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# REEFCORAL : a database for assessing the spatio-temporal distribution of Z-coral carbonate producers

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The REEFCORAL database actually provides information on more than 3000 scleractinian-coral occurrences from 285 Oligocene and Miocene localities in the circum-Mediterranean regions, encompassing the Mediterranean Sea, the Paratethys, Middle East and some European Atlantic areas. Mediterranean Oligocene-Miocene coral reef sites have been in general well explored providing a huge literature dataset and contributing to operate a relatively good control on taxonomy and stratigraphy. It was thus possible, for almost all selected localities, to refer to quite recent studies dealing with the systematics and/or palaeoecology of their coral fauna and associated with up-dated stratigraphy.

REEFCORAL hence includes data extracted from different sources:

- Most of relatively recent published data on palaeoenvironmental, sedimentological setting and systematics of scleractinian corals occurring in reef or non-reef settings in the Oligocene and Miocene outcrops from Mediterranean regions.

- and data provided by the study of published (i.e. the classical original Collection of Chevalier 1962) and unpublished Museum collections of coral specimens, in particular those housed at the MNHN, Paris, together with our own collections.

Up-dating and homogeneization of stratigraphical data associated to each coral occur-

rence, together with some needed systematic revision for some scleractinian genera, were made before entering the related information in the database. Although some stages or areas appear less represented than others, because of poor investigation or limited stratigraphic resolution, the broad geographic and temporal distribution of the different coral localities is considered to be satisfactorily representative of the whole “Mediterranean” region both in time and space.

Our REEFCORAL database was used for testing the "Energy Hypothesis" of Fraser & Curie (1996), correlating the generic diversity of z-like coral assemblages and the mean annual sea-surface temperature (see abstract Bosellini & Perrin for this purpose). On-going projects are focussing on the spatio-temporal distribution of z-like Mediterranean corals and their variations during the Oligocene - Miocene interval, both from the palaeobiogeographical and evolutionary points of view. Here, the database was used to assess the potential of the different z-coral genera as carbonate producers during the time interval considered. It appears that among the 103 z-like scleractinian coral genera, only a few can be considered as major carbonate producers, both in space and time.