area. *Marine Pollution Bulletin* 164, 112077
2. Sansone C, Galasso C, Lo Martire M, Fernández TV, Musco L, Dell’Anno A, Bruno A, Noonan DM, Albin A, Brunet C (2021) In Vitro Evaluation of Antioxidant Potential of the Invasive Seagrass *Halophila stipulacea*. *Marine Drugs* 19 (1), 37
3. Gregorin C, Musco L, Somma E, Zupo V (2020) Behavioural Responses of the Colonial Sea Squirt *Botrylloides violaceus* Oka to Suspended Food Micro-Particles in Laboratory Cultures. *Journal of Marine Science and Engineering* 8 (12), 1021
4. Filogna S, Iacovacci V, Vecchi F, **Musco L**, Menciasci A (2020) Protrusion mechanism study in sipunculid worms as model for developing bio-inspired linear actuators *Bioinspiration & Biomimetics* 16 (2), 026008
5. Mikac B., Licciano M., Jaklin A., Iveša L., Giangrande A., **Musco L.** (2020). Diversity and distribution patterns of hard bottom polychaete assemblages in the North Adriatic Sea (Mediterranean). *Diversity*, 12, 408. doi:10.3390/
6. Langeneck J., Lezzi M., Del Pasqua M., **Musco L.**, Gambi M., Castelli A., Giangrande A. (2020). Non-indigenous polychaetes along the coasts of Italy: a critical review. *Mediterranean Marine Science*, 21(2), 238-275. doi:https://doi.org/10.12681/mms.21860
7. Dell’Anno A., Beolchini F., Corinaldesi C., Amato A., Becci A., Rastelli E., Hekeu M., Regoli F., Astarita E., Greco S., **Musco L.**, Danovaro R. (2020). Assessing the efficiency and eco-sustainability of bioremediation strategies for the reclamation of highly contaminated marine sediments. *Marine Environmental Research*, 162, 105101. DOI 10.1016/j.marenvres.2020.105101
8. Colletti A., Savinelli B., Di Muzio G., Rizzo L., Tamburello L., Frascchetti S., **Musco L.** \*, Danovaro R. (2020). The date mussel *Lithophaga lithophaga*: Biology, ecology and the multiple impacts of its illegal fishery. *Science of the Total Environment*, 744, 140866 DOI 10.1016/j.scitotenv.2020.140866
9. Tangherlini M., Corinaldesi C., Rastelli E., **Musco L.**, Armiento G., Danovaro R., Dell’Anno A. (2020) Chemical contamination can promote turnover diversity of benthic prokaryotic assemblages: The case study of the Bagnoli-Coroglio bay (southern Tyrrhenian Sea). *Marine Environmental Research*, 160, 105040. DOI: 10.1016/j.marenvres.2020.105040
10. Morroni L., d’Errico G., Sacchi M., Molisso F., Armiento G., Chiavarini S., Rimauro J., Guida M., Siciliano A.,

