

PHYLOGENY OF LATE JURASSIC CARPETSHARKS (NEOSELACHII, ORECTOLOBIFORMES)

Jürgen KRIWET & Stefanie KLUG

Department of Geo- and Environmental Sciences, Section Palaeontology, Ludwig-Maximilian-University
Munich, Richard-Wagner-Str. 10, D-80333 Munich;
e-mails: s.klug@lrz.uni-muenchen.de; j.kriwet@lrz.uni-muenchen.de

Carpetsharks of the order Orectolobiformes are plesiomorphic galeoid neoselachians with a fossil record consisting mainly of isolated teeth and ranging back to the Early Jurassic some 190 million years ago. Articulated skeletons are only known from the Kimmeridgian and Tithonian (Late Jurassic) lithographic limestones of southern Germany and France, and the Santonian (Late Cretaceous) of Lebanon. The Jurassic was indisputable an important period in the evolution and radiation of modern neoselachian sharks and rays. Only few modern lineages of neoselachians were present in the Early Jurassic although the fossil record of neoselachian sharks can be traced back into the Triassic with confidence. However, the absence of modern neoselachians lineages before the Jurassic suggests that there was probably no modern neoselachian radiation event prior to the Early Jurassic.

The lithographic limestones of southern Germany (Nusplingen, Solnhofen area), which are late Kimmeridgian and early Tithonian in age, and their lateral equivalents in France of early Kimmeridgian age, are amongst the most famous fossil fish localities worldwide, because they produced well-preserved skeletons of vertebrates. Nevertheless, carpets sharks are rather rare in the Jurassic lithographic plattenkalks of the Solnhofen area but absent in Nusplingen. The only known orectolobiform from the Solnhofen area so far is *Phorcynis catulina*, which was originally described from Cerin (France). All other European Jurassic orectolobiforms are only known by their fossilised teeth. Here, we present a re-examination of *Phorcynis*. Its systematic position is explored using cladistic principles and the taxon is consequently assigned to a new family. In addition, a new carpets shark is presented. The single specimen is, unfortunately, not completely preserved but it displays the important characters allowing its assignment to the Orectolobidae. The dental morphology of the new taxon differs, however, significantly from that of modern orectolobids. Both genera are the only Late Jurassic orectolobiforms known by articulated skeletal material. The position of both taxa is explored using cladistic principles and in a framework of all modern orectolobiforms.

DER ZUNEHMENDEN VERMARKTUNG DER WISSENSCHAFT GEWAHR WERDEN – EINIGE VORSCHLÄGE FÜR DIE WISSENSCHAFTLICHE ÖFFENTLICHKEITSARBEIT

Björn KRÖGER

Museum für Naturkunde, Humboldt Universität Berlin, Invalidenstraße 43, D-10115 Berlin;
e-mail: bjoekroe@gmx.de

Wir werden derzeit Zeugen des weltweiten neoliberalen Umbaus unserer Gesellschaft. Als Konsequenz dieser Reformen kommt es in jüngster Zeit, und wird es in naher Zukunft zu epochalen Veränderungen im Wissens-, und Wissenschaftsmanagement kommen.

In meinem Diskussionsbeitrag möchte ich diese Veränderungen skizzieren. Ich werde im Hinblick auf die dahinterstehenden ökonomischen Paradigmen skizzenhaft darstellen welche