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Artikel: Vegetationskundlich-ökologische Untersuchungen und Bewirtschaftungsexperimente in Halbtrockenwiesen ("Mesobromion") auf dem Schaffhauser Randen = Phytosociological and ecological investigations and experimental management in mesobromion limestone grassland on the Randen, a Jurassic mountain in northern Switzerland

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Anhang 1. Übersicht über die Messdaten (Mittelwerte).
Overview of the measured data (mean values).

n: Anzahl Werte - *number of values*, x: Mittelwert - *mean value*, s: Standardabweichung - *standard deviation*.

a) Momentaner und potentiell verfügbarer Ammonium- und Nitrat-Stickstoff in mg/100 g Boden auf den Versuchsflächen BM, Bargaen, Tannbüel, und MM, Merishausen, Gräental.
Momentary and potentially available amount of nitrogen in the form of ammonia and nitrate in mg/100 g soil on the experimental plots, BM, Bargaen, Tannbüel, and MM, Merishausen, Gräental.

	Datum	Messgrösse [mg/100 g Boden]	Brache			Mahd			Feuer		
			n	x	s	n	x	s	n	x	s
BM	26.4.1977	NH ₄ ⁺ momentan	15	0.893	0.612	20	0.570	0.367	21	1.562	0.903
		NO ₃ ⁻ momentan	15	0.200	0.054	20	0.215	0.093	21	0.314	0.165
		NH ₄ ⁺ potentiell	15	0.987	0.383	20	1.135	0.232	21	1.257	0.218
		NO ₃ ⁻ potentiell	15	0.427	0.139	20	0.610	0.335	21	1.324	1.374
	3.7.1977	NH ₄ ⁺ momentan	15	0.907	0.533	20	0.690	0.200	21	0.810	0.202
		NO ₃ ⁻ momentan	15	0.107	0.026	20	0.120	0.041	21	0.119	0.040
		NH ₄ ⁺ potentiell	15	0.733	0.062	20	0.685	0.037	21	0.710	0.077
		NO ₃ ⁻ potentiell	15	0.320	0.276	20	0.190	0.085	21	0.762	0.631
	22.8.1977	NH ₄ ⁺ momentan	15	0.853	0.119	20	0.820	0.180	21	1.195	0.273
		NO ₃ ⁻ momentan	15	0.040	0.051	20	0.040	0.050	21	0.076	0.054
		NH ₄ ⁺ potentiell	15	0.173	0.080	20	0.195	0.110	21	0.114	0.091
		NO ₃ ⁻ potentiell	15	0.160	0.106	20	0.130	0.066	21	0.152	0.166
	23.11.1977	NH ₄ ⁺ momentan	15	0.347	0.164	20	0.200	0.112	21	0.376	0.241
		NO ₃ ⁻ momentan	15	0.060	0.051	20	0.075	0.072	21	0.229	0.255
		NH ₄ ⁺ potentiell	15	0.427	0.089	20	0.365	0.067	21	0.362	0.059
		NO ₃ ⁻ potentiell	15	0.133	0.049	20	0.105	0.022	21	0.305	0.484
10.5.1978	NH ₄ ⁺ momentan	15	11.307	11.425	20	10.580	11.836	21	6.071	9.993	
	NO ₃ ⁻ momentan	15	0.107	0.059	20	0.095	0.051	21	0.252	0.160	
	NH ₄ ⁺ potentiell	15	0.480	0.056	20	0.440	0.060	21	0.452	0.051	
	NO ₃ ⁻ potentiell	15	0.167	0.176	20	0.105	0.089	21	0.910	0.983	
MM	26.4.1978	NH ₄ ⁺ momentan	8	0.313	0.064	16	0.506	0.404	8	0.275	0.046
		NO ₃ ⁻ momentan	8	2.000	1.852	16	2.063	3.296	8	1.625	1.685

b) Biomasse in g Trockensubstanz/m² auf den Versuchsflächen BS, BL und BM, Bargaen, Tannbüel, und ML sowie MM, Merishausen, Gräental.
Biomass in g dry weight biomass/m² on the experimental plots, BS, BL, and BM, Bargaen, Tannbüel, ML and MM, Merishausen, Gräental.

	Datum	Messgrösse [g TS/m ²]	Mahd		
			n	x	s
BS	24.10.1975	Biomasse	12	240.93	29.35
	13.8.1976	Biomasse	12	280.61	39.67
	5.9.1977	Biomasse	12	181.70	42.40
	18.9.1978	Biomasse	12	199.57	28.32
	31.8.1979	Biomasse	12	166.19	37.13

b) (Fortsetzung - *continued*)

	Datum	Messgrösse [g TS/m ²]	Mahd		
			n	x	s
BL	24.10.1975	Biomasse	12	242.35	53.36
	13.8.1976	Biomasse	12	136.49	39.90
	5.9.1977	Biomasse	12	124.57	27.05
	18.9.1978	Biomasse	12	112.05	29.93
	31.8.1979	Biomasse	12	165.35	39.67
ML	24.10.1975	Biomasse	12	172.97	47.51
	13.8.1976	Biomasse	12	148.23	29.00
	5.9.1977	Biomasse	12	192.12	45.51
	18.9.1978	Biomasse	12	156.61	37.40
	31.8.1979	Biomasse	12	108.03	29.80

	Datum	Messgrösse [g TS/m ²]	Brache			Mahd			Feuer		
			n	x	s	n	x	s	n	x	s
BM	22.8.1978/ 25.9.1978	Biomasse	15	451.72	155.53	20	286.95	90.80	21	379.40	151.55
MM	18.8.1978	Biomasse	18	313.83	100.22	24	126.75	30.55	18	230.33	72.26

c) Stickstoff und Phosphor in der Biomasse in Gewichtsprozent auf den Versuchsflächen BM, Barga, Tannbüel, und MM, Merishausen, Grätental.

Nitrogen and phosphorus in the biomass in percentage by weight on the experimental plots, BM, Barga, Tannbüel, and MM, Merishausen, Grätental.

	Datum	Messgrösse [%]	Brache			Mahd			Feuer		
			n	x	s	n	x	s	n	x	s
BM	22.8.1978/ 25.9.1978	Stickstoff	15	1.071	0.085	20	1.238	0.130	21	1.092	0.155
		Phosphor	15	0.073	0.006	20	0.111	0.024	21	0.094	0.021
MM	18.8.1978	Stickstoff	18	1.124	0.236	24	1.216	0.136	18	1.131	0.198
		Phosphor	18	0.074	0.010	24	0.091	0.010	18	0.085	0.011

d) Aschenmenge in g Trockensubstanz/m², Stickstoff und Phosphor in der Asche in Gewichtsprozent und anorganischer Anteil in der Asche und der Streu in Gewichtsprozent auf der Versuchsfläche BM, Barga, Tannbüel.

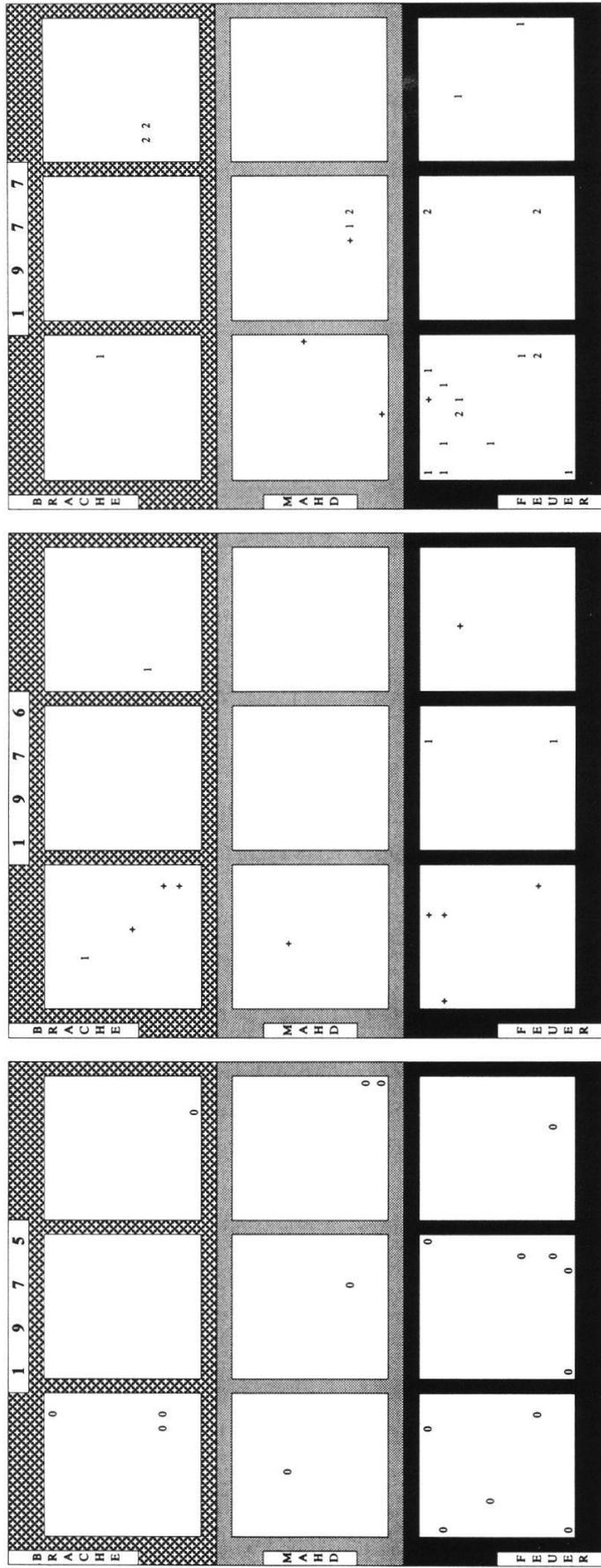
Quantity of ashes in g of dry weight/m², percentage by weight of nitrogen and phosphorus in the ashes, and percentage by weight of anorganic parts of ashes and litter on the experimental plot, BM, Barga, Tannbüel.