- Ceparano M., Aliberti F., Tosti E., Gallo A., Libralato G., Patti F.P., Gorbi S., Fattorini D., Nardi A., Di Carlo M., Mezzelani M., Benedetti M., Pellegrini D., **Musco L.**, Danovaro R., Dell'Anno A., Regoli F. (2020) Integrated characterization and risk management of marine sediments: The case study of the industrialized Bagnoli area (Naples, Italy). *Marine Environmental Research*, 160, 104984. DOI 10.1016/j.marenvres.2020.104984
11. Giglioli S., Colombo L., Contestabile P., **Musco L.**, Armiento G., Somma R., Vicinanza D., Azzellino A. (2020). Source apportionment assessment of marine sediment contamination in a post-industrial area (Bagnoli, Naples). *Water*, 12(8), 2181 DOI 10.3390/W12082181
  12. Pieretti N., Lo Martire M., Corinaldesi C., **Musco L.**, Dell'Anno A., Danovaro R. (2020). Anthropogenic noise and biological sounds in a heavily industrialized coastal area (Gulf of Naples, Mediterranean Sea). *Marine Environmental Research*, 159, 105002. DOI: 10.1016/j.marenvres.2020.
  13. Contestabile P., Conversano F., Centurioni L., Golia U.M., **Musco L.**, Danovaro R., Vicinanza D. (2020). Multi-collocation-based estimation of wave climate in a non-tidal bay: The case study of Bagnoli-Coroglio Bay (Tyrrhenian Sea). *Water*, 12(7), 1936. DOI: 10.3390/w12071936
  14. Chiarore A., **Musco L.**, Bertocci I., Gallo A., Cannavacciuolo A., Mutalipassi M., Caramiello D., Giomi F., Fusi M., Danovaro R., Munari M. (2020). Sea urchin chronicles. The effect of oxygen super-saturation and marine polluted sediments from Bagnoli-Coroglio Bay on different life stages of the sea urchin *Paracentrotus lividus*. *Marine Environmental Research*, 159, 104967. DOI: 10.1016/j.marenvres.2020.104967
  15. Limatola N., Bertocci I., Chun J.T., **Musco L.**, Munari M., Caramiello D., Danovaro R., Santella L. (2020). Oxygen supersaturation mitigates the impact of the regime of contaminated sediment reworking on sea urchin fertilization process. *Marine Environmental Research*, 158, 104951 DOI: 10.1016/j.marenvres.2020.104951
  16. Liberti A., Bertocci I., Pollet A., **Musco L.**, Locascio A., Ristatore F., Spagnuolo A., Sordino P. (2020) An indoor study of the combined effect of industrial pollution and turbulence events on the gut environment in a marine invertebrate: The response of the gut environment to polluted sediment reworking. *Marine Environmental Research*, 158, 104950. DOI: 10.1016/j.marenvres.2020.104950
  17. Hay Mele B., Russo L., Crocetta F., Gambi C., Dell'Anno A., Danovaro R., Guglielmo R., **Musco L.**, Patti F.P., Riginella E., Tangherlini M., Ribera d'Alcalá M., D'Alelio D. (2020). Ecological assessment of anthropogenic impact in marine ecosystems: The case of Bagnoli Bay. *Marine Environmental Research*, 158, 104953. DOI: 10.1016/j.marenvres.2020.104953
  18. Gaglioti M., Vega Fernández T., **Musco L.**, Gambi M.C. (2020) Habitat and benthic diversity in the bay of Bagnoli and surrounding areas (Gulf of Naples, Italy): A historical baseline for environmental restoration. *Marine Environmental Research*, 157, 104925. DOI: 10.1016/j.marenvres.2020.104925
  19. Gambi C., Dell'Anno A., Corinaldesi C., Lo Martire M., **Musco L.**, Da Ros Z., Armiento G., Danovaro R. (2020). Impact of historical contamination on meiofaunal assemblages: The case study of the Bagnoli-Coroglio Bay (southern Tyrrhenian Sea). *Marine Environmental Research*, 156, 104907. DOI: 10.1016/j.marenvres.2020.104907
  20. Langeneck J., Del Pasqua M., Licciano M., Giangrande A., **Musco L.** (2020). Atypical reproduction in a syllid worm: The stolon of *Syllis rosea* (Annelida, Syllidae) takes care of its offspring. *Journal of the Marine Biological Association of the United Kingdom*. 100 (2), 221- 227. DOI: 10.1017/
  21. Savinelli B, Vega Fernández T, Galasso NM, D'Anna G, Pipitone C, Prada F, Zenone A, Badalamenti F, **Musco L** (2020) Microplastics impair the feeding performance of a Mediterranean habitat-forming coral. *Marine Environmental Research* 104887 <https://doi.org/10.1016/j.marenvres.2020>.
  22. Ruocco N, Bertocci I, Munari M, **Musco L**, Caramiello D, Danovaro R, Zupo V, Costantini M (2019) Morphological and molecular responses of the sea urchin *Paracentrotus lividus* to highly contaminated marine sediments: the case study of Bagnoli-Coroglio brownfield (Mediterranean Sea). *Marine Environmental Research*, 104865. <https://doi.org/10.1016/j.marenvres.2019.104865>
  23. Alagna A, D'Anna G, **Musco L**, Fernández TV, Gresta M, Pierozzi N, Badalamenti F (2019). Taking advantage of seagrass recovery potential to develop novel and effective meadow rehabilitation methods. *Marine*

