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Inhaltsverzeichnis

Autor: Baumgartner, Peter O.
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CONTENTS

1. Introduction	731
2. Radiolarian biochronology	733
3. Comparison to other zonations and chronostratigraphic calibration	736
3.1 Comparison to earlier zonations	736
3.2 Chronostratigraphic calibration and distribution of Unitary Associations	741
4. Significance of dating radiolarites and conclusions	745
4.1 Chronostratigraphy: correlation of Atlantic and Tethys and timing of Middle–Late Jurassic siliceous sedimentation	745
4.2 Paleooceanographic conclusions	749
4.3 Radiolarian faunal changes and provincialism related to paleooceanography	750
4.4 Final conclusions and perspectives	751
5. Systematic paleontology	752
Explanatory notes	752
Alphabetic listing of genera and species	753
6. Locality descriptions	792
6.1 Introduction	792
6.2 Geographic/paleogeographic overview of the studied localities	793
6.3 Listing of localities included in the database	794
Acknowledgments	800
References	800
Appendix: Database	808

1. Introduction

Much of the present state of Mesozoic radiolarian paleontology and biostratigraphy is the result of the past ten years. After a period of active study of Mesozoic radiolarians in Europe at the turn of the century (RÜST 1885, 1898, PARONA 1890, SQUINABOL 1914, etc.) the interest declined and the biostratigraphic usefulness of radiolarians was questioned.

A number of favorable circumstances revitalized the field in the early seventies: The Deep-Sea Drilling Project was coring Cenozoic and Mesozoic sediments in the oceans which furnished well preserved radiolarian assemblages greatly stimulating biostratigraphic work on this group, as it did for other fossil groups. Radiolarian biostratigraphy, first worked out for the Cenozoic (summary in RIEDEL & SANFILIPPO 1978), rapidly was extended to the Cretaceous (FOREMAN 1971, 1973, 1975, 1978; MOORE 1973, RIEDEL & SANFILIPPO 1974, SCHAAF 1981). The use of hydrofluoric acid to extract fossils from siliceous rocks, known for a long time to palynologists (LEJEUNE 1936) was successfully applied to radiolarians (DUMITRICA 1970, PESSAGNO & NEWPORT 1972) and allowed the observation of isolated forms also from highly lithified siliceous limestones and cherts, leading to systematic work and first Late Jurassic–Cretaceous zonations mainly derived from land-based samples from California (PESSAGNO 1971, 1972, 1973, 1976, 1977a, b). Meanwhile, the Scanning Electron Microscope (SEM) began to be regularly used by micropaleontologists. It produced accurate illustrations even of internally recrystallized or opaque fossil material, inappropriate for transmitted light microscopy.

Only recently, Mesozoic radiolarian biostratigraphy became revitalized in the European area (see DE WEVER et al. 1979) and resulted in first zonations for Tethyan radio-