

A NEW GENUS OF ICTERID FROM RANCHO LA BREA

By ALDEN H. MILLER

In the past the microfauna of the Rancho La Brea Pleistocene has been collected and prepared much less assiduously than have the large birds and mammals of this richly fossiliferous asphalt deposit. In the last year, however, Dr. W. Dwight Pierce and George Kanakoff of the Los Angeles Museum have developed a sifting technique for recovery of small fossils from the matrix and have obtained from Pit "A," excavated in 1929, a wealth of small bird and mammal bones. Dr. Hildegarde Howard in sorting the bird bones discovered some bill parts of icterids which she kindly invited me to study and describe. These consist of an upper mandible, complete except for the extreme tip and the lateral border of the nasal fossa on one side, and two right lower mandibles, one nearly complete to the symphysis, the other lacking the posterior half. The more complete lower mandible has a tomial curvature and size that seem to fit properly with the upper mandible, and the two may be assigned to the same species until such time as actual association otherwise may be demonstrated. The second lower mandible probably is not of the same species, but it cannot be definitely allocated. The upper mandible, although distinctly icterine, has a number of structural features which set it apart from any living or known fossil genus of the family Icteridae. It may be known as *Pandanaris convexa*.

Pandanaris, new genus

Generic characters.—Upper mandible similar to that of *Tangavius* and *Molothrus* in shortness and great basal depth, and in shape and depth of central groove of palatal surface, but narial opening much larger (about 30 per cent, relatively) and anterobasal angle of opening more acute; culmen uniformly curved from base; without basal hummock present to varying degree in most icterids; internarial bridge broad, hence wholly different from that of cowbirds and blackbirds (including *Pyelorhamphus*), the breadth equivalent to that in some caciques (*Amblycercus* and *Cacicus*), but without any of the associated restriction of narial opening found in that group of icterids.

Type.—*Pandanaris convexa*.

Pandanaris convexa, new species

Type.—Upper mandible (figs. 4a, 4b, 4c), including all of premaxillary, except extreme tip, the maxilla, except delicate maxillopalatine process, and lateral ramus of nasal on left side, no. K7278 Los Angeles Museum, from Pleistocene of Rancho La Brea, Los Angeles, California; excavated from Pit "A" in 1929.

Description.—See features given in generic characterization; in addition, tomium curved in lateral view, especially basally beneath anterior end of nasal fossa, as in *Molothrus*; basal half of culmen flat, not ridged, and posterior end of internarial bridge but slightly narrower than anterior end; posteroventral margin of nostril distinctly angled, not rounded.

Referred lower mandible.—The lower mandible (figs. 4b, 4d), no. K7279, seems somewhat long to correspond with the type until one fits it in place and notes in cowbirds a similar alignment of the posterior edge of the scar for the horn sheath with the posterior margin of the nasal fossa. Tomium viewed dorsally essentially straight and in line with ramus, not concave as in *Pyelorhamphus*, the extinct Quaternary icterid from New Mexico (Miller, Auk, 49, 1942:39); tomium in lateral profile convex throughout; ramus posterior to termination of horn sheath strongly deflected downward; depth of mandible at posterior part of tomium much greater (60-70 per cent) than in *Euphagus*; articular area similar to that of *Molothrus* and *Euphagus* and unlike many genera of icterids in which the external postarticular process is distinctly elongated, associated with forceful opening of the mandibles for purposes of prying.

Measurements.—Upper mandible: anteroposterior length of nasal fossa, 7.0 mm.; greatest dorsoventral depth of fossa, 3.1; width across maxillaries at junction with jugal bar, 7.7; width of nasal bridge anteriorly, 4.5, posteriorly, 4.0.

Lower mandible: greatest depth of ramus near base of horn sheath, 4.0; length from posterior margin of horn sheath to end of postarticular process, 18.2.

Pandanaris has been compared with skeletons of all modern genera of icterids (see Hellmayr, Cat. Birds Amer., pt. 10, 1937) with the exception of *Ocyalus*, *Clypicterus*, *Macroagelaius*, *Ptiloxena*, *Xanthospar*, *Neospar*, and *Amblyramphus*. I am indebted to

