Journal of Oceanography

Dr. Bulent Gozcelioglu

Editorial Board member

Marine Biologist
The Scientific and Technological Research Council of Turkey

Dr. Bulent Gozcelioglu

Biography

- Dr. Bulent Gozcelioglu is currently a marine biologist with the TUBITAK (The Scientific and Technological Research Council of Turkey). He is also a popular science writer. He has pursued his M.Sc.and Ph.D. (Systematic Zoology) both from Ankara University Institute of Graduate Studies in Science, Turkey.

Research Interests

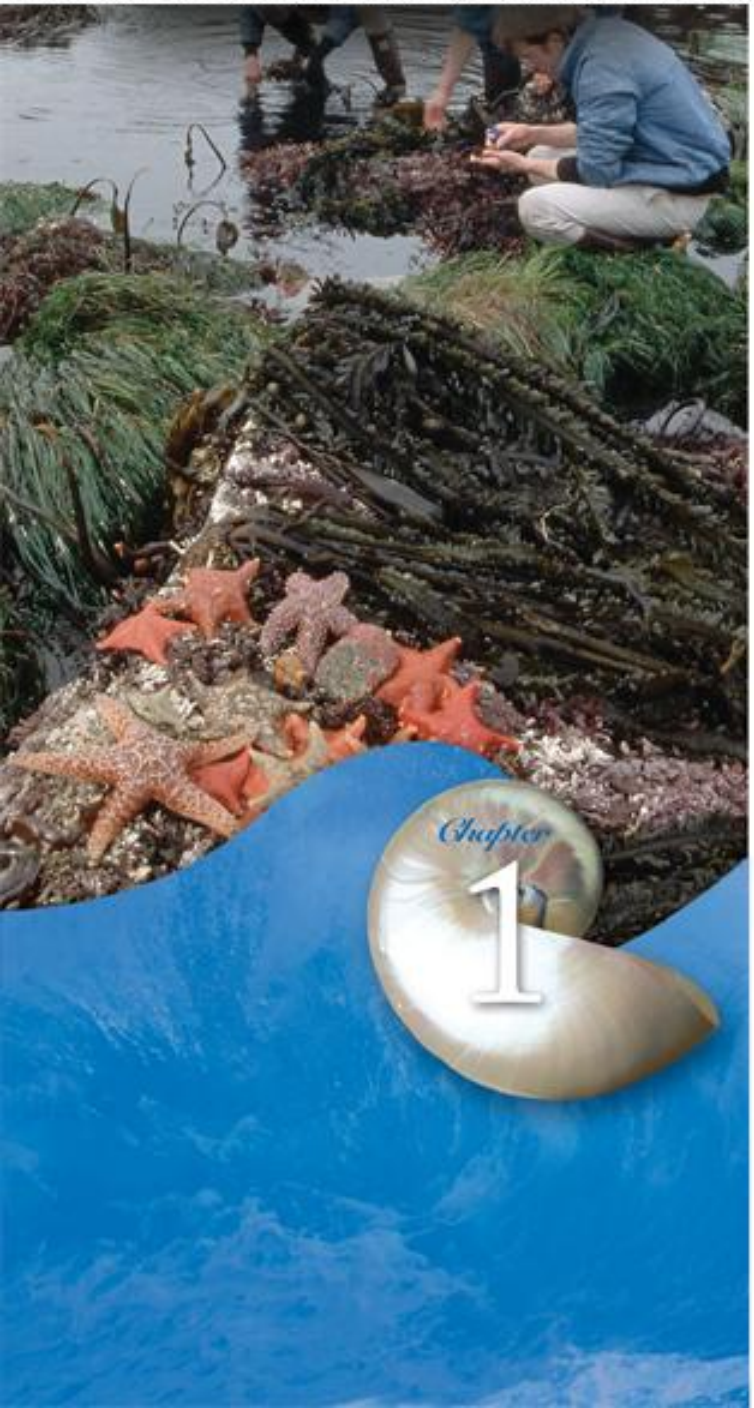
- Marine Biology
- Systematic Zoology
- Popular Science

Recent Publications

Updated checklist of sponges (Porifera) along the coasts of Turkey
B TOPALOĞLU, A EVCEN - Turkish Journal of Zoology, 2014 - journals.tubitak.gov.tr

