

Dr. Alexis PEY

26, Avenue de Flirey

06000 NICE

Tel : 06 46 44 82 77

Email : pey.alexis@yahoo.frInternet : www.doyoubuzz.com/alexis-peyProfessional address

FRE 3729 ECOMERS

University of Nice -

Sophia Antipolis

28, Avenue Valrose

06108 Nice Cedex 2



31 years, CAH 1B
Driving license,
Boat driving license

Ph.D Marine Biology and Ecology

EDUCATION AND TRAINING

2012 PhD. University of Nice Sophia-Antipolis, France.

Thesis: Biochemical and physiological responses of temperate marine symbioses to climate warming Advisors: Pr. Paola Furla and Dr. Pierre-Laurent Merle (UMR 7138, Marine Symbiosis team).

2010 Professional diving certification. Roscoff Marine Station, France.

Air scuba Diving to 30 msw (french equivalence CAH, class I, mention B).

2008 MSc Marine Biology and Ecology. Oceanology Center of Marseille, France.

SKILLS

- **Scientific expertise:** Biology and ecology of marine communities and dynamic of populations. Marine conservation. Impacts of climate changes.
- **Project management:** Management of thesis and Msc projects; Supervision and training of student interns; Projects, funding application and scientific reports writing.
- **Professional diver:** Expertise and underwater works; Planning of underwater missions; Gathering underwater samples; Counting and characterization of communities; Underwater photography and video.
- **Aquariology:** Maintaining of different Mediterranean Cnidarians (gorgonians, sea anemones, red coral); Gorgonian culture experiments (fragging, monitoring fragments survival and growth rate, maintenance); Photogrammetric monitoring; Monitoring of physico-chemical parameters.
- **Molecular biology:** Extraction, purification and DNA amplification; PCR; Cloning and bacterial transformation.
- **Biochemistry:** Extraction and protein assay, dot blot, western blot; Measurement of enzyme activities by spectrophotometry, spectrofluorimetry and activity gel; Electrophoresis.
- **Cellular culture:** Symbiodinium culture and counting by fluorescence microscopy.

WORK EXPERIENCES

2016 (24 months): Research Assistant in FRE 3729 ECOMERS, University of Nice-Sophia Antipolis.

➤ Assessing the relationships between marine protected areas and invasive species (PAVIS). Funded by Agence National de la Recherche (ANR).

2015 (6 months): Postdoctoral Fellow in FRE 3729 ECOMERS Lab, University of Nice-Sophia Antipolis.

➤ Marine caves along the Mediterranean French coast: insights into connectivity and management implications. Focus on *Apogon imberbis*. Funded by the TOTAL foundation.

2014 (8 months): Postdoctoral Fellow in EA 4228 ECOMERS, University of Nice-Sophia Antipolis.

➤ Involved in 4 national and european projects: OPTIMA PAC, MMPA, COCONET and H3-HABs. Study of the conservation and the ecological restoration of the large brown seaweeds forests, especially *Cystoseira* spp in Mediterranean Sea (in France, Monaco and Montenegro). Collaborated for the study of the effects of heat pump discharges on shallow benthic littoral communities in Monaco, and for the study of the ecology of the benthic toxic dinoflagellate *Ostreopsis* cf. *ovata*.

From 2013 to 2016: Self-employed « Marine environmental consulting and studies ».

➤ **Scientific diver.** Counting of *Epinephelus marginatus* and *Sciaena umbra* in the Principality of Monaco with Pr. Patrice Francour (University of Nice Sophia-Antipolis).

➤ **Scientific diver.** Sexing and sampling of sea anemones *Anemonia viridis* at Juan-les-Pins for the laboratory SYMAR (University of Nice-Sophia Antipolis).

➤ **Consultancy and scientific expertise.** Prospecting, mapping, underwater photography and sampling of the sea anemonia *Anemonia viridis* morph var. *rustica* for the project ANR ADACNI by scuba diving from the Thau lagoon and Banyuls/mer (France). Sampling campaign realized with the Pythéas Institute and Observatoire Océanologique de Banyuls (Laboratory Arago).

2012 (3 months): Field agent land and sea in the marine protected area Parc Marin de la Côte

➤ Information and awareness of the sea users; Monitoring of marine reserves; Support equipment maintenance; Assistance to underwater maintenance; Animation of underwater trails.

2012 - October: Scientific diver for « Posidonium project ». Bay of La Palud, Port-Cros.

➤ Targeting and surface measurement of *Posidonia oceanica* meadows by scuba diving with Mr. Alain Barcelo (Port-Cros National Park) and Pr. Alexandre Meinesz (University of Nice Sophia-Antipolis).

