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### Deletion of the Flightless Ibis *Xenicibis* from the Fossil Record of Cuba

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Shortly after the discovery of the first known flightless ibis *Apteribis glenos* (Olson and Wetmore, 1976) in the Hawaiian islands (augmented later by a second species *A. brevis* Olson and James, 1991), the equally remarkable flightless ibis *Xenicibis xympithecus* (Olson and Steadman, 1977) was described from Jamaica. The description was based on some postcranial elements collected by H. E. Anthony during 1919-1920 in a cave deposit at Long Mile Cave, Trelawny Parish, Jamaica, and was followed by the description of a complete and well preserved humerus from Swansea Cave, St. Catherine Parish, Jamaica (Olson and Steadman, 1979).

That *Xenicibis* might have been more widely distributed was suggested by Acevedo-González and Arredondo (1982), who recorded the genus from Cuba without mentioning localities or specimens. Arredondo (1984:6-7) then referred to "*Xenicibis* sp." a complete left humerus that he collected in Cueva de Pío Domingo, Sumidero, Pinar del Río, and kept in his private collection (OA 2969). He also noted some other appendicular elements of "*Xenicibis* sp.", including the distal end of a left tibiotarsus, a left tarsometatarsus, and one phalanx, all uncataloged at the time but now numbered OA 2970a, OA 2971, and OA 2972, respectively. These bones were found in association with the humerus, and the tarsometatarsus was described briefly.

As part of my revisionary work on Arredondo's paleontological collection, I examined all of the above material and found that it does not represent the genus *Xenicibis*, nor any other ibis (Threskiornithidae). Instead, these specimens agree in all their osteological characters with *Aramus guarauna*, the Limpkin (Aramididae), a gruiform structurally similar to primitive cranes (see Olson 1985). Arredondo did not compare his material with *Aramus*, and his identification of the fossil specimens was based on comparisons with illustrations of *Xenicibis xympithecus* (see Arredondo 1984). The Limpkin is widely distributed in the Neotropics and is fairly common in Cuba (Garrido and García Montaña, 1975). It occurs in other Greater Antillean islands near bodies of water, rice fields, wooded floodplains of rivers, and upland wet forest (Raffaele et al., 1998:265).

The left humerus reported by Arredondo is inside the range variation of a small series of skeletons of *Aramus guarauna* from Cuba. It is partially covered by travertine, showing wear on the pectoral crest, internal tuberosity, and bicipital crest. The other referred

specimens show some differences in color and degree of mineralization in comparison with this last specimen. The humerus of *Xenicibis* is characterized by a slender twisted shaft, bicipital crest reduced, pectoral crest reduced in area, thickened, and twisted; external tuberosity reduced and displaced distally, with a very deep and wide brachial depression (Olson and Steadman, 1979). None of these flightless characters occurs in the Cuban humerus, which has a much shorter shaft that is less curved latero-medially and not twisted and flattened up to the mid point; the bicipital crest is well developed and not reduced, and placed proximally; the external tuberosity is more proximal and well defined, not distal and reduced; the pectoral crest is large and wide instead of short and thin.

None of the other bones show diagnostic characters of the genus *Xenicibis*, such as very wide anterior intercondylar fossa and reduced supratendinal bridge in the tibiotarsus, or tarsometatarsus with two simple calcaneal ridges well separated by a deep groove (Olson and Steadman, 1977). In all respects these bones agree with *Aramus guarauna*, particularly in having a wide supratendinal bridge, a thin intercondylar sulcus of the tibiotarsus, and a tarsometatarsus with closed calcaneal ridges that form canals, among other characters. However, these specimens represent the first record of *Aramus guarauna* in Cuban Quaternary deposits.

The genus *Xenicibis* is known only in Jamaica, where its flightlessness evolved. Water barriers that constantly separated that island from Cuba throughout geological history (see Iturralde-Vinent and MacPhee, 1999) prevented the dispersal of this genus to Cuba.

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