

**MARC BESSON, PHD**  
**MARINE BIOLOGIST**



Citizenship: French

Date of birth: 30<sup>th</sup> October, 1990

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**POSTDOCTORAL RESEARCH FELLOW**

REL, Environment Laboratories

International Atomic Energy Agency

4a quai Antoine 1<sup>er</sup>, 98000 Monaco, Principauté de Monaco

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**EDUCATION & DIPLOMA**

- 2014-2017 **PhD in Marine Biology**, at *CRIOBE*, USR 3278, EPHE-CNRS-UPVD, PSL Research-University, Moorea, FRENCH POLYNESIA, and Perpignan, FRANCE.  
Thesis title: Importance of metamorphosis in coral reef fish larval recruitment facing anthropogenic stressors. Advisors: Dr. David Lecchini and Pr. Vincent Laudet.
- 2011-2014 **M. Sc. in Biosciences**, at *Ecole Normale Supérieure*, Lyon, FRANCE.  
Internships: Coral-reef fish ecology with Pr. S. Sandin (*SCRIPPS Institution of Oceanography, UCSD*, United States); Diadromous fish behavior and migration with Dr. E. Feunteun (*CRESCO, MNHN*, France); Reef shark telemetry and fire corals population genetics with Dr. S. Planes (*CRIOBE*, French Polynesia); Sea turtle population monitoring with Dr. C. Gaspar (*Te mana o te moana*, French Polynesia); Evo-devo of skin appendages with Pr. V. Laudet (*IGFL, ENS Lyon*, France).
- 2010-2011 **B. Sc. in Fundamental Biology**, at *Ecole Normale Supérieure*, Lyon, FRANCE.  
Internship: Planktonic trophic networks with Dr. Urana Christaki (*LOG, ULCO*, France).

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**KEY SCIENTIFIC ACHIEVEMENTS**

- 2019 **Young Researcher Prize** from the *Bettencourt-Schueller Foundation*.
- 2018 Feeney, Brooker, Johnston, Gilbert, **Besson**, Lecchini, Dixon, Cowman, Manica. **Predation drives recurrent convergence of an interspecies mutualism**. *Ecology Letters* 22(2): 256-264.
- 2017 **Session chair** at the 10<sup>th</sup> *Indo-Pacific Fish Conference*, Tahiti, French Polynesia. Session C7.
- 2017 Holzer, **Besson (co-1<sup>st</sup>)**, Lambert, François, Barth, Gillet, Hughes, Piganeau, Leulier, Viriot, Lecchini, Laudet. **Fish larval recruitment is a metamorphosis sensitive to reef pollutants**. *eLife*, 6:e27595.

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**MAIN EXPERTISE AND SKILLS**

<b>Laboratory</b>	<b>Fish Ecophysiology</b> (endocrine status, hormonal treatments, nutrient assimilation, microbiome), <b>Fish Histology</b> (sensory organs, histopathology of the organs of the digestive tract), <b>Fish Behavioral Ecology</b> (choice tests, personality experiments, survival tests, feeding behavior), <b>Radioecology</b> (metal and radionuclide tracers), <b>Multi-stressor exposures</b> (acidification, chemical contaminants, increased temperatures, micro- and nano-plastics), <b>Molecular Biology</b> (ELISA, qPCR, hormonal extraction).
<b>Field &amp; Technical</b>	<b>Scuba</b> (professional diver); <b>Computing and statistics</b> (R); <b>Infographics</b> (Inkscape); <b>DIY</b> (conception of aquaria and experimental designs, used to work in remote areas).

