Cretaceous palynostratigraphy and paleoenvironment evolution of the Bragança-Viseu and São Luís basins, Brazilian Equatorial Margin.

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The Cretaceous palynostratigraphy and environmental evolution of the Bragança-Viseu and São Luís basins, Brazilian Equatorial Margin, are revised and updated. Eight palynozones and three superzones are defined based on outcrop and subsurface samples. The late Aptian *Exesipollenites tumulus* Superzone includes the *Sergipea variverrucata* and *Gnetaceaepollenites pentaplicatus* Zones. The mid-to-late Albian *Stellatopollis barghoornii* Superzone comprises the *Pentapsis valdiviae*, *Elateropollenites jardinei* and *Steevesipollenites alatiformis* Zones. The *Elateroplicites africaensis* Superzone ranges from late Albian to early Cenomanian and includes the *Classopollis echinatus*, *Elaterosporites protensus* and *Psilatricolpites papilioniformis* Zones.

In the Bragança-Viseu Basin sedimentation was entirely nonmarine, whereas in the São Luís Basin restricted marine ingressions are recorded in the late Aptian and from the mid/late Albian transition to early Cenomanian. Fluvial-deltaic depositional environments are suggested by the absence of marine palynomorphs and the abundance of spores and pollen grains. Marine environments are indicated by dinoflagellates (genus *Subtilisphaera*) and palynoforaminifera. Aridity, prevalent in the Aptian, was gradually replaced by more humid, equatorial climates towards the Cenomanian. Evidence of a hot, arid climate from late Albian to early Albian is given by the common occurrence of *Classopollis*, *Afropollis*, *Equisetosporites*, *Gnetaceaepollenites* and *Stevesipollenites*.

Reworked Paleozoic palynomorphs occur along the Cretaceous column of the two basins.