**pollution bulletin** 149, 110578 <https://doi.org/10.1016/j.marpolbul.2019.110578>

24. Prada F, **Musco L\***, Alagna A, Agnetta D, Beccari E, D'Anna G, Giacalone VM, Pipitone C, Vega Fernández T, Goffredo S, Badalamenti F (2019). Anthropogenic impact is negatively related to coral health in Sicily (Mediterranean Sea). **Scientific reports** 9 (1), 1-14.
25. Vega Fernández T, Badalamenti F, Bonaviri C, Di Trapani F, Gianguzza P, Noè S, **Musco L.** (2019) Synergistic reduction of a native key herbivore performance by two non-indigenous invasive algae. **Marine pollution bulletin** 141, 649-654
26. Langeneck, J., Diez, M.E., Nygren, A., Salazar-Vallejo, S. Carrera-Parra, L.F., Vega Fernández, T., Badalamenti, F., Castelli, A., **Musco L.** (2018) Worming its way into Patagonia: an integrative approach reveals the cryptic invasion by *Eulalia clavigera* (Annelida: Phyllodocidae). **Marine Biodiversity** 49 (2), 851–861.
27. Bertocci I, Dell'Anno A, **Musco L**, Gambi C, Saggiomo V, Cannavacciuolo M, Lo Martire M, Passarelli A, Zazo G, Danovaro R (2019) Multiple human pressures in coastal habitats: variation of meiofaunal assemblages associated with sewage discharge in a post-industrial area. **Science of The Total Environment** 655, 1218-1231
28. Hamdy, R., Langeneck, J., Atta, MM., Dorgham, MM., El-Rashidy, HH., **Musco, L.** (2019) Diversity and ecology of crustaceans from shallow rocky habitats along the Mediterranean coast of Egypt. **Marine Biodiversity** 49 (1), 221–233
29. Marchini A, Ragazzola F, Vasapollo C, Castelli A, Cerrati G, Gazzola F, Jiang C, Langeneck J, Mannauzzi MC, **Musco L**, Nannini M, Zekonyte J, Lombardi C (2019) Intertidal Mediterranean coralline algae habitat is expecting a shift towards a reduced growth and a simplified associated fauna under climate change. **Frontiers in Marine Science** 6, 106.
30. **Musco L**, Vega Fernández T, Caroselli E, J. Roberts MJ, Badalamenti F (2018) Protocooperation among small polyps allows the coral *Astroides calycularis* to prey on large jellyfish. **Ecology**. 99(10):2400–2401
31. Bussotti S, Di Franco A, Bianchi CN, Chevaldonné P, Egea L, Fanelli E, Lejeusne C, **Musco L**, Navarro-Barranco C, Pey A, Planes S, Vieux-Ingrassia JV & Guidetti P (2018) Fish mitigate trophic depletion in marine cave ecosystems. **Scientific Reports**, 8: 9193 (Q1, IF 3.998)
32. Galasso, C.; Orefice, I.; Toscano, A.; Vega Fernández, T.; **Musco, L.**; Brunet, C.; Sansone, C.; Cirino, P. (2018) Food Modulation Controls Astaxanthin Accumulation in Eggs of the Sea Urchin *Arbacia lixula*. **Marine Drugs**, 16, 186.
33. Langeneck, J., **Musco, L.**, Busoni, G., Conese, I., Aliani S., Castelli A. (2018) Syllidae (Annelida: Phyllodocida) from the deep Mediterranean Sea, with the description of three new species. **Zootaxa** 4369(2), 197-220
34. Noè, S., Badalamenti, F., Bonaviri, C., **Musco, L.**, Vega Fernández, T., Vizzini, S., Gianguzza, P. (2018) Food selection of a generalist herbivore exposed to native and alien seaweeds. **Marine Pollution Bulletin** 129 (2), 469-473
35. Cirino, P., Brunet, C., Ciaravolo, M., Galasso, C., **Musco, L.**, Vega Fernández, T., Sansone, C., Toscano, A. (2017) The sea urchin *Arbacia lixula*: a novel natural source of astaxanthin. **Marine Drugs**, 15 (6) 187
36. Bertocci, I., Badalamenti, F., Lo Brutto, S., Mikac, B., Pipitone, C., Schimmenti, E., Vega Fernández, T., **Musco, L.** (2017) Reducing the data-deficiency of threatened European habitats: Spatial variation of sabellariid worm reefs and associated fauna in the Sicily Channel, Mediterranean Sea. **Marine Environmental Research**. 130: 325-337
37. Willis, T.J., Berglöff, K.T.L., McGill, R.A.R., **Musco, L.**, Piraino, S., Rumsey, C.M., Vega Fernández, T., Badalamenti, F., (2017) Kleptopredation: a mechanism to facilitate planktivory in a benthic mollusk. **Biology Letters**. 13 (11) 20170447
38. **Musco, L.\***, Prada, F., D'Anna, G., Galasso, N.M., Pipitone, C., Vega Fernández, T., Badalamenti, F. Turning casualty into opportunity: fragmenting dislodged colonies is effective for restoring reefs of a Mediterranean endemic coral (2017) **Ecological Engineering**, 98, 206-212.
39. Gambi, M.C., **Musco, L.\***, Giangrande, A., Badalamenti, F., Micheli, F., Kroeker, K.J. (2016) Distribution and functional traits of polychaetes in a CO<sub>2</sub> vent system: Winners and losers among closely related species **Marine Ecology Progress Series**, 550, pp. 121-134