	Datum	Messgrösse	Feuer		
			n	x	s
BM	15.3.1978	Gewichts-% Stickstoff in Asche	21	1.343	0.223
		Gewichts-% Phosphor in Asche	21	0.332	0.075
		Gewichts-% anorg. Anteil in Streu	20	10.311	1.741
		Gewichts-% anorg. Anteil in Asche	21	43.389	8.219

d) (Fortsetzung - *continued*)

	Datum	Messgrösse	Feuer		
			n	x	s
BM	1.3.1980	g Asche pro m ²	18	49.043	25.604
		Gewichts-% Stickstoff in Asche	8	1.100	0.248
		Gewichts-% Phosphor in Asche	8	0.331	0.045

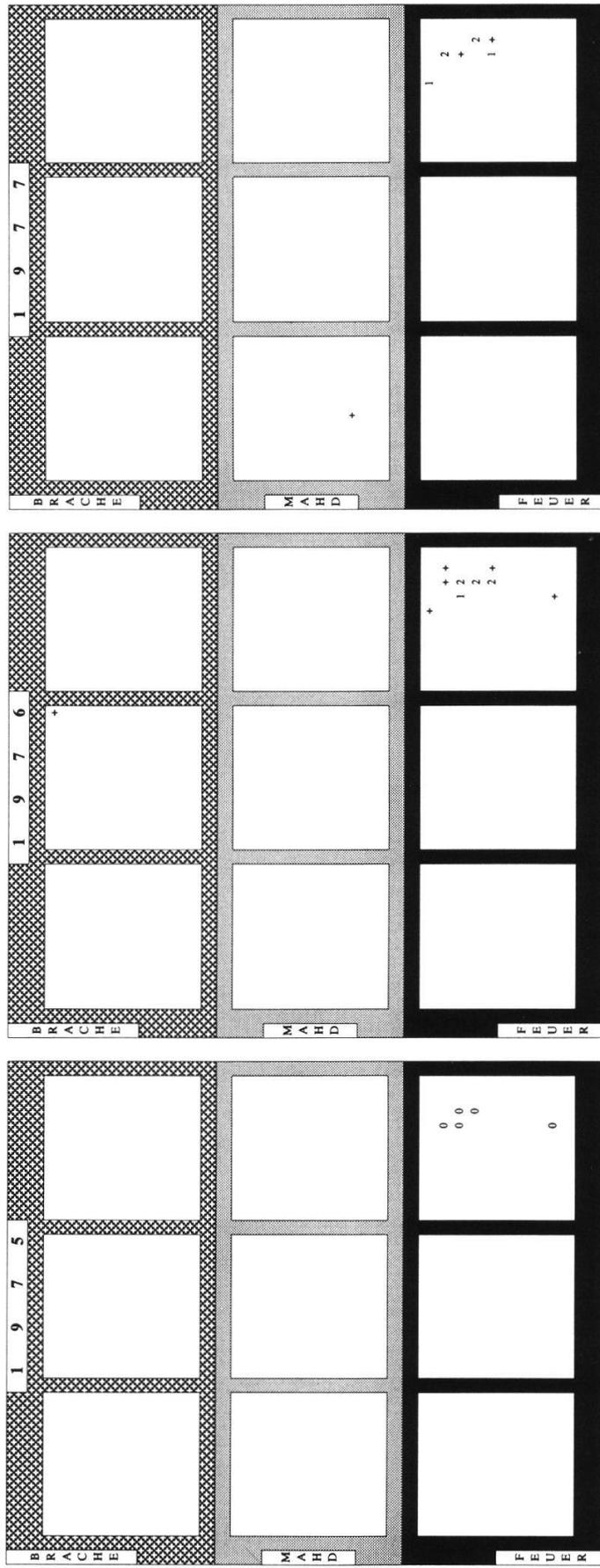
Anhang 2a. Räumliches Verteilungsmuster verschiedener Arten in der Versuchsfläche BS, Bergen. Rastervegetationsaufnahmen auf 100 dm²/1 m²-Einheiten. 1975: vorhanden (0) - nicht vorhanden, 1976 und 1977: Deckungswert nach BRAUN-BLANQUET (1964).
Spatial distribution pattern of different species in the experimental plot, BS, Bergen. Grid vegetation samples in 100 dm²/1 m² -units. 1975: present (0) - absent, 1976 and 1977: cover according to BRAUN-BLANQUET (1964).



Briza media

B S

Anhang 3a. Räumliches Verteilungsmuster verschiedener Arten in der Versuchsfläche BL, Borgen. Rastervegetationsaufnahmen auf 100 dm²/1 m²-Einheiten. 1975: vorhanden (0) - nicht vorhanden, 1976 und 1977: Deckungswert nach BRAUN-BLANQUET (1964).
Spatial distribution pattern of different species in the experimental plot, BL, Borgen. Grid vegetation samples in 100 dm²/1 m²-units. 1975: present (0) - absent, 1976 and 1977: cover according to BRAUN-BLANQUET (1964).



Asperula cynanchica

B L

Anhang 3b. (Fortsetzung - continued)

