

• TABLE OF CONTENTS

Introduction: Anemonefish: New models organisms for marine science

Vincent Laudet and Timothy Ravasi

I. Evolution, biogeography and genetics

1. A phylogenetic context: The diversification of damselfishes (Pomacentridae)

Bruno Frédérich

2. Anemonefish Genomes

Nicolas Salamin, Celia Schunter, Alison Monroe, Taewoo Ryu and Timothy Ravasi

3. Biogeography and genetic barriers in Amphiprion anemonefishes

Song He, Benoit Pujol, Serge Planes and Michael L. Berumen

4. Genomic evidence of hybridization during the evolution of anemonefishes

Anna Marcionetti, Sarah Schmid and Nicolas Salamin

5. The use of modern genetic tools in anemonefishes

Laurie John Lee Mitchell, Sakuto Yamanaka, Masato Kinoshita and Fabio Cortesi

II. Life history and development

6. The post-embryonic period of anemonefishes

Natacha Roux, David Lecchini and Vincent Laudet

7. Color patterns in anemonefish: development, role, and diversity

Pauline Salis, Marleen Klann and Vincent Laudet

8. Age and longevity

Mirko Mutalipassi, Eva Terzibasi Tozzini and Alessandro Cellerino

9. The visual ecology of Anemonefishes

Fabio Cortesi, Valerio Tettamanti and Fanny de Busserolles

10. Sound communication

Eric Parmentier and David Lecchini

11. Neuroendocrinology of life history and stress in anemonefishes

Mélanie Dusseigne, Alexander Goikoetxea, Benjamin Geffroy and Laurence Besseau.

III. Reproduction and social behavior

12. Sex change from male to female: Active feminization of the brain, behavior and gonads in anemonefish

Laura Casas, Coltan Gable Parker and Justin S. Rhodes.

13. Anemonefish behaviour and reproduction

Riccardo Beldade, Giacomo Bernardi and Suzanne C. Mills

14. Social evolution in anemonefishes: Formation, maintenance, and transformation of social groups

Peter Buston, Rebecca Branconi and Theresa Rueger

15. Parental care: patterns, proximate and ultimate causes, and consequences

Tina A. Barbasch, Ross DeAngelis, Justin Rhodes and Peter M. Buston

IV. Ecology

16. Habitat selection of anemonefish

Kina Hayashi and James Davis Reimer

17. 3D analysis of coral reef informs anemonefish habitat

Akihisa Hattori

18. Cohabitation and competition in anemonefishes: patterns and consequences

Maya Srinivasan and Geoffrey P Jones

19. No place like home: can omics uncover the secret behind the sea anemone and anemonefish symbiotic relationship?

Cassie M. Hoepner, Emily K. Fobert, Catherine A. Abbot and Karen Burke da Silva

20. Larval dispersal in anemonefish populations: Self-recruitment, connectivity and metapopulation dynamics

Geoffrey P. Jones, Hugo B. Harrison, Michael L. Berumen, Serge Planes and Simon R. Thorrold

V. Human impact and conservation

21. The impact of popular film on the conservation of iconic species: Anemonefishes in the aquarium trade

Carmen R. B. da Silva, Cassie M. Hoepner, Manon Mercader, Vincent Laudet and Karen Burke da Silva

22. Anemonefish Husbandry

Jennifer M. Donelson, Pascal Romans, Sakuto Yamanaka, Masato Kinoshita and Natacha Roux

23. Resilience and adaptation to local and global environmental change

Celia Schunter, Jennifer M. Donelson, Philip Munday and Timothy Ravasi

24. Anemonefishes as models in ecotoxicology

Simon Pouil, Marc Besson and Marc Metian

25. Saving Nemo: extinction risk, conservation status and effective management strategies for anemonefishes

Geoffrey P. Jones, Maya Srinivasan, Gemma F. Galbraith, Michael L. Berumen and Serge Planes

Conclusion: Perspectives for anemonefish research

Tim Ravasi, Geoffrey P. Jones and Vincent Laudet.