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A. Introduction

The Jurassic and Lower Cretaceous deep water sediments of the Tethyan realm are underlain by sediments of a complex southern Tethyan margin, while coeval Jurassic sediments in the Blake-Bahama area rest on oceanic basement. Uniform conditions of deep water sedimentation testify to the connection between Tethys and the early Atlantic created during the Jurassic. They are reflected in the similarity of the macrofaunal contents of the Maiolica and the Blake-Bahama Formation which instigated the present study.

In a contribution for Volume 76 of the Deep Sea Drilling Project several ammonites and aptychi, assembled from Holes 391C and 534A in the Blake-Bahama Basin, east of the Blake Plateau, were described (RENZ 1978, p. 899–909, and RENZ 1983, p. 639–643). The age of the fossils ranges from Late Jurassic to Early Cretaceous. Based on the results, a correlation with other DSDP holes in the Atlantic and with a surface section in the Lombardian Alps was attempted.

An appropriate surface section in the Lombardian Alps is exposed in the river Breggia, located in southern Switzerland, next to the Italian border (Fig. 3). In this section, deep water pelagic carbonates of Late Jurassic to Early Cretaceous age are referred to as the Rosso ad Aptici Formation (Tithonian) below, and the Maiolica Formation (earliest Berriasian to Barremian) above.

Since the last century both formations have been studied extensively, in particular, their microfaunas and sedimentology. Among the more recent papers are those of BERNOULLI (1964), WEISSERT (1979), and WINTERER & BOSELLINI (1981). The present paper focusses on biostratigraphy of the Maiolica Formation of the Breggia section, where, thanks to numerous new finds of aptychi by the authors, the subdivision of the Early Cretaceous has now been improved, and this in turn allowed a more detailed correlation with the coeval strata of DSDP Site 534A and 391C.

The river Breggia section was selected by WEISSERT (1979, p. 28, Fig. 3, 2) as type section of the Maiolica Formation (Lombardian sector). WEISSERT was the first worker