Records of the Australian Museum (2010) Vol. 62: 185–192. ISSN 0067-1975
doi:10.3853/j.0067-1975.62.2010.1541

Late Pliocene Avifauna from the Hominid Bearing *Zinjanthropus* Land Surface at Olduvai Gorge, Tanzania

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ABSTRACT. Taxonomic and taphonomic data on 236 fossil bird bone specimens are applied to paleolandscape models and reconstructions developed by the Olduvai Landscape Paleoanthropology Project (OLAPP) for Late Pliocene (1.84 Ma) hominid bearing deposits in the FLK Complex at Olduvai Gorge, Tanzania. Shorebirds dominate the avifauna but the occurrence and densities of different avian ecotypes vary across the landscape in ways that corroborate OLAPP reconstructions of wetland, peninsular and riverine landscape facets in this area of the paleo-Lake Olduvai Basin. Taphonomic profiles are based on observations of modern bird bone in similar environments of Tanzania. The taphonomy suggests habitat patchiness within these delineated landscape facets. Results support the use of fossil bird assemblages, even small assemblages thereof, for aiding in and refining paleoenvironmental reconstructions.

PRASSACK, KARI A., 2010. Late Pliocene avifauna from the hominid-bearing *Zinjanthropus* land surface at Olduvai Gorge, Tanzania. In *Proceedings of the VII International Meeting of the Society of Avian Paleontology and Evolution*, ed. W.E. Boles and T.H. Worthy. *Records of the Australian Museum* 62(1): 185–192.

Olduvai Gorge is a bifurcated valley in the Eastern Serengeti Plains, part of the western margin of the Eastern Rift Valley of northern Tanzania. The Ngorongoro Volcanic Highlands to the south and east contributed ca. 100 m of volcaniclastic sediments spanning the last two million years at Olduvai (Hay, 1976). This produced extensive, fossiliferous deposits, dating from the late Pliocene through more recent times, which were later exposed by tectonic uplift and down-cutting that created the Gorge.

Olduvai Gorge is best known for its paleoanthropological richness, beginning with discoveries by Louis and Mary Leakey (e.g., L.S.B. Leakey, 1965; M.D. Leakey, 1971) of early hominid fossils in association with primitive, Oldowan stone tools. Since 1989, excavations at Olduvai have been undertaken by the Olduvai Landscape Paleoanthropology Project (OLAPP), an international and interdisciplinary team whose goals are to understand the subsistence ecology of these early hominids through detailed reconstructions of the paleoenvironments in which they made and used stone tools and butchered animal carcasses (e.g., Blumenschine & Masao, 1991; Peters & Blumenschine, 1995; Blumenschine & Peters, 1998; Blumenschine *et al*., 2008). OLAPP uses a landscape paleoanthropology approach in which numerous, relatively small scale excavations are placed across exposed portions (ca. 130 km^2) of the Olduvai Basin. Trench locations are based on accessibility of the target stratigraphic unit-regardless of artifact densities observed to have been eroded to the surface. This method produces samples of stone tools, fossils and other paleoenvironmental indicators across a full range of paleolandscape facets for a given depositional sequence.

A recent focus of OLAPP has been to develop landscape samples between and beyond two important Late Pliocene (1.84 Ma) sites in the FLK Complex (Fig. 1): Level 22 at