



Moving forward for a revised Late Jurassic-Early Cretaceous Geological Time Scale

Beatriz Aguirre-Urreta (1), Mathieu Martinez (2), Marina Lescano (1), Maximiliano Naipauer (3), Andrea Concheyro (1), Rafael Lopez-Martinez (4), Veronica Vennari (5), and Victor A. Ramos (1)

(1) University of Buenos Aires, Instituto de Estudios Andinos, Department of Geological Sciences, Buenos Aires, Argentina (beatrizaguirreurreta@gmail.com), (2) Univ Rennes, CNRS, Géosciences Rennes - UMR 6118, F-35000 Rennes, France, (3) University of Buenos Aires, INGEIS, Buenos Aires, Argentina, (4) Laboratorio Universitario de Carbonatos y Procesos Kársticos, Instituto de Geología, Universidad Nacional Autónoma de México, México, DF., (5) Museo de Historia Natural de San Rafael, Mendoza, Argentina.

The geologic time scale shows large uncertainties regarding the absolute age and durations of several stages in the Late Jurassic to Early Cretaceous. Recent studies are analysing these issues and the results differ from the Geologic Time Scale 2016 by several millions of years. New high precision techniques for absolute dating together with classic biostratigraphic, magnetostratigraphic and cyclostratigraphic approaches are being applied around the world to tackle this problem. These studies range from Re-Os geochronology in the Boreal Realm to CA-ID TIMS U-Pb geochronology in the southern Andes for the Upper Jurassic; astrochronology, geochronology and biostratigraphy for the Valanginian-Hauterivian in the Mediterranean Tethys and the Andes; and magnetostratigraphy, biostratigraphy and geochronology for resolving the controversy on the absolute age of the Barremian-Aptian boundary. Although it is necessary to perform more chronostratigraphic, magnetostratigraphic and radiometric analyses from regions of the world expanding the classic Tethyan Realm, we present here a summary of these topics showing that the Late Jurassic-Early Cretaceous geologic time scale is ready for revision.