The Enigmatic Snipe Capella sp. (Aves: Scolopacidae) in the Fossil Record of Cuba

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ABSTRACT.—The enigmatic fossil snipe Capella sp., previously known in the Greater Antilles by specimens recovered from the Bahamas and Cayman Islands, is recorded from three Quaternary cave deposits in western and central Cuba. This new material provides information about the paleoecology and ancient distribution of this taxon in the West Indies.

KEYWORDS.—Aves, Capella sp., Cuba, Quaternary, snipe.

Snipes are represented in the modern avifauna of the West Indies by the Wilson’s Snipe Capella delicata (Ord), which is a non-breeding resident (Raffaele et al. 1998), but the fossil record shows that more species were present there in the past. The first supposed evidence of an extinct snipe from the West Indies was published by Wetmore (1920), who described Gallinago (=Capella) anthonyi, based on specimens from two Quaternary cave deposits in Puerto Rico. Olson (1976) re-examined this extinct bird and concluded that it was not a snipe but a woodcock, transferring it to the genus Scolopax. Wetmore (1937:435) reported fossils from “Great Exuma” (=Little Exuma) Island, Bahamas, as Capella delicata (Ord), based on characters described by Olson (1976), especially those for the humerus: shaft proportionally slender, distal end not expanded, deeper olecranal fossa, ectepicondylar prominence high on shaft and greatly projected, head acute or pointed, and external tricipital groove well defined (see Olson 1976 for characters in Scolopax).

Based on fossil specimens from Quaternary cave deposits in western and central Cuba, additional evidence of this snipe in the West Indies is documented herein. The generic name Capella Frenzel is used instead of Gallinago Briszel, following Olson (1987:540).

SYSTEMATICS

Class Aves

Family Scolopacidae Vigors

The Cuban fossils reported here are referable to Capella instead of Scolopax (a genus closely related to Capella and also represented by fossils in the West Indies), based on characters described by Olson (1976), especially those for the humerus: shaft proportionally slender, distal end not expanded, deeper olecranal fossa, ectepicondylar prominence high on shaft and greatly projected, head acute or pointed, and external tricipital groove well defined (see Olson 1976 for characters in Scolopax).

Capella sp. (Fig. 1)

Referred material.—Cueva El Abrón, Sierra de La Güira, Municipality of Los Palacios, Pinar del Rio Province, Cuba: right humerus, collection of the Museo Nacional de Historia Natural de Cuba, MNHN Cu 75.4709; collected by Stephen Diaz-Franco and William Suárez on 21 March 2000. Cueva de Humboldt, Caguanes, Munici-
pality of Yaguajay, Sancti Spíritus Province, Cuba: right humerus, Oscar Arredondo collection, OA 3138; collected by Oscar Arredondo, April 1974. Cueva del Salón, Cayo Palma, Municipality of Yaguajay, Sancti Spíritus Province, Cuba: left humerus (juvenile), MNHNcu 75.4711; right ulna, MNHNcu 75.4712; collected by Stephen Díaz-Franco and Libán Fernández on 22 August 1997.

Description and comparisons.—The humeri and ulna agree in their general morphology with the equivalent elements in the skeleton of Capella delicata, but are larger than in the latter (Table 1). They are more similar in size to fossils of Capella sp. from the Bahamas, where the humeri are also slightly smaller than the single humerus reported from Cayman Brac (Olson and Hilgartner 1982; Table 1). The left humerus MNHNcu 75.4711 is slightly smaller and with the surface very porous and incompletely ossified, indicating it represents a juvenile individual. Measurements (mm) of this specimen (not included in Table 1) indicate that, although from an immature individual, it is larger than the mean for C. delicata (range, mean, and n, from Olson and Hilgartner 1982): total length 39.7 (35.2-40.5, 37.7, 14), proximal width 9.4 (8.2-9.7, 9.0, 14).

Remarks.—Two of the deposits in which Capella sp. was found in Cuba, formed as an accumulation of ancient pellets of the extinct barn owl Tyto noeli Arredondo, which apparently was an occasional predator on this snipe. The fossil humerus from the deposit at Cueva El Abrón was found at layer VII (1.00 to 1.60 m depth), in association with remains of other birds, including Tyto noeli Arredondo, Falco kurochkini Suárez and Olson, Siphonornis daquiri Olson, Athene cunicularia (Molina), Torreornis inexpectata Barbour and Peters, a new species of Tyto (Olson and Suárez in prep.), and other extinct vertebrates such as a new species of phyllostomid bat (Suárez and

Table 1. Measurements (mm) on fossils of Capella sp. from Cuba, Bahamas and Cayman Brac, in comparison with those of the living Wilson’s Snipe Capella delicata. Sequence is: range (mean) n.

<table>
<thead>
<tr>
<th>Character</th>
<th>Capella gallinago delicata</th>
<th>Capella sp. (Cuba)</th>
<th>Capella sp. (Bahamas)*</th>
<th>Capella sp. (Cayman Brac)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humerus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>35.2-40.3 (37.7) 14</td>
<td>40.5-41.4 (40.9) 2</td>
<td>41.2-42.2 (41.7) 3</td>
<td>44.0</td>
</tr>
<tr>
<td>Proximal width</td>
<td>8.2-9.7 (9.0) 14</td>
<td>10.1-10.2 (10.1) 2</td>
<td>10.2</td>
<td>11.5</td>
</tr>
<tr>
<td>Distal width</td>
<td>6.0-6.8 (6.4) 14</td>
<td>7.1-7.2 (7.1) 2</td>
<td>7.1-7.5 (7.2) 3</td>
<td>7.6</td>
</tr>
<tr>
<td>Ulna</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proximal width</td>
<td>4.7-5.6 (5.0) 14</td>
<td>6.0</td>
<td>6.0</td>
<td>—</td>
</tr>
</tbody>
</table>

*From Olson and Hilgartner (1982).
Díaz-Franco 2003). Some of these birds indicate the presence of savannas around the cave during the time of deposition (see Suárez 2000). A radiometric date (14C) from a sample of long bones of Tyto noeli recovered from this layer indicates a late Pleistocene age (see Suárez and Díaz-Franco 2003, for the datation and a more detailed description of the deposit). The material from Cueva del Salón was directly associated with remains of Tyto noeli, Torreornis inexpectata, and other aquatic birds, such as a rail (Rallus sp.) (W. Suárez pers. obs.). The presence of Capella sp. in fossil deposits in Cuba is not unexpected, as remains of this snipe are known from the Bahamas and Cayman Islands as well. Many of the avian taxa found on these last islands are derived from the Cuban mainland (Brodkorb 1959; Olson and Hilgartner 1982; Steadman and Morgan 1985; Morgan 1994; Suárez and Olson 2003). The referred immature specimen from Cuba opens the possibility that this snipe was a year-round resident in the Greater Antilles, although Olson and Rasmussen (2001) considered this bird as a winter resident in the West Indies during the Pleistocene.

The material reported herein (four specimens) extends the ancient distribution of this form to Cuba, and will help, together with bones from the Bahamas and Cayman Islands, to resolve the taxonomic status of this enigmatic bird.

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LITERATURE CITED