40. Zenone, A., Badalamenti, F., Giacalone, V.M., **Musco, L.**, Pipitone, C., Vega Fernandez, T., D'Anna, G. (2016) Substrate preference and settlement behaviour of the megalopa of the invasive crab *Percnon gibbesi* (Decapoda, Percnidae) in the Mediterranean Sea **Helgoland Marine Research**, 70:21
41. Bulleri F., Badalamenti F., Ivesa L., Mikac B., **Musco L.**, Jaklin A., Rattray A., Vega Fernandez T., Benedetti-Cecchi L. (2016) The effects of an invasive seaweed on native communities vary along a gradient of land-based human impacts. **PeerJ** 4:e1795; DOI 10.7717/peerj.
42. Schimmenti E., **Musco L.\***, Lo Brutto S., Mikac B., Nygren A., Badalamenti F. (2016) Mediterranean record of *Eulalia ornata* (Annelida) corroborating its fidelity link with the *Sabellaria alveolata*-reef habitat. **Mediterranean Marine Science**. 17 (2), 359-370
43. Corriero G, C Pierri, S Accoroni, G Alabiso, G Bavestrello, E Barbone, M Bastianini, AM Bazzoni, F Bernardi Aubry, F Boero, MC Buia, M Cabrini, E Camatti, F Cardone, B Cataletto, R Cattaneo Vietti, E Cecere, T Cibic, P Colangelo, A De Olazabal, G D'Onghia, S Finotto, N Fiore, D Fornasaro, S Frascchetti, MC Gambi, A Giangrande, C Gravili, R Guglielmo, C Longo, M Lorenti, A Lugliè, P Maiorano, MG Mazzocchi, M Mercurio, F Mastrototaro, M Mistri, M Monti, C Munari, **L Musco**, C Nonnis-Marzano, BC Padedda, FP Patti, A Petrocelli, S Piraino, G Portacci, A Pugnetti, S Pulina, T Romagnoli, I Rosati, D Sarno, CT Satta, N Sechi, S Schiaparelli, B Scipione, L Sion, A Terlizzi, V Tirelli, C Totti, A Tursi, N Ungaro, A Zingone, V Zupo, A Basset (2015). Ecosystem vulnerability to alien and invasive species: a case study on marine habitats along the Italian coast. **Aquatic Conservation: Marine and Freshwater Ecosystems** DOI: 10.1002/aqc.2550
44. Dorgham M.M., R. Hamdy, H.H. El-Rashidy, M.M. Atta, L. **Musco** (2014) Distribution patterns of shallow water polychaetes (Annelida) along the coast of Alexandria, Egypt (eastern Mediterranean) **Mediterranean Marine Science** 15(3):635-649
45. **Musco L.\***, F. Andaloro, B. Mikac, S. Mirto, T. Vega Fernandez, F. Badalamenti (2014) Concern about the spread of the invader seaweed *Caulerpa taxifolia* var. *distichophylla* (Chlorophyta: Caulerpales) to the Western Mediterranean. **Mediterranean Marine Science**, 15/3, 2014, 532-538
46. Giangrande A., L.P.G. Caruso, **L. Musco**, M. Licciano. (2014) Variability among Mediterranean populations of *Sabella pavonina* (Annelida: Sabellidae) **Italian Journal of Zoology** 81(1): 100-111
47. Giangrande A., Licciano M., Schirosi R., **Musco L.**, Stabili L. (2014) Chemical and structural defensive external strategies in six sabellid worms (Annelida). **Marine Ecology-An Evolutionary Perspective** 35(1): 36-45
48. **Musco L.** (2012) Ecology and diversity of Mediterranean hard bottom Syllidae (Annelida): a community-level approach. **Marine Ecology Progress Series** 461: 107–119.
49. Mikac B, **Musco L**, Đakovac T, Giangrande A, Terlizzi A. (2011) Long term changes in North Adriatic soft-bottom polychaete assemblages following a dystrophic crisis. **Italian Journal of Zoology**. 78(S1): 304-316.
50. **Musco L\***, Mikac B, Tataranni M, Giangrande A, Terlizzi A. (2011) The use of coarser taxonomy in the detection of long-term changes in polychaete assemblages, **Marine Environmental Research** 71(2): 131-138.
51. Bevilacqua S, Frascchetti S, **Musco L.**, Guarnieri G, Terlizzi A. (2011). Low sensitiveness of taxonomic distinctness indices to human impacts: Evidences across marine benthic organisms and habitat types. **Ecological Indicators**, 11(2): 448–455.
52. Giangrande A, Licciano M, **Musco L**, Stabili L. (2010). Shift in *Sabella spallanzanii* (Polychaeta, Sabellidae) spawning period in the Central Mediterranean Sea: a consequence of climate change? **Mediterranean Marine Science** 11(2): 373-379.
53. **Musco L\***, Lepore E, Gherardi M, Sciscioli M, Mercurio M, Giangrande A. (2010). Sperm ultrastructure of three Syllinae (Annelida, Phyllodocida) species with considerations on syllid phylogeny and *Syllis vittata* reproductive biology. **Zoomorphology** 129(2): 133-139.
54. Mikac B, **Musco L\***. (2010). Faunal and biogeographic analysis of Syllidae (Polychaeta) from Rovinj (Croatia, N Adriatic Sea) **Scientia Marina** 74 (2): 353-370.
55. Schirosi R, **Musco L\***, Giangrande A. (2010). Benthic assemblage of Acquatina lake (South Adriatic Sea): present state and long-term faunistic changes. **Scientia Marina** 74 (2): 235-246.

