



Clues of resource partitioning among cretaceous predatory dinosaurs:

How calcium isotopes can help provide insight into long extinct ecosystems

CENTRE FOR ARCHAEOLOGICAL SCIENCE (CAS) SEMINAR SERIES

DATE: FRIDAY 15 JUNE 2018
TIME: 3:30-4:30PM
VENUE: 41.G03A, UOW
PRESENTER: AUGUSTE HASSLER

Auguste Hassler is a current PhD candidate at the Laboratory of Geology of Lyon (France) and visiting the Wollongong Isotope Geochronology Lab and other Australian research institutes. After having completed his Master's program at the University Claude Bernard Lyon 1 and the École normale supérieure de Lyon, Auguste is continuing his research at the boundaries of paleontology and geochemistry to investigate palaeoecological and physiological questions.

SEMINAR OVERVIEW:

Recent advances in non-traditional geochemistry have indicated that calcium isotopes could provide new ways to investigate the structure of long extinct ecosystems. This seminar will focus on recently published research on two African mid-Cretaceous faunas. The Kem Kem beds of Morocco and the Gadoufaoua fossil deposit of Niger are both known for their apparent overabundance of predators. The calcium isotope analyses performed on fossils from these deposits have provided new clues on how predators such as spinosaurs and the giant crocodylomorph *Sarcosuchus imperator* could coexist, despite the low abundance of herbivorous dinosaurs in their faunas. Finally, I will outline the purpose of my ongoing study of Australian animals.



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