## THE MALLOPHAGA AND RELATIONSHIPS WITHIN THE FALCONIFORMES.

Drs. Mayr and Amadon have recently published a paper ('Amer. Mus. Novit.' No. 1496, 1951) on the classification of the class Aves in which they show the difficulties of the classification of the higher categories and discuss some of the controversial cases. The evidence on the relationships of the Aves deduced from the distribution of their Mallophagan parasites has recently been summarized (Clay, ' Journ. Bombay Nat. Hist. Soc. 49: 430-443), but it may be of interest to discuss more fully the distribution of the Mallophaga on the Falconiformes as Mayr and Amadon raise some queries on the correct classification of this order. They discuss the possibility of a polyphyletic origin for the Falconiformes, suggesting that the Cathartae and Sagittarius (the Secretary Bird) may not be related to the rest of the order. This order is parasitized by nine genera or species groups of Mallophaga, three of which are relevant to this discussion: Falcolipeurus is a specialized genus not closely related to any other known genus and is found only on the Falconiformes; the other two, Cuculiphilus and Laemobothrion, although found elsewhere on the Aves, are represented by species groups (considered as genera by some authors) on the Falconiformes. Table 1 gives the distribution of these three genera on the two suborders, Cathartae and Falcones, of the Falconiformes. This distribution does not suggest a polyphyletic origin for the Falconiformes, and is difficult to explain except by postulating a common origin for the order as now constituted.

Table 1.—Distribution of three Mallophagan genera on the Falconiformes.

Parasite.	Host.	
	FALCONES	CATHARTAE
Falcolipeurus	Sagittarius	Cathartes
	Larger members of	Coragyps
Laemobothrion	Falconoidea	Vultur
	Sagittarius	Cathartes
	Widespread on	Coragyps
	Falconoidea	Sarcoramphus
Cuculiphilus	Pseudogyps	All genera of
	Gyps	Cathartae

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