Appendix A

Range of environmental variables used in the analysis (*Ecological Archives* A025-055).

TABLE A1: Range of environmental variables (based on Ahrens 2007) used in the analysis

Code	Variable	mean (min, max)
DisM	Distance from mouth (m)	51181.13 (5100, 87700)
SOSh	Stream order Shreve	2.55 (1, 19)
SOSt	Stream order Strahler	1.38 (1, 3)
ChDe	Channel depth (m)	0.45 (0.01, 1.8)
ChWi	Channel width (m)	3.98 (0.2, 100)
ChWV	Channel width variability categories of 1: no, 2: low, 3: medium, 4: high, 5: very high	1.73 (1, 4)
CSFo	Cross-section form categories of 1: natural, 2: near natural, 3: erosive cross-section - varying, 4: failed embankment, 5: erosive cross-section - deep, 6: trapezoid, 7: V-shaped, 8: rectangular	5.12 (1, 8)
FlVe	Flow velocity categories of 1: no ($< 5\,cms^{-2}$), 2: low ($5-20\,cms^{-2}$), 3: medium ($20-40\,cms^{-2}$), 4: high ($40-80\,cms^{-2}$), 5: very high ($> 80\,cms^{-2}$)	2.81 (1, 5)
BAEr	Bed alteration - erosion (n/100 m)	0.11 (0, 7.72)
BAOt	Bed alteration - others (n/100 m)	0.09 (0, 11.17)
BAWa	Bed alteration - waste deposition (n/100 m)	0.12 (0, 18.42)
CBFO	Channel bed features - others (n/100 m)	0.06 (0, 17.4)
CBFR	Channel bed features - riffle pool (n/100 m)	0.06 (0, 8.41)
InVe	Instream vegetation categories of 1: no, 2: submerged, 3: floating leaved, 4: emerged macrophytes	1.82 (1, 4)
SMaS	Submerged macrophyte species (n)	0.74 (0, 4)
SuDi	Substrate diversity categories of 1: no, 2: low, 3: medium, 4: high, 5: very high	0.85 (0, 1.84)
SuHa	Substrate - hard gravel stones (%)	14.68 (0, 100)
SuMa	Substrate - macrophytes (%)	4.17 (0, 100)
SuSa	Substrate - sand (%)	57.74 (0, 100)
SuSo	Substrate - soft mud clay silt (%)	21.29 (0, 100)
SuWo	Substrate - wood (%)	2.12 (0, 80)
BFLW	Bank features - large wood (n/100 m)	0.06 (0, 5.49)
BFOt	Bank features - others (n/100 m)	0.04 (0, 4.4)
BPGr	Bank protection - green categories of 0: no, 1: one bank, 2: both banks	0.02 (0, 2)
BPWa	Bank protection - walls categories of 0: no, 1: one bank, 2: both banks	0.01 (0, 2)
BPno	no Bank protection categories of 0: no, 1: one bank, 2: both banks	1.45 (0, 2)
BPRi	Bank protection - riprap categories of 0: no, 1: one bank, 2: both banks	0.03 (0, 2)
BPWo	Bank protection - wood categories of 0: no, 1: one bank, 2: both banks	0.44 (0, 2)
RVRe	Riparian vegetation - reeds categories of 0: no, 1: one bank, 2: both banks	0.03 (0, 2)
RVSp	Riparian vegetation - sparse categories of 0: no, 1: one bank, 2: both banks	1.73 (0, 2)
RVTF	Riparian vegetation - trees, forest categories of 0: no, 1: one bank, 2: both banks	0.24 (0, 2)
CFIB	Channel features - islands braiding (n/100 m)	0.02 (0, 4.38)
CFLW	Channel features - large wood (n/100 m)	0.02 (0, 12.27)
CFNa	Channel features - narrowing (n/100 m)	0.09 (0, 12.27)
CFWi	Channel features - widening (n/100 m)	0.09 (0, 18.42)
ChDV	Channel depth variability categories of 1: no, 2: low, 3: medium, 4: high, 5: very high	1.61 (1, 5)
FlDi	Flow diversity categories of 1: no, 2: low, 3: medium, 4: high, 5: very high	1.77 (1, 4)
Plan	Planform categories of 1: meandering, 2: wormed, 3: strongly sinuous, 4: sinuous, 5: slightly sinuous, 6: straight, 7: channelized	5.65 (1, 7)

LITERATURE CITED

Ahrens, U. 2007. Gewässerstruktur: Kartierung und Bewertung der Fließgewässer in Schleswig-Holstein. Jahresbericht Landesamt für Natur und Umwelt des Landes Schleswig-Holstein 2006/07. 115–126. Landesamt für Natur und Umwelt des Landes Schleswig-Holstein, Flintbek.