

THE SCLERACTINIAN SPECIES CONUNDRUM

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The widely recognized difficulty in defining the scleractinian species may be attributed to two factors: the objective nature of these elusive organisms, and the subjective impact of us as researchers. Shifts in three paradigms—nomenclature (N), ethics (E) and taxonomy (T)—can reduce our negative impact on the problem. This focus on NET results requires introspection on the personal, inter-colleague and international associations levels. The International Code of Zoological Nomenclature offers a tool for regulating nomenclature procedures, but it has been troublingly ignored recently. Ethical issues require appeals to our conscience, recognition of the necessity of publishing following peer review by specialists and use of quality tests. Taxonomy can be facilitated by constantly updated species notions and approaches. Present-day knowledge on fossil and extant Scleractinia suggests an eleven-dimensional species model. Together with the three dimensions of physical space, this model incorporates the following dimensions: time, variability, long generation times and propagation through fragmentation, synchronous multispecific spawning, hybridization, ocean currents, symbiosis and life in aquaria. The model is open to future development. The cohesion species concept is helpful for better taxonomic resolution. Reverse actualism has a synergistic effect on identification and systematic. Suggestions for future strategies in scleractinian species taxonomy are offered.