

## NEMAKIT-DALDYNIAN STAGE OF VENDIAN

Khomentovsky, V. V. Institute of Petroleum Geology, Russian Academy of Sciences SB, Novosibirsk, Russia

Lower boundary of Nemakit-Daldynian Stage (N-D) was determined by the change of representative complex of Ediacarian fauna remains with the first Small Shelly fossils (SSF) of *A. trisulcatus* zone on Olenek Uplift. Upper boundary of N-D with sharp divergence of different SSF and appearance of archaeocyathids in the base of Tommotian Stage N. *sunaginicus* zone made this borderline useful for demarcation of Precambrian and Cambrian. Only one Interregional subdivision maybe indentified in N-D between this boundary and *trisulcatus* zone it is *Purella antiqua* zone. Previously used *Anabarella plana* zone, wich unites taxa of *antiqua* and *sunaginicus* zones useless for biostratigraphy. It would be erroneous to substitute Nemakit-Daldyn Stage with Manykay one whose lower boundary is only defined by a large hiatus in sedimetation. The Precambrian-Cambrian boundary problem was obscured with accepting its Newfoundland stratotype mainly due to appearance of *Phycodes pedum* in it and arbitrarily linking Siberian SSF zonal complexes to it. Now *Ph. pedum* has been discovered in the Ediacarian Stage in Namibia. From the appearance of *Sabellidites cambriensis* only in the middle of Manykay Formation on the river Kotuykan, it seems that Newfoundland GSSP of Precambrian-Cambrian boundary is located much higher than bottom of Manykay Stage. On the South of Siberian Platform, N-D is matched by Ust'-Yudoma Formation, starting with its second member and on the West by Danilov horizon. Disappearance of Ediacarian fauna in N-D allows to include Kotlin horizon of Eastern European platform, that facilitates broad correlation of N-D. For this purpose a considerable negative  $^{13}\text{C}$  excursion near its lower boundary may be used. The study was partly supported by grant 99-05-64442 of RFFI.