



1506
UNIVERSITÀ
DEGLI STUDI
DI URBINO
CARLO BO

CURRICULUM VITAE OF PROF. ANTONELLA PENNA

Full Professor of Ecology (scientific sector BIO/07)

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TEACHING ACTIVITY

Ecologia (8 CFU) Corso di Laurea Triennale in Scienze, Biologiche L-13

Ecologia teorica (12 CFU) Corsi di Laurea Magistrale in Filosofia dell’Informazione. Teoria e Gestione della Conoscenza LM-78.

Ecologicals Models – Ph.D School Remest – Università degli Studi di Urbino

RESEARCH ACTIVITY

Antonella Penna is Full Professor at the Urbino University. Since 2008 to 2015 she was Head of the Section of Environmental Biology of the Department of Biomolecular Sciences. Her scientific career started at the Urbino University in Marine Sciences (1991). She worked and collaborated in various countries, as USA, Scotland, Sweden, Spain and France, attending also many courses on marine molecular technologies. In 2001, she became Researcher at the Urbino University, where she holded or holds courses in Applied Ecology, Marine Ecology, Laboratory of Ecology and Ecology.

Antonella Penna’s research interests are mainly focused on molecular taxonomy and phylogeography of the phytoplankton in marine environment, and population genetic of unicellular planktonic and benthic species of worldwide areas to attain information on the intra-specific genetic structure and speciation. She develops molecular monitoring plans integrated with standard methodologies applied to the study of microalgal high biomass proliferation events noxious to humans and marine ecosystems.

She collaborates with worldwide scientists and laboratories. She is active on the development of innovative molecular technologies for monitoring of HABs, marine ecosystem quality control and assessment through data analysis and ecological modelling applications.

Antonella Penna performed/ing successfully EU projects together with several National Ministry of Research and University funded Projects. Some of these Projects deal with new strategies of monitoring and management of microalgal high biomass proliferations noxious to humans and marine ecosystems caused by potential human exploitation using innovative molecular tools integrated with other multidisciplinary approaches. Her current research included the validation of innovative molecular techniques for monitoring of harmful algal blooms within the EU Pan Mediterranean Project M3-HABs (Risk Monitoring, Modelling and Mitigation of Benthic Harmful Algal Blooms along Mediterranean coasts) of the framework ENPI CBCMED Program; other Adriatic Interreg Project as EU IPA Balmas (Ballast Water Management System for the Adriatic Sea

Protection). Actually, her activity is dedicated to the water discharge assessment and management solutions for reducing microbial environment impact in coastal areas (EU Interreg Itay-Croatia Watercare).

The results were reported in more than 100 publications that had a significant impact on the scientific community including:

-104 Articles on International Journals (mostly Q1), most of them as corresponding author or as first author.

-17 Book and Guidelines chapters (1 as co-editor).

Her outstanding researches contributed to more than 100 articles in International impacted journals, such as Plos One, Environmental Science and Technologies, Proceeding of Royal Society B, Applied and Environmental Microbiology, Journal of Biogeography, Ecological Indicators, and 9 book chapters. Invited Speaker at many International and National Seminars or Conferences. Reviewer for 65 ISI journals. Member of Editorial Board of Oceans.

MEMBER OF SCIENTIFIC COMMITTEES

Member of Board of Società Italiana di Ecologia; President of Plankton Board of Società Italiana di Biologia Marina; Member of Board of Consorzio Nazionale Interuniversitario per le Scienze del Mare (CoNISMa); Board of Alloctonous species use in the aquaculture practice under the Ministry of Fishery and Agriculture.

AFFILIATIONS TO SCIENTIFIC SOCIETIES

Since 1997: International Society for the Study of Harmful Algae (ISSHA).

Since 1998: Società Italiana di Biologia Marina (SIBM).

Since 2002: Società Italiana di Ecologia (SItE).

Since 2002: Gruppo Algologia Italiana (SBI).

Since 2007: Consorzio Nazionale Interuniversitario per le Scienze del Mare (CoNISMa).

Since 2019: Società Italiana di Tossicologia (SITOX).

TUTOR AND SUPERVISOR OF PH.D, UNDERGRADUATE, MASTER'S DEGREES, FELLOWSHIPS AND POST DOC

Tutor of more than 50 fellowships of Ph.D, Post-Doc positions, Undergraduate and Graduate Degree's.