HUMAN NATURE challenge of AKL : GENERAL MEDICAL HISTORY TÖDER TIP, TIP ON - Biomedical Engineering Bulletin -euniversite.nku.edu.tr


Marine Biology



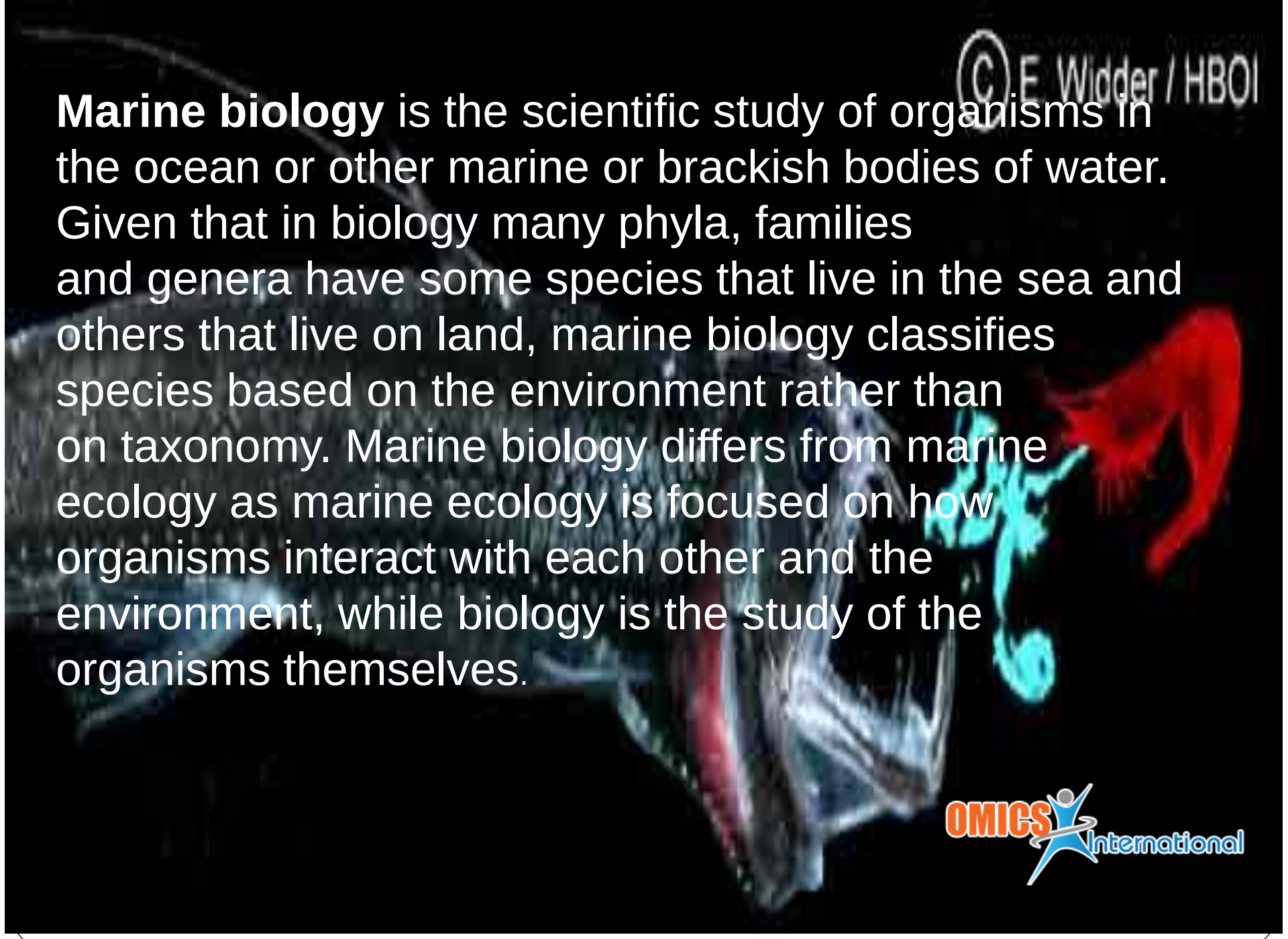
What is Marine Biology?

§**Studying organisms that live in the sea (scientific).**

Why study it?

