

Die Ergebnisse zeigen eine deutliche Dominanz von Schalenresten von Mollusken und Foraminiferen die zusammen zwischen 33% und 49 % des Sediments bilden (Abb. B). Neben diesen zwei Gruppen treten Weichkorallen, Crustaceen, Echinodermen, Tunikaten, Rotalgen, Aggregatkörner, Quarz und Feldspat auf. Der Anteil nicht identifizierter Komponenten liegt bei ca. 40%.

Die unterschiedliche Positionierung im Becken spiegelt sich in der Verteilung der Komponenten Kategorien wider. Probenpunkte 10 und 14 am Nord- bzw. Südrand des Schlammbeckens weisen geringere Werte an Quarz und Feldspat auf als Probenpunkte 9, 3 und 5 im Zentrum des Beckens. Weiters ist der Anteil von Mollusken an der Sedimentproduktion am Rand des Beckens (Proben 10 und 14) höher.

Eine Grobkornanalyse zeigte daß Mollusken positiv mit Kies und Sand korrelieren während Foraminiferen, Quarz und Feldspat mit Silt und Ton positiv korrelieren.

An keinem der untersuchten Probenpunkte konnte eine Beteiligung von Korallen und Grünalgen an der Sedimentproduktion festgestellt werden. Untergeordnet treten in allen Proben Bryozoen, Ostracoden, Crustaceen, Tunikaten, Rotalgen und Schwämme auf.

### Literatur:

- PILLER W. E. & PERVESLER P. (1989): The Northern Bay of Safaga (Red Sea, Egypt): Actuopalaeontological Approach, I. Topography and Bottom Facies. - Beitr. Paläont. Österreich. **15**: 103-147, Wien
- PILLER W. E. & MANSOUR A. M. (1990): The Northern Bay of Safaga (Red Sea, Egypt): An Actuopalaeontological Approach, II Sediment Analysis and Sedimentary facies. - Beitr. Paläont. Österreich. **16**: 1-102, Wien

## DOWNSHIFT OF THE CCD IN THE EASTERN SOUTH ATLANTIC

Stefan MÜLLEGGER & Werner E. PILLER

Institute for Earth Sciences, Karl-Franzens-University, Graz;  
e-mails: stefan.muellegger@uni-graz.at; werner.piller@uni-graz.at

The DIVA II expedition took place in February and March this year in the south Atlantic. During "Meteor cruise 63/2" leading from Capetown, South Africa to Mindelo, Cabo Verde, samples from the three deep sea basins of the southeast Atlantic (Cape basin, Angola basin and Guinea basin) were collected. Samples

were achieved with a "Multicorer" to receive virtually undisturbed soft sediment cores down to a sediment depth of about 35 cm. The water depth of the sampled areas range between 5100 and 5600m.

Samples were taken at 31 stations in 5 working areas. 11 cores were sampled in the Cape basin, 9 cores originate from the Angola basin and in sum 41 cores were sampled at three working areas in the Guinea basin. The working areas are arranged to form a latitudinal transect. For the planned investigations a selection of 10 cores will be examined.

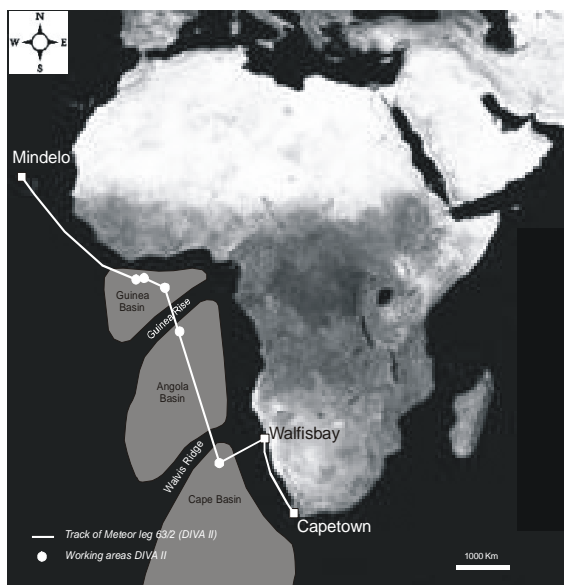


Fig. A: Working areas of Meteor leg 63/2

On board of the research vessel Meteor subsamples were taken in surface-parallel slices and were stained with Bengal-rose to facilitate distinction between dead and living Foraminifera. Sediments consist mainly of clay size particles but contain various portions of silt and sand, most built by the tests of Foraminifera. Strong bioturbation was observed in all samples. This is due to crustaceans like amphipods which were found alive down to a sediment depth of about 10 cm.

First results show that both benthic and planktic Foraminifera tests occur in all samples even at water depths >5500m. Sediments from the Guinea basin, situated close to the equator, carry big quantities of planktic Foraminifera such as *Orbulina*, *Globorotalia* and *Globigerinoides* (Fig. B) while samples from higher latitudes show an increase in calcareous benthic and agglutinating species. The tests of calcareous foraminifers are well preserved and dissolution does not seem to be important. This indicates that the CCD (Calcite Compensation Depth) lies deeper than the sampled areas. This is in contrast to carbonate distribution patterns usually shown in textbooks.



Fig. B: *Globigerina* ooze from the Guinea basin sampled at 5100 m water depth and sieved residue of the sediment (right picture). scale bar left picture: 50 mm, right picture: 1 mm.

Sessile agglutinating Foraminifera were found on the surface of dropstones, shark teeth, ossicles and the tests of other foraminiferans all of which build secondary hardgrounds. General questions of the presented project are diversity patterns of benthic Foraminifera in the deep sea basins and its correlation with biotic and abiotic variables. For this reason it is intended to describe the change in species composition along a latitudinal transect ranging in respect of DIVA II from 0° to S 28°. This will help to draw biogeographical conclusions as if the “Walfis-ridge” and the “Guinea-ridge” can be considered as biogeographical barriers.

## SANDELZHAUSEN, A UNIQUE CARNIVORE GUILD IN THE MIDDLE MIOCENE (MN5) OF EUROPE

Doris NAGEL<sup>1</sup>, Michael MORLO<sup>2</sup> & Clara STEPHAN<sup>3</sup>

<sup>1</sup> Institut für Paläontologie, Althanstrasse 14, A-1090 Wien

<sup>2</sup> Abteilung für Messelforschung, forschungsinstitut Senckenberg, Senckenberganlage 25, D-60325 Frankfurt/Main

<sup>3</sup> Staatliche Naturhistorische Sammlung Dresden, Museum für Naturkunde, Königsbrücker Landstraße 159, D-01109 Dresden

The new investigated site Sandelzhausen (Bavaria, MN5) adds to our knowledge of Middle European carnivore guild structure. The carnivore guild consists of 11 taxa, the majority ranges between 3 to 10 kg with *Amphicyon major* as the largest predator well over 100 kg.