

A case of mistaken identity: '*Latvius*' *obrutus* and new dipnoans from the Frasnian of Stolbovo, Russia

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The village of Stolbovo, western Russia, has previously yielded a dipnoan fauna comprising the long-snouted form '*Rhinodipterus*' *stolbovi*, but also a three-dimensionally preserved otoccipital region of a skull previously identified as the osteolepiform '*Latvius*' *obrutus*. This identification was made from the density of lateral line canal pores in the skull roof bones in addition to what Vorobyeva (1977) described as the post-parietal, tabular and extratabular bones. Reexamination of this specimen does not recognise the osteolepiform dermal elements previously identified but rather a dipnoan configuration including a characteristic B-bone, lateral dermal elements and a dipnoan parasphenoid. rhinodipterid and dipterid dipnoans. Phylogenetic analysis resolves '*Latvius*' *obrutus* as the primitive sister taxon to the 'phaneropleurid-fleurantiid' clade – a clade comprising derived Middle–Upper Devonian lungfishes. '*Rhinodipterus*' *stolbovi* resolves among the more primitive griphognathids, typical Gondwanan forms, and is not a rhinodipterid. Additional isolated dipnoan skeletal elements from the site include tooth plates, parasphenoids, shoulder girdle elements and dermal elements and indicate at least an additional three lungfish taxa from Stolbovo. Of particular note is a ctenodiform tooth plate more characteristic of Carboniferous lungfishes. The new material and analyses not only demonstrate increased lungfish diversity from the Frasnian of Baltica but also probable interchange between Gondwana and Baltica during this time. Most importantly, Carboniferous-like forms appear more common in the Devonian than previously realised indicating that Carboniferous lungfishes likely represent a survival assemblage in addition to a new radiation of lungfish.