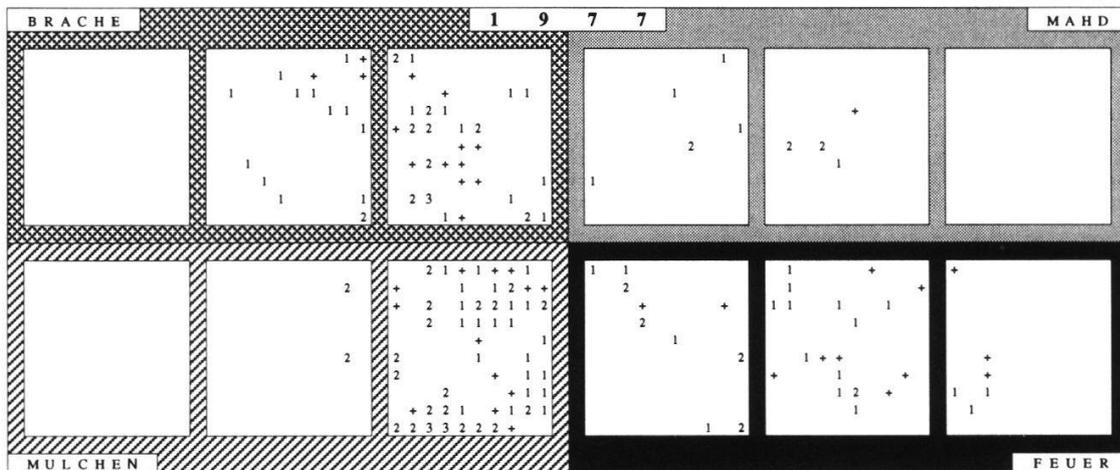
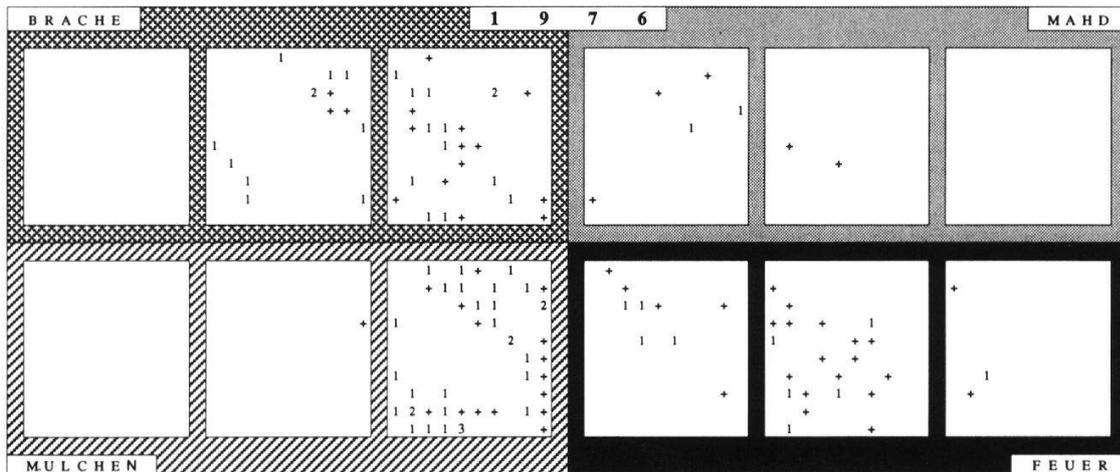
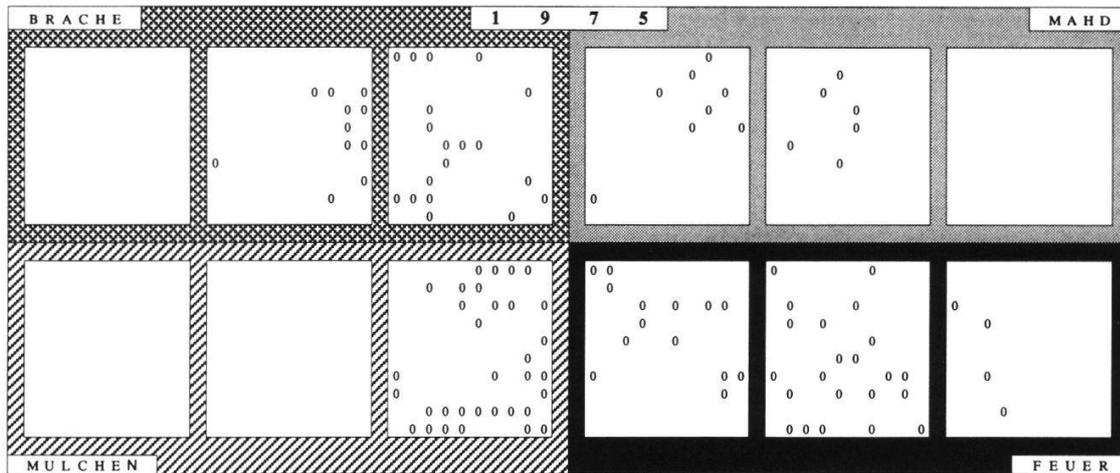
	1	9	7	5		1	9	7	6		1	9	7	7
B	0	0	0	0	0	2	2	2	2	2	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	1	1	1	1
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
C	0	0	0	0	0	2	2	2	2	3	3	3	3	3
H	0	0	0	0	0	3	3	3	3	3	3	3	3	3
E	0	0	0	0	0	3	3	3	3	3	3	3	3	3
M	0	0	0	0	0	2	2	2	2	3	3	3	3	3
A	0	0	0	0	0	3	3	3	3	3	3	3	3	3
H	0	0	0	0	0	3	3	3	3	3	3	3	3	3
D	0	0	0	0	0	3	3	3	3	3	3	3	3	3
F	0	0	0	0	0	3	3	3	3	3	3	3	3	3
E	0	0	0	0	0	3	3	3	3	3	3	3	3	3
U	0	0	0	0	0	3	3	3	3	3	3	3	3	3
R	0	0	0	0	0	3	3	3	3	3	3	3	3	3
B	0	0	0	0	0	1	2	2	2	3	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	3	3	3	3
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
C	0	0	0	0	0	1	2	2	2	3	3	3	3	3
H	0	0	0	0	0	1	2	2	2	3	3	3	3	3
E	0	0	0	0	0	1	2	2	2	3	3	3	3	3
M	0	0	0	0	0	1	2	2	2	3	3	3	3	3
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
H	0	0	0	0	0	1	2	2	2	3	3	3	3	3
D	0	0	0	0	0	1	2	2	2	3	3	3	3	3
F	0	0	0	0	0	1	2	2	2	3	3	3	3	3
E	0	0	0	0	0	1	2	2	2	3	3	3	3	3
U	0	0	0	0	0	1	2	2	2	3	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	3	3	3	3
B	0	0	0	0	0	1	2	2	2	3	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	3	3	3	3
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
C	0	0	0	0	0	1	2	2	2	3	3	3	3	3
H	0	0	0	0	0	1	2	2	2	3	3	3	3	3
E	0	0	0	0	0	1	2	2	2	3	3	3	3	3
M	0	0	0	0	0	1	2	2	2	3	3	3	3	3
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
H	0	0	0	0	0	1	2	2	2	3	3	3	3	3
D	0	0	0	0	0	1	2	2	2	3	3	3	3	3
F	0	0	0	0	0	1	2	2	2	3	3	3	3	3
E	0	0	0	0	0	1	2	2	2	3	3	3	3	3
U	0	0	0	0	0	1	2	2	2	3	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	3	3	3	3
B	0	0	0	0	0	1	2	2	2	3	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	3	3	3	3
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
C	0	0	0	0	0	1	2	2	2	3	3	3	3	3
H	0	0	0	0	0	1	2	2	2	3	3	3	3	3
E	0	0	0	0	0	1	2	2	2	3	3	3	3	3
M	0	0	0	0	0	1	2	2	2	3	3	3	3	3
A	0	0	0	0	0	1	2	2	2	3	3	3	3	3
H	0	0	0	0	0	1	2	2	2	3	3	3	3	3
D	0	0	0	0	0	1	2	2	2	3	3	3	3	3
F	0	0	0	0	0	1	2	2	2	3	3	3	3	3
E	0	0	0	0	0	1	2	2	2	3	3	3	3	3
U	0	0	0	0	0	1	2	2	2	3	3	3	3	3
R	0	0	0	0	0	1	2	2	2	3	3	3	3	3

Bromus erectus

B L

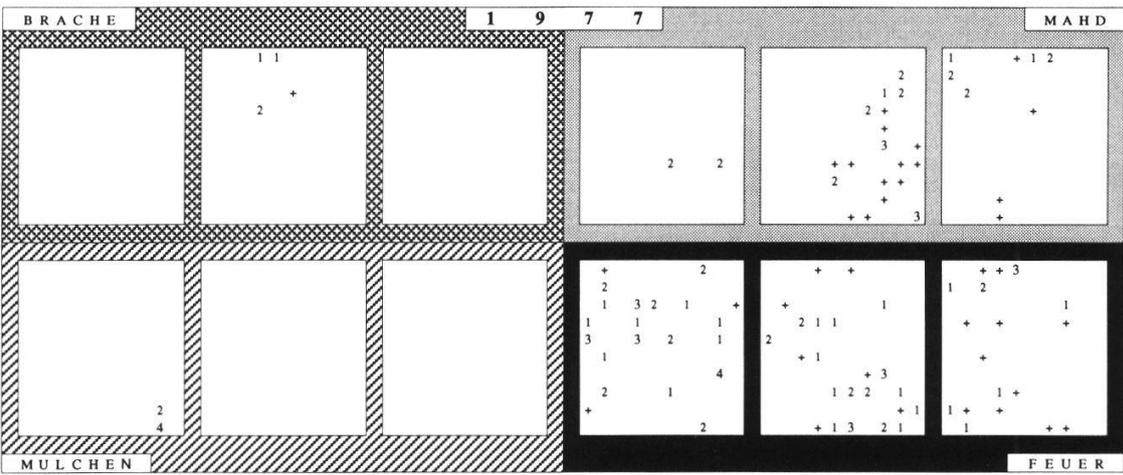
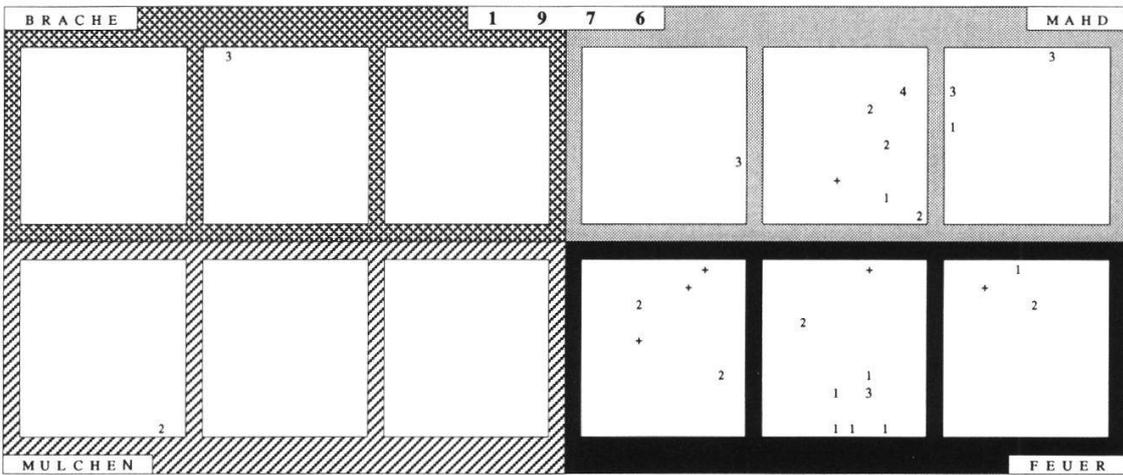
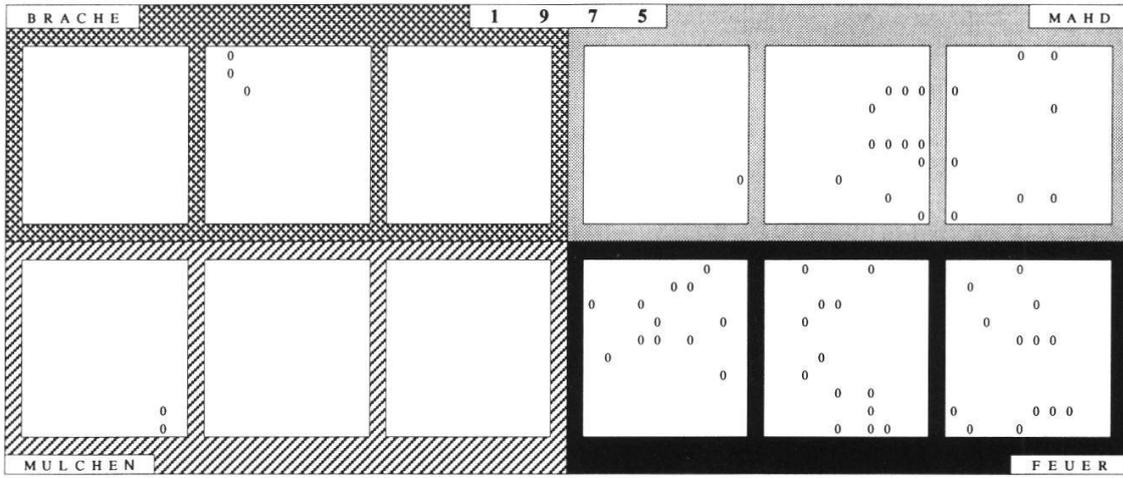
Anhang 4a. Räumliches Verteilungsmuster verschiedener Arten in der Versuchsfläche ML, Merishausen. Rastervegetationsaufnahmen auf 100 dm²/1 m²-Einheiten. 1975: vorhanden (0) - nicht vorhanden, 1976 und 1977: Deckungswert nach BRAUN-BLANQUET (1964).