56. Bevilacqua S., Frascchetti S, **Musco L.**, Terlizzi A. (2009) Taxonomic sufficiency in the detection of natural and human-induced changes in marine assemblages: A comparison of habitats and taxonomic groups. *Marine Pollution Bulletin* 58(12): 1850–1859
57. **Musco L.\***, Terlizzi A, Licciano M, Giangrande A (2009). Taxonomic structure and the effectiveness of surrogates in environmental monitoring: a lesson from polychaetes. *Marine Ecology Progress Series* 383: 199–210.
58. **Musco L.\***, A. Giangrande, M. Gherardi, E. Lepore, M. Mercurio, M. Sciscioli. (2008) Sperm ultra-structure of *Odontosyllis ctenostoma* (Polychaeta: Syllidae) with inferences on syllid phylogeny and reproductive biology. *Scientia Marina* 72(3): 421-427.
59. Lepore, E. Sciscioli, M. Mastrodonato, M. Gherardi, M. Giangrande, A. **Musco, L.\*** (2006). Sperm ultra-structure and spermiogenesis in *Syllis krohni* (Polychaeta: Syllidae), with some observations on its reproductive biology. *Scientia Marina* 70(4): 585-592.
60. Frascchetti S., Gambi C., Giangrande A., **Musco L.**, Terlizzi A., Danovaro R. (2006) Structural and functional response of meiofauna rocky assemblages exposed to sewage pollution. *Marine Pollution Bulletin* 52(5): 540-548.
61. Giangrande A., Licciano M., **Musco L.** (2005) Polychaetes as environmental indicators revisited *Marine Pollution Bulletin* 50(11): 1153-1162.
62. **Musco L.\***, Giangrande A. (2005) Mediterranean Syllidae (Annelida: Polychaeta) revisited: species diversity, biogeography and faunal fidelity to environmental features. *Marine Ecology Progress Series* 304: 143-153.
63. **Musco L.**, Giangrande A. (2005) A new sponge-associated species, *Syllis mayeri* n. sp. (Polychaeta: Syllidae), with a discussion on the status of *S. armillaris* (Müller, 1776). *Scientia Marina* 69 (4): 467-474.
64. **Musco L.**, Çinar M.E., Giangrande A. (2005) A new species of *Sphaerosyllis* (Polychaeta: Syllidae: Exogoninae) from the coasts of Italy and Cyprus (Eastern Mediterranean Sea). *Italian Journal of Zoology*. 72(2): 161-166.
65. Gherardi M., Mastrodonato M., Sion L., **Musco L.**, Lepore E., Sciscioli M., Giangrande A. (2005) Reproduction activity of *Exogone naidina* (Polychaeta: Exogoninae) in a population from the Apulian coast (Adriatic Sea) *Marine Biology* 147(1): 197-203.
66. Giangrande A., Delos A.L., **Musco L.**, Licciano M., Pierri C. (2004) Polychaete assemblages of rocky shore along the South Adriatic coast (Mediterranean Sea). *Cahiers de Biologie Marine* 45(2): 85-95.
67. Corriero G., Gherardi M., Giangrande A., Longo C., Mercurio M., **Musco L.**, Nonnis Marzano C. (2004) Inventory and distribution of hard bottom fauna from the Marine Protected Area of Porto Cesareo (Ionian Sea): Porifera and Polychaeta. *Italian Journal of Zoology* 71(3): 237-245.
68. Giangrande A., Delos A.L., Frascchetti S., **Musco L.**, Licciano M., Terlizzi A. (2003) Polychaete assemblages of rocky shore along the South Adriatic coast (Mediterranean Sea): pattern of spatial distribution. *Marine Biology* 143(6): 1109-1116.

