

right track when he began to subdivide the Cydippidæ into two distinct groups, and he was only prevented from carrying out his suggestion to its legitimate limits by insufficient materials. Taking the rounded forms of Cydippidæ as the representatives of the limited family of that name, and the compressed ones as the representatives of another family, for which I would propose the name of Mertensidæ, we may now proceed to a comparative survey of the distinguishing characters of the two.

The CYDIPPIDÆ proper are remarkable for the striking similarity of their eight spheromeres. There is so little difference between them, that though I have been familiar with one representative of this group for a great many years, and though I have kept hundreds alive annually for weeks in succession, it was not until recently that I perceived how, under this seemingly perfect radiation, the same antitropy of the spheromeres may be recognized which characterizes the most compressed types of Ctenophoræ, in which bilateral symmetry is most prominent. Here, then, as in all Ctenophoræ, there are an anterior and a posterior pair of spheromeres and two lateral pairs, and the direction of the circumscribed area and of the actinostome marks the direction of a plane which may divide the body into equal lateral halves; and here, as in all the Ctenophoræ, the cœliac and the tentacular chymiferous tubes trend in another plane, at right angles with the preceding. Their apparent equality, however, and their symmetrical radiation, combined with the presence of two lateral tentacles protruding in the direction of the abactinal pole, constitute the most striking character of the family, to which the following genera belong: *Pleurobrachia* *Flem.* (*Cydippe* *Esch.*), *Janira* *Oken*, *Eschscholtzia* *Less.*, and *Mertensia* *Gegenb.*, for which I would substitute the name *Dryodora*, since Lesson's genus *Mertensia* must be retained. To these I would add the genus *Hormiphora* for Gegenbaur's *Cydippe* *hormiphora*. Lesson's genus *Anais*<sup>1</sup> must be suppressed. Gegenbaur erroneously refers the genus *Ocyroe* *Rang* to the family of the Cydippidæ: it belongs to the Ctenophoræ Lobata.

**MERTENSIDÆ.** A very ostensible character of this family consists in the flatness of the sides of its representatives. But this is a more apparent than real peculiarity; for in animals, whose spherosome is extensively movable in every direction, a slight lateral compression vanishes from sight whenever the body is greatly expanded or contracted. Yet the structural combination which determines that flatness is not only a permanent, but also a very striking, characteristic, readily

<sup>1</sup> It is with deep regret that I feel compelled to lay the unsparing hand of criticism upon a monument of parental affection erected by Lesson to a beloved child; but the genus *Anais* cannot stand in our science. It is founded upon a young Aca-

leph, described by Sars as *Cydippe* *quadrucostata*, and probably the immature state of his *Mnemia* *norvegica*, as McCrady suggested, after tracing the embryonic growth of his *Bolina* *littoralis*. He also regards Will's *Cydippe* *brevicostata* as immature.