

Marine hard bottom communities feature among the most diverse and productive systems in the world oceans. Since they predominantly occur in shallow and near-shore regions, these communities and the numerous ecosystem services they provide are particularly prone to anthropogenic stress.

The contributing authors present first-hand, in-depth information about the particularities of life at the substrate-water interface, the interactions in and function of hard bottom communities, the role and dynamics of their biodiversity, the stressors and threats they face in the context of global change, and measures to preserve or restore these precious habitats.

This book will help scholars and students to better understand the role and functioning of hard bottom communities, as well as the causes and consequence of the changes they currently undergo.

To be published in May 2009

approx. 420 p. 37 illus. Hardcover
ISBN: 978-3-540-92703-7

Available at:

Springer

Customer Service Center GmbH
Haberstr. 7, 69126 Heidelberg, Germany
Fax +49 (0) 6221 345 4229
orders-hd-individuals@springer.com

For further information
please contact:

Prof. Dr. Martin Wahl
Benthic Ecology, IFM-GEOMAR
Duesternbrookerweg 20, D- 24105 Kiel, Germany
mwahl@ifm-geomar.de

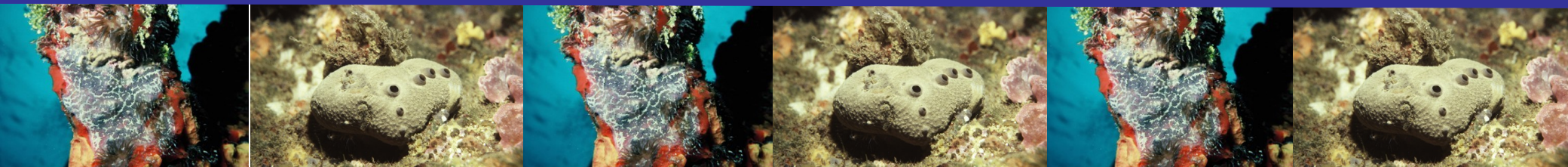
**Springer Series:
Ecological Studies, Vol. 206**

Marine Hard Bottom Communities: patterns, dynamics, diversity, and change

Martin Wahl (ed.)

 **Springer**


IFM-GEOMAR



Content:

I. Habitat, substrata and communities

1. Aquatic particularities and functional groups
2. Communities on different shallow substrata
3. Communities on deep-sea hard bottoms
4. Communities on living substrata: epibioses

II. Diversity patterns and their causes

5. Latitudinal patterns of species richness in hard bottom communities
6. Regional scale patterns
7. Patterns along environmental gradients
8. Evolutionary patterns of diversity and their causes
9. Environmental variability: analysis and ecological implications

III. Community Dynamics

10. Fertilization strategies
11. Larval supply and dispersal
12. Settlement and recruitment
13. Seasonal dynamics
14. Disruption, succession and stochasticity
15. Changes in diversity and ecosystem functioning during succession
16. Simple and complex interactions

IV. Changing Biodiversity

17. Anthropogenic changes in patterns of diversity on hard substrata: an overview

18. Shifts in abiotic variables and consequences for diversity
19. The loss of natural habitats and the addition of artificial substrata
20. Multiple stressors & disturbances: when change is not the nature of things
21. Mass mortalities and Extinctions
22. Biological Invasions: Insights from marine benthic communities
23. Habitat distribution and heterogeneity in marine invasion dynamics: The importance of hard substrate and artificial structure
24. Rehabilitation of habitat and the value of artificial reefs
25. Protection of biota and the value of marine protected areas

V. Value of Diversity

26. The role of biodiversity for the functioning of rocky reef communities
27. Functional and taxonomic perspectives of marine biodiversity: functional diversity and ecosystem processes
28. Mechanisms underpinning diversity-stability relationships in hard bottom assemblages
29. The aesthetic value of littoral hard substrata and consideration of ethical frameworks for their investigation and conservation

VI. Appropriate research methods

Contributing Authors:

L. Airoidi
F. Arenas
G. Barestrello
M.W. Beck
L. Benedetti-Cecchi
D. Blockley
M.E.S. Bracken
J. Canning-Clode
C. Cerrano
M.G. Chapman
G. Clynick
SD Connell
T.P. Crowe
M. Cusson
A.R Davis
P.W. Fofonoff
S. Frascchetti
A.L. Freestone
B. da Gama
L. Gamefeld
J-M. Gili
S.J. Goldstien
P.J. Goodsell
J.N. Griffin
C.D.G. Harley
J. Havenhand
S.J. Hawkins

A.C. Jackson
S.R. Jenkins
J. Kotta
D. Marshall
C.D. McQuaid
M. Molis
P.S. Moschella
S. Navarrete
L.M-L.J. Noël
P.S. Petraitis
G.M. Ruiz
R. Russel
D.R. Schiel
E. Serrão
C. Simkanin
C. Styan
H.E Sugden
A. Terlizzi
R.S. Thompson
A.J. Underwood
M. Wahl
J.D. Witman
J.T. Wootton
C.M. Young

