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PROGRAM AND ABSTRACTS

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CONODONT BIOSTRATIGRAPHY OF THE UPPER FRASNIAN-LOWER FAMENNIAN DEPOSITS IN THE ISTANBUL-ZONGULDAK TERRANE, NW TURKEY: EVIDENCE FOR THE UPPER KELLWASSER EVENT

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Abstract: This study focuses on the limestone successions of the Middle Devonian-Lower Carboniferous Yılanlı formation of the Istanbul-Zonguldak Terrane in Bartın in northwestern Turkey. The succession comprises an alternation of grey, dark grey, black, medium to thick-bedded limestones, dolomitic limestones and dolomites intercalating with thin-bedded, black, calcareous shales. A set of seven K- bentonite beds having thicknesses ranging between 20-60 cm have been documented within the studied section.

The section characterizes a shallow marine, nearshore facies setting that contains low abundant and less diversified conodont associations mainly represented by the species of *Icriodus* and *Polygnathus*. The reason of the lower abundance in the studied unit should be due to the changes in the global sea levels and the Upper Kellwasser Event (UKE) around the Frasnian/Famennian boundary. Despite this low diversity and abundance, the samples yielded important upper Frasnian lower Famennian conodont elements including the species of *Icriodus* aff. *subterminus* and *Icriodus cornutus*, *Icriodus iowaensis iowaensis*, *Polygnathus brevilaminus*, *Polygnathus xylus*?. Based on the defined conodont species, the lowermost part of the unit corresponds to Frasnian and upper part exemplifies the middle *triangularis* zone due to presence of *Icriodus cornutus* and the depositional age of the formation is proposed as upper Frasnian - Lower Famennian.

This age data is the first evidence for the presence of UKE in northern Turkey and will help for a better palaeogeographic correlation of the Istanbul -Zonguldak Terrane with further terranes in Laurasia and Peri-Gondwana.