Spatial distribution pattern of different species in the experimental plot, ML, Merishausen. Grid vegetation samples in 100 dm²/1 m²-units. 1975: present (0) - absent, 1976 and 1977: cover according to BRAUN-BLANQUET (1964).



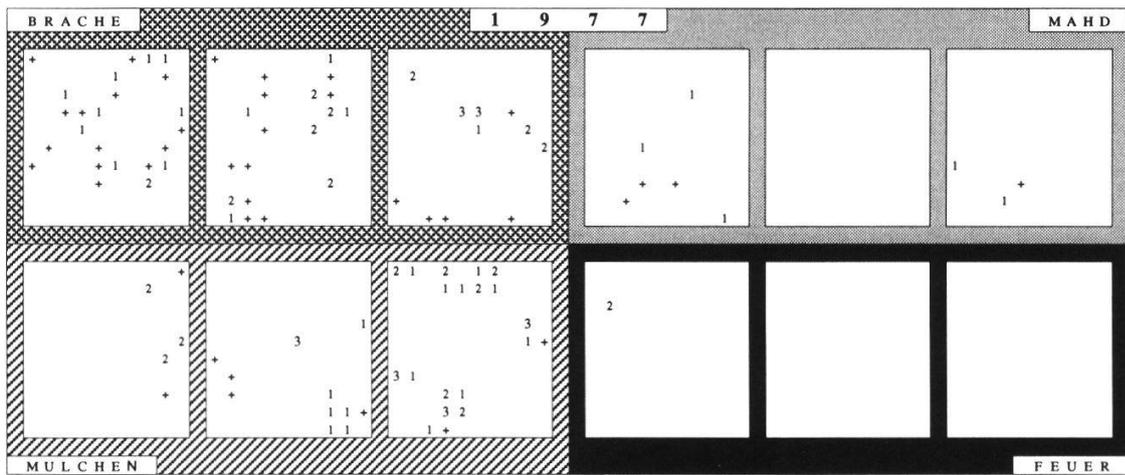
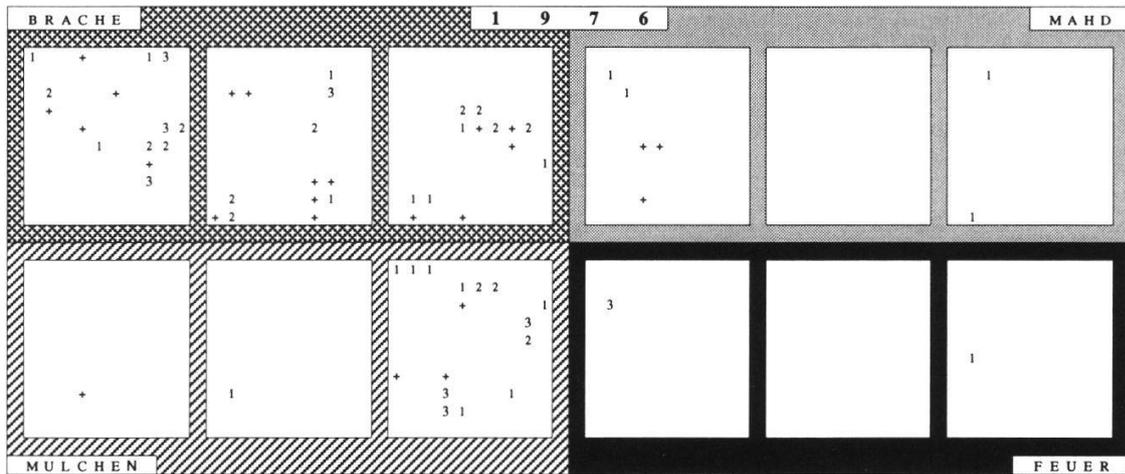
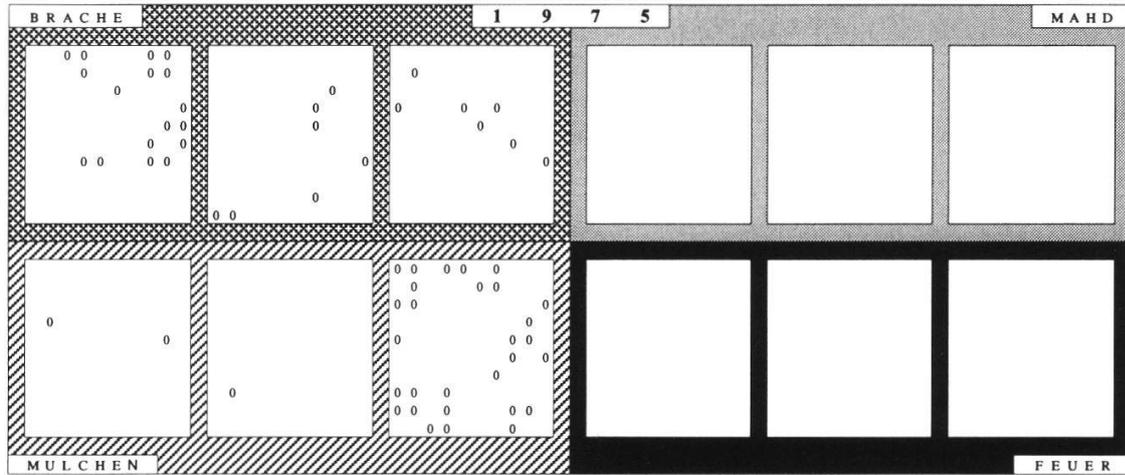
Achillea millefolium M L

Anhang 4b. (Fortsetzung - continued)



Anthyllis vulgaris M L

Anhang 4c. (Fortsetzung - continued)



<i>Arrhenatherum elatius</i>	M L
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Anhang 4d. (Fortsetzung - continued)

BRACHE	1 9 7 5				MAHD
0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	
MULCHEN					FEUER