## RESEARCH EXPERIENCES

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- 2018 - 2020 **Postdoc: Impacts of nano- and micro-plastic pollution on fish eco-physiology.**  
Location: *Radio-Ecology Laboratory*, Environment Laboratories, IAEA, Monaco.  
Advisors: Dr. Peter Swarzenski and Dr. Marc Metian.  
Expertise: **Radioecology**, **Fish Physiology** (breeding, nutrient assimilation, endocrine status, microbiome), **Behavioral Ecology** (choice tests, personality experiments), **Histology** (intestine and liver), **Multi-stressors** (micro- and nano-plastics, acidification, metals and radionuclides).
- 2018 **Postdoc: Sensory ecology of coral-reef fishes at metamorphosis and larval recruitment facing anthropogenic pressures.**  
Location: *CRIOBE*, EPHE-CNRS-UPVD, PSL Research University, Moorea, French Polynesia.  
Advisors: Dr. David Lecchini.  
Expertise: **Fish Physiology** (endocrine status, swimming speed), **Behavior** (choice tests, predation arena), **Environmental Stressors** (elevated temperature and pesticide exposures).
- 2014 - 2017 **PhD: Importance of metamorphosis in coral reef fish larval recruitment facing anthropogenic pressures.**  
Location: *CRIOBE*, EPHE-CNRS-UPVD, PSL Research University, Moorea, French Polynesia.  
Advisors: Dr. David Lecchini and Pr. Vincent Laudet.  
Expertise: **Coral Reef Fish Ecology** (sampling, husbandry, surveys, monitoring), **Fish Physiology** (hormonal extraction, pharmacological treatments), **Histology** (embedding, staining, microtome, SEM), **Molecular Biology** (qPCR, Elisa) and **Behavioral Ecology** (behavioral tests, sensory abilities).
- 2014 **M. Sc. Internship: Coral-Reef Fish Ecology.**  
**Spatial ecology of coral-reef fishes from the Southern Line Island Archipelago.**  
Location: *SCRIPPS Institution of Oceanography*, UCSD, La Jolla, USA.  
Advisors: Dr. Brian Zgliczynski and Pr. Stuart Sandin.
- 2013 **M. Sc. Internship: Amphihaline Fish Ecology.**  
**Downstream migration behaviour of silver eels (*Anguilla anguilla*) using acoustic telemetry.**  
Location: *CRESCO*, UMR BOREA, Muséum National d'Histoire Naturelle, Dinard, France.  
Advisors: Dr. Eric Feunteun, Dr. Anthony Acou, and Dr. Thomas Trancart.
- 2013 **Volunteer Field Assistant: Coral-Reef Ecology.**  
**Levels of genotypic differentiation in *Millepora platyphylla* populations.**  
Location: *CRIOBE*, EPHE-CNRS-UPVD, PSL Research University, Moorea, French Polynesia.  
Advisors: Dr. Serge Planes and Dr. Caroline Dubé.
- 2013 **Volunteer Field Assistant: Juvenile Shark Monitoring.**  
**Inventory of juvenile blacktip reef sharks (DNA sampling and acoustic telemetry tracking).**  
Location: *CRIOBE*, EPHE-CNRS-UPVD, PSL Research University, Moorea, French Polynesia.  
Advisors: Dr. Serge Planes.
- 2012 - 2013 **Volunteer Intern: Sea Turtle Monitoring.**  
**Spatial-temporal distribution of sea turtle species and nesting sites in French Polynesia.**  
Location: *Te mana o te moana* Association, Moorea, French Polynesia.  
Advisors: Dr. Cécile Gaspar and Matthieu Petit.
- 2012 **M. Sc. Internship: Molecular and Cellular Biology.**  
**Evo-devo of skin appendages: deciphering the role of EDARADD.**  
Location: *Institut de Génomique Fonctionnelle de Lyon* (IGFL, UMR 5242), ENS Lyon, France.  
Advisor: Pr. Vincent Laudet, Dr. Sophie Pantalacci and Dr. Alexa Sadier.
- 2011 **B. Sc. Internship: Planktonic Trophic Network.**  
**Planktonic trophic network in the English Eastern Channel**  
Location: *Laboratoire d'Océanologie et de Géosciences*, ULCO, Wimereux, France.  
Advisor: Dr. Urania Christaki and Dr. Jean-David Grattepanche.

