



New thelodont findings from the Lower Devonian Andrée Land Group, Spitsbergen

H. Blom and Ž. Žigaitė

Department of Evolution and Development, Per Ahlberg's Group, EBC, Uppsala University, Uppsala, Sweden
(zivile.zigaite@gmail.com)

During the last 50 years, ever since Ørvig (1957) described the first thelodont material from Sörkapp Land, have the amount of scales available from the Lower Devonian of Spitsbergen slowly increased to a body that clearly promotes an extended taxonomical and biostratigraphical revision. More recently, have thelodonts been described from a more stratigraphically controlled sequence of beds from the Red Bay Group (Blom and Goujet 2002). These Lochkovian (lowermost Devonian) taxa show a faunal differentiation which also allowed a detailed comparison between the Red Bay Group of Spitsbergen and sections of similar age from other parts of the Northern Hemisphere (Blom and Goujet 2002), supporting the suggested detailed biozonal subdivision of the Lochkovian deposits as presented by Talimaa (2000) based on distribution data from northern Eurasia. Although the stratigraphical framework of Spitsbergen is complicated, the Red Bay and Andrée Land groups have a well distributed fauna of thelodont scales that have been suggested to be the main reference of thelodont biozonation in the Pragian and Emsian (Talimaa 2000).

We have examined a major part of thelodont collections coming from the region, including some newly collected samples. As a result, a biostratigraphic distribution of a number of well known thelodont taxa have been described from the Wood Bay and Grey Hoek formations in NW Spitsbergen. In addition, one new thelodont genus and two new species have been discovered. These data, together with known thelodont assemblages from the Canadian Arctic (Vieth 1980) and Severanya Zemlya (Karatajute-Talimaa 1978) allows us to speak about the usefulness of thelodonts in biostratigraphy and global correlation in the upper parts of the Lower Devonian.

Blom, H. and Goujet, D. 2002. Thelodont scales from the Lower Devonian Red Bay Group, Spitsbergen. *Palaeontology*, 45(4): 795-820.

Karatajūtė –Talimaa, V. N., 1978. Silurian and Devonian Thelodonts of the USSR and Spitsbergen. "Mokslas", Vilnius. 334 pp. [in Russian].

Ørvig, T. 1957. Notes on some Palaeozoic lower vertebrates from Spitsbergen and North America. *Norsk geol. Tidsskr.*, 37: 285-353.

Talimaa, V. 2000. Significance of thelodonts (Agnatha) in correlation of the Upper Ordovician to Lower Devonian of the northern part of Eurasia. *Courier Forschungsinstitut Senckenberg*, 223: 69-80.

Vieth, J. 1980. Thelodontier-, Acanthodier-, und Elasmobranchier-Schuppen aus dem Unter-Devon der kanadischen Arktis (Agnatha, Pisces). *Göttinger Arb. Geol. Paläontol.*, 23:1-69.