§**Beauty, mystery, variety, fortune, glory?**

§**All may be true, but some reasons are also practical!**



Marine biology is the scientific study of organisms in the ocean or other marine or brackish bodies of water. Given that in biology many phyla, families and genera have some species that live in the sea and others that live on land, marine biology classifies species based on the environment rather than on taxonomy. Marine biology differs from marine ecology as marine ecology is focused on how organisms interact with each other and the environment, while biology is the study of the organisms themselves.

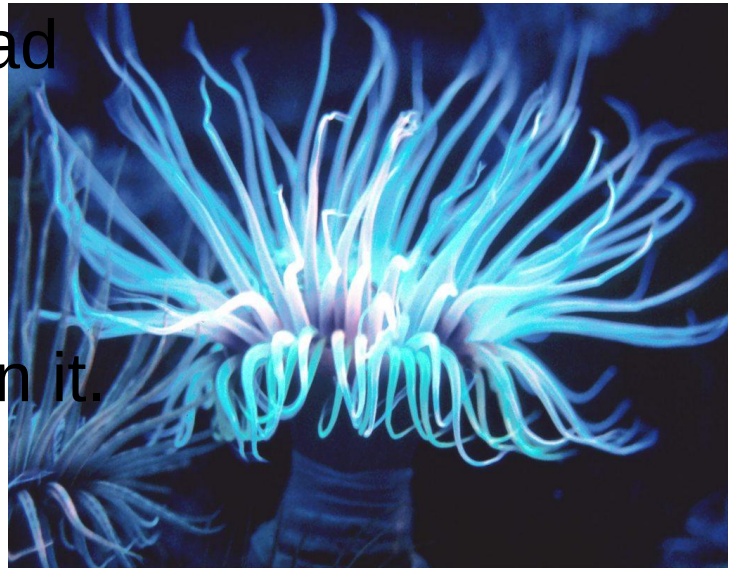
Introduction

- Life may have origins in the sea.

- Ilya Metchnikof (1900) discovered animal immune system in marine anemones.

- Marine biology is a very broad area,

so most researchers select a particular
area of interest and specialize in it.

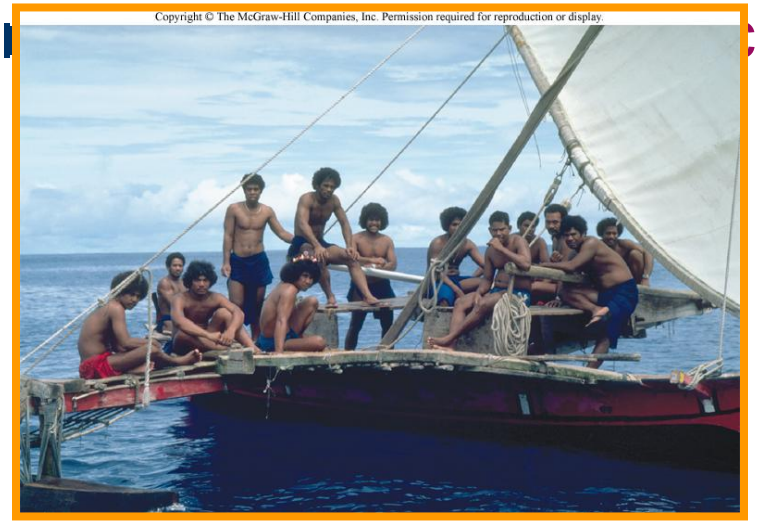


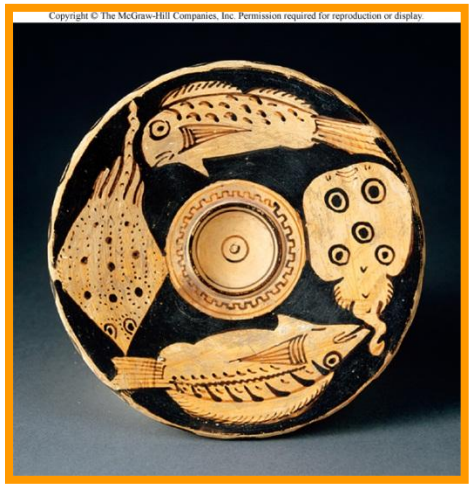
- Marine biology is the study of marine organisms, their behaviors and interactions with the environment.
- Marine biologists study biological oceanography and the associated fields of chemical, physical, and geological oceanography to understand marine organisms.
- Specializations can be based on a particular species, group, behavior, technique, or ecosystem.
- Molecular biology is a related area of specialization in marine biology.
- Researchers apply molecular techniques to many environments ranging from coastal marshes to the deep sea and to various organisms such as viruses, plants, and fish.

