

## **Unit Name**

Marine Eco-Evo-Devo Unit

## **Students Supervised:**

- Jann Zwahlen (PhD Student)
- Emma Laura Isabelle Denise Gairin (PhD Student)
- Noah Jasmine MacKenzie Locke (PhD Student)
- Yuki Tara (PhD Student)
- Rio Kashimoto (PhD Student)
- Hsiao-Chian Chen (PhD Student)
- Ethan Thomas Rickards (PhD Student)

## **Scholarly Contributions and Creative Productions (by Faculty)**

### **Book Chapter**

1. Laudet, Vincent P., Andreas Heyland, and Konstantin Khalturin. 2025. "Complex Life Cycles Across Animal Diversity." In *Life History Evolution*. CRC Press.
2. Laudet, Vincent P., Camille A. Sautereau, Emma Gairin, Marc Besson, David Lecchini, and Laurence Besseau. 2024. "Coral Reef Fish Larvae as Model Systems to Understand Marine Fish Larval Recruitment." In *Marine Larvae: Developments and Applications*, 33. CRC Press.
3. Laudet, Vincent P. 2024. "Physiology of Metamorphosis." In *Encyclopedia of Fish Physiology*, 229–44. Academic Press.

### **Journal Article**

1. Laudet, Vincent P., Natacha Roux, Clément Delannoy, Shin-Yi Yu, Saori Miura, Lilian Carlu, Laurence Besseau, et al. 2025. "Anemonefish Use Sialic Acid Metabolism as Trojan Horse to Avoid Giant Sea Anemone Stinging."
2. Huerlimann, Roger, Natacha Roux, Ken Maeda, Polina Piliieva, Saori Miura, Hsiao Chen, Michael Izumiyama, Vincent Laudet, and Timothy Ravasi. 2024. "The Transcriptional Landscape Underlying Larval Development and Metamorphosis in the Malabar Grouper (*Epinephelus Malabaricus*)."
3. Zwahlen, Jann, Manon Mercader, and Vincent Laudet. 2024. "Homing Anemonefish: Amphiprion Clarkii Swim Back to Their Original Host after Relocations."
4. Laudet, Vincent P., Emma Gairin, Saori Miura, Hiroki Takamiyagi, and Marcela Herrera. 2024. "The Genome of the Sapphire Damselfish Chrysiptera Cyanea: A New Resource to support Further Investigation of the Evolution of Pomacentrids," December.
5. Kashimoto, Rio, Ethan Rickards, Konstantin Khalturin, and Vincent Laudet. 2024. "Giant Sea Anemones." *Current Biology* 34.
6. Laudet, Vincent P. 2024. "Editorial Urban Endocrinology." *Molecular and Cellular Endocrinology*.

7. Laudet, Vincent P., Kina Hayashi, and Noah Locke. 2024. "Counting Nemo: Anemonefish Amphiprion Ocellaris Identify Species by Number of White Bars." The Journal of Experimental Biology.
8. Laudet, Vincent P. 2024. "The Ecological Function of Thyroid Hormones." Philosophical Transactions of the Royal Society B: Biological Sciences, March.
9. Laudet, Vincent P. 2024. "Anemonefish Are Better Taxonomists than Humans." Current Biology, March.
10. Zwahlen, Jann, Emma Gairin, Stefano Vianello, Manon Mercader, Natacha Roux, and Vincent Laudet. 2024. "The Ecological Function of Thyroid Hormones." Philosophical Transactions of the Royal Society B: Biological Sciences 379:1.

