

Sterol and Lipid Composition of Three Adriatic Sea Sponges

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The sterol and fatty acid composition of three Adriatic Sea sponges (*Geodia cydonium* and two unidentified *Tedania* sp.), collected at the same time and same place, was established. Twenty-four sterols and forty fatty acids were identified. The identical ecological conditions, including the diet, allowed us to apply the results obtained for taxonomical conclusions, based on the biodiversity of the investigated sponges. On the basis of the sterol composition they can be separated into two groups: *Tedania* and *Geodia* sponges. The sterol and fatty acid composition indicates that the two investigated *Tedania* samples might be different species or subspecies.

Key words: Fatty Acids, Adriatic Sea Sponges, Sterols