

Patterns in macrozoobenthic assemblages indicate the state of the environment: insights from the Rhine-Meuse estuary

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Marine Ecology Progress Series 436:29–50

Supplement

Table S1. Significant differences at the level of $p < 0.05$ (ANOVA pairwise comparisons) in macrobenthos densities, Margalef richness d , Shannon-Wiener index H' and Pielou's equitability index J' between years for the basins Voordelta (VD), Haringvliet (HV), Hollandsch Diep (HD), Biesbosch (BB) and Rivers (RIV) as shown in Fig. 3, indicated whether values are larger ($>$) or smaller ($<$) in the first mentioned year than in the others

Significant differences in densities (no. m ⁻²):			
VD	1988	>	1963, 1968, 1983, 1984, 1985, 1990, 1994, 1995, 1996, 1997, 2000, 2003, 2004, 2005
	1989	>	1963, 1968, 1983, 1984, 1985, 1986, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2002, 2003, 2004, 2005, 2006
	1990	>	2004, 2005
	1992	>	1995, 1997, 2004, 2005
	1998	>	1984, 1995, 1996, 1997, 2004, 2005
HV	1994	>	1961, 1963, 1969, 1975, 1983, 1995
	1997	>	1960, 1961, 1963, 1969, 1973, 1975, 1977, 1983, 1993, 1995, 2001, 2002, 2003, 2005
HD	1993	>	1966, 1972, 1983
BB	1965	<	1993, 1994, 1999, 2001
	1966	<	1994, 2001
RIV	1971	<	1992, 1993, 1997, 2003
	2003	>	1965, 1966, 1995, 1998, 1999, 2000, 2001
Significant differences in Margalef's richness (<i>d</i>):			
VD	1963	>	1965, 1968, 1983, 1985, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005
	1984	>	1965, 1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003
	1985	>	1968, 1983, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003
	1986	>	1965, 1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003, 2004, 2005
	1988	>	1983, 1995, 1997, 2003
	1996	>	1983, 1995
	2002	<	1988, 1989, 1994, 1996, 1998, 2000
	2004	>	1968, 1983, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2002, 2003
	2005	>	1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003
	2006	>	1965, 1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003
HV	1969	<	1975, 1993, 2002
	1983	<	1975, 1993, 2002
	1995	>	1961, 1969, 1983, 2001
	1997	>	1961, 1969, 1983
HD	1963	>	1966, 1972, 1983, 1993
BB	1993	>	1965, 1966
	1994	>	1965, 1966, 1971, 1972, 1993, 2001
	1998	>	1965, 1966, 1971, 1972, 1993, 2001
	1999	>	1965, 1966, 1971, 1972, 1993, 2001
	2001	>	1965, 1966
	2002	>	1965, 1966, 1971, 1972, 1993, 1994, 1998, 1999, 2001
RIV	1965	<	1992, 1998, 2002, 2003
	1966	<	1992, 1998, 2002, 2003
	1993	>	1965, 1966, 1971, 2000, 2001
	1995	>	1965, 1966, 1971, 2000, 2001
	1997	>	1965, 1966, 1971, 2000, 2001
	1999	>	1965, 1966, 1971, 2000, 2001

Significant differences in Shannon-Wiener diversity index (H'):			
VD	1961	<	1966, 1984, 1985, 1986, 1990, 1992, 1993, 1996, 2003
	1963	<	1966, 1984, 1985, 1988, 1989, 1990, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003
	1965	<	1966, 1984, 1985, 1986, 1990, 1992, 1993, 1994, 1996, 2003
	1983	<	1966, 1984, 1985, 1986, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2003
	1985	>	1968, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2002, 2004
	1986	>	1968, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2002, 2004
	1995	<	1984, 1990, 1992
	1996	>	1988, 1994, 1995, 1998, 2000, 2002
	2000	<	1984, 1990
	2004	>	1961, 1963, 1965, 1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1997, 1998, 2000, 2002
	2005	>	1961, 1963, 1965, 1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2002, 2003
	2006	>	1961, 1963, 1965, 1968, 1983, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2000, 2001, 2002, 2003
HV	1960	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1961	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1963	<	1983, 1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1969	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1973	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1974	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1975	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1977	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	1983	<	1993, 1994, 1995, 1997, 1998, 2001, 2002, 2003, 2005
	2001	<	1993, 1995, 1997
HD	1960	<	1993, 1994, 1998, 2002
	1961	<	1972, 1993, 1994, 1998, 2002
	1963	<	1993, 1994, 1998, 2002
	1966	<	1972, 1993, 1994, 1998, 2002
	1969	<	1993, 1994, 1998, 2002
	1972	<	1993, 1994, 1998, 2002
	1973	<	1993, 1994, 1998, 2002
	1974	<	1993, 1994, 1998, 2002
	1975	<	1993, 1994, 1998, 2002
	1983	<	1972, 1993, 1994, 1998, 2002
BB	1965	<	1966, 1993, 1994, 1998, 1999, 2001, 2002
	1966	<	1993, 1994, 1998, 1999, 2001, 2002
	1971	<	1993, 1994, 1998, 1999, 2001, 2002
	1972	<	1993, 1994, 1998, 1999, 2001, 2002
RIV	1965	<	1992, 1993, 1995, 1997, 1998, 1999, 2002, 2003
	1966	<	1992, 1993, 1995, 1997, 1998, 1999, 2001, 2002, 2003
	1971	<	1992, 1993, 1995, 1997, 1998, 1999, 2001, 2002, 2003
	2000	<	1992, 1993, 1997, 1999
	2001	<	1992, 1993, 1997, 1999
	1997	>	2002, 2003
Significant differences in Pielou's equitability index (J'):			
VD	1968	>	1983, 1988, 1989, 1992, 1994, 1998, 2000, 2002, 2003
	1983	<	1985, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1997, 1998, 2001, 2003, 2004, 2005, 2006
	1988	<	1985, 1990, 1996, 2004, 2005
	1989	<	1985, 1990, 1995, 1996, 2004, 2005
	1996	>	1994
	1997	>	1986, 1988, 1989, 1990, 1992, 1994, 1995, 1996, 1998, 2000, 2002, 2003
	1998	<	1985, 1990, 1996, 2004, 2005, 2006
	2000	<	1985, 1990, 1992, 1995, 1996, 2001, 2003, 2004, 2005, 2006
HV	1963	<	1961, 1969, 1975, 1995, 2001, 2005
	1975	>	1994, 1995, 1997, 1998, 2002
	2001	>	1994, 1995, 1997, 2002
HD			
BB			
RIV	1965	>	1995, 2003
	1971	>	1995, 2001, 2003