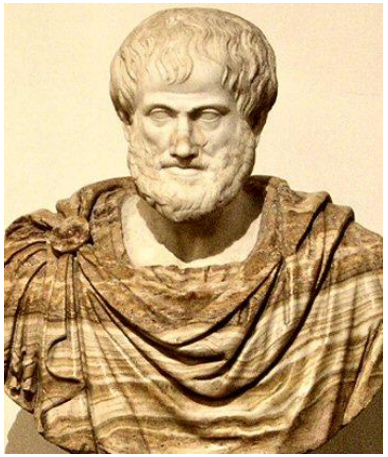
MARINE BIOLOGY

- Life may have origins in the sea.
- Ilya Metchnikof (1900) discovered animal immune system in marine anemones.

- **History of Marine Biology:**
  - Since we discovered the ocean, we've been marine biologists!
  - Pacific Islanders—ocean subsistance
  - ribed marine life)

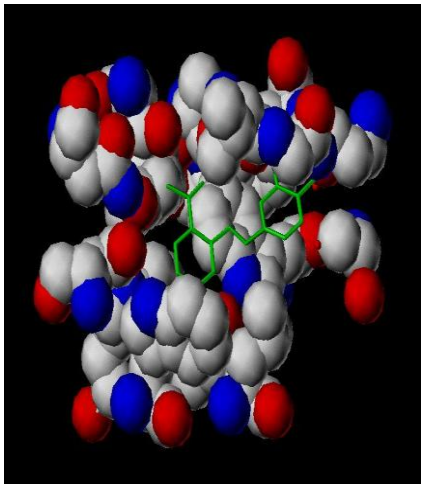


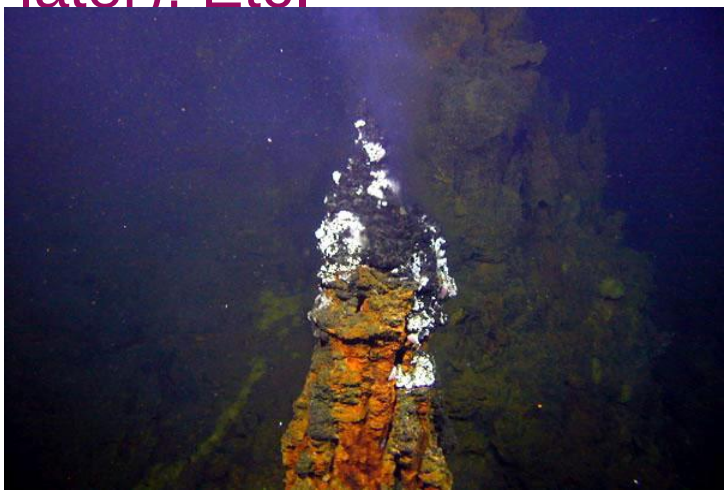




What do we get ???

- Seafood
- Medicine: alginates, vaccines, essential oils, proteins, etc.
- The cure for cancer may very well lie within sharks or other marine life!
- Raw materials:
- Iron, Sulfhur, Oil, Salt (more later), Etc.





Who Can Be a Marine Biologist?

- Anyone!

- It's really basic science applied to the sea, not the sea applied to science.

- Nearly *ALL* disciplines are represented in Marine Science (Biology)

- Archeaology
- Biology
- Botany
- Chemistry
- Geology
- Ichthyology
- Oceanography
- Physiology
- Physics
- Seismology
- Medicine
- Welding
- Diving
- Research
- Education
- Recreation