**Published**

- 18| Mai T., Toullec J., Van Wynsberge S., **Besson M.**, Soulet S., Petek S., Aliotti E., Ekins M., Hall K., Erpenbeck D., Lecchini D., Beniddir M.A., Saulnier D., Debitus C. 2019. Potential of fascalysin and palauolide from *Fascalysinopsis cf reticulata* to reduce the risk of bacterial infection in fish farming. *Fisheries and Aquatic Sciences*, 22:1-11.
- 17| O'Connor J.J., Fobert E.K., **Besson M.**, Jacob H., Lecchini D. 2019. Live fast, die young: Behavioural and physiological impacts of light pollution on a marine fish during larval recruitment. *Marine Pollution Bulletin*, 146: 908-914.
- 16| **Jacob H.\***, Gilson A., Lanctôt C., **Besson M.**, Metian M., Lecchini D. 2019. No effect of polystyrene microplastics on foraging activity and survival in a post-larvae coral-reef fish, *Acanthurus triostegus*. *Bulletin of Environmental Contamination and Toxicology*. DOI: 10.1007/s00128-019-02587-0. \*Co-supervised student.
- 15| **Besson M.**, Salis P., Laudet V., Lecchini D. 2018. Complete and rapid reversal of the body color pattern in juveniles of the surgeonfish *Acanthurus triostegus* at Moorea Island (French Polynesia). *Coral Reefs* 37(1): 31-35.
- 14| Berthe C., Waqalewu V.P., Latry L., **Besson M.**, Lerouvreur F., Siu G., Lecellier G., Rummer J.L., Bertucci F., Iglésias S., Lecchini D. 2018. Distribution patterns of ocellated eagle rays, *Aetobatus ocellatus*, along two sites in Moorea Island, French Polynesia. *Cybium* 42(4) 313-230.
- 13| Lecchini D., Bertucci F., Gache C., **Khalife A.\***, **Besson M.**, Roux N., Berthe C., Singh S., Parmentier E., Nugues M.M., Brooker R.M., Dixon D.L., Hedouin L. 2018. Boat noise prevents soundscape-based habitat selection by coral planulae. *Scientific Reports* 8(1):9283. \*Co-supervised student.
- 12| Feeney W.E., Brooker R.M., Johnston L.N., Gilbert J.D.J., **Besson M.**, Lecchini D., Dixon D.L., Cowman P.F., Manica A. 2018. Predation drives recurrent convergence of an interspecies mutualism. *Ecology Letters* 22(2): 256-264.
- 11| Bertucci F., **Jacob H.\***, **Mignucci A.\***, Gache C., Roux N., **Besson M.**, Berthe C., Metian M., Lecchini D. 2018. Decreased retention of olfactory predator recognition in juvenile surgeon fish exposed to pesticide. *Chemosphere* 208:469-475. \*Co-supervised students.
- 10| El-Demerdash A., Moriou C., **Toullec J.\***, **Besson M.**, Soulet S., Schmitt N., Petek S., Lecchini D., Debitus C., Al-Mourabit A. 2018. Bioactive Bromotyrosine-Derived Alkaloids from the Polynesian Sponge *Suberea ianthelliformis*. *Marine Drugs* 16(5), doi: 10.3390/md16050146. \*Co-supervised student.
- 9| Pratte Z., **Besson M.**, Hollman R.D., Stewart F.J. 2018. The gills of reef fish support a distinct microbiome influenced by host-specific factors. *Applied and Environmental Microbiology*, doi: 10.1128/AEM.00063-18.
- 8| Holzer G., **Besson M. (co-first author)**, Lambert A., **François L.\***, Barth P., Gillet B., Hughes S., Piganeau G., Leulier F., Viriot L., Lecchini D., Laudet V. 2017. Fish larval recruitment is a metamorphosis sensitive to reef pollutants. *eLife*, 6:e27595. \*Co-supervised student.
- 7| **Besson M.**, **Gache C.\***, Bertucci F., Brooker R.M., Roux N., Jacob H., Berthe C., Sovrano V.A., Dixon D.L., Lecchini D. 2017. Exposure to agricultural pesticide impairs visual lateralization in a larval coral reef fish: implications for survival and recruitment. *Scientific Reports* 7:9165. \*Co-supervised student.
- 6| **Besson M.**, **Gache C.\***, Brooker R.M., Moussa R.M., Waqalevu V.P., LeRohellec M., Jaouen V., Peyrusse K., Berthe B., Bertucci F., Jacob H., Brié C., Wan B., Galzin R., Lecchini D. 2017. Consistency in the supply of larval fishes among coral reefs in French Polynesia. *PlosOne* 12(6): e0178795. \*Co-supervised student.
- 5| Bertucci F., Parmentier E., Berthe C., **Besson M.**, Hawkins A.D., Aubin T. and Lecchini D. 2017. Snapshot recordings provide a first description of the acoustic signatures of deeper habitats adjacent to coral reefs of Moorea. *PeerJ* 5:e4019; DOI 10.7717/peerj.4019.

