

2.2 FAMILY CLUPEIDAE

CLUP

FAO Names : En - Herrings, Sardines.

Diagnostic Features : Typically, clupeids are fusiform fishes, oval in cross-section, with a complete series of scutes along the belly (pelvic scute always present); the mouth is terminal, there are 2 supra-maxillae, and the jaw teeth are small or minute; the dorsal fin is short and near the midpoint of the body. The pelvic fins are just in front of, below or just behind the dorsal fin base, and the anal fin is short and its origin is well behind the last dorsal finray; the scales are adherent and of moderate size (about 40 to 50 in lateral series).

However, there is great variation in body shape and depth (round bodied to strongly compressed and deep), scutes (some or all absent along belly, but a few or a complete series of pre-dorsal scutes occasionally present), mouth shape (lower jaw prominent to mouth fully inferior in the gizzard shaps), supra-maxillae (one or both absent), teeth (absent in some, canines in others), and scales (deciduous in some, minute in others). The family as at present constituted is probably an artificial assemblage, being defined largely on the shared absence of those special characters that define the other clupeoid families.

Biology Habitat and Distribution : Clupeids are typically marine coastal and schooling fishes found in all seas from 70° N to about 60° S, feeding on small planktonic animals (mainly crustaceans), forming large schools and scattering large numbers of pelagic eggs from which planktonic larvae hatch. Adults are usually 10 to 20 cm standard length. It is mainly the cool-water genera (*Clupea*, *Sardina*, *Sardinops*, *Sprattus*) that dominate the clupeoid catches.

As with morphology, so there is a great range in the biology and ecology of clupeids. Some enter freshwater to feed, some are anadromous (shads), and some live permanently in freshwater (West African pellonulines), some are partial or full-time filter-feeders (e.g. gizzard shads), some are predators on fishes (and probably form only loose and small schools as adults), and some produce only two hundred eggs or less (pygmy species) or attach their eggs to the substrate (*Clupea*). Great variation is found in size, from the shad *Tenualosa ilisha* (to about 60 cm) to certain pygmy riverine species which may be mature at under 2 cm (*Sierrathrissa*, *Thrattidion*, etc.).

Interest to Fisheries : Individually, few of the warm-water species dominate clupeoid catches (exceptions are *Sardinella aurita*, *S. longiceps* and related species), but multi-species clupeid fisheries may account for as much as a third of the total fish catch in some areas.

Some 180 clupeid species are listed here, placed in 56 genera, but more species will probably be described; the true total may be close to two hundred, and the number of genera could rise to about sixty. The clupeids can be conveniently placed in 5 subfamilies, although work in progress will probably show that the present arrangement is artificial and does not reflect true relationships.

Key to the Clupeid Subfamilies

- 1a. Pelvic scute W-shaped (Fig. 1a); no other scutes along belly.....**Dussumieriinae**
- 1b. Pelvic scute with ascending arms (Fig. 1b); scutes usually present before and behind pelvic fins

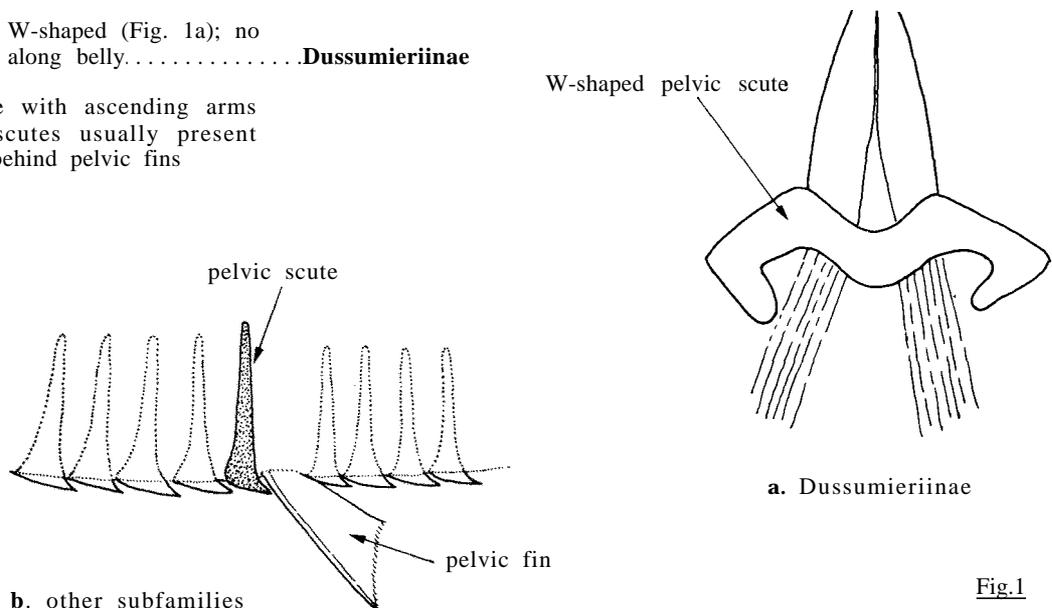


Fig.1