

## Fauna im Silur- Nautiliden



Kathleen Histon (born 1964 in Ireland) deals extensively with the Silurian nautilus of the Carnic Alps. She started work on the systematic study of Silurian nautiloid cephalopod faunas from the Carnic Alps in 1993. Her studies have included revision of existing museum collections both in Austria (Heritsch, Stache) and Italy (Gortani, Vinassa de Regny: studies in co-operation with Maurizio Gnoli and Paolo Serventi of the University of Modena & Reggio Emilia, Italy) and detailed resampling from the classic Silurian sections such as Cellon and Rauchkofel Boden in the Austrian Carnic Alps. These studies have highlighted the paleoecologic and paleogeographic significance of the faunas and have lead to comparison of Silurian nautiloid faunas from the paleocontinents of Laurentia and Avalonia and document faunal exchange with other PeriGondwana Terranes such as the Graz Paleozoic, central Bohemia, Sardinia, France (Montagne Noire), Spain (the Ossa Morena Zone) and Morocco during the Silurian. Particular study of the taphonomy or preservation of the nautiloid cephalopods within the so-called "Orthoceras Limestones", now referred to as the Cephalopod Limestone Biofacies (Co-operation with Annalisa Ferretti of the University of Modena & Reggio Emilia, Italy), has helped to identify small scale cycles in deposition and changes in environmental settings. She has collaborated in an international sequence stratigraphy study of the Silurian of the Carnic Alps which allowed correlation of eustatic changes across four paleocontinents (Peri-Gondwana Terranes, Avalonia, Laurentia, Baltica) in co-operation with Annalisa Ferretti, Hans Peter Schönlaub (Austrian Academy of Sciences) and Carlton Brett (University of Cincinnati, USA). She has also been involved in documenting the presence of K-bentonite or volcanic ash levels in the Ordovician-Silurian of the Austrian Carnic Alps in co-operation with Hans Peter Schönlaub, Peter Klein (Geological Survey of Austria) and Warren D. Huff (University of Cincinnati, USA).

Her current research on the nautiloid faunas forms part of an international multidisciplinary study of sea-level changes, oceanic cycles and biotic response to eustatic/climatic events in the Silurian of the Carnic Alps.

Collaboration projects are on-going with Charles Holland (Trinity College, Ireland) and Maurizio Gnoli on migrational pathways of Silurian nautiloid faunas, with Annalisa Ferretti, H.P. Schönlaub and Carlton Brett on Sequence Stratigraphy of the Carnic Alps, with Alan Thomas (University of Birmingham, U.K.) and Dave Ray (U.K.) on a comparison of the Wenlock successions in the Carnic Alps and British Isles. All of the above research has been funded since 1993 to date by grants, fellowships and research contracts from a variety of funding

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