- 4| Lecchini D., Dixon D.L., Lecellier G., Roux N., Frederich B., **Besson M.**, Tanaka Y., Banaigs B., Nakamura Y. 2017. Habitat selection by marine larvae in changing chemical environments. *Marine Pollution Bulletin* 114(1): 210-217.
- 3| **Besson M.**, Trancart T., Acou A., Charrier F., Mazel V., Legault A. & Feunteun E. 2016. Disrupted downstream migration behavior of European eels (*Anguilla anguilla*) in an obstructed river. *Environmental Biology of Fishes* 99:779-791.
- 2| Roux N., Duran E., Lanyon R.G., Frédéricich B., Berthe C., **Besson M.**, Dixon D.L., Lecchini D. 2016. Brain Lateralization Involved in Visual Recognition of Conspecifics in Coral Reef Fish at Recruitment. *Animal Behaviour* 117:3-8.
- 1| Barth P., Berenshtein I., **Besson M.**, Roux N., Parmentier E., Banaigs B., Lecchini D. 2015. From the ocean to a reef habitat: how do the larvae of coral reef fishes find their way home? A state of art on the latest advances. *Vie et Milieu* 65:91-100.

### In Press, In Revision, Under Review or In Prep

- 1| **Besson M.**, Feeney W.E., **Moniz I.\***, **François L.\***, Brooker R.M., Holzer G., Metian M., Roux N., Laudet V., Lecchini D. Anthropogenic stressors undermine fish sensory development and survival via thyroid disruption. *In Revision in Nature Communications*. \*Co-supervised students.
- 2| **Jacob H.\***, **Besson M. (co-first author)**, Swarzenski P.W., Lecchini D., Metian M. Effects of virgin micro- and nano-plastics on fish: Trends, meta-analysis and perspectives. *In Revision in Environmental Science and Technology*. \*Co-supervised student.
- 3| **Waqalewu V.P.\***, **Besson M. (co-first author)**, **Gache C.\***, Roux N., Fogg L., Bertucci F., Metian M., Lafille M-A., Maamaatuaiahutapu M., Gasset E., Saulnier D., Laudet V., Lecchini D. Distribution patterns of ocellated eagle rays, *Aetobatus ocellatus*, along two sites in Moorea Island, French Polynesia. *In Revision in Aquaculture*. \*Co-supervised student.
- 4| **Besson M.**, **Jacob H.\***, Oberhaensli F., Taylor A., Swarzenski P.W., Metian M. Preferential adsorption of Cd, Cs and Zn onto virgin polyethylene microplastic versus sediment particles. *Under Review in Marine Pollution Bulletin*. \*Co-supervised student.
- 5| **Besson M.**, Metian M., Bustamante P., Hédouin L. Metal(oid)s in superficial sediments from coral reefs of French Polynesia. *Under Review in Marine Pollution Bulletin*.
- 6| Belivermiş M., **Besson M.**, Swarzenski P., Oberhaensli F., Taylor A., Metian M. Influence of pH on lead accumulation in the blue mussel, *Mytilus edulis*. *Under Review in Marine Pollution Bulletin*.
- 7| Adhikari P.L., Bam W., Metian M., **Besson M.**, Jacob H., Swarzenski P.W. Chapter 3: Experimental design to study microplastics in aquatic organisms: constraints and considerations. In: *Plastic in the Environment: Pattern and Process 1* (Eds Michael S. Bank). Springer Nature Press. *Under Review*.
- 8| **Besson M.**, Feeney W.E., **Gache C.\***, Berthe C., Cowan Z.L., Brooker R.M., Laudet V., Lecchini D. Climate change induces a cascading breakdown of mutualisms on coral reefs. *In Preparation for Ecology Letters*. \*Co-supervised student.