### **Scholarly Contributions (by Unit Members)**

Name of Unit Member	Type	Title	Outlet	Publisher	Year Pub
Laurie Mitchell	Journal Article	Generation of the First Transgenic Line of the Iconic Coral Reef Fish Amphiprion ocellaris	Marine Biotechnology	Mar Biotechnol	2024-8/19
Emma Gairin	Journal Article	Erosion vs. accretion of sandy beaches: their impacts on nursery areas of coral reef fish	Environmental Biology of Fishes	Nature	2024-4/26
Emma Gairin	Journal Article	The spatial network of the largest honeycomb reef in the world as revealed by an ultra-high resolution Lidar drone	Journal of Coastal Research	Coastal Education and Research Foundation	2024-12-20
Laurie Mitchell	Journal Article	Short-wavelength-sensitive 1 (SWS1) opsin gene duplications and parallel visual pigment tuning support ultraviolet communication in damselfishes (Pomacentridae)	Ecology and Evolution	Ecology and Evolution	2024-4/16
Laurie Mitchell	Journal Article	From Genes to Pathways: A Curated Gene Approach to Accurate Pathway Reconstruction in Teleost Fish Transcriptomics	JEZ Part B: Molecular and Developmental Evolution	JEZ	2024-9/24
Emma Gairin	Journal Article	The genome of the sapphire damselfish Chrysiptera cyanea: a new resource to support further investigation of the evolution of Pomacentrids	Gigabyte	Gigascience Press	2024-12-31
Laurie Mitchell	Journal Article	Ultraviolet vision in anemonefish improves colour discrimination	Journal of Experimental Biology	JEB	2024-4/1
Ken Maeda	Journal Article	Taxonomy of freshwater gobies of the genus Rhinogobius (Oxudercidae, Gobiiformes) from central Vietnam, with descriptions of two new species	Zootaxa	Magnolia Press	2024-8/14
Ken Maeda	Journal Article	Anatomical insights into fish terrestrial locomotion: a study of barred mudskipper (Periophthalmus argentilineatus) fins based on $\mu$ CT 3D reconstructions	Journal of Anatomy	Wiley	2024-6/6

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Ken Maeda	Journal Article	Distribution and population genetic structure of the Hau Giang medaka <i>Oryzias haugi</i> along the east coast of the Indochinese Peninsula	Zoological Science	Zoological Society of Japan	2024-4/8
Emma Gairin	Journal Article	Coral reef fish density at a tourist destination responded rapidly to COVID-19 restrictions	Oecologia	Nature	2024-7/14
Jann Zwahlen	Poster Presentation at Conference	Sea anemones affect more than "just" the pigmentation in the anemonefish <i>Amphiprion clarkii</i>	WPMB2024		2024-4/23
Emma Gairin	Poster Presentation at Conference	Development of a coastal monitoring system based on fish gene expression	OIST-CNRS Joint Symposium on West Pacific Marine Biology	n-a	2024-4/23
Marleen Klann	Presentation at Conference	Anemonefish color patterning	Fish Satellite Meeting		2024-6/25
Emma Gairin	Presentation at Conference	Decoding the relationship between fish gene expression and the environment	PRIMO22		2024-5/27
Ken Maeda	Presentation at Conference	Fishes in Manko	GORI Research Meeting		2024-4/20
Marleen Klann	Presentation at Conference	Cell-cell communication as an underlying principle governing color pattern formation in teleost fishes	Euro-Evo-Devo		2024-6/26
Jann Zwahlen	Presentation at Conference	Genetic signatures of a very isolated Clark's anemonefish population	SICB 2025		2025-1/6
Jann Zwahlen	Presentation at Conference	Sea anemones affect more than "just" the pigmentation in the anemonefish <i>Amphiprion clarkii</i>	WPMB2024		2024-4/25
Jann Zwahlen	Presentation at Conference	The influence of host anemones on the anemonefish <i>Amphiprion clarkii</i>	ESJ72		2025-3/18
Emma Gairin	Seminars	Decoding the relationship between fish gene expression and the environment	OIST Internal Seminar Series		2024-12-6

#### **Outreach Activities (For Unit Members Only)**

2024-04-01	Marleen Klann, OIST Science Festival , OIST
2024-04-01	Ken Maeda, Special exhibition “Manko Minna de Aquarium 2024” , Manko Waterbird and Wetland Center
2024-04-01	Ken Maeda, Field observation event “Lives in the water” , Manko Waterbird and Wetland Center
2024-04-01	Marleen Klann, Onna x OIST Children's School of Science, Onna Village & OIST
2024-04-01	Ken Maeda, Onna-OIST Children’s School of Science 2024, Onna Village & OIST