BRACHE	1 9 7 6				MAHD
2 2 2 2 1 + 2 2 1 + 1 1 2 1 + 1 1 2 + 1 2 + 1 2 2 2 + 3	1 1 2 1 + 2 3 + 1 1 2 1 2 3 + 1 + 2 3 2 2 + 1 + 2 + 2 3 2 + 2 + 3 2 1 2 1 + 1	+ 2 1 1 1 3 2 1 2 + + 1 + 1 1 1 1 3 3 + 2 2 + 3 3 1 1 + 2 2 1 + + 1 3	+ 1 1 2 3 1 2 2 + 2 + + 1 + + 2 + + + 1 + + 3 + 1 1 + 1	1 + + 1 2 2 3 1 + + + 2 + + 1 1 1 + 1 3 + 2 + + + 1 1 + 2 2 1 + + 2 + + 1 1 1 1	+ 1 + 2 + 3 1
3 1 + 2 1 1 + 2 1 + 1 + 3 + 1 2 2 3 + 1 + 3 3 2 1 2 + 3 3 2 1 1 + 3	+ 3 1 1 3 3 + 1 + 1 1 3 + + 3 3 1 2 + + 1 3 + 2 3 + + 1 1 1 + 2 2 + 2 + 1 3 1	3 + + + 1 + 1 1 3 + + + 1 2 + 2 2 1 3 + 2 1 + + 1 +	+ 1 + + + 1 1 2 + + 1 1 3 3 + + 1 1 1 1 + 1 3 + + 1 1 1 3 + 3 3 1 1 1 + 2 2 2 + + 2 1 + + 3 3 + 2 2 1 3 3 2 1	2 + 1 1 + 1 + 1 1 1 1 + 1 2 + + 1 3 1 2 + 2 + 1 + 1 + 1 + + + 2 3 3 + +	+ 2 + 1 + + 1 + 2 + 2 + 1 + 2 + 2 2 2 + 2 2 2 1 1 1 1 + 1 3 + 2 2 2 + + 2 1 1 + +
MULCHEN					FEUER

BRACHE	1 9 7 7				MAHD
+ + 2 1 2 + + 1 1 2 + + 2 + + 3 + 1 2 + + 2 + + + + + + 1 1 1 1 1 2 1 2 3 2 1 +	+ 2 2 1 2 1 2 + 1 2 2 + + + 1 + + 1 2 2 + + 1 2 2 + 2 1 2 1 1 1 2 1 + 1 1 2 + 1 + 1 2 3 2 2 2 1 1	+ + 2 2 1 2 + 2 2 + + + + 1 + + + 1 3 1 2 2 2 3 + 1 + 1 1 + + 1 + 1 + 2 +	1 1 2 1 1 1 2 1 1 1 1 1 + + 2 + 1 1 1 + 1 + 1 + + + 1 1 + + + + 1 1 + + + + 1 1 1 + + + + 1	+ 2 + + + 1 1 + + + + 1 + 1 1 1 1 1 + + 1 + + 1 1 2 + 1 + + 1 + + + + 1 + + + + 1 1 2 1 2 2 + 1 1 + + + + 1	2 + 1 + + + + 2 1 1 + 1 + + 1 1 + + + 1 + + + +
1 3 + + 1 + 1 + + 1 + 1 3 + + 1 + + + 1 1 1 1 1 1 + + 1 2 2 2 1 + +	2 1 2 + 1 2 + 1 1 1 1 2 1 + 2 2 2 + 2 1 + 2 + 1 1 + 2 + 3 2 2 2 1 1 + + + 1 + + 1 + 3 + + + 1 + 1 2 1 + 1 2 1	3 2 2 1 1 1 + + + + + + + + 1 1 1 1 1 1 2 2 1 1 + + + 2 1 1 + 2 1 1	1 1 + + + 1 2 2 + + 1 1 1 1 3 3 + + 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2 1 1 2 1 1 2 + + 2 2 2 2 + 2 + 2 + 2 3 1 2 1 + 2 3 2 2 1 +	2 + 1 1 + + 1 + 1 1 + 2 1 + 1 1 1 2 1 1 1 2 2 + 1 2 1 + + + + 2 1 1 1 1 2 1 1 + 2 1 2 + + + 1 1 1	+ + 1 1 + + 1 + 1 1 + 2 1 2 + 2 1 1 1 2 + 1 1 2 + 2 2 + + 1 2 1 1 2 1 + 1 + 3 + 2 + + + + + 1 1 + 2
MULCHEN					FEUER

Asperula cynanchica M L

Anhang 4h. (Fortsetzung - continued)

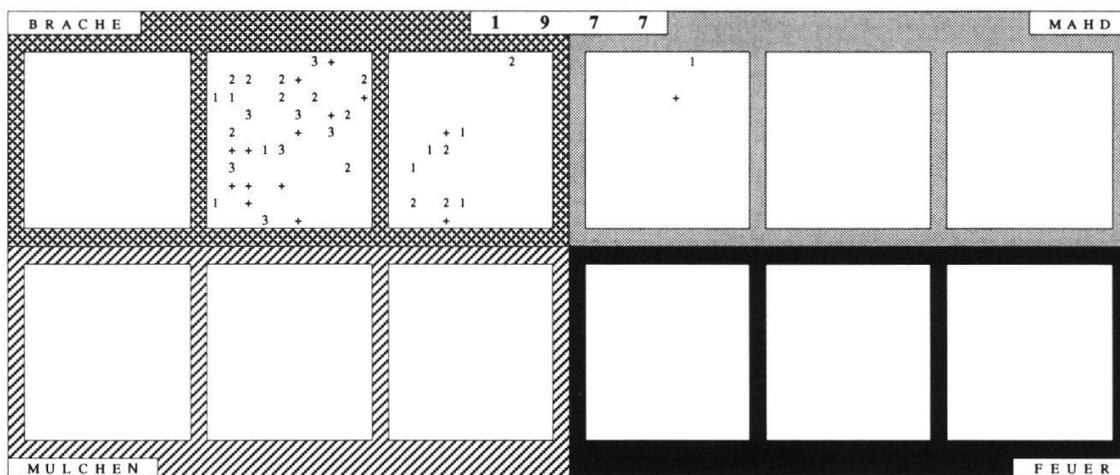
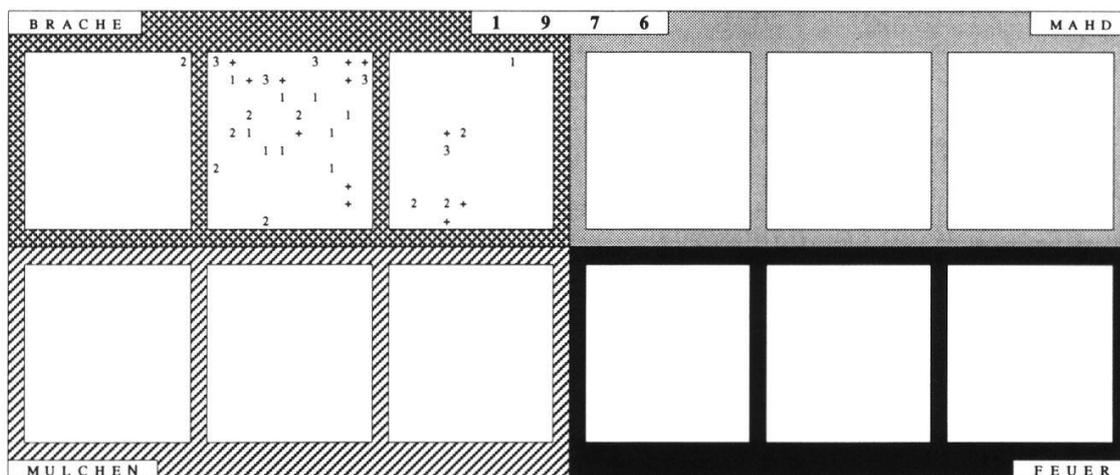
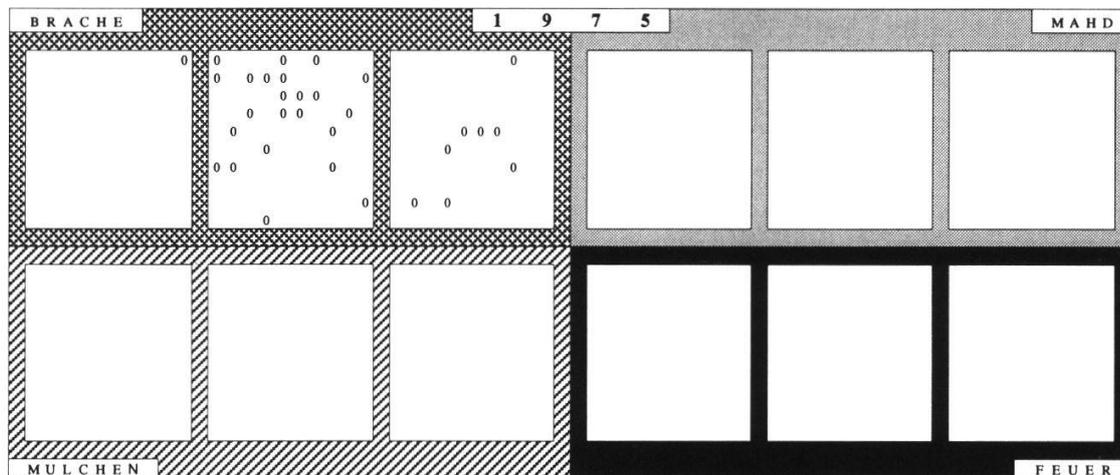
BRACHE			1 9 7 5			MAHD		
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0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0							
0 0 0 0 0 0 0 0 0		0 0 0 0						
MULCHEN								FEUER

