

# Crustacean and Crustacean Culture

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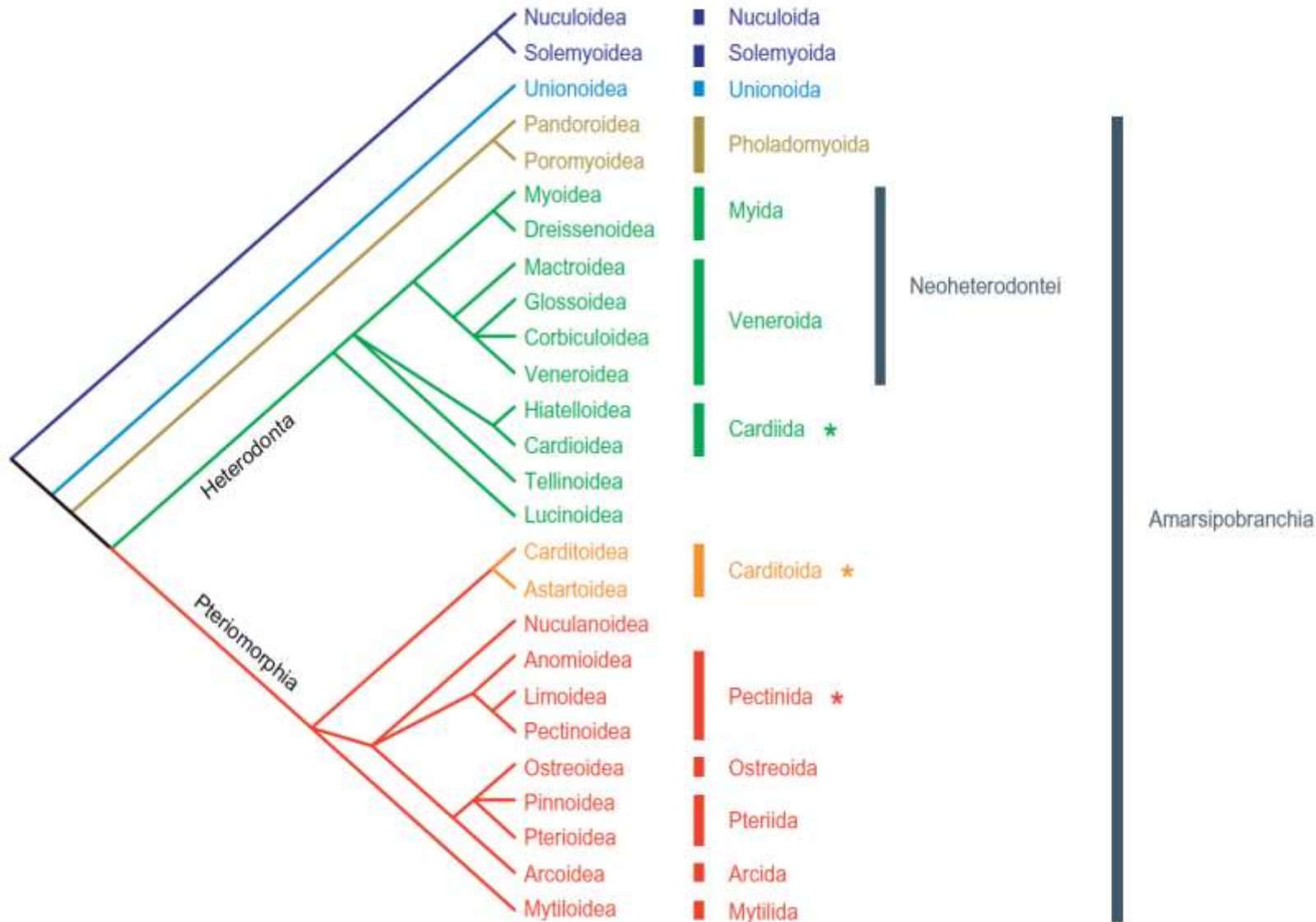


# Oysters



BIVALVIA







In the European flat oyster *Ostrea edulis* , the shell valves are approximately circular and are hinged together on the dorsal side by a horny ligament. The right valve is flat while the left is cupped. At rest on the sea bottom the flat valve is uppermost and the cupped valve is cemented to the substrate.