#### Book Chapters on ISI journals

69. Ingrassio G, Abbiati M, Badalamenti F, Bavestrello G, Belmonte G, Cannas R, Benedetti-Cecchi L, Bertolino M, Bevilacqua S, Bianchi CN, Bo M, Boscarì E, Cardone F, Cattaneo-Vietti R, Cau A, Cerrano C, Chemello R, Chimienti G, Congiu L, Corriero G, Costantini F, De Leo F, Donnarumma L, Falace A, Frascchetti S, Giangrande A, Gravina MF, Guarnieri G, Mastrototaro F, Milazzo M, Morri C, **Musco L**, Pezolesi L, Piraino S, Prada F, Ponti M, Rindi F, Russo GF, Sandulli R, Villamor A, Zane L, Boero F (2018) Mediterranean Bioconstructions Along the Italian Coast. *Advances in Marine Biology* Vol 79: 61-136

#### Letters on ISI journals

- Alagna A, D'Anna G, Musco L, Fernández TV, Gresta M, Pierozzi N, Badalamenti F (2020) Reply to “Letter to the editor regarding the article ‘Taking advantage of seagrass recovery potential to develop novel and

effective meadow rehabilitation methods' by Alagna et al., published in Marine Pollution Bulletin, 149: 2019 (110578)" by Calvo et al. Marine Pollution Bulletin, 158:2020 (111395). Marine Pollution Bulletin 161, 111754