## SUPERVISION & MENTORING (2 PhD students, 8 Master's students, 3 Undergrad's students)

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- 2019
- **Hugo Jacob, PhD student**, *PSL Research-University* (France) and *IAEA* (Monaco).  
Project: Impacts of plastic pollution on marine fish physiology. **Supervision**.
- 2018
- **Aymeric Dufreysnoy, Master's student**, *Ecole Pratique des Hautes Etudes* (France).  
Project: Fish post-larval capture and culture on Tetiaroa's atoll. **Supervision**.
  - **Marion Blaya, Master's student**, *IRCP* (French Polynesia)  
Project: Impacts of temperature and CPF on a surgeonfish survival. **Mentoring**.
- 2017
- **Arthur Gilson, Master's student**, *CRIOBE, EPHE-CNRS-UPVD* (French Polynesia).  
Project: Impacts of chlorpyrifos on visual abilities of a surgeonfish. **Supervision**.
  - **Alexandre Mignucci, Master's student**, *Ecole Pratique des Hautes Etudes* (France).  
Project: Chlorpyrifos and memory of *A. triostegus* at recruitment. **Supervision**.
  - **Natacha Roux, PhD student**, *Observatoire Océanologique de Banyuls-sur-Mer* (France).  
Project: T3/T4 hormonal profiles during *A. ocellaris* metamorphosis. **Supervision**.
- 2016
- **Anastasha Savura, Undergraduate student**, *University of South-Pacific* (Fiji).  
Project: Pigmentation changes of *A. triostegus* at metamorphosis. **Mentoring**.
  - **Jordan Toullec, Master's student**, *IRD, UMR EIO* (French Polynesia)  
Project: Chemical ecology of two Polynesian sponges. **Supervision**.
  - **Camille Gache, Master's student**, *Ecole Pratique des Hautes Etudes* (France).  
Project: Lateralization processes at metamorphosis in *A. triostegus*. **Supervision**.
  - **Loïc François, Master's student**, *Université de Liège* (Belgique).  
Project: Development of sensory organs during the metamorphosis of a surgeonfish and impacts of chlorpyrifos on this fish species metamorphosis. **Mentoring**.
  - **Isadora Moniz, Master's student**, *Erasmus Mundus Master Course* (Spain)  
Project: Elevated-temperatures and *A. triostegus* metamorphosis. **Mentoring**.
- 2015
- **Daan Von Osten, Undergraduate student**, *Inholland University* (Netherlands).  
Project: Coral-reef fish T3/T4 hormonal profiles at recruitment. **Mentoring**.
  - **Peter Schep, Undergraduate student**, *Inholland University* (Netherlands).  
Project: Recruitment habitat and coral-reef fish metamorphosis. **Mentoring**.
  - **Adam Khalife, Master's student**, *ENS Lyon* (France)  
Project: Role of acoustic cues in coral planula settlement strategy. **Supervision**.
- 2013
- **Undergraduate interns**, *Scripps Institution of Oceanography, UCSD* (USA).  
Project: Supervising undergraduate students, for fish dissections and the study of spatial ecology of coral-reef fishes from the Southern Line Island Archipelago. **Supervision**.

