Type 22: Marshland streams of the coastal plains

Distribution in river landscapes and regions according to Briem (2003):

Marshland of the coastal plains and adjoining ground moraines of the older moraine landscapes.

Picture:

Stream on Süderoog (Schleswig-Holstein). Photograph: LANUSH

Short description of morphology:

The streams run in expansive meanders. The u-shaped channel profile has flat shores, which partially extend into mud flats. The channel bed shows little relief. The Substrates are usually clay, silt and mud. Some peat intrusions can occur. Overall substrate and current diversity are low. The riparian vegetation is dependent on the salt content of the water and tidal influence; while tidal reeds dominate in brackish water regions, woody riparian vegetation occurs in freshwater regions.

Abiotic profile:

Size class:	10 - > 10.000 km² catchment area (Elbe and Weser > 10.000 km^2 catchment area)
Slope of the valley floor:	< 0,1 $^0/_{00}$
Flow category:	dependent on tidal influence, bidirectional flow and backwater stagnation; typical is the reversal of water flow direction due to tidal influence
Channel substrates:	dependent on the regional and local geological and pedological situation; tendency to high levels of detritus and fine sediments

Physico-chemical water conditions:

(will be supplemented)

Conductivity [µS/cm]:
pH-value:
Alkalinity [°dH]:
Total hardness [°dH]:

Flow regime & hydrology:

Open marshland streams are tidal influenced.

Type 22: Marshland streams of the coastal plains

Characterisation of the macroinvertebrate community:	(will be supplemented)
Characterisation of macrophyte and pyhtobenthos communities:	(will be supplemented)
Characterisation of the fish fauna:	The fish fauna of the marshland streams varies greatly dependent on salt content (freshwater or marine influence) and tidal influence. Depending on the dominant conditions fish of the bream and/or ruffle region are found. Composition of the fauna can be determined by seasonally migrating species, especially with respect to abundance.
Comments:	**Notice:** Not yet completed studies in Lower Saxony and Schleswig-Holstein have shown that despite strong anthropogenic alterations, the marshland streams are not homogenous with respect to their biocoenoses. There are differences depending on stream size, salt concentration and catchment conditions. At present the following variants have been delimited: * Very large marshland rivers (22.3) (only Elbe and Weser), * Marshland streams with catchments in ground moraines of young and old moraine landscapes (22.2) and * Marshland streams with catchments almost completely inside the marshes, which flow directly into the North Sea or lower reaches of large rivers (22.1).
Examples of typical streams	Godel on Föhr (Schleswig-Holstein), Jümme (Lower Saxony)
Comparative literature (selection):	LANU (2001) „Schlickgeprägte Fließgewässer der Marschen“, SOMMERHÄUSER & SCHUHMACHER (2003); RASPER (2001) „Küstenmarschgewässer“, Hochschule Vechta (i. A. des NLÖ) (2003)