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Dimorphism and evolution of the goniatite *Tornoceras* in the Famennian of the Holy Cross Mountains

Henryk Makowski
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A cephalopod limestone intercalation in the Early Farnennian Łagów beds of Janczyce (eastern Holy Cross Mountains, Poland) contains, in each of its five layers, abundant fossil assemblages of goniatites. The lineage of *Tornoceras* is especially well represented there. It starts from typical *T. jrechi* with rounded venter and ends in *T. sublentiforme* with sharp-edged venter. A bed-by-bed biometrical study has shown a bimodal size frequency distribution of conchs in each layer which is interpreted as sexual dimorphism. *T. frechi parvurn* subsp. n. and *T. subacutum* sp. n., are proposed new, forms that represent successive comecting links within the lineage.

Key words: ammonites, Late Devonian, Poland, evolution, sexual dimorphism.