

Chondrichthyan genus *Lissodus* from the Lower Carboniferous of Ireland

Mags Duncan

Acta Palaeontologica Polonica 49 (3), 2004: 417-428

A new record of the chondrichthyan hybodontoid genus *Lissodus* is presented from two localities within the Mississippian (Tournaisian) rocks of Ireland. Five morphotypes of the genus are described within each of which occurs morphological variance. Specimens recovered and described herein are from crinoidal limestones whose palaeoenvironments are interpreted as ranging from a moderately shallow high-energy carbonate shelf, to relatively deep off-shore. The richest fauna recovered from the high-energy carbonate shelf, contains all five morphotypes raising the possibility that they may have been derived from a single species of shark. A discussion on the relationship between the five morphotypes and other Carboniferous *Lissodus* teeth is offered and it is argued that although the morphotypes differ slightly from other Carboniferous *Lissodus* teeth, they may belong to a closely related species not formally named until additional evidence is obtained. A mouth reconstruction using the teeth recovered from the Lower Carboniferous of Ireland is proposed.

Key words: Fish microfossils, Chondrichthyes, Hybodontoidae, *Lissodus*, jaw reconstructions, Carboniferous, Mississippian, Ivorian, Ireland.

Mags Duncan [mduncan@tcd.ie], Department of Geology, Trinity College, Dublin 2, Ireland.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.