



## **The Ordovician conodont scale of the Southern Urals - one of the few scales related to the Tropical Domain of the Open-Sea Realm (OSR)**

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In the Southern Urals the Ordovician successions of conodont associations have been found in different types of sections (for example, in chert-basalt, tuff-chert and mixed composition volcanogenic types) related to various parts of an active margin of the Paleo-Urals Ocean. The Ordovician conodont scale of the Southern Urals comprises twelve subdivisions based on the succession of conodont associations from Late Tremadoc to Ashgill times as well as on the changes of the evolutionary lineages of *Periodon*, *Protopanderodus*, *Ansella*, *Pygodus*. The latter lineage has a particular significance for establishing detailed Uppermost Llanvirn conodont subdivisions. We related our subdivisions of the scale to the category called “beds with fauna”. These are: 1. Upper Tremadoc beds with *Loxodus latibasis*; 2. Lower Arenig beds with *Paroistodus parallelus*, *Periodon flabellum*; 3. Mid-Arenig beds with *Oepikodus evae*; 4. Mid-Arenig beds with *Oepikodus intermedius*; 5. Upper Arenig *Periodon flabellum*; 6. Lower Llanvirn beds with *Paroistodus horridus*, *Periodon zgierzensis*, *Ansella jemtilandica*; 7. Upper Llanvirn beds with *Pygodus serra*, *Periodon aculeatus*; 8. Uppermost Llanvirn beds with *Pygodus protoanserinus*, *P. serra*; 9. Uppermost Llanvirn beds with *Pygodus protoanserinus*, *P. anserinus*; 10. Lower Caradoc beds with *Pygodus anserinus*, *Periodon aculeatus*, *Ansella nevadensis*; 11. Mid-Caradoc beds with *Belodina compressa*, *Periodon aculeatus* → *P. grandis*. 12. Upper Caradoc – Ashgill beds with *Hamarodus brevirameus*, *Scabbardella altipes*, *Periodon grandis bellus*. The conodont faunas from deep-water deposits of the Southern Urals are relatively low diversity faunas consisting of cosmopolitan and widespread species. Endemic species are rare. The Ordovician conodont scale of the Southern Urals is one of

the few scales related to the Tropical Domain of the Open-Sea Realm (OSR).