The list goes on and on…

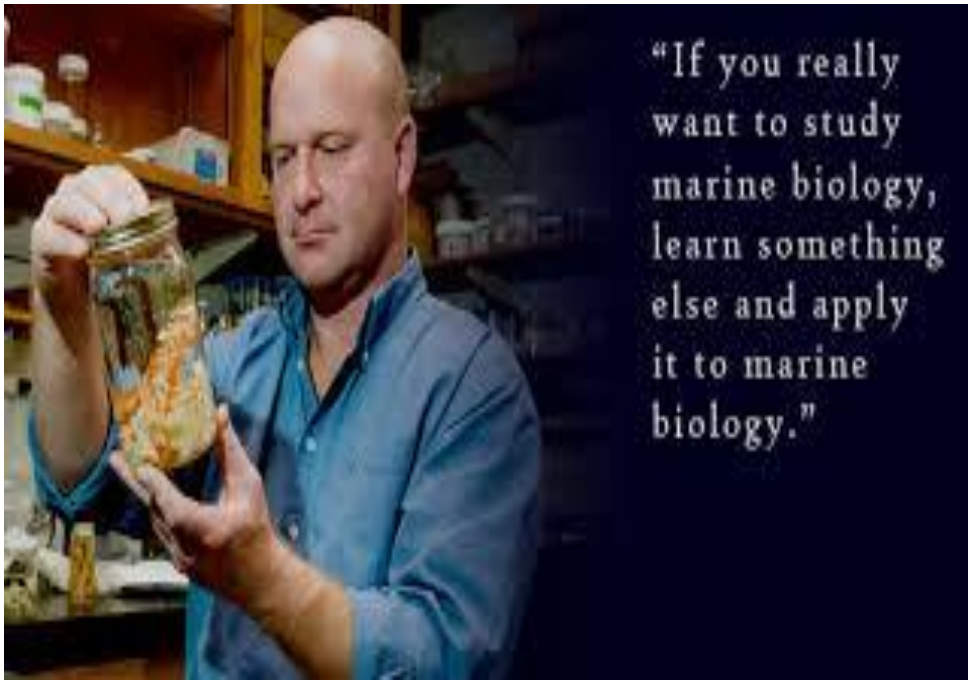
Careers in Marine Science - What can you do with your degree?

EMPLOYERS OF MARINE SCIENCE GRADUATES

- Universities And Colleges
- International Organizations
- Federal And State Agencies
- Private Companies/Consulting Firms
- Marine Related Industries
- Nonprofit Laboratories
- Local Governments
- Self-employed

MARINE RELATED CAREERS

- Researcher
- Professor Or Teacher
- Environmental Consultant
- Natural Resource Manager
- Fisheries Biologist
- Environmental Lobbyist
- Naturalist
- Marine Illustrator
- Aquarium Employee
- Biotechnology Specialist
- Aquaculturist



Why is Marine Science Important?

- As growing global population stresses the ability of our society to produce food, water, and shelter, we will continue to look to the oceans to help sustain our basic needs.

- Advances in technology, combined with demand, will improve our ability to derive food, drinking water, energy sources, waste disposal, and transportation from the ocean.

- It will be up to this and future generations to build upon our existing knowledge of the ocean and its potential to help meet the needs of the world and its inhabitants.

The Contribution of OMICS International to the Topic of Marine Litter and Micro Plastic Studies

- The environmental problem of marine litter is gaining even more scientific attention as more data are becoming available on its occurrence, abundance and geographical distribution.
- Due to its versatile chemical structure, plastic is extensively exploited in several industrial, commercial and medical applications. Approximately 50 percent of total production is made up of goods disposed of within one year of purchase and breaking down in the environment at an uncontrollable rate.
- Macroplastic litter (>5 mm, NOAA) often undergoes to mechanical, chemical and photo-degradation reaching microscopic size and thus harming marine organisms as it can be easily ingested or filter-fed.

- On this context, the OMICS International supports this drive to knowledge by prompt publication and high-rise visibility of research.
- In contrast to the traditional model where access to content can cost hundreds or thousands of dollars, its access to publications is free

According to Bulent's research ,

- His study compiled the data from previous papers emphasizing sponge species on the Turkish coasts. In total, 127 species belonging to 46 families have been reported: 83 species from the Aegean Sea, 63 species from the Sea of Marmara, 51 species from the Levantine Sea, and 2 species from the Black Sea. Among these species, 3 species are new records for the marine fauna of Turkey:
- Rhizaxinella elongata, Axinyssa digitata, and Terpios gelatinosa. Raspalia viminalis is a new record for the Sea of Marmara.
- The morphological and distributional features of 3 species are presented.
- In addition, a checklist of the sponge species reported from the Turkish coasts to date is provided.

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