

Corals and sea anemones on line: a functioning biodiversity database

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The database 'Biogeoinformatics of Hexacorals' (<http://www.kgs.ukans.edu/Hexacoral/>) is an on-line resource that consists of two interactive databases, one dealing with taxonomy and biogeography of hexacorals (corals, sea anemones, and their allies) and one dealing with environmental information for the marine environment. The two databases began separately, as resources concerning sea anemones and the environment of the coastal zones, respectively. Linking them has created synergies, such as the ability to assess the environmental parameters that characterize the habitat of a species and determine localities where members of a species might exist but from which they are currently not known. Synonymous names are linked so that records for occurrences displayed on a map use symbols of a different color for each synonymous name. These functionalities, among others, make 'Biogeoinformatics of Hexacorals' useful as a research tool. In applied research, for example, it can be used to determine species and habitats that might be invasive and vulnerable to invasion, respectively, and in the more academic realm, it can be used for investigating whether a synonymy is justified. Data and functionalities are constantly being added to increase the usefulness of 'Biogeoinformatics of Hexacorals'. In particular, the database is being linked to others. It interacts with data for fossil corals in NMITA (Neogene Marine Biota of Tropical America; <http://porites.geology.uiowa.edu>). It is a component of OBIS (the Ocean Biogeographic Information System; <http://www.iobis.org>), a federation of databases that are, like 'Biogeoinformatics of Hexacorals', taxonomically resolved (not necessarily at the species level) and georeferenced, and that contains tools and maps for analyzing those data. Thus increasingly, data on hexacorals can be compared with and used in conjunction with data from other databases to compare information across taxa, through space, and through time.