BRACHE			1 9 7 6			MAHD		
1 2 2 2 1 3 3 1 3 3	3 1 2 2 3 3 2 3 2 1 1				2			
1 4 2 3 4	2 3 2 2 1 2 1 2 1				+			
1 3 1 2 1 1 3		2 3 3 2 2 2 1 2 + 2 3 3 4 3 1					+ 2	
MULCHEN								FEUER

BRACHE			1 9 7 7			MAHD		
1 1 2 1 4 1	2 1 1 2 1 3 1 1 1							
1 3 1 1 2 1 1 1		1 2 1 3 2 3 1 5 1						
1 2 1 1 1 1 1		1 2 1 3 2 3 2 2					2	
MULCHEN								FEUER

Centaurea jacea M L

Anhang 4i. (Fortsetzung - continued)



Fragaria vesca

M L

Anhang 4j. (Fortsetzung - continued)

BRACHE			1 9 7 5			MAHD		
0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0			0 0 0 0 0 0 0 0 0 0 0		
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
MULCHEN						FEUER		

BRACHE			1 9 7 6			MAHD		
2 1 1 1 2 2 1 2 1 2 1 1 1 2 ++ 1 +	1 2 + 1 1 + 2 1 2 1 1 2 2 3 + 1 2 1 3 1 1 1	3 + 3 1 1 + 1 2 1 3 3 1 2 1 1 3 1 2	++ 1 2 + + 1 1 ++ 2 + 1 + + 1 + 1 1			2 1 3 1 1 1 + 2 1 2 1 1 + 1		
1 + 3 + 1 1 + 3 1 2 1 +	+ 1 ++ 2 + 3 1 3 3 2 + 2	2 + 3 3 2 3 + 1 + 3 2 + 3 + 3 + 2 1	+ + 2 1 3 3 2 1 1	1 + 1 1 + 1 1 2 3 2 1 1	1 + 1 + 1	1 + 1 + 1		
MULCHEN						FEUER		

BRACHE			1 9 7 7			MAHD		
+ 1 2 2 1 1 2 + 1 + 1 + 1 2 2 1 1 1 1 1 2 1 2 + + 1 2	1 1 1 1 1 3 ++ 1 1 2 + 1 + 1 4 1 1 1 1 1 1 1	+ 3 1 ++ + 3 1 + 1 1 1 +	1 + 1 + 1 + + 1 + + 2 1 3 2 1 1 + 1 +			1 2 2 + 1 2 + 1 + 1 1 + 1		
2 2 1 1 1 + 1 2 + 2 + 2 1	1 1 + 1 2 1 + 1 2 2 + 2 + 1 2 2 + 1 1	1 2 2 3 2 1 1 2 2 3 2 + + 2 1 2 2 + 1 1 + +	1 + 2 + 1 1 1 1 + + 2 2 + 1 1 ++ + 1 + 1	1 + + 1 + 1 1 ++ + 1 + 1	1 + 2 1 + 1 1 1 + + 2 + 2 + 1 + 1	++ + + 1 + +		
MULCHEN						FEUER		

Galium album M L

Anhang 4k. (Fortsetzung - continued)

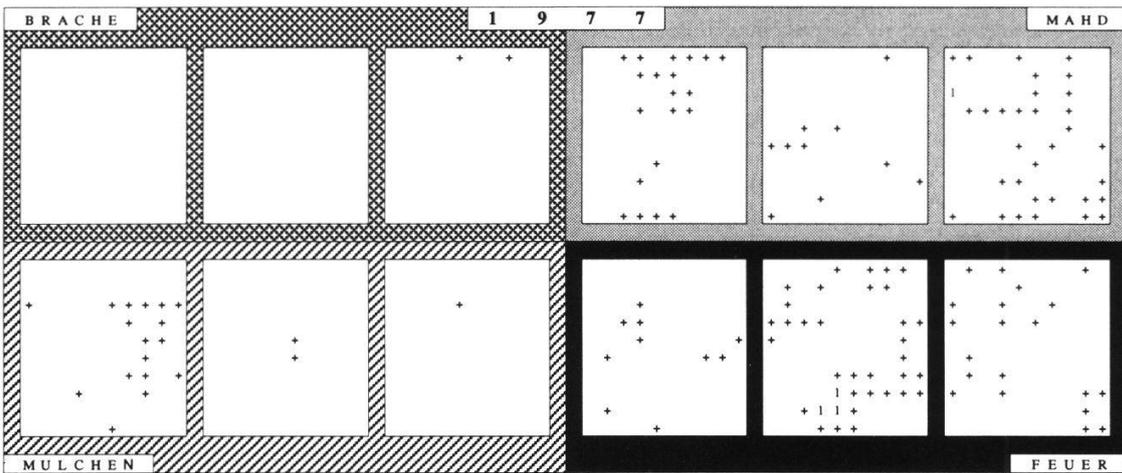
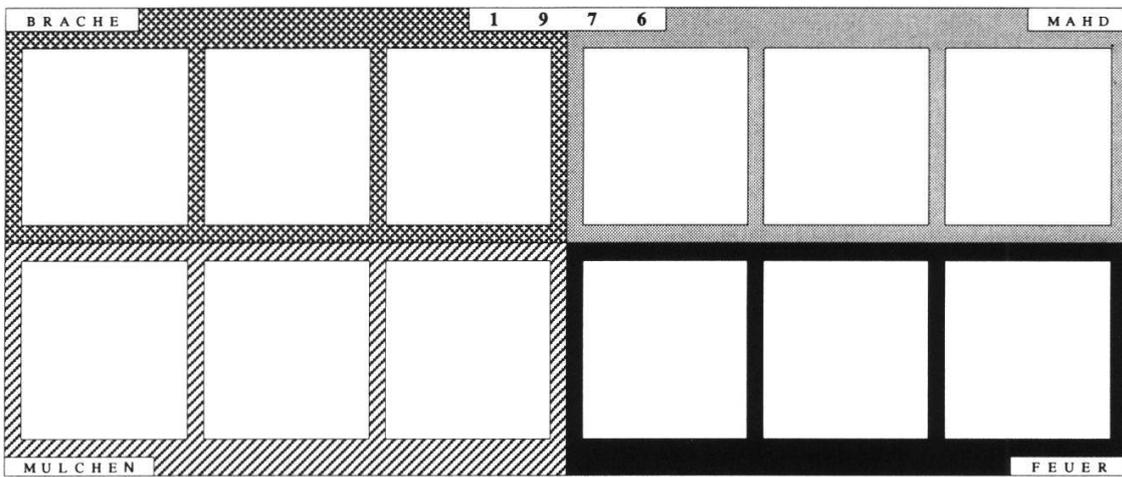
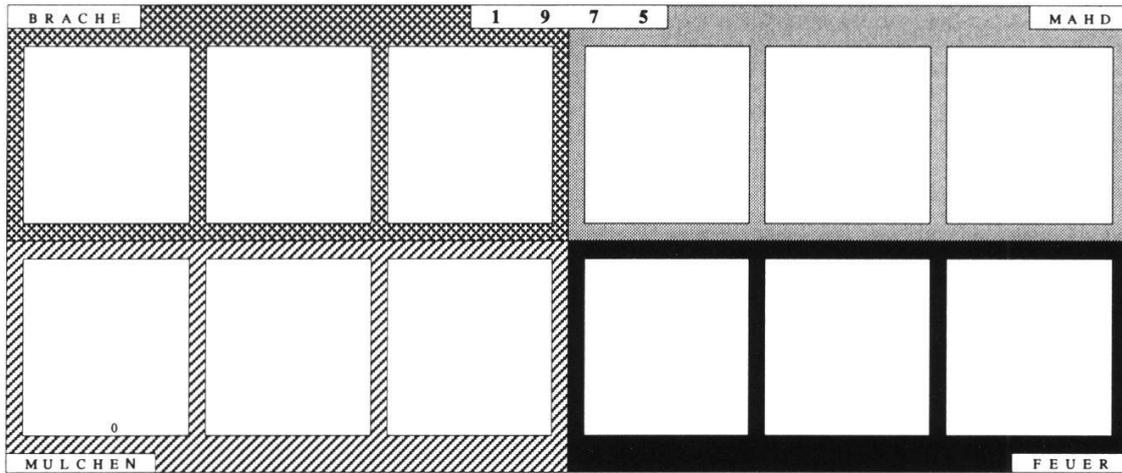
BRACHE			1	9	7	5	MAHD		
							0 0		0
							0 0		
							0 0		
							0		
							0		
							0		
							0		
							0		
							0		
MULCHEN									FEUER

