

# PORIFERA (Sponges)

These animals are colonies of thousands of cells, loosely held together in a matrix of threads with an internal supporting "skeleton" of spicules (either of calcium carbonate or silica) or spongin fibres, or both. The classification of the phylum is based on these features and microscopic examination is essential in the determination of species. There are no differentiated organs and the "body" is perforated by pores and chambers. Sponges may be distinct in shape, vase-like, flat, rounded or branched, or encrusting masses on rock or other substrate. The colours range from drab blacks, browns and greys, to vivid red, orange, purple and green. Over 10,000 species have been described from the world's seas. The greater number of more conspicuous sponges found on the reefs of the Philippines belong in the class **Demospongiae** in which the skeleton is composed of siliceous spicules or sponginfibres, or a combination of both. They are mostly shallow water species and may be found on the reef flat among coral rubble. The undersides of dead coral boulders shelter encrusting species, and caves and overhanging areas on the reef face may shelter brilliantly coloured sponges.

## Preparation

To prepare for this lesson, read the corresponding section in *The Encyclopedia of Recreational Diving*, and page 29 and 30 in *Indo-Pacific Coral reef Field Guide* (Allen and Steene).

## Field Handbooks

Use what you can find, but note that this is a very difficult area, so you may get conflicting messages if you compare different authors.

## Questions/Assignments

Since it is so difficult to do a correct examination of a sponge specie in the field, I will not burden you with a lot of questions about these creatures. Instead concentrate on getting some knowledge on their natural history. However I want you to list 5 different species that you have found on your reef, with an explanation of what characteristics you have looked at in the examination.

Also identify slides #11 to 15.