|               |   |
|---------------|---|
| <b>Phylum</b> | <b>Mollusca</b>                                   |
| Class         | Bivalvia  |
| Subclass      | Pteriomorphia                                     |
| Order         | Ostreida  |
| Superfamily   | Ostreoidea  |
| Family        | Ostreidae   |
| Subfamily     | Ostreinae <sup>a</sup>                            |
| Tribe         | Ostreini [ <i>Ostrea</i> <sup>3</sup> ]           |
| Family        | Flemingostreidae                                  |
| Subfamily     | Crassostreinae <sup>a</sup>                       |
| Tribe         | Striostreini [ <i>Saccostrea</i> <sup>1</sup> ]   |
| Tribe         | Crassostreini [ <i>Crassostrea</i> <sup>2</sup> ] |

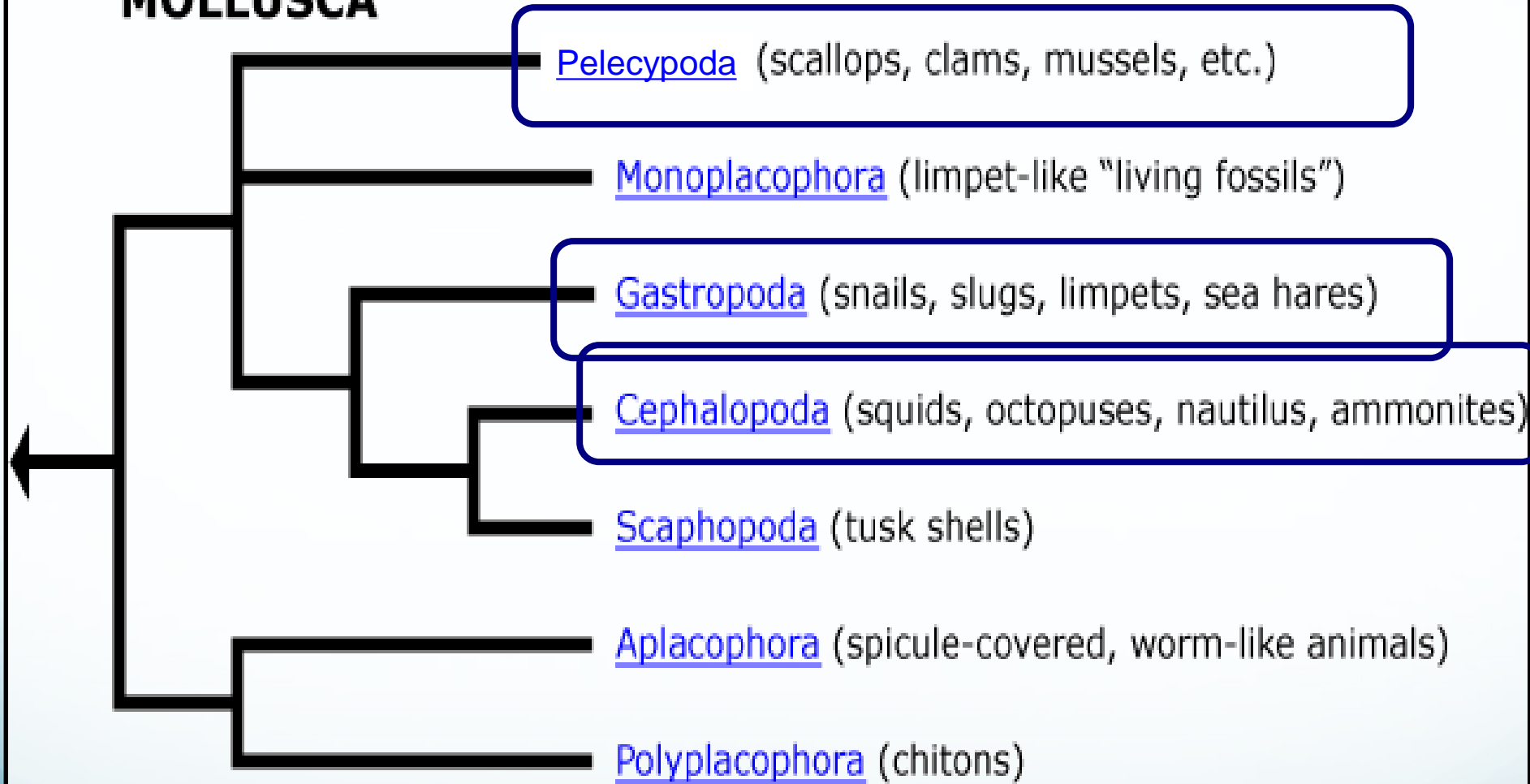
The American Eastern oyster *Crassostrea virginica* also has dissimilar valves, but the general shell shape is more elongated and the left valve is more deeply cupped than in *Ostrea*. In both oyster species the shell colour is off-white, yellowish or cream but often with purple or brown radial markings in *C. virginica*.

