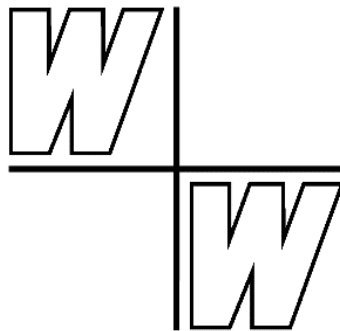


Data Collection on Intergeneric Hybrids and Basic Types: **CEPHALOCHORDATA**

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<https://www.wort-und-wissen.org/artikel/data-collection-basic-types/>

subphylum
Cephalochordata = Acrania
lancelets = Schädellose

Abbreviations:

° = taxa actually not accepted in the rank of a genus, e. g. *Cerasus*° (= *Prunus* p.p.)

10: 50 etc. The numbers behind the names of families etc. refer to extant genera and species

IS = interspecific hybrid. **IG** = intergeneric hybrid. **IST** = intersubtribal hybrid.

IT = intertribal hybrid. **ISF** = intersubfamilial hybrid. **IF** = interfamilial hybrid.

EC = embryo culture or ovule culture

SO = somatic hybrid by cell fusion; normally these hybrids are asymmetric

AS = asymmetric hybrids, they do not equally express maternal and paternal features

HY = assumed intergeneric hybridogeneous origin of a taxon.

nat. hyb. = natural hybrid **art. hyb.** = artificial hybrid

Colors within the crosses:

Red letters: intergeneric hybrids (incl. former IG).

Violet letters: multigeneric = plurigeneric hybrids.

Gray letters: hybridity unconfirmed or erroneous.

Green letters: notes on tribes, subfamilies etc. involved in the hybridization.

Yellow shaded: Notes concerning basic types.

Branchiostomatiformes = Amphioxiformes

1 family, 3: 35 + extinct taxa

Only extant order of Cephalochordata, but some authors also place Tunicatae in Cephalochordata.

Branchiostomatiformes: Branchiostomatidae 3: 35. 1 IG/IF

lancelets, amphioxi = Lanzettfischchen

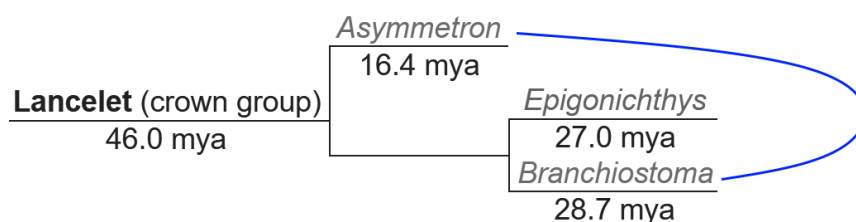
1 (or 2) families, 3 genera:

Asymmetron 2–3, *Epigonichthys* 7, *Branchiostoma* 25.

The order **Branchiostomatiformes** (3: 35) represents a basic type, due to its very isolated position and interfamilial hybridization: The genera *Asymmetron* and *Branchiostoma* are linked by hybridization. According to Holland et al. (2015) the hybrids were viable for about two weeks and exhibited characteristics of both parents. The divergence time of the parents was estimated as 120–160 million years (Holland et al. 2015) or 46 million years (Igawa et al. 2017). The third genus *Epigonichthys* can also be included, because it is closely related to *Branchiostoma* according to recent molecular analyses by Igawa et al. (2017), see the figure below.

Asymmetron lucayanum × *Branchiostoma floridae* IG (or IF, respectively) Holland & al. 2015 (art. hyb., 2 weeks viable) en.wikipedia 2025: „The two genera *Asymmetron* and *Branchiostoma* are able to produce viable hybrid offspring, even if none have lived into adulthood so far, despite the parents' common ancestor living tens of millions of years ago“.

([https://en.wikipedia.org/w/index.php?title=Hybrid_\(biology\)&oldid=1287894016](https://en.wikipedia.org/w/index.php?title=Hybrid_(biology)&oldid=1287894016), CC-BY-SA 4.0)



Order Branchiostomatidae: hybridization in the phylogeny of Igawa & al. (2017)

<https://en.wikipedia.org/w/index.php?title=Lancelet&oldid=1286073413>, from en.wikipedia (2025, CC-BY-SA 4.0).

References:

Holland ND, Holland LZ & Heimberg A (2015) Hybrids between the Florida amphioxus (*Branchiostoma floridae*) and the Bahamas lancelet (*Asymmetron lucayanum*): developmental morphology and chromosome counts. Biol. Bull. 228, 13–24.

Igawa T & al. (2017) Evolutionary history of the extant amphioxus lineage with shallow-branching diversification. Sci. Rep. 7, 1157. <https://doi.org/10.1038/s41598-017-00786-5>