

**Applications of a bioinformatics database for sea anemones.** MCCLOSKEY, B.M.\*, M.D. FULLERTON, and D.G. FAUTIN. Univ. of Kansas, Lawrence.

Bioinformatics databases facilitate addressing a variety of questions by organizing large quantities of information. We provide two examples of questions that can be addressed with our database containing geographical and bibliographical information on all known species of sea anemones. Using the geographical component, we compare Arctic and Antarctic anemone faunas and assess the number of species known from greater than 66.5° latitude. As for other marine invertebrates, the number in south polar waters exceeds that in the north. We also assess the number of polar species when Arctic and Antarctic are defined by biologically relevant parameters, which may reveal a natural break between polar and non-polar anemones. Using the bibliographic component, we graph the cumulative number of anemone species described through time. This allows us to infer how completely anemone diversity is known. If the cumulative number of species is growing more slowly than in the past, we infer most species have been discovered. If, however, the number is increasing steadily, many undescribed species

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