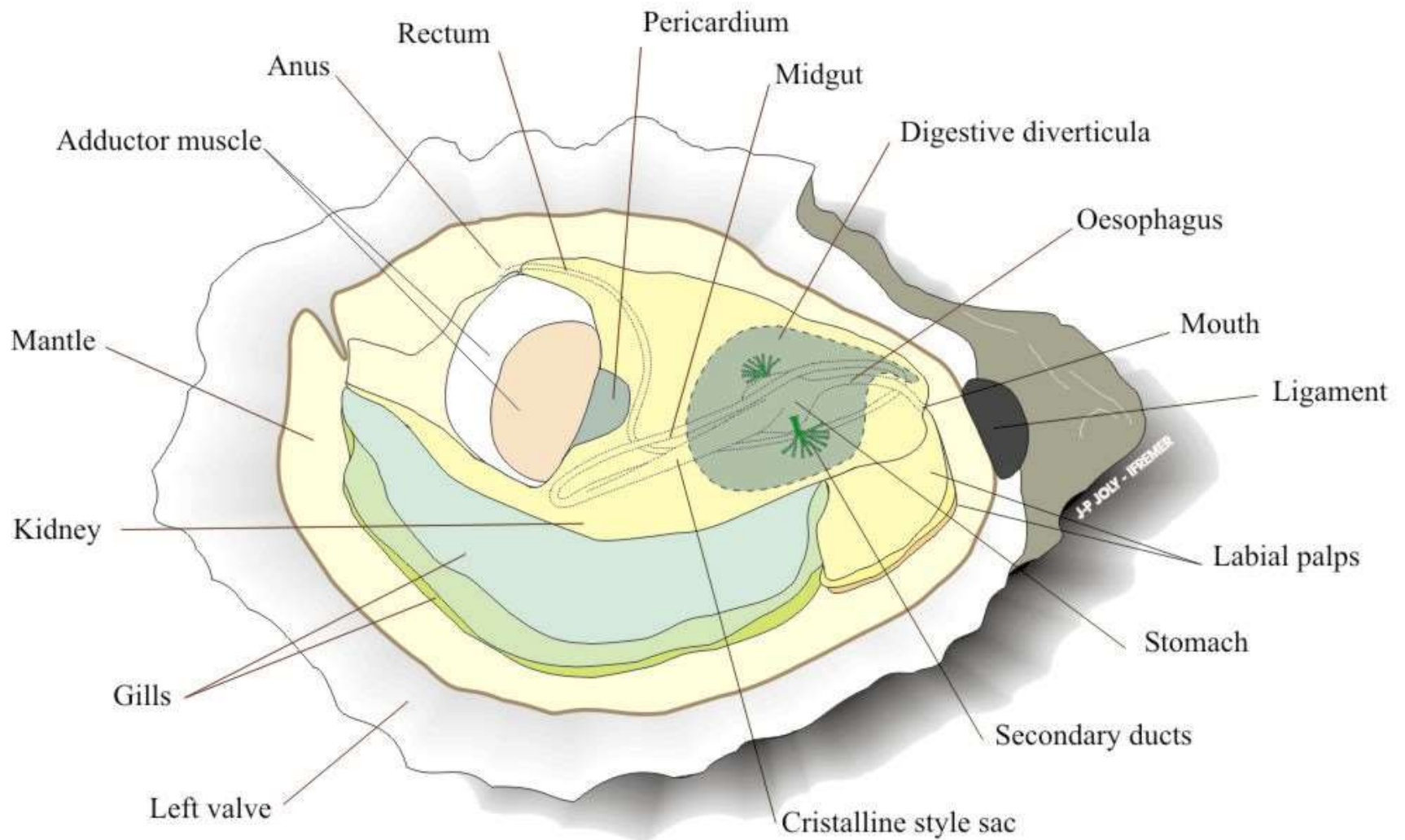
The inside of the shell valves is pearly-white and there is a single large adductor scar. The shell in both oyster groups is thick and solid and both valves have distinct concentric sculpturing, with the surface of the cupped valve more raised and frilled in *Crassostrea*. The concentric markings cannot be used to determine the age of oysters, and one must resort to sectioning of the hinge plate for an accurate estimate (Kraeuter et al. 2007).

In general, *O. edulis* has a maximum shell height of 100 mm, while *C. virginica* grows as large as 350 mm; *Saccostrea* species tend to be smaller, with a maximum shell height of 60 mm. For a very comprehensive account of larval and adult shell structure in *C. virginica* see Carriker (1996).



# MOLLUSCA





Anatomy of the oyster *Crassostrea gigas* after removal of the right valve