BRACHE			1	9	7	6	MAHD		
							1		
							1		
							1		
							2		
							3		
							2		
							1		
MULCHEN									FEUER

BRACHE			1	9	7	7	MAHD		
							2 1		+
							2 2		
							2 2		
							1		
							3		
							3		
							4		
							3		
							1		
MULCHEN									FEUER

Hippocrepis comosa M L

Anhang 4m. (Fortsetzung - continued)



Linum catharticum (einjährige Pflanzen) M L

Anhang 4o. (Fortsetzung - continued)

BRACHE			1 9 7 5			MAHD		
		0		0	0			
MULCHEN						FEUER		

BRACHE			1 9 7 6			MAHD		
MULCHEN						FEUER		

BRACHE			1 9 7 7			MAHD		
	2							
	+		3			1	2	1
MULCHEN						FEUER		

Orobanche alsatica M L

Anhang 4q. (Fortsetzung - continued)

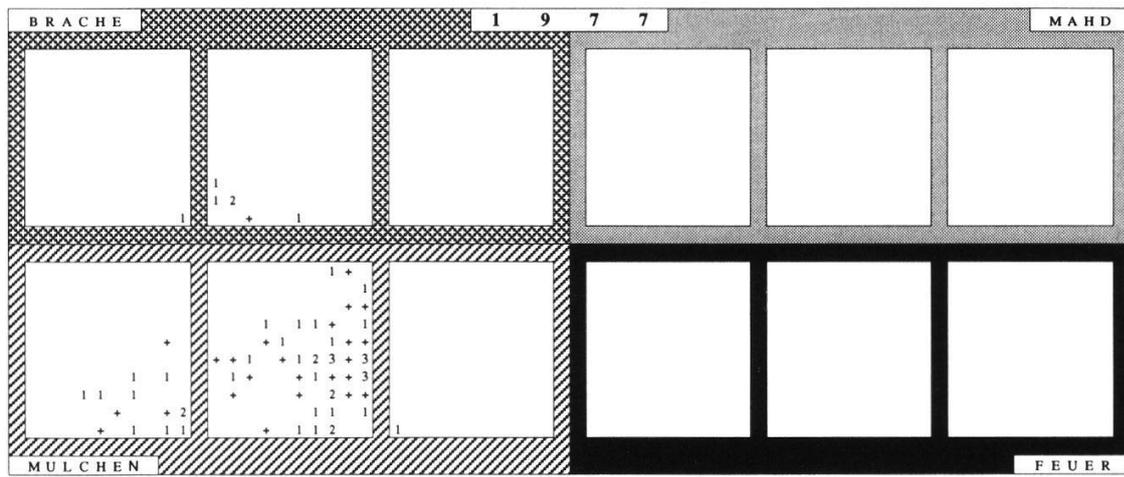
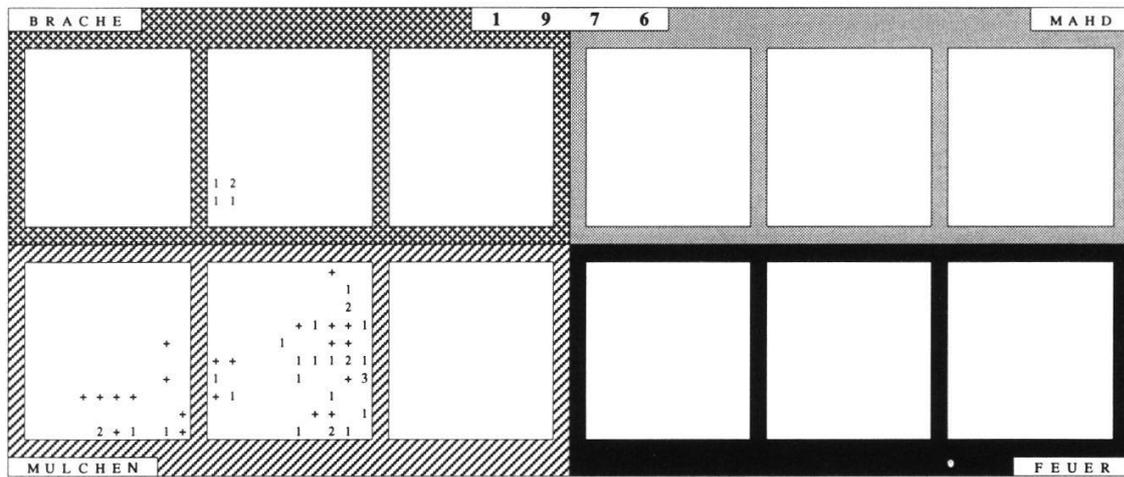
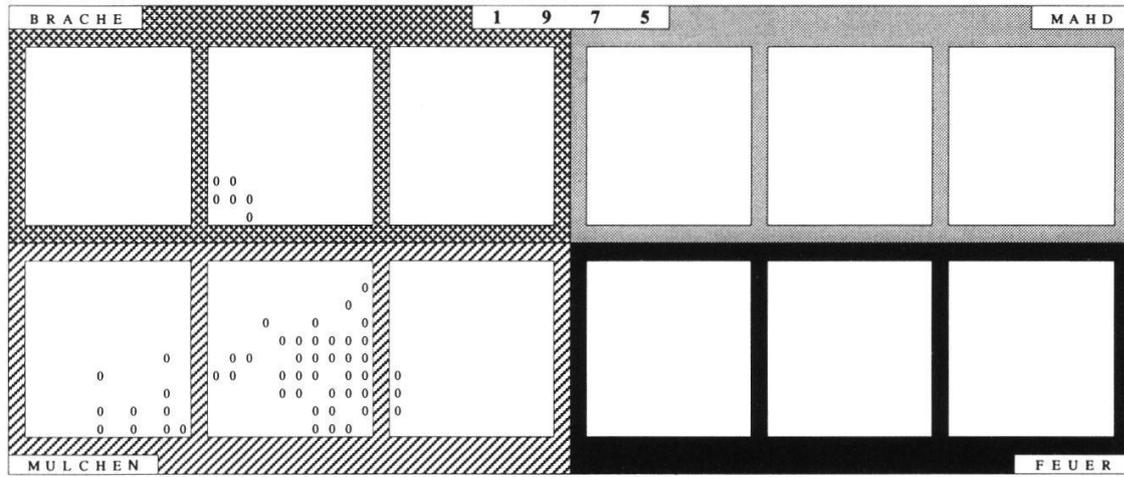
BRACHE			1 9 7 5			MAHD		
	$\begin{array}{ccc} & & 0 \\ & 0 & 0 \\ 0 & 0 & 0 \\ & & 0 \\ & 0 & 0 \\ & 0 & 0 \\ & 0 & 0 \\ & 0 & 0 \end{array}$	$\begin{array}{ccc} & & 0 \\ & 0 & 0 \\ & 0 & 0 \end{array}$	0					
		$\begin{array}{ccc} & & 0 \\ & 0 & 0 \\ 0 & 0 & 0 \end{array}$						
MULCHEN			FEUER					

BRACHE			1 9 7 6			MAHD		
	$\begin{array}{ccc} & & +3 \\ + & 2 & + \\ 1 & 3 & + \\ & 2 & + \\ & 1 & \\ & & 1 \\ & & 2 \\ & 2 & +3 \\ + & 2 & 1 \\ 2 & & + \end{array}$	$\begin{array}{ccc} & & + \\ & 1 & + \\ & & 1 \end{array}$	1					
		$\begin{array}{ccc} & & 1 \\ & 2 & 1 \\ & & + \end{array}$						
MULCHEN			FEUER					

BRACHE			1 9 7 7			MAHD		
	$\begin{array}{ccc} 1 & 3 & 3 + 3 + 2 & 3 \\ 1 & 1 & 2 & 1 + 1 \\ & 3 & 2 & + \\ & & 2 & \\ & & 2 & 1 & 2 & 2 \\ & & 3 & 2 & 2 & 2 \\ 1 & 2 & 1 & 3 & 1 \\ & 3 & & & + 2 \\ & & & & 2 \end{array}$	$\begin{array}{ccc} & 3 & 3 \\ & 2 & 1 \end{array}$	2					
		$\begin{array}{ccc} & & 1 \\ & & 2 \end{array}$						
MULCHEN			FEUER					

Satureja vulgaris M L

Anhang 4r. (Fortsetzung - continued)



Teucrium chamaedrys M L

Anhang 5. Frequenzunterschiede in den Vegetationsaufnahmen von 1976/77 und 1947/48 (ZOLLER).

Differences in frequency in the relevés of 1976/77 and 1947/48 (ZOLLER).

