

AMMONOID SUCCESSION IN DEVONIAN SECTIONS OF NORTHWEST AFRICA

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The significance of the Northwest African, and of the Moroccan Devonian sedimentary successions in particular, is caused by several conditions, of which the marvellous exposures and rich fossil content are worth mentioning. Despite the rich ammonoid occurrences, however many of the index species used for the global ammonoid zonation of the Devonian (BECKER in WEDDIGE 1997) are either extremely rare or even unrecorded. For instance, only 16 of the 59 index species were found in the fossiliferous and well exposed Ouidane Chebbi section at the eastern margin of the Anti-Atlas. Six of these species were only surface collected specimens. Similar ratios have been recognised in most of the other ammonoid-bearing localities in Northwest Africa (BECKER & HOUSE 1994), and many other well-investigated exposures yielded even

DEVONIAN	FAMENNIAN	■ <i>Acutimitoceras intermedium</i>
		■ <i>Wocklumeria sphaeroides</i>
		■ <i>Parawocklumeria paradoxa</i>
		■ <i>Kalloclymenia subarmata</i>
		■ <i>Goniclymenia speciosa</i>
		■ <i>Endosiphonites muensteri</i>
		■ <i>Sporadoceras orbiculare</i>
		■ <i>Platyclymenia annulata</i>
		■ <i>Maeneceras biferum</i>
		• <i>Acrimeroeras falcisulcatum</i>
	FRASNIAN	■ <i>Cheiloceras subpartitum</i>
		■ <i>Falcitornoceras falciculum</i>
		■ <i>Phoenixites frechi</i>
		■ <i>Crickites holzapfeli</i>
		■ <i>Beloceras tenuistriatum</i>
	GIVETIAN	■ <i>Mesobeloceras kayseri</i>
		■ <i>Triainoceras costatum</i>
		■ <i>Koenenites lamellosus</i>
		■ <i>Petteroceras errans</i>
		■ <i>Pharciceras tridens</i>
EIFELIAN	■ <i>Maenioceras terebratum</i>	
	■ <i>Sellagoniatites discoides</i>	
	■ <i>Agoniatites obliquus</i>	
	■ <i>Agoniatites vanuxemi</i>	
EMSIAN	■ <i>Cabrieroeras plebeiforme</i>	
	■ <i>Subanarcestes macrocephalus</i>	
	■ <i>Pinacites jugleri</i>	
	■ <i>Foordites veniens</i>	
	■ <i>Anarcestes lateseptatus</i>	
■ <i>Sellanarcestes wenkenbachi</i>		
■ <i>Latanarcestes noeggerathi</i>		
■ <i>Mimagoniatites fecundus</i>		
■ <i>Erbenoceras advolvens</i>		

fewer stratigraphically important species.

Mainly caused by "stroboscopic" occurrence of index ammonoids, the global zonation is therefore hardly applicable in the Devonian succession of Northwest Africa. Therefore we work on an ammonoid stratigraphy for Northwest Africa which is based on the most characteristic and abundant genera and species of this region. Only partially, these regional stratigraphical units resemble the genozones established by BECKER (in WEDDIGE 1997).

The figure displays the stratigraphical ranges of 33 selected index species on which a new stratigraphical scheme can be established. It contains species which show overlapping duration (bars) as well as species which have been collected from one single horizon (dot).

BECKER, R. T. & HOUSE, M. R. 1994. International Devonian goniatite zonation, Emsian to Givetian, with new records from Morocco. Courier Forschungsinstitut Senckenberg, Willi ZIEGLER Festschrift II, 169, 79-135. Frankfurt a. M.

WEDDIGE, K. & al. 1996. Devon-Korrelationstabelle. Senckenbergiana lethaea, 76 (1/2), 267-286. Frankfurt a. M.

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