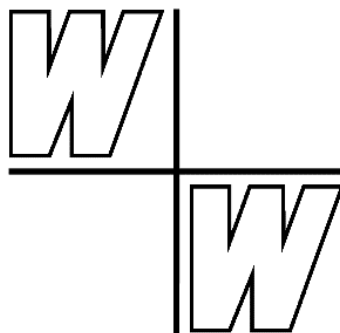


# **Data Collection on Intergeneric Hybrids and Basic Types: CEPHALOCHORDATA**

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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

**Colours 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 genera, 35 species + extinct taxa

Single extant order, but some authors also place Tunicates in Cephalochordata

### Branchiostomatiformes: Branchiostomatidae 3: 35

lancelets, amphioxi = Lanzettfischchen

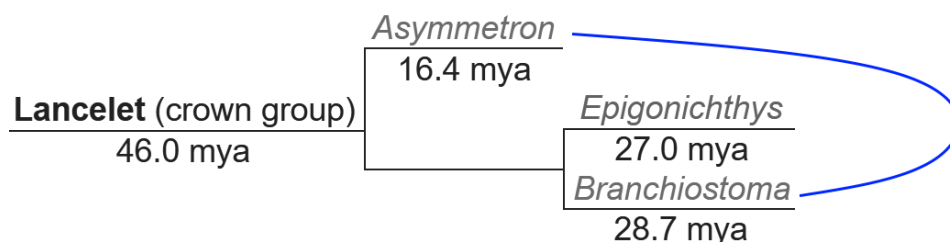
1 or 2 families, 3 genera *Asymmetron* 2–3, *Epigonichthys* 7, *Branchiostoma* 25

The order **Branchiostomatiformes** obviously represents a basic type, due to its very isolated position and interfamilial hybridization.

According to Holland et al. (2015), of the three genera (*Asymmetron*, *Branchiostoma*, and *Epigonichthys*), the first two are linked by hybridization. The hybrids were viable for about two weeks and exhibited characteristics of both parents. The divergence time of the parents is estimated at 120–160 million years (Holland et al. 2015) and 46 million years (Igawa et al. 2017). However, *Epigonichthys* can also be included, as this genus is particularly closely related to the genus *Branchiostoma* according to recent molecular analyses by Igawa et al. (2017).

*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:** Cladogram after Igawa & al. (2017), from en.wikipedia 2025, and the hybridization event (according to <https://en.wikipedia.org/w/index.php?title=Lancelet&oldid=1286073413>, 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>