2010 (1 month): Project manager within the Science festival at University of Nice Sophia-Antipolis.

➤ Project including 3 people. Creation and animation of an educational workshop for the general public about *Cystoseira* forests: « Biodiversity and balance of a Mediterranean coast ecosystem ».

2008 (3 months): Assistant engineer. University of Nice Sophia-Antipolis.

➤ Conception and fulfillment of a new experimental design. Photogrammetric monitoring method to measure tissue evolution of the mediterranean gorgonian *Eunicella singularis* during a heat-stress experiment (European Project MedChange). Advisor: Pr. Paola Furla

2008 (6 months) : Msc practical training. University of Nice Sophia-Antipolis.

➤ Study of the depth-dependant thermotolerance of the symbiotic Mediterranean gorgonian *Eunicella singularis* by cellular stress markers. Advisor: Dr. Pierre-Laurent Merle.

2007 (3 months): Msc practical training (extra-curricular). Oceanology Center of Marseille.

➤ Phylogenetic study of Mediterranean sponges using the molecular biology approach. Advisor: Dr. Carole Borchiellini.

PUBLICATIONS

Fricke A, Pey A, Gianni F, Lemee R, Mangialajo L. Multiple stressors and benthic microalgal blooms: potential effects of climate change and eutrophication. Under review to Ecological Applications

Gianni F., Bartolini F., Pey A., Laurent M., Martins G. M., Airoidi L., Mangialajo L. Threats to large brown algae forests in temperate seas: the overlooked role of native herbivorous fish. Under review to Scientific Reports

Giakoumi S. and **Pey A.** (2017). Assessing the effects of marine protected areas on biological invasions: a global review. *Frontiers in Marine Science*, 4, 49.

Bussotti S., Di Franco A., **Pey A.**, Vieux-Ingrassia J.V., Planes S. and Guidetti P. (2017). Distribution patterns of marine cave fishes and the potential role of the cardinal fish *Apogon imberbis* (Linnaeus, 1758) for cave ecosystem functioning in the western Mediterranean. *Aquatic Living Resources*.

Pey, A., Zamoum, T., Christen, R., Merle, P. L., & Furla, P. (2017). Characterization of glutathione peroxidase diversity in the symbiotic sea anemone *Anemonia viridis*. *Biochimie*, 132, 94-101.

Pey A., Catanéo J., Forcioli D., Merle P. L. and Furla P., 2013. Thermal threshold and sensitivity of the only symbiotic Mediterranean gorgonian *Eunicella singularis* by morphometric and genotypic analyses. *Comptes Rendus Biologies*, 336 : 331-341.

Pey A., Zamoum T., Allemand D., Furla P. and Merle P. L., 2011. Depth-dependant thermotolerance of the symbiotic Mediterranean gorgonian *Eunicella singularis*: Evidence from cellular stress markers. *Journal of Experimental Marine Biology and Ecology*, 404 : 73-78.

INTERNATIONAL CONFERENCES

S. Giakoumi, Pey A. (2016). Assessing relationships between invasive and native fish species in marine protected areas across the Mediterranean Sea. Oral presentation Sfécologie, International Conference on Ecological Sciences, October, Marseille, France.

Bussotti S., Di Franco A., Pey A., Vieux J-V., Planes S., Guidetti P. (2016). Distribution patterns of the cardinal fish *Apogon imberbis* (Linnaeus, 1758) within Mediterranean marine caves and its potential role for cave ecosystem functioning. Poster International Meeting on Marine Research, Peniche, Portugal.

Fricke A., Pey A., Lemee R., Mangialajo L. (2015). Response of *Ostreopsis ovata* to environmental alterations, potential role of temperature and nutrient elevations. Poster European Phycological Congress, Londres, Angleterre.

Mangialajo L., Gianni F., Pey A., Airoidi L., Asnaghi V., Ballesteros E., Cebrian E., Chiantore M., Claudet J., Frascchetti S., Garcia M., Macic V. (2015). Recovery of large brown algae forests after destructive fishery: ecological restoration insights. Poster European Phycological Congress, Londres, Angleterre.

Merle, P. L., Zamoum, T., Pey, A., Gemini, M., Allemand, D., Paola Furla, P. (2009). Thermal stress on two mediterranean gorgonians: *Eunicella singularis* and *Eunicella cavolinii*. Consequences of the symbiosis on heat stress resistance. Poster ASLO Aquatic Sciences Meeting, Nice, France.