#### Publications on peer reviewed non-ISI journals

70. Savinelli B., Galasso N.M., D'Anna G., Di Stefano G., Pipitone C., Prada F., Vega Fernández T., Zenone A., Badalamenti F., **Musco L.** (in press). Wasting time handling waste: microplastics impair the feeding performance of a Mediterranean coral. *Biologia Marina Mediterranea*
71. **Musco L.**, C. Pipitone, D. Agnetta, A. Alagna, G. D'Anna, G. Di Stefano, V.M. Giacalone, M. Gristina, F. Prada, T. Vega Fernández, F. Badalamenti. (2016). Distribution of the orange stony coral *Astroides calycularis* along the Italian coasts, *Biologia Marina Mediterranea* 23 (1): 204-206
72. Ferranti MP, Betti F, Bo M, De La Fuente Mancebo G, Di Camillo CG, Di Franco A, Di Martino E, Fava F, Giaccone T, Giussani V, Matrone M, Mussat Sartor R, **Musco L.**, Pica D, Renzi M, Scinto A, Sinagra A, Tazioli S, Bertolino M (2015) App Pinneggiando: la tecnologia al servizio della biologia marina. *Biologia Marina Mediterranea* 22(1) 223-224
73. Schimmenti E, Lo Brutto S, Badalamenti F, Giangrande A, Mikac B, **Musco L.** (2015) DNA-Barcoding to solve the tricky case of co-occurring *Sabellaria* (Annelida) species in the Mediterranean Sea *Biologia Marina Mediterranea* 22 (1) 109-110
74. **Musco L.**, Andaloro F, D'Anna G, Giangrande A, Lo Brutto S, Mikac B, Mirto S, Pipitone C, Scuderi D, Vega Fernández T, Badalamenti F (2015) Impatto di *Caulerpa taxifolia* var. *distichophylla* su macro- e meiofauna associate a *Posidonia oceanica*. *Biologia Marina Mediterranea* 22(1) 136-137
75. Iacofano D, **Musco L.**, Vega Fernandez T, Lo Brutto S (2015) Crostacei Anfipodi associati a reef di *Sabellaria alveolata* (L.) (Annelida) dello Stretto di Sicilia (Mar Mediterraneo). *Biologia Marina Mediterranea* 22(1) 95-96
76. Giangrande A., M. Licciano, M. Lezzi, L.P.G. Caruso, **L. Musco**, A.M. Miglietta (2015) La collezione degli Anellidi Policheti del Museo di Biologia Marina "Pietro Parenzan", Università del Salento. *Museologia Scientifica nuova serie* • 9: 52-56
77. Caroppo C., **Musco L.**, Stabili L. (2014) Planktonic assemblages in a coastal Mediterranean area subjected to anthropogenic pressure. *Journal of Geography & Natural Disasters* 4:121. doi: 10.4172/2167-0587.1000121.
78. Giangrande A., Rouse G.W., Plejtel F. J.-J., Gambi M.C., Curini Galletti M., Cavallo A., Licciano M., **Musco L.**, Pierri C., Trianni L. (2005) La "rivoluzione cladistica" in tassonomia, nuovi strumenti ed implicazioni per gli ecologi. *Biologia Marina Mediterranea* 11 (3): 225.
79. **Musco L.**, Giangrande A., Cavallo A. (2004) I sillidi (Annelida, Polychaeta) del litorale brindisino: possibilità di un loro impiego come indicatori di qualità dell'ambiente. *Thalassia Salentina* 27:161-174

#### Other book chapters

80. Stabili L., M.I. Acquaviva, G. Alabiso, M. Belmonte, F. Biandolino, R.A. Cavallo, A. Giangrande, M. Licciano, R. Lo Noce, A. Merendino, E. Mola, **L. Musco**, M. Narracci, A. Petrocelli, P. Ricci, R. Schirosi, L. Villanova, E. Cecere (2011) Bioactive Molecules from Marine Biomasses and their Potential Employment in Pharmaceuticals and Dietetic: the Project ACTI.BIO.MAR. In E. Brugnoli, G. Cavarretta, S. Mazzola, F. Trincardi, M. Ravaoli, R. Santoleri (Eds.) *Marine Research at CNR*. National Research Council of Italy, Department of Earth and Environment. Volume DTA/06-2011: 2043-2054 (ISSN: 2239-5172).
81. Giangrande A, Schirosi R, **Musco L.** (2009). Il Macrozoobenthos. In Belmonte G. (ed.) Biodiversità ed Ecologia del lago di Acquatina. *Thalassia Salentina* 31 (suppl.): 49-62.
82. Castelli, A., C.N. Bianchi, G. Cantone, M.E. Çinar, M.C. Gambi, A. Giangrande, D. Iraci Sareri, P. Lanera, M. Licciano, **L. Musco**, R. Sanfilippo, R. Simonini (2008). Annelida Polychaeta. In: G. Relini (ed.) Checklist della flora e fauna dei mari italiani. *Biologia Marina Mediterranea*. 15 (suppl.): 323-373.