## TEACHING EXPERIENCE (lectures = 49 H; tutorials = 62 H; practical courses = 26 H)

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2016/2017

**Co-instructor**

**Coral-reef fish taxonomy** (4 courses).

**Ecology, taxonomy, and monitoring of marine turtles** (3 courses).

**Coral reef fish larval recruitment and metamorphosis** (1 course).

Video-recorded courses for the MANEA distance-learning online platform of the EPHE and PSL Research University (France).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, filmed lectures (3 H) and tutorials (2 H).

**English Language in Science**, *Master BSE-EGB*, EPHE (French Polynesia).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, tutorials (21 H), and assessments.

**Teaching Assistant**

**Tropical Coastal Ecology**, *Master BSE-EGB*, EPHE (France).

Teaching unit supervisor: Dr. Samuel Etienne.

**Responsibilities:** courses design, lectures (2 H), tutorials (5 H) and assessments.

2015/2016

**Co-instructor**

**Biodiversity, biology, ecology, and conservation of coral-reef organisms**, *Master EIO*, UPF (French Polynesia).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, lectures (11 H), tutorials (3 H), practical courses (10 H), and assessments.

**Co-instructor**

**Fisheries and Post-larval Capture and Culture**, *Master BSE-EGB*, EPHE (French Polynesia).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, lectures (7 H), tutorials (4 H), practical courses (16 H), and assessments.

2014/2015

**Co-instructor**

**Structure and Functioning of Coral-Reefs**, *Master BSE-EGB*, EPHE (France).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, lectures (7 H), and tutorials (4 H).

**Co-instructor**

**Biodiversity, biology, ecology, and conservation of coral-reef organisms**, *Master BSE-EGB*, EPHE (France).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, lectures (7 H), tutorials (8 H), and assessments.

**Teaching Assistant**

**Marine Chemical-Ecology**, *Master BSE-EGB*, EPHE (France).

Teaching unit supervisor: Dr. David Lecchini.

**Responsibilities:** courses design, lectures (6 H), and tutorials (4 H).

**Teaching Assistant**

**Tropical Coastal Ecology**, *Master BSE-EGB*, EPHE (France).

Teaching unit supervisor: Dr. Samuel Etienne.

**Responsibilities:** courses design, lectures (6 H), and assessments.

**Teaching Assistant**

**Statistics**, *Master BSE-SSIB*, EPHE (France).

Teaching unit supervisor: Dr. Nicolas Navarro.

**Responsibilities:** tutorials (11 H).

## AWARDS & FELLOWSHIPS

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2018-2020	€75,000 – IAEA, 2-year Postdoctoral Research Fellowship.
2018-2019	€25,000 – Young Researcher Prize from the Bettencourt-Schueller Foundation.
2014-2017	€55,000 – ENS Lyon, PhD Fellowship.
2010-2014	€65,000 – ENS Lyon, Superior Study Fellowship.

## CONFERENCES & WORKSHOPS

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### Conferences (**International**: 6; **National**: 10)

