

## The Palaeocene sediments in the Bosnian Flysch Unit (Internal Dinaridic Platform, Bosnia and Herzegovina)

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The Bosnian Flysch Unit stretches from the border belt of Croatia and Slovenia in NW, via central parts of Bosnia and Herzegovina and Montenegro up to the border belt between Montenegro and Albania in SE. Tectonically trapped between the most external belt of Dinaride ophiolites (Aubouin, 1973) and East Bosnia-Durmitor unit in the NE, and units of the Mesozoic carbonate platform of the Adriatic plate in the SW, it is one of the most imposing tectonic-stratigraphic units of the Dinaride orogen.

Sedimentation of the Flysch Unit started during the latest Jurassic and became progressively younger in the more external parts. The unit is subdivided into two sub-units (Mikes *et al.*, 2008): carbonate-marly dominated Ugar Formation (Upper Cretaceous) and predominantly sandy-clayey Vranduk Formation (Upper Jurassic to the Lower Cretaceous).

Stratigraphic investigation of the upper part of the Ugar Fm. based on calcareous nannofossils were performed on three localities: 1) area of Jajce (Western Bosnia); 2) area of the Vlašić Mountain (Ugar Valley); and 3) Dramešina-Dražljevo-Mrđenovići area (Eastern Herzegovina).

Sediments NE of Jajce, at locality Donji Bešpelj (Western Bosnia) can be attributed to the Palaeocene based on abundant and well-preserved nannofossils (*Chiasmolithus danicus*, *Coccolithus pelagicus*, *Cruciplacolithus tenuis*, *Markalius inversus*, *Ellipsolithus macellus*, *Fasciculithus tympaniformis*, *Heliolithus kleinpellii*, *Heliolithus riedelii*, etc.). Stratigraphically youngest sediments in this area contain *Discoaster multiradiatus*, *D. lenticularis*, and *D. delicatus* and belong to the NP9 of Martini (1971) (uppermost Palaeocene, Thanetian). Marly sediments from the Ugar Valley (Vlašić Mountain) contain *Chiasmolithus danicus*, *Coccolithus pelagicus*, *Cruciplacolithus tenuis*, *Cr. asymmetricus* and can be assigned to the lower Danian (NP3). Palaeocene sediments on the southern edge of the Ugar Formation in the Eastern Herzegovina (Dramešina-Dražljevo-Mrđenovići zone) could be distinctly distinguished from Upper Cretaceous in the north of the area. Calcareous nannofossil associations of investigated sediments from this area (*Chiasmolithus danicus*, *Cruciplacolithus tenuis*, *Fasciculithus ulii*, *F. tympaniformis*, *Prinsius martinii*, etc.) allow an attribution into zones NP2 to NP5 (Danian/Selandian).

In summary, recent investigations in the Bosnian Flysch zone documented existing of ca. 600 km long Palaeocene sedimentary basin, within this tectonic unit. This siliciclastic sediments overlaying carbonate-dominated Ugar Formation can be continuously traced from the NW to the SE along this unit.

### REFERENCES

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