

## **Late Hauterivian Coralline algae from the Avellà Formation (Maestrat Basin, Iberian Cordillera, E Spain). Taxonomic and evolutionary implications**

Sara Tomás<sup>1</sup>, Julio Aguirre<sup>2</sup> and Juan C. Braga<sup>2</sup>

<sup>1</sup> Departament de Geoquímica, Petrologia i Prospecció Geològica, Universitat de Barcelona, 08028 Barcelona, Spain (stomas@natura.geo.ub.es)

<sup>2</sup> Dpto. de Estratigrafía y Paleontología, Facultad de Ciencias, Campus Fuentenueva s/n, Universidad de Granada, 18071 Granada, Spain

Reef carbonate deposits of the Avellà Formation (Maestrat Basin, Iberian Cordillera, E Spain), late Hauterivian in age, contain the encrusting coralline red algae *Parakymalithon phylloideum* (Bucur & Dragastan) Moussavian and *Sporolithon rude* (Lemoine) Ghosh & Maithy. *Parakymalithon* was established by Moussavian (1987) for the species *Archaeolithothamnium phylloideum* Bucur & Dragastan on the basis of features of the sporangial structures. Examination of the material from the Avellà Formation and the species holotype, as well as specimens from the type locality, leads to the conclusion that the characters defining the new genus do not warrant the separation of *Parakymalithon* as an independent genus.

*Sporolithon rude* was originally described as having conceptacles and its generic assignment (*Archaeolithothamnium*) was based on vegetative characters and growth form. Specimens from eastern Spain demonstrate that this species presents isolated sporangial cavities with trapezoidal stalk cells at their bases. This supports the inclusion of this species in *Sporolithon*. Sporangial cavities are very often merged, due to decay of the paraphyses, giving way to reproductive structures similar to multiporate conceptacles. Other Early Cretaceous genera (*Paraphyllum*, *Kymalithon*, *Hemiphyllum* and *Agardhiellopsis*) have similar fusions of the sporangial cavities that might be the origin of multiporate conceptacles characteristic of Hapalidiaceae.

### **References**

Moussavian, E. 1987: *Parakymalithon*, eine neue gattung der Corallinaceen (Rhodophyceae) aus der Unterkreide. *Facies* 16: 187-194.