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Early Eocene birds from La Borie, southern France

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The early Eocene locality of La Borie is located in the village of Saint-Papoul, in southern France. These Eocene flu-vio-lacustrine clay deposits have yielded numerous vertebrate remains. Mammalian taxa found in the fossiliferous levels indicate an age near the reference level MP 8–9, which corresponds to the middle Ypresian, early Eocene. Here we provide a detailed description of the avian remains that were preliminarily reported in a recent study of the vertebrate fauna from La Borie. A maxilla, a quadrate, cervical vertebrae, a femur and two tibiotarsi are assigned to the giant ground bird *Gastornis parisiensis* (Gastornithidae). These new avian remains add to the fossil record of *Gastornis*, which is known from the late Paleocene to middle Eocene of Europe, early Eocene of Asia and early Eocene of North America. *Gastornis parisiensis* differs from the North American *Gastornis giganteus* in several features, including the more ventral position of the narial openings and the slender orbital process of quadrate. Two tibiotarsi and one tarsometatarsus are assigned to a new genus and species of Geranoididae, *Galligeranoides boriensis* gen. et sp. nov. So far, this family was known only from the early and middle Eocene of North America. The fossils from La Borie constitute the first record of the Geranoididae in Europe. We show that *Gastornis* coexisted with the Geranoididae in the early Eocene of both Europe (La Borie) and North America (Willwood Formation). The presence of Geranoididae and the large flightless bird *Gastornis* on either side of the present-day North Atlantic provides further evidence that a high-latitude land connection existed between Europe and North America in the early Eocene.

Key words: Aves, Geranoididae, *Gastornis, Galligeranoides*, palaeobiogeography, Ypresian, Eocene, France.

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