

Permian-Triassic scolecodonts and conodonts from the Svalis Dome, central Barents Sea, Norway

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Scolecodonts and conodonts are described from five samples of three cores from the Svalis Dome, central Barents Sea. The conodont species *Mesogondolella rosenkrantzi* and *Neospathodus svalbardensis* confirm latest Permian (Dzulfian) and earliest Triassic (Dienerian) ages for the investigated intervals. Correlation with adjacent conodont distribution indicates a shorter depositional gap in the late Permian than is evident on Svalbard. The conodont elements show little thermal alteration with CAI (colour alteration index) values between 1.0 and 1.5 indicating a maximum burial temperature of 50-90°C. The scolecodonts described herein have important evolutionary and distribution implications for polychaetes: the order Eunicida shows a richer diversification in the Permian than previously known; the family Paulinitidae survived at least until the Late Permian; the family Hartmaniellidae diversified already in the late Palaeozoic; some forms are considered as representatives of unknown species and genera; the order Phyllodocida originated already in the latest Palaeozoic.

Key words: Scolecodonts, Polychaeta, Conodonta, Permian, Triassic, Barents Shelf, Svalbard.

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