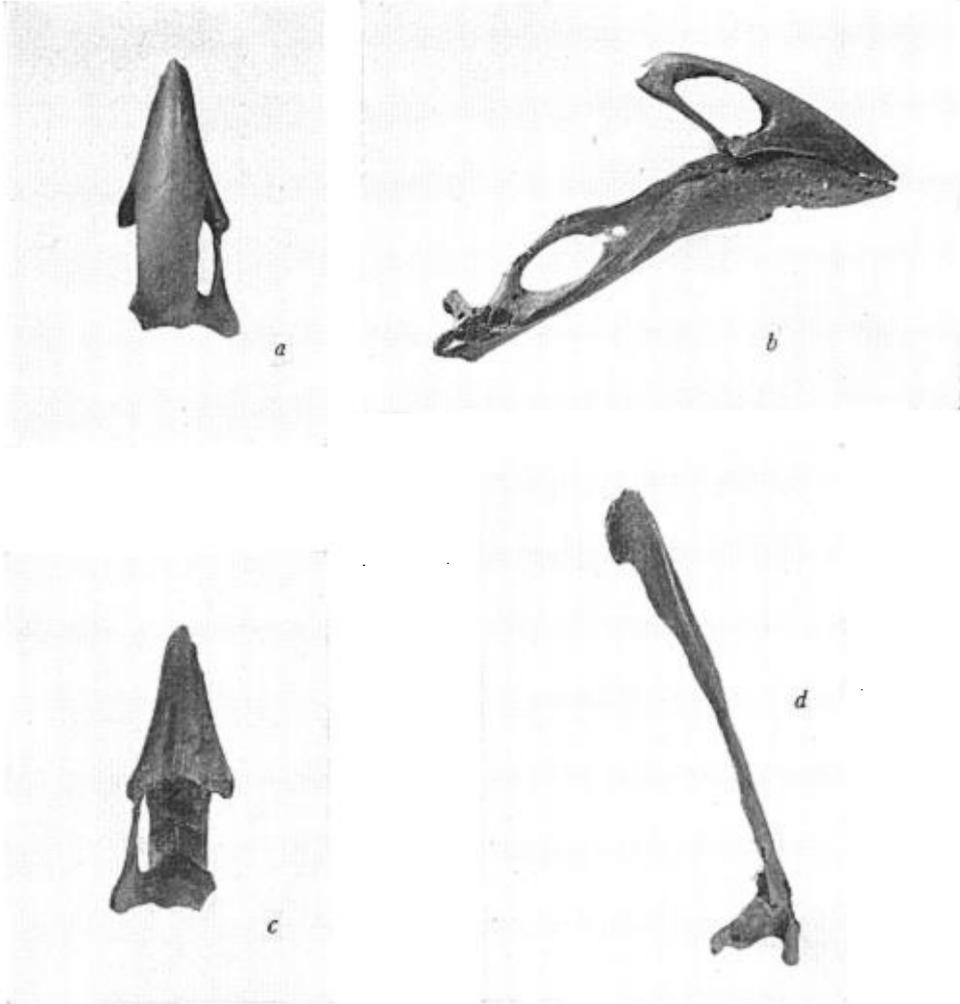


Fig. 4. *Pandanaris convexa*, new genus and species of icterid from the Pleistocene of Rancho La Brea. *a*, *c*. Dorsal and palatal views of upper mandible, type; *b*, lateral view of upper and lower mandibles; *d*, dorsal view of lower mandible, no. K7279; all $\times 2$.

Dr. Alexander Wetmore for opportunity to compare the fossils directly with all icterid material in the collection of the United States National Museum. A few genera not otherwise available were similarly compared at the American Museum of Natural History. Skins of the seven genera named above have all been checked and the information thus derived coupled with knowledge of the osteology of their close relatives leaves no doubt that *Pandanaris* is a unique type in the family.

In undertaking to find the natural affinities of *Pandanaris* within the family, we may rule out as near relatives the genera comprising the oropendolas with their highly developed frontal shields and constricted nostrils. Similarly the cacique group (*Cacicus*, *Archiplanus*, *Amblycercus*, *Cassiculus*, *Psomocolax*), with much reduced narial openings and expanded lateral processes of the nasal may be set aside. The large nasal fossa and its sharp ventral and posterior angles in *Pandanaris* further contrast, though less sharply so, with conditions in another series of genera: *Dolichonyx*, *Sturnella*, *Pezites*, *Leistes*, *Notiospar*, *Agelaius*, *Gymnomystax*, *Pseudoleistes*, *Xanthocephalus*, *Gnorimospar*, *Dives*, *Euphagus* and the grackle genera show a nasal fossa almost as large relatively as in *Pandanaris* but the fossa is more rounded and tends, as in the group containing *Sturnella*, to open dorsally rather than laterally. *Icterus* and *Lamprospar* possess fragile nostril structure; the fossae are large but the borders are thin. The cowbirds, like the group typified by *Xanthocephalus* and *Euphagus*, make a close approach to the fossil in nostril configuration and size and show a further, perhaps insignificant, resemblance in shortness of bill.

We may, then, regard *Pandanaris* as basically related by reason of features of the narial area to the more generalized icterids, the blackbirds and cowbirds; such a view is supported by similarities in configuration of articular area of the lower jaw, if one accepts the probable correctness of the reference of the lower mandible to *Pandanaris*. At the same time *Pandanaris*, probably as a parallelism, shows a distinctly broadened internarial bridge suggestive of the caciques. The peculiarly even curvature of the culmen of the fossil does not occur in any other icterid, but this is a feature that might have arisen in almost any of the known groups within the family. *Pandanaris* shows no evidence of being ancestral to any living genus; it is rather a representative of a line within the family that has died out.

Three other icterids have been described as new from the Quaternary of North America. These are: (1) *Euphagus affinis* Shufeldt, from Fossil Lake, Oregon, which we now regard as synonymous with the modern *Euphagus cyanocephalus* (see Howard, Carnegie Inst. Wash. Publ. 551, 1946:189); (2) *Euphagus magnirostris* Miller (Univ. Calif. Publ. Bull. Dept. Geol. Sci., 19, 1929:14) from Rancho La Brea which is closely related to modern species of that genus, although it is more robust; it in no way approaches the massive structure of *Pandanaris*; (3) *Pyelorhamphus molothroides* Miller (*loc. cit.*) of Shelter Cave, New Mexico, which, though falling in the same general section of the family, differs from *Pandanaris* in several particulars as noted previously. *Pyelorhamphus* was somewhat heavier and shorter billed than *Pandanaris* with more abrupt constriction of the bill tip. It had a completely different, narrow and elevated internarial bridge to judge from the upper mandible which has been referred to it.

Museum of Vertebrate Zoology, Berkeley, California, November 27, 1946.