

The Buia Project: a summary of two decades of vertebrate paleontology in the Early Pleistocene of Eritrea

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Started in late 1994 as research focused mainly on geological survey and regional geology, thanks to collaboration between the Asmara Department of Mines (Eritrea) and the University of Florence (Italy), the Buia Project soon allowed the recovery of abundant Early Pleistocene vertebrates associated to archaeological artifacts in an area located about 20 km south of the village of Buia (Northern Danakil Depression). In late 1995, a human cranium and other dental and post-cranial remains were retrieved in the Wadi Aalad area, in a layer dated through different approaches and falling within the Jaramillo Subchron (C1r.1n), at approximately 1.0 Ma. Exactly 15 years later, other human remains were found at Mulhuli Amo, a different locality chronologically equivalent to Wadi Aalad. Field work carried out in the last 20 years has led to the identification of three taxa of fish (*Clarias* sp., cichlids, barbine minnows), four reptiles (*Crocodylus niloticus*, *Pelusios* cf. *sinuatus*, *Varanus niloticus*, *Python* gr. *sebae*), three birds (*Anhinga* sp., Rallidae indet., *Burhinus* sp.), and 20 mammals (worth mentioning are: *Theropithecus* cf. *osvaldi*, *Elephas recki*,

Ceratotherium simum, *Equus cf. grevyi*, *Hippopotamus gorgops*, *Kolpochoerus olduvaiensis*, *Kolpochoerus majus*, *Bos buiaensis*, *Tragelaphus cf. spekei*, *Kobus cf. ellipsiprymnus* and *cf. Thryonomys sp.*). For taphonomic reasons, small vertebrates are underrepresented and so far amphibians are still missing despite the fact that most likely they were originally present in the fluvial and fluvio-deltaic environment that is documented by the whole fauna and sedimentological proxies. Current research is aimed at reconstructing trophic chains and palaeoecological scenarios through stable isotope analyses.