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chamber and the fragile ornamentation. As a result, the completeness of the ammonite record would be higher in Savournon and Redcliff Point, which would stand as main GSSP candidate sections, and a bit lower in Thuoux. Data from the section of Dubki are so far little known. Best data from microfossil groups come from Redcliff Point, which has provided good results in foraminifera and nannoplankton. Ostracods seem to be best represented/studied in Dubki. Dinoflagellates in turn, have provided the best results so far in Thuoux and, most especially, in Savournon

Data from other invertebrate groups are still sparse and scarce. Belemnites show a good record in the sections of Redcliff Point and Dubki, and have supplied important biostratigraphic and palaeobiogeographic information, offering good possibilities for isotope analyses. Finally, geochemical analyses are still not much developed (although they are under way in most of the sections). Magnetostratigraphic analyses have proved blank in SE France, are still doubtful in Redcliff Point and have given excellent results in Dubki (see Fig. 1: Kiselev et al., 2006).

References


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The complete documentation of the section at Flodigarry, Staffin Bay, Isle of Skye is finished, and this will enable presentation of the section as the GSSP candidate of the Oxfordian/Kimmeridgian boundary. This gives the most complete section so far known of the Boreal/Subboreal succession as a candidate for the primary standard of the base of the Kimmeridgian Stage.

There has been much discussion whether the standard should be recognized in a Boreal/Subboreal succession (which is generally of lesser correlation potential), or it should be newly defined (and modified) in a Submediterranean succession. The former approach is, however, so firmly entrenched in the geological tradition (including even the name Kimmeridgian) that it seems inappropriate to change the location of the primary standard (see Callomon J., 2005. A further comment on the GSSP of the Kimmeridgian Stage - ISJS Newsletter 32: 28-29). However, using the Dorset section originally indicated by Salfeld as the standard for the base of the Kimmeridgian, and retaining the *Pictonia densicostata* horizon (the first level occurring above the stratigraphical gap) as the lowest level of the Kimmeridgian Stage leads to a definition, which does not fulfill the basic requirements for a GSSP according to ICS. It is preferable to put the Oxfordian/Kimmeridgian boundary at a slightly lower level than the *Pictonia densicostata* horizon, i.e. at the base of the *Pictonia flodigarriensis* horizon. This is the first *Pictonia* horizon recognized in the very complete succession in the Flodigarry section, Staffin Bay at Skye treated as the new standard for the stage (Matyja B.A., Wierzbowski A., Wright J.K. [2006] The Subboreal/Boreal ammonite succession at the Oxfordian/Kimmeridgian boundary at Flodigarry, Staffin Bay [Isle of Skye]. *Transactions of Royal Society of Edinburgh, Earth Sciences*, 96(4): 309-318). Such placing of the boundary has also important consequences for better recognition of this boundary in the Submediterranean succession.

At the base of the *Pictonia flodigarriensis* horizon at Flodigarry, besides the first representatives of the genus *Pictonia*, there appear also the first *Prorasenia* (microconch of *Pictonia*), as well as the first small-sized ammonites of the subgenus *Plasmatites* of the genus *Amoeboceras*. All these ammonites occur in some Submediterranean sections (in Poland, and Germany) together with ammonites of the Bimammatum Subzone of the Bimammatum Zone. This means that the boundary between the Oxfordian and Kimmeridgian, as defined in the Subboreal/Boreal successions, should be placed somewhere around the Hypselum Subzone (Oxfordian) and the Bimammatum Subzone (Kimmeridgian). Detailed studies of the Submediterranean successions are necessary to define precisely the newly placed Oxfordian/Kimmeridgian boundary – but still we have many possibilities to locate it very closely.

At present we have no other good options, and this is the best compromise. Placing the boundary at this level also has some advantages for distant extra-European areas where the strongly diversified perisphinctids have generally little correlation value. The change from the Hypselum Subzone (in future the Hypselum Zone being the uppermost Oxfordian), and the Bimammatum Subzone of the Bimammatum Zone (lowermost Kimmeridgian) corresponds also to the transition between older aspidoceratids (*Euaspisoceras*, *Neaspisoceras*), and younger ones (*Aspisoceras*, *Pseudowaagenia*, *Physodoceras*), which may be useful in correlating the boundary. Other ammonites, especially haploceratids (*Ochtoceratinae* and *Taramelliceratinae*), could also be important in recognition of the Oxfordian/Kimmeridgian boundary.