

the *Journal of the Academy of Natural Sciences*, Philadelphia. The paper is based on a specimen collected by Dr. George M. Dawson from the Tertiary shales of the west coast of Vancouver Island, and belongs to the Geological Survey of Canada. The bone was sent by Capt. Jacques, of Victoria, B.C., to Dr. G. M. Dawson, and was obtained at Carmanagh Point, Vancouver Island. The specimen is carefully described by Prof. Cope on pages 449 *et seq.*, and consists of the "superior part of a tarsometatarsus" belonging to a new genus of bird. It was a singular but rather fortunate occurrence that this portion of the skeleton was preserved, inasmuch as the "tarsometatarsus is perhaps the most characteristic part of the skeleton of a bird." Prof. Cope finds that this extinct species of birds, which used to inhabit our western coast in Tertiary times, and to which he has given the generic designation of *Cyphornis*, bears greater resemblance to the *Steganopodes* or *Pelicans* than to any other family. "The anterior aspect of the bone," Cope says (*loc. cit.*, p. 451), "is almost exactly like that of *Pelecanus*," but the "posterior aspect resembles that of none of the order, in the absence of the tendinous grooves." When compared with Cretaceous birds, Cope finds but one "point of resemblance," and that to the extinct form *Hesperornis*, in "the ridge-like elevation of the anterior part of the external tibial facet, which is in both genera connected with the intercondylar tuberosity." The affinities of this bird, Prof. Cope holds, are more clearly with the "*Steganopodes*," but they have combined with these certain affinities to "more primitive birds with a simple hypotarsal structure." *CYPHORNIS MAGNUS*, Cope, is the name ascribed to this extinct bird from Canada, which inhabited our western shores in Tertiary times. "As regards its habits, it may be said that the pneumatic character of its foot bone renders it improbable that it depended on this member for habitual locomotion on land. In all the birds of terrestrial habit which I have examined, and of which I can give information, the tarsometatarsus is either filled with cancellous tissue, dense or open, or the walls of the shaft are thick, as in the Emeu. The presumed affinity with the *Steganopodes* indicates natatory habits and probable capacity for flight. Should this power have been developed in *Cyphornis magnus*, it will have been much the largest bird of flight thus far known." On plate XX. of this *livraison* Cope figures six views of the tarsometatarsus in question, and in the text expresses the hope that new and additional material will be forthcoming from which to describe more fully the present imperfectly known but interesting species.

Regarding the precise geological horizon to which to refer the species, Prof. Cope writes:—"The characters of *Cyphornis* indicate that the bed from which it was obtained is not older than Eocene nor later than Oligocene."

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