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First record of a Jurassic mammal (?'Peramura') from Ethiopia

William A. Clemens, Mark B. Goodwin, J. Howard Hutchison, Charles R. Schaff, Craig B. Wood, and Matthew W. Colbert
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The first record of Mesozoic mammals in Ethiopia is a fragment of a lower mammalian molar discovered in residues left after acid dissociation of a small (ca. 4 kg) geological hand sample of a fine-grained bone bed in the lower part of the Mugher Mudstone exposed in the valley of the Jema River. This bone bed is part of a series of estuarine to fluvial deposits that are thought to be of Late Jurassic (Tithonian) age. The fragment preserves the trigonid of a molar; the distal part of its crown is missing. Morphological characters of the trigonid indicate the specimen (JEM-5/21) documents the presence of a mammal with a dentition at either a derived pretribosphenic or primitive tribosphenic grade of evolution. Absence of a well developed basal cingulid around the mesial end of the crown argues against phylogenetic relationships to the australosphenidans. Loss of the distal portion of the crown removed characters critical for determining its grade of evolution. The working hypothesis that JEM-5/21 represents a 'peramuran' is advanced for testing. Hypotheses that it represents a mammal with a more derived grade of molar evolution or a previously unknown group of mammals cannot be excluded. JEM-5/21 establishes the presence of mammals in Ethiopia during the Late Jurassic, and its discovery identifies a fossil locality warranting thorough future exploration.

Key words: Mammalia, Peramura, Jurassic, Mugher Mudstone, Ethiopia.

William A. Clemens bclemens@berkeley.edu, Mark B. Goodwin mark@berkeley.edu
, and J. Howard Hutchison hutch@color-country.net, University of California Museum of Paleontology, Berkeley, CA 94720-4780, USA; Charles R. Schaff [cschaff@oeb.harvard.edu], Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts 02138, USA; Craig B. Wood [cbwood@providence.edu], Department of Biology, Providence College, Providence, Rhode Island 02918, USA; Matthew W. Colbert [colbert@mail.utexas.edu], Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas 78705, USA.

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