Geophysical Research Abstracts, Vol. 9, 02496, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-02496

Zoogeography of the bottom Foraminifera of the West-African coast

V. Mikhalevich

Zoological Institute Russian Academy of Sciences, Russia (mikha@JS1238.spb.edu / 7 812 346 32 53)

The sediment samples from the continental shelf of West-Equatorial Africa (from the Strait of Gibraltar to the Niger estuary), depths ranging from 0 to 200 m were found to contain 176 bottom foraminiferal species. For the majority of them (126 species), especially for the mass and dominant species (23 species) their areas of occurrences were mapped and the peculiar features of the geographical range and distribution were studied. The species natural habitats were established based on the taxonomical revision of the species in study all over the World Ocean based on the collection of the Zoological Institute RAS and wide literary data. The method of perforated cards was used to mark the geographical locations of all of the species studied. In order to establish the species zonal distribution (together with their depth habitat) the five characteristic groups were separated: 1. pan-oceanic (cosmopolitan), 2. widely spread tropical-boreal (not entering Arctic and Antarctic areas), 3 – tropical-law boreal (not going futher to the North than Great Britain) , 4. tropical-subtropical, 5. tropical. The most characteristic species of each of these groups are the following:

1. *Proteonina atlantica, Glomospira charoides, Karreriella bradyi, Pyrgo globules, P. depressa, Miliolinella subrotunda, Epistominella rugosa, Cibicides pseudoungerianus, Pullenia subcarinata, Bulimina aculeate, B. marginata, Uvigerina canariensis, Angulogerina angulosa, Cassidulina Carinata, Patellina carinata*, 2. *Discorbis globularis, Discopulvinulina araucana, Neoconorbina williamsoni, Nonionella turgida, Gavelinonin barleanum, Euvigerina peregrina, Bolivina variabilis, Spirillina vivipara*, 3. among them species with predominantly law boreal distribution (*Quinqueloculina lata, Q. trigonula, Spirophtalmidium acutimargo, Robulus orbicularis, Discorbis floridensis, D.*

bertheloti, Gavelinopsis praegeri, Siphonina tubulosa, Elphidium poeyanum, Cribroelphidium depressulum, Robertina bradyi, Bulimina affinis, B. gibba, Uvigerina parvula, Ehrenbergina pupa, Bolivina inflata, B. spathula, B. Spinescens, B. subspinescens) and predominantly tropical-subtropical distribution (*Textularia saggitula, Vulvulina pennatula, Spirophtalmidium acutimargo v. concava, Lenticulina peregrine, Planulina ariminensis, Astrononion tumidum, Ammonia beccarii, Rotamorphina laevigata, Bulimina alazanensis*), 4. (the most numerous group) *Textularia conica, Bigenerina nodosaria, Quinqueloculina auberiana, Q. bicostata, Q. lamarckiana, Spiroloculina canaliculata, S. grata, Edentostomina disparilis, Sigmoilina distorta, Pyrgo subsphaerica, Sigmomorphina pauperata, Discorbis advenus, D. candeiana, D. concinna, Gyroidina altiformis, G. umbonata, Pileolina pileolus, Planodiscorbic rarescens, Cancris sagra, C. oblonga v. scabra, Cibicidina rhodiensis, Amphistegina gibbosa, Stomatorbina concentrica, Eponides repandus, Anomalina atlantis, Nonion asterizans, N. grateloupi, Rotalia translucens, Elphidium crispum, E. advenum, Virgulina pontoni, Loxostomum amigdaleforme, L. limbatum, L. mayori, Reussella atlantica, Uvigerina auberiana, U. compressa, U. canariensis, Bolivina albatrossi, B. atlantica, B. simplex* and some others, 5. *Textularia conica, Miliammina horrida, Quinqueloculina atlantica, Q. candeiana, Q. compta, Q. crassa, Spiroloculina antillarum, Calcarina calcar, Bolivina daggarius, B. robusta, B. tortuosa, Trifarina bradyi.* With the exclusion of the *Trifarina bradyi*, all the species of the fifth group are shallow water habitants.

The results of the zoogeographical analysis shows that the greater part of the fauna studied comprise the tropical-subtropical species (50%), tropical-law-boreal species are also abundant (27%), and the widely distributed tropical-boreal (8%) together with the cosmopolitan species (15%) compose together 23%.