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Paleocene-Early Eocene larger foraminiferal biostratigraphy of Yemen and Oman

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The Paleogene larger foraminiferal biostratigraphy is today rather well assessed for the Tethyan domain. In order to contribute to the full integration of the Middle-East in the widely employed Shallow Benthic Zonation, a preliminary report on the Paleocene-Early Eocene larger foraminiferal assemblages from Yemen and Oman is provided here.

The sections investigated in Yemen range in age from the Upper Cretaceous to the Oligocene. The Paleogene of Yemen is widely affected by dolomitization and only by analyzing over 1,700 thin sections from 60 stratigraphic sections (mainly from Hadramaut and Socotra) it has been possible to adequately investigate the fossil assemblages. In contrast, the deposits from northern Oman are characterized by rich and extraordinarily well-preserved Paleocene-Lower Eocene larger foraminiferal assemblages.

This preliminary report focuses mainly on the Paleocene-Early Eocene deposits of the Umm-er-Radhuma formation. The Paleocene-Lower Eocene assemblages are characterized by strong affinities with northern Somalia. Hyaline forms such as *Daviesina khatiyahi*, *Miscellanea* gr. *rhomboidea/dukhani*, *M. miscella, Saudia*, *Sakesaria*, *Lockhartia*, *Ranikothalia*, *Dictyokathina* largely prevail in SBZ 3-4 deposits. *Nummulites*, *Ranikothalia* and *Daviesina ruida* characterize the Lower Ypresian. Subordinately, porcelaneous forms such as "*Taberina" daviesi* and conical agglutinated (*Daviesiconus*) also occur; alveolinids (such as *Alveolina vredenburgi* and *A. decipiens*) are relatively abundant in the basal Lower Ypresian of Socotra. In contrast to the coeval deposits from Yemen, the Paleocene section of Oman (Wadi Duqm, Abat-Tiwi platform) yields very well-preserved larger foraminiferal assemblages and agglutinated and porcelaneous forms are well represented. The occurrence of abundant *Globoreticulina paleocenica* is noteworthy along with an as yet undescribed *Lacazinella* species. The co-occurrence of *Coskinon* sp., *"Plumokathina dienii"*, *Dictyoconus turriculus* and *Miscellanites globularis* seems to indicate SBZ 2. Upsection, SBZ 3-?4 assemblages with *Fallotella kochanskae persica*, *D. turriculus,* "*Taberina*" *daviesi*, *Keramosphaera* sp., *Miscellanea yvettae, Lockhartia haimei, L. conditi, L. altispira, Daviesina khatiyahi, D. danieli, D. langhami*, *Kathina selveri, K. delseota, ?Storrsella , Dictyokathina simplex, Sakesaria* cf. *cotteri* and*S*. cf. *dukhani* occur.