- 16| **Besson M.**, Feeney W.E., Moniz I., François L., Brooker R.M., Holzer G., Metian M., Roux N., Laudet V., Lecchini D. **Anthropogenic stressors undermine fish sensory development and survival via thyroid disruption.** *14<sup>th</sup> International Coral Reef Symposium*, Bremen, GERMANY. 2020.
- 15| **Besson M.**, Jacob H., Taylor A., Oberhaensli F., Swarzenski P., Metian M. **Effects of microplastics on Gilthead seabream juveniles (*Sparus aurata*) using a multi-diagnostic approach.** *SEB Annual Meeting*, Sevilla, SPAIN. 2019.
- 14| **Besson M.**, Jacob H., Taylor A., Oberhaensli F., Metian M., Swarzenski P. **Adsorption of Ag, Cd and Cs to polyethylene microsphere and sediment: a preliminary case study on the importance of microplastic as vectors of contaminants.** *9<sup>th</sup> International Conference on Marine Pollution and Ecotoxicology*, Hong Kong, HONG KONG. 2019.
- 13| **Besson M.** Sensory ecology of coral-reef fishes during larval recruitment and metamorphosis. *CRIOBE Seminar Series*, CRIOBE, Moorea, FRENCH POLYNESIA. 2018.
- 12| **Besson M.**, Holzer G., Laudet V., Lecchini D. **Metamorphosis in coral-reef fishes facing anthropogenic stressors.** *10<sup>th</sup> Indo-Pacific Fish Conference*, Tahiti, FRENCH POLYNESIA. 2017.
- 11| **Besson M.** Coral-reef fish metamorphosis and larval recruitment. *CRIOBE Seminar Series*, CRIOBE, Perpignan, FRANCE. 2017.
- 10| **Besson M.** Metamorphosis and larval recruitment in coral-reef fishes facing environmental stressors. *OOB Seminar Series*, Obs. Océanol. de Banyuls-sur-Mer, FRANCE. 2017.
- 9| **Besson M.** Importance of metamorphosis in coral-reef fish larval recruitment facing anthropogenic pressures. *CRESCO Seminar Series*, CRESCO, MNHN, Dinard, FRANCE. 2017.
- 8| **Besson M.** Importance of coral reef fish metamorphosis in larval recruitment processes. *PhD student Annual Conference*, OOB, Banyuls-sur-Mer, FRANCE. 2017.
- 7| **Besson M.**, Holzer G., Laudet V., Lecchini D. **Reef fish metamorphosis facing global change and water pollution.** *8<sup>th</sup> André Picard Network Conference*, Banyuls-sur-Mer, FRANCE. 2017.
- 6| **Besson M.** Importance of metamorphosis in coral-reef fishes larval recruitment. *PhD Student Annual Conference*, CRIOBE, Perpignan, FRANCE. 2017.
- 5| **Besson M.** Importance of metamorphosis in coral-reef fishes larval recruitment. *PhD Student Annual Conference*, CRIOBE, Perpignan, FRANCE. 2016.
- 4| **Besson M.** Physiological aspects of coral-reef fish metamorphosis. *IFREMER Seminar Series*, IFREMER, Tahiti, FRENCH POLYNESIA. 2016.
- 3| **Besson M.** Post-larval Capture & Culture, and Replenishment in Tetiaroa atoll. *Tetiaroa Society Seminar Series*, Tetiaroa Society, Tetiaroa, FRENCH POLYNESIA. 2016.
- 2| **Besson M.** Importance of metamorphosis in coral-reef fishes larval recruitment. *PhD Student Annual Conference*, CRIOBE, Perpignan, FRANCE. 2015.
- 1| **Besson M.**, Trancart T., Acou A., Mazel V., Feunteun E. **Reservoirs and Dams Impact the Migration Success of Silver Eels. A Telemetry Approach on the Frémur River, France.** *American Fisheries 144<sup>th</sup> Annual Meeting*, Quebec City, Québec, CANADA. 2014.

### Workshops (**International**: 1)

- 1| Paravicini V., Galzin R., **Besson M.** September 2017. **Fish larval recruitment facing the coastline evolution of tropical French islands.** *Labex Corail Workshop*, Moorea, FRENCH POLYNESIA.