EDITORIAL and REVIEWER ACTIVITY

-Reviewer for International Journals in Subject Categories Ecology, Taxonomy, Molecular Phylogeny, Molecular Technologies and Aquatic Sciences; Natural Environment Research Council (USA) – Research grant 2001; Project ECOHAB (USA) NOAA application: ECOHAB/2003-STAR-C1; Project ECOHAB (USA) NOAA A application: ECOHAB/2004-STAR-C1; Project Virginia Sea Grant Program Coastal and Marine Science (NOA) 2010: Development of diagnostic for toxic algal bloom assessments; Project ECOHAB (USA) NOAA application 2011: ECOHAB_FL-010 Thin Layer aggregation of *Karenia brevis* on the west Florida shelf: a mechanism for bloom development and enhancement; Delaware Sea Grant Project NOAA USA n. 2016-2018; Diversity within the harmful

alga *Heterosigma akashiwo*: environmental drivers and strain toxicity- OMB Control No. 0648-0362; New Zealand, National Science Challenges, Sustainable Sea, Innovation Fund Research Proposal ME04 Innovative technologies for the early detection of Harmful Algal Bloom (HAB) threats 2017-2019. Member of Editorial Board of Oceans (<https://www.mdpi.com/journal/oceans/editors>).

LIST OF 10 PUBLICATIONS (2017-2020)

- Casabianca S., Capellacci S., **Penna A.**, Cangiotti M., Fattori A., Corsi I., Ottaviani F., Carloni R. 2020. Physical interactions between marine phytoplankton and PET plastics in seawater. CHEMOSPHERE, 238, 124560.
- Casabianca S., Capellacci S., Ricci F., Andreoni F., Russo T., Scardi M., **Penna A.** 2020. Structure and environmental drivers of phytoplanktonic resting stage assemblages in the Central Mediterranean Sea. MARINE ECOLOGY PROGRESS SERIES, 639: 73-89.
- Bellingeri A., Casabianca S., Capellacci S., Faleri C., Paccagnini E., Lupetti P., Koelmans A., **Penna A.**, Corsi I. 2020. Impact of polystyrene nanoparticles on marine diatom *Skeletonema marinoi* chain assemblage and consequences on their ecological role in marine ecosystems. ENVIRONMENTAL POLLUTION, 262: 114268.
- Valbi E., Ricci F., Capellacci S., Casabianca S., Scardi M., **Penna A.** 2019. A model predicting the PSP toxic dinoflagellate *Alexandrium minutum* occurrence in the coastal waters of the NW Adriatic Sea. SCIENTIFIC REPORTS, 9: 4166.
- Casabianca S., Capellacci S., Giacobbe M.G., Dell'Aversano C., Tartaglione L., Varriale F., Narizzano R., Risso F., Moretto P., Dagnino A., Bertolotto R., Barbone E., Ungaro N., **Penna A.** 2019. Plastic-associated harmful microalgal assemblages in marine environment. ENVIRONMENTAL POLLUTION, 244: 617-626.
- Dell'Aversano C., Tartaglione L., Polito G., Dean K., Giacobbe M.G., Casabianca S., Capellacci S., **Penna A.**, D. Turner A.D. 2019. First detection of tetrodotoxin and high levels of paralytic shellfish poisoning toxins in shellfish from Sicily (Italy) by three different analytical methods. CHEMOSPHERE, 215: 881-892.
- Perini F., Bastianini M., Capellacci S., Pugliese L., DiPoi E., Cabrini M., Buratti S., Marini M., **Penna A.** Molecular methods for cost-efficient monitoring of HAB (harmful algal bloom) dinoflagellate cysts. 2019. MARINE POLLUTION BULLETIN, 147: 209-218.
- Vassalli M., **Penna A.**, Sbrana F., Casabianca S., Gjerci N., Capellacci S., Asnaghi V., Ottaviani E., Giussani V., Pugliese L., Jauzein C., Lemée R., Hachani M.A., Turki S., Acaf L., Abboud-Abi M., Fricke A., Mangialajo L., Bertolotto R., Totti C., Accoroni S., Berdalet E., Vila M., Chiantore M.C. 2018. Intercalibration of counting methods for *Ostreopsis* spp. blooms in the Mediterranean Sea. ECOLOGICAL INDICATORS, 85: 1092-1100.
- Casabianca S., **Penna A.**, Capellacci S., Cangiotti M., Ottaviani F. 2018. Silicification process in diatom algae using different silicon chemical sources: colloidal silicic acid interactions at cell

RFACES, 161: 620-627.

ii F., **Penna A.** 2017. A high resolution melting method tentially toxic diatom *Pseudo-nitzschia* spp. in the 259.

Antonella Penna