ORDOVICIAN EUNICID POLYCHAETE FAUNAS OFBALTICA AND LAURENTIA: AFFINITIES AND DIFFERENCES

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Eunicid polychaetes inhabited different environments and played a significant ecological role in the Ordovician benthic communities. The knowledge of these worms is mainly based on their jaws, the scolecodonts, which are common organic-walled microfossils. Scolecodonts are nevertheless poorly studied and hence little is known about the global distribution of Ordovician polychaetes. Our recent studies, combined with published data, enable us to compare polychaete faunas of Baltica and Laurentia. First, many genera of Ordovician eunicid polychaetes are common in Baltica and Laurentia. Polychaetaspids and ramphoprionids, which are represented by different, though probably closely related species, often dominate the assemblages in both palaeocontinents. There occur some common species in Baltica and Laurentia suggesting that oceanic basins did not constitute unsurpassable barriers for Ordovician polychaetes. On the other hand, there occur some endemic forms characterizing one or another continent. For example, the paulinitids are rather common in Laurentia beginning from the Trentonian. In Baltica this family appears somewhat later, staying extremely rare until the Silurian. The hadoprionids, which represent a rare but characteristic component of Late Ordovician eunicid faunas of Laurentia, are missing in the Ordovician of Baltica. Polychaeturids and mochtyellids, comprising some of the most abundant and widespread species in Baltica, are remarkably rare in Laurentian assemblages. We conclude that eunicid polychaetes in Baltica and Laurentia are represented by different assemblages, which are yet more close to each other than those of some macrofossil groups. Towards the Silurian, polychaete faunas of the two palaeocontinents became more unified reflecting narrowing of Iapeteus Ocean.