## PRESS & PUBLIC OUTREACH

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- 2018 **EPHE** (a French university) - [Marc Besson, lauréat du Prix pour les jeunes chercheurs](#) (FR).
- 2018 **ENS Lyon** (a French « Grande Ecole ») - [Marc Besson, lauréat du Prix pour les jeunes chercheurs](#) (FR).
- 2018 **La Croix** (a French newspaper) – [La mortalité des jeunes poissons en question](#) (FR).
- 2018 **Thalassa** (a French TV show on the marine world) – [Les coraux entendent](#) (FR).
- 2018 **Thalassa** – [La mémoire des poissons chirurgiens](#) (FR).
- 2017 **Science et Avenir** (a French science magazine) – [La pollution affecte dramatiquement la santé des poissons coralliens](#) (FR).
- 2017 **TNTV** (a French Polynesian TV channel) – Intervention télévisée dans l'émission Fare Maohi sur la conférence IPFC (FR).
- 2017 **CNRS** (one of the most prestigious French research institution) – [Les polluants perturbent la maturation des poissons coralliens](#) (FR).
- 2016 **La Dépêche** (a French Polynesian newspaper) – [La couleur des manini, indicateur de leur état de santé](#) (FR).

## VOLUNTARY COMMITMENTS & PROFESSIONAL SERVICES

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|-------------------------------|---|
| <b>Session Chair</b>          | <ul style="list-style-type: none"><li>• <i>10<sup>th</sup> Indo-Pacific Fish Conference, 2017, Tahiti. C7 session on “Larval recruitment”, FP.</i></li></ul>  |
| <b>Reviewing in</b>           | <ul style="list-style-type: none"><li>• <i>Journal of Animal Ecology, PeerJ, PLoS ONE, Journal of Visualized Experiments, Heliyon.</i></li></ul>  |
| <b>Student representative</b> | <ul style="list-style-type: none"><li>• <i>Organizer of the CRIOBE PhD student Annual Conference, 2017, Perpignan, FRANCE.</i></li><li>• <i>Organizer of the CRIOBE PhD student Annual Conference, 2016, Moorea, FP.</i></li><li>• <i>Organizer of the CRIOBE PhD student Annual Conference, 2015, Moorea, FP.</i></li></ul>  |
| <b>Awareness</b>              | <ul style="list-style-type: none"><li>• <i>International Day for Science, 2016, Moorea, FRENCH POLYNESIA</i></li><li>• <i>Intercontinental Lagoon Replenishment Project, 2016, Tahiti, FRENCH POLYNESIA</i></li><li>• <i>International Day for Water, 2016, Moorea, FRENCH POLYNESIA</i></li><li>• <i>Intercontinental Lagoon Replenishment Project, 2015, Tahiti, FRENCH POLYNESIA</i></li></ul> |

## CERTIFICATIONS, SKILLS AND ADDITIONAL ACTIVITIES

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<b>Driver license</b>	B.
<b>Boat license</b>	Coastal permit.
<b>Underwater skills</b>	Advanced SCUBA diver (level III ANMP, <b>40m autonomous diver</b> , more than 150 logged dives of which over 100 are scientific dives). French professional diver certificate ( <b>CAH - Classe IB</b> ). Advanced free diver and keen on spear-fishing.
<b>Computer skills</b>	<b>R</b> ; Inkscape; Adobe (Photoshop, Premiere Pro); MS-Office; Good coding knowledge in html, php and css.
<b>Webmastering</b>	Mastery of <b>Wordpress</b> . Creator and Webmaster of the following websites: <ul style="list-style-type: none"><li>• <b>IRCP</b> (Official website of the Pacific Coral Reef Institute) - <a href="http://ircp.pf">http://ircp.pf</a></li><li>• <b>Nostramar</b> (Snorkeling tours towards the discovery of the marine biodiversity from the Mediterranean Vermeille coast) - <a href="http://nostramar.fr">http://nostramar.fr</a></li></ul>
<b>Presenter</b>	Leading whales, dolphins, rays and sharks excursions in French Polynesia. Leading tourists and scholars (conferences and lessons) on the Polynesian marine environment.
<b>Sports</b>	Surf and trekking.
<b>Photography</b>	Founder and photographer of <b>Youngfishes Photography</b> , a project dedicated to the identification and description of reef fish larvae and juveniles, and sharing this information to a wide audience through high-definition macro-photography.

## REFERENCES

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