

equally meagre, by Slabber and Modeer. The figure published by Péron is rather indistinct; and it is impossible to determine with certainty whether the *Acaleph* he had before him when he named that genus belongs to the same type as the two species afterwards referred to it by Eschscholtz. That Péron himself did not appreciate correctly its structural peculiarities is plain, from the fact that he referred the genus *Callianira* to the Pteropods and not to the *Acalephs*. Eschscholtz never had an opportunity of examining a species of this genus, though it was he who referred to it the other two nominal species now associated with the *Callianira* of Péron. Judging from the figures adduced under the names of *Callianira triploptera* and *C. hexagona*, there can be no doubt that the genus *Callianira* belongs to the *Ctenophoræ Saccatæ*, since they exhibit two long lateral tentacles, occupying the same position as those of *Pleurobrachia*; and were not the descriptions unanimous in representing the rows of locomotive flappers as extending along prominent ribs upon the sides of the spherosome, I should not hesitate to refer the genus *Callianira* to the same family as the genus *Pleurobrachia*: but since the surface of *Pleurobrachia* is nearly even, and the locomotive flappers are never raised into wing-like appendages, I am inclined to believe that when *Callianira* is observed again it will be found to constitute the type of a distinct family closely allied to *Pleurobrachia*, but chiefly distinguished by the prominent development of the rows of motory cells which underlie the vertical chymiferous tubes. That no *Callianira* can have only six or four rows of locomotive flappers,<sup>1</sup> as might be inferred from their descriptions, is already plain from an inspection of the figures of Slabber copied by Brugière in the *Encyclopédie Méthodique*. The descriptions seem to have been made without remembering that the middle rows visible in the figure must have been repeated on the opposite side. Should the structure of these species, when examined again in the light of our modern knowledge of the *Acalephs*, prove to constitute a family by themselves, the name of *CALLIANIRIDÆ* must be restricted to them. Should it on the contrary appear that they cannot be separated from *Pleurobrachia*, which with its allied genera now constitutes the family of *Cydippidæ*, then this name must be suppressed, and the united *Cydippidæ* and *Callianiridæ* retain the name of *Callianiridæ*.

Gegenbaur, perceiving the inappropriateness of uniting the genera *Cestum*, *Cydippe*, and *Callianira* into one family, has called the species included in the genus

<sup>1</sup> The distinctive differences noticed by Eschscholtz in the diagnoses of the species of *Callianira* seem rather to indicate an inequality in the development of the spheromeres, than a difference in their number, and, therefore, probably mark a generic

difference among them, already acknowledged by Eschscholtz, who, in the *Isis* for 1825, p. 742, adopts the genus *Sophia Pér.* for the *Callianira* diploptera, by the side of the genus *Callianira Lamk.* for the *C. triploptera*.