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## A new swift (Aves: Apodidae) from the late Eocene of France

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(With 1 plate)

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### Summary

A new swift of the family Apodidae, *Cypseloides mourerchauvireae* sp. n., is described from the late Eocene (Phosphorites du Quercy) of France. It represents the earliest record of the subfamily Cypseloidinae and the second record of this subfamily, which is now confined to the Neotropics, in the Old World.

### Zusammenfassung

Aus dem Ober-Eozän Frankreichs (Phosphorites du Quercy) wird eine neue Seglerart der Familie Apodidae, *Cypseloides mourerchauvireae* sp. n., beschrieben. Es ist die älteste bisher bekannte Seglerart der Unterfamilie Cypseloidinae und zugleich der zweite Fund dieser gegenwärtig auf die neotropische Region der Alten Welt beschränkten Unterfamilie.

The swifts (Apodidae) are at present a widespread group of small, swallow-like, aerial-insectivorous birds. The group includes approximately 82 living species belonging to 14 genera (WOLTERS 1976). The systematics and evolution of swifts have been studied only sporadically so far, but it has now been established with reasonable probability that the Cypseloidinae are the ancestral subfamily of the Apodidae, from which the derived Apodinae evolved (LACK 1956, BROOKE 1970a, ZUSI & BENTZ 1982).

Relatively few fossil swifts have been described so far, including (in geochronological order) *Scaniacypselus wardi* HARRISON, 1984 from the middle Eocene of Great Britain, *Cypseloides ignotus* (MILNE-EDWARDS, 1871) from the early Miocene (Aquitainian) of France, *Apus gaillardi* ENNOUCHI, 1930 from the middle Miocene of France, *Apus wetmorei* BALLMANN, 1976 from the late Miocene of Italy, *Chaetura baconica* JÁNOSSY, 1977 from the early Pliocene of Hungary, *Apus submelba* JÁNOSSY, 1972 from the middle Pleistocene of Hungary, and *Tachornis uranocetes* OLSON, 1982 from the late Pleistocene (Wisconsinian) of Puerto Rico. Of the other fossil swifts, *Collocalia incerta* MILNE-EDWARDS, 1871 and *Cypselavus*

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*intermedius* GAILLARD, 1938, both from the early Miocene (Aquitanian) of France, were synonymized with *Cypseloides ignotus* (MILNE-EDWARDS, 1871) by COLLINS (1976), and *Cypselavus gallicus* GAILLARD, 1908 from the late Eocene or early Oligocene (Phosphorites du Quercy) of France was transferred from the family Apodidae to Aegialornithidae by COLLINS (1976) and to the Hemiprocnidae by D. S. PETERS (1985). Both the latter families are closely interrelated (cf. MOURER-CHAUVIRÉ 1978, D. S. PETERS 1985) and may even be considered synonymous (MLÍKOVSKÝ 1982, 1985).

Anatomical nomenclature follows BAUMEL et al. (1979) throughout the present paper.

### Systematic description

Order Apodiformes J. L. PETERS, 1940

Family Apodidae HARTERT, 1897

Genus *Cypseloides* STREUBEL, 1848

*Cypseloides mourerchauvireae*, sp. n.

(Plate 1)

**Holotype:** Right tibiotarsus, with extremitas proximalis and borders of sulcus cartilaginis tibialis slightly abraded; Naturhistorisches Museum Wien, Geologisch-Paläontologische Abteilung, 1988/27. Collectors and date of collection unknown, but probably bought by the Museum at some time during the 2nd half of the 19th century (O. SCHULTZ, pers. communication), possibly during the 1870s, when the Quercy deposits, from which the holotype originates, were excavated most extensively (cf. MOURER-CHAUVIRÉ 1980).

**Age:** Uncertain, but probably late Eocene. A number of fossiliferous localities are known from the vicinity of Bach, the type locality of *Cypseloides mourerchauvireae* sp. n., ranging from the late Eocene Bartonian to the early Oligocene Stampian (VIANEY-LIAUD 1980). Fortunately, most of the bird bone remains from Bach which are deposited in the Wien Museum belong to the genus *Aegialornis* (MLÍKOVSKÝ, in prep.) which is absent above the „grande coupure“ in the Oligocene, but which is abundant below it in the late Eocene deposits (MOURER-CHAUVIRÉ 1980: 31). Because the color and preservation state of all of these bones are rather similar, it may be assumed that all of them originated from the same locality and from the same horizon, i. e. the late Eocene in this case.

**Locality:** Bach near Lalbenque, Dept. Lot, France.

**Material:** Holotype only.

**Diagnosis:** Swift of the genus *Cypseloides*, differing from *Cypseloides ignotus*, the only other fossil *Cypseloides* swift, by its larger size (see below) and more developed crista fibularis.

**Etymology:** Named in honor of Madame le Professeur Cécile MOURER-CHAUVIRÉ in regard for her outstanding work on fossil birds, particularly on those from the Phosphorites du Quercy.

**Measurements:** (For comparison, equivalent measurements on a tibiotarsus of *Cypseloides ignotus* are given in parentheses – after COLLINS 1976): greatest proximodistal length = 32.6 mm (21.1 mm), greatest lateromedial width of extremitas distalis = 3.6 mm (2.2 mm), smallest craniocaudal width of scapula = 1.3 mm (1.0 mm), smallest lateromedial width of scapula = 1.4 mm (0.9 mm).

**Discussion:** I compared the holotype tibiotarsus of *Cypseloides mourerchauvireae* sp. n. with representatives of nearly all non-passeriform and many passeriform bird families. It was similar only to the tibiotarsus of the genus *Cypseloides*, the extremitas distalis of which is rather unique among birds (see Figure 1 in COLLINS 1976 and the Plate in the present paper).

The extant genus *Cypseloides*, the only true representative of the subfamily Cypseloidinae, is at present distributed in Neotropics only (BROOKE 1970b, WOLTERS 1976). However, COLLINS (1976) discovered the genus in Aquitanian deposits of France. *Cypseloides mourerchauvireae* is thus the second species of this genus described from the European Tertiary and at the same the oldest representative of the subfamily Cypseloidinae known so far. From the zoogeographical point of view, this is still another Neotropical element discovered in the Phosphorites du Quercy (see MOURER-CHAUVIRÉ 1981, 1982, 1983, 1985 a, b).

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#### Explanation of the plate

##### Plate 1

Holotype tibiotarsus of the *Cypseloides mourerchauvireae* sp. n. from the late Eocene of France.

A – dorsal view, B – lateral view, C – plantar view, D – medial view. Views A, C and B, D at slightly different magnifications. Greatest length of the specimen is 32.6 mm.

Photographs: Ivan HORÁČEK (Praha).



A



B



C



D