## Book reviews

83. **Musco L.**, Giangrande A. (2006) Book review of Viéitez, J.M., Alós, C., Parapar, J., Besteiro, C., Moreira, J., Núñez, J., Laborda A.J. and G. San Martín. - 2004. *Annelida Polychaeta I*. In Fauna Iberica, Vol. 25. Ramos, M.A. et al. (Eds.). Museo Nacional de Ciencias Naturales. CSIC, Madrid. 530 pp. (ISBN84-00-08294-X). *Scientia Marina* 70(1): 159-160.
84. **Musco, L**, Giangrande, A. (2005) Review of ANNELIDA POLYCHAETA I by José Miguel Viéitez, Carmen Alós, Julio Parapar, Celia Besteiro, Juan Moreira, Jorge Núñez, Antonio José Laborda and Guillermo San Martín. In: Fauna Iberica, Vol. 25. M.A. Ramos et al. (eds). Museo Nacional de Ciencias Naturales. CSIC, Madrid, 530 pp. (2004) ISBN84-00-08294-X. *Italian Journal of Zoology* 72: 321-322.

## Reports

- 1) **Musco L**, e i 76 componenti del gruppo di lavoro del Progetto ABBaCo (2020). Caratterizzazione ambientale dell'area marino costiera all'interno del Sito di Interesse Nazionale di Napoli Bagnoli-Coroglio. Relazione Finale. 243 pp (Prot SZN n. 2520 del 18/05/2020).
- 2) Patti C, Cuttitta A, Musco M, Sampino G, Bennici C, Bicchi E, Giaramita L, Tranchida G, Traina A, Gherardi S, Rumolo P, Salvagio Manta D, Sprovieri M, **Musco L**, Siragusa A, Mercurio P, Mazzola S, (2014) Acqua dei Corsari: Rapporto tecnico su carotaggi e campionamenti di acque per il monitoraggio della contaminazione organica e inorganica causata dal depuratore di zona. Technical Report. CNR Istituto Ambiente Marino Costiero di Capo Granitola, Capo Granitola (TP), Italia. 17 pp
- 3) **Musco L**, Mikac B, Mirto S, Vega Fernández T, Agnetta D, Pipitone C, Di Stefano G, Badalamenti F (2013) "Esecuzione di ricerche e studi degli effetti dell'invasione di *Caulerpe* aliene sulle biocenosi costiere". Convenzione ARPA Sicilia - CNR-IAMC, relazione finale (Prot. CNR-IAMC n. 0008561 del 30/10/2013).

## Other publications

- 1) **Musco L**, Vega Fernández T, Caroselli E, J. Roberts MJ, Badalamenti F (2018) Protocooperation among small polyps allows the coral *Astroides calycularis* to prey on large jellyfish. *Bulletin of the Ecological Society of America* 99(4):e01445. <https://doi.org/10.1002/bes2.144>
- 2) Arvanitidis C. e 220 altri autori (2018). Research Infrastructures offer capacity to address scientific questions never attempted before: Are all taxa equal? **PeerJ Preprints** <https://doi.org/10.7287/peerj.preprints.26819v2>
- 3) **Musco L.**, Giangrande A. (2006) Annelida. A new sponge-associated species, *Syllis mayeri* n. sp. (Polychaeta: Syllidae), with a discussion on the status of *S. armillaris* (Müller, 1776). In: Rützler, K., & C. Dietrich (Eds.). *Smithsonian CCRE Reports 2005*. Caribbean Coral Reef Ecosystems. National Museum of Natural History, Aprile 2006. Washington, D.C. (USA) 40 pp.
- 4) **Musco L**, Giangrande, A. (2006). When taxonomy meets ecology: a new polychaete species from the Mediterranean Sea. *MarBEF Newsletter* 4: 34.