

An integrated study (benthic and planktonic foraminifera, calcareous nannofossils, crinoids, stable carbon isotopes and magnetic polarities) across the Santonian/Campanian boundary at Bocieniec, southern Poland: A new GSSP Candidate for the Base of the Campanian Stage

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The integrated biostratigraphic, chemostratigraphic and magnetostratigraphic study of the Bocieniec section is presented. The section is well exposed in an easily accessible abandoned quarry in the Laski Dworskie village (southern Poland). It represents a sedimentary record of the Santonian-Campanian interval of the Miechów Synclinorium deposited in the south-central part of the Late Cretaceous European Basin. The section is 5.5-meter thick, continuous and characterised by lithologically monotonous marls and siliceous chalk with no evidence of significant diagenetic alteration, nor any sedimentary or tectonic disturbance. Well-preserved stratigraphically relevant fossil groups such as planktonic and benthic foraminifera, calcareous nannofossils, belemnites, and echinoderms are recorded including the crinoid species *Marsupites testudinarius* which is the preferred boundary-marker fossil for determining the base of the Campanian Stage. Primary stable isotope signatures with the presence of the Santonian/Campanian boundary positive excursion (SCBE) as well as palaeomagnetic signal are detectable. Due to the array of stratigraphic events recorded at Bocieniec, this new section enables a straightforward correlation with other international reference sections for the basal Campanian of the Boreal and Tethyan realms: Seaford Head (southern England), Lägerdorf (northwestern Germany), Waxahachie Dam Spillway (Texas) and Gubbio (Italy). However, in contrast to any of the aforementioned sections, Bocieniec presents the whole suit of the main biostratigraphic, chemostratigraphic and magnetostratigraphic criteria of the Santonian-Campanian boundary. As it also appears continuous and contains well-preserved macrofauna, microfauna and microflora, Bocieniec should be considered as a new GSSP candidate for the base of the Campanian Stage.

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