

**MOLLUSC SPECIES IN THE DIETS OF DAB (*Limanda limanda*),  
FLOUNDER (*Platichthys flesus*) AND PLAICE (*Pleuronectes platessa*)  
IN AARHUS BAY, DENMARK**

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**ABSTRACT**

Quantitative bottom samples revealed 19 species of molluscs in Aarhus Bay (12 bivalves and 7 gastropods). Bivalves were dominant in terms of numbers (97%) and biomass (more than 99%), while gastropods were rare. The species diversity of molluscs showed variation between May and September. Stomach contents of 1044 fish were examined for molluscs. Totals of 32, 19 and 19 species of molluscs were eaten by dab, flounder and plaice, respectively, and bivalves were the main food. The numbers and weight of molluscs consumed by the fish reflected the density of available food in the bottom-fauna at different times of the year. Of the three fish species, dab were least specific in their diet, and responded quickly to the changing availability of molluscs in the bay. *Abra alba* was the major item in the diet of all three, but flounder and plaice consumed relatively more of the thicker-shelled bivalve species (*Arctica islandica* and *Corbula gibba*). Whereas dab swallowed molluscs whole, shells in the stomachs of flounder and plaice were fragmented. There was, nevertheless, considerable overlap in the species consumed by the fish.

*Platichthys flesus*) and plaice (*Pleuronectes platessa*). These indicate that molluscs are the main prey, but that the preferred mollusc species vary among areas and habitats (Petersen & Jensen, 1911; Blegvad, 1916,

1926, 1928; Edwards & Steele, 1968; Edwards *et al.*, 1969; Braber & De Groot, 1973; Lande, 1973; Summers, 1979, 1980;

Wyche & Shackley, 1986; Economou, 1991; Chen *et al.*, 1992).

Aarhus Bay supports an important fishery, but there is little information on the importance of molluscs in the diet of the local flatfish. Therefore, the present study of the molluscan food and feeding habits of dab, flounder and plaice in Aarhus Bay was conducted from May to September 1998. The aims of the study were to assess the composition of mollusc species in the diets, to compare these with the molluscs in the bottom fauna, and to contrast the feeding habits of the three fish.