B: Baumschicht - *tree layer*, K: Krautschicht - *herb layer*, M: Moosschicht - *moss layer*, S: Strauchschicht - *shrub layer*.

$$* \text{ relative Frequenzdifferenz} = \frac{\text{absolute Frequenzdifferenz}}{\text{Frequenz 76/77} + \text{Frequenz 47/48}}$$

$$\text{relative difference in frequency} = \frac{\text{absolute difference in frequency}}{\text{frequency 76/77} + \text{frequency 47/48}}$$

a) Brachezeigende Arten (Gehölze) mit höherer Frequenz 1976/77.

Indicator species for no management (copses) with higher frequency 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
S <i>Cornus sanguinea</i>	8.1	31.8	23.7	0.6
S <i>Crataegus monogyna</i>	1.2	22.1	20.9	0.9
K <i>Prunus spinosa</i>	2.3	22.6	20.2	0.8
K/S <i>Rosa spec.</i>	4.7	20.0	15.3	0.6
S <i>Ligustrum vulgare</i>	3.5	17.9	14.5	0.7
S <i>Acer pseudoplatanus</i>	1.2	12.8	11.7	0.8
S <i>Pinus silvestris</i>	5.8	15.4	9.6	0.5
S <i>Pirus malus</i>		7.7	7.7	1.0
S <i>Picea excelsa</i>	1.2	7.7	6.5	0.7
S <i>Evonymus europaea</i>		5.6	5.6	1.0
S <i>Fagus silvatica</i>		5.6	5.6	1.0
S <i>Quercus petraea</i>		5.6	5.6	1.0
S <i>Fraxinus excelsior</i>		5.1	5.1	1.0
S <i>Acer campestre</i>	2.3	6.2	3.8	0.5
K <i>Lonicera xylosteum</i>		3.1	3.1	1.0
B <i>Pinus silvestris</i>		3.1	3.1	1.0
S <i>Corylus avellana</i>	1.2	4.1	2.9	0.6
K <i>Crataegus monogyna</i>	1.2	4.1	2.9	0.6
S <i>Crataegus oxyacantha</i>		2.1	2.1	1.0
K <i>Fagus silvatica</i>		2.1	2.1	1.0
S <i>Daphne mezereum</i>		1.0	1.0	1.0
K <i>Daphne mezereum</i>		1.0	1.0	1.0
K <i>Viburnum lantana</i>	2.3	3.1	0.8	0.1

b) Brachezeigende Arten auf nährstoffreichen bis -armen Standorten mit höherer oder gleichhoher Frequenz 1976/77.

Indicator species for no management on eutrophic to oligotrophic sites with higher and equal frequency 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Trifolium medium</i>	10.5	54.4	43.9	0.7
K <i>Viola hirta et collina</i>	16.3	55.9	39.6	0.5
K <i>Carex ornithopoda</i>	4.7	36.9	32.3	0.8
M <i>Thuidium abietinum</i>	19.8	44.6	24.8	0.4
K <i>Poa pratensis</i> inkl. <i>angustif.</i>	48.8	73.3	24.5	0.2
K <i>Centaurea scabiosa</i> s.l.	23.3	46.2	22.9	0.3
K <i>Euphorbia cyparissias</i>	34.9	57.4	22.6	0.2
K <i>Origanum vulgare</i>	16.3	32.3	16.0	0.3
K <i>Lathyrus heterophyllus</i>	47.7	62.1	14.4	0.1
K <i>Fragaria vesca</i>	15.1	28.7	13.6	0.3
M <i>Rhytidium rugosum</i>	20.9	33.8	12.9	0.2
K <i>Pimpinella saxifraga</i>	44.2	55.9	11.7	0.1
K <i>Allium oleraceum</i>		10.3	10.3	1.0
K <i>Cephalanthera longifolia</i>	1.2	10.3	9.1	0.8
K <i>Thesium spec.</i>	17.4	24.6	7.2	0.2
K <i>Solidago virga-aurea</i>		3.6	3.6	1.0
K <i>Goodyera repens</i>		2.1	2.1	1.0
K <i>Rubus</i> sp.	2.3	1.0	-1.3	-0.4

c) Brachezeigende Arten nur auf nährstoffreichen, trockenen Böden mit viel höherer Frequenz 1976/77.

Indicator species for no management only on eutrophic, dry soils with much higher frequency 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Inula conyza</i>		13.8	13.8	1.0
K <i>Pastinaca sativa</i>		7.7	7.7	1.0
K <i>Carex pairaei</i>	2.3	5.6	3.3	0.4

d) Brachezeigende Arten mit gleichhoher oder geringerer Frequenz 1976/77.
Indicator species for no management with equal or lower frequency 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Brachypodium pinnatum</i>	65.1	67.2	2.1	0.0
K <i>Helianthemum ovatum</i>	5.8	6.7	0.9	0.1
K <i>Aster amellus</i>	11.6	12.3	0.7	0.0
S <i>Juniperus communis</i>	5.8	5.1	-0.7	-0.1
K <i>Campanula persicifolia</i>	8.1	4.1	-4.0	-0.3
K <i>Carlina simplex</i>	26.7	20.0	-6.7	-0.1

e) Nährstoffzeigende Arten mit (viel) höherer Frequenz 1976/77.
Indicator species for high nutrient levels with (much) higher frequency 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Arrhenatherum elatius</i>	45.3	77.9	32.6	0.3
K <i>Picris hieracioides</i>	32.6	59.5	26.9	0.3
K <i>Myosotis arvensis</i>	10.5	36.9	26.5	0.6
K <i>Achillea millefolium</i>	57.0	82.6	25.6	0.2
K <i>Daucus carota</i>	20.9	44.6	23.7	0.4
K <i>Dactylis glomerata</i>	58.1	80.5	22.4	0.2
K <i>Helictotrichon pubescens</i>	52.3	72.8	20.5	0.2
K <i>Knautia arvensis</i>	66.3	86.2	19.9	0.1
K <i>Taraxacum officinale</i>	33.7	53.3	19.6	0.2
K <i>Galium album</i>	59.3	78.5	19.2	0.1
K <i>Lathyrus pratensis</i>	33.7	52.3	18.6	0.2
K <i>Vicia sepium</i>	10.5	28.2	17.7	0.5
K <i>Tragopogon orientalis</i>	31.4	45.6	14.2	0.2
K <i>Veronica arvensis</i>	3.5	15.9	12.4	0.6
K <i>Poa trivialis</i>		7.7	7.7	1.0
K <i>Arenaria serpyllifolia</i>		6.2	6.2	1.0
K <i>Crepis biennis</i>		3.1	3.1	1.0
K <i>Glechoma hederaceum</i>	1.2	3.1	1.9	0.5
K <i>Vicia cracca</i>	26.7	28.2	1.5	0.0

f) Nährstoffzeigende Arten mit gleichhoher oder (viel) tieferer Frequenz 1976/77.
Indicator species for high nutrient levels with equal or (much) lower frequency 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Chaerophyllum silvestre</i>	7.0	7.7	0.7	0.0
K <i>Festuca pratensis</i>	17.4	16.4	-1.0	0.0
K <i>Bellis perennis</i>	16.3	9.7	-6.5	-0.3
K <i>Holcus lanatus</i>	15.1	8.2	-6.9	-0.3
K <i>Ranunculus friesianus</i>	16.3	9.2	-7.0	-0.3
K <i>Anthoxanthum odoratum</i>	50.0	37.4	-12.6	-0.1
K <i>Trifolium repens</i>	62.8	47.2	-15.6	-0.1
K <i>Trifolium pratense</i>	84.9	59.0	-25.9	-0.2

g) Arten sehr nährstoffarmer Standorte gemähter Wiesen und/oder Arten auf extrem trockenen Standorten mit lückiger Vegetation und Streueschicht.
Species of cut meadows on very oligotrophic sites and/or on extremely dry sites with sparse vegetation and litter layer.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Galium pumilum</i>	10.5	17.4	7.0	0.2
K <i>Muscari botryoides</i>	2.3	2.1	-0.3	-0.1
K <i>Cytisus nigricans</i>	3.5	3.1	-0.4	-0.1
K <i>Melampyrum arvense</i>	3.5	0.5	-3.0	-0.7
K <i>Carex montana</i>	15.1	11.8	-3.3	-0.1
K <i>Hippocrepis comosa</i>	54.7	51.3	-3.4	0.0
K <i>Orchis militaris</i>	9.3	5.1	-4.2	-0.3
K <i>Hieracium pilosel. et bauhi.</i>	10.5	5.6	-4.9	-0.3
K <i>Polygala comosa</i>	9.3	4.1	-5.2	-0.4
K <i>Koeleria pyramidata</i>	14.0	8.7	-5.2	-0.2
K <i>Festuca duriuscula</i>	8.1	2.6	-5.6	-0.5
K <i>Onobrychis mont. et aren.</i>	9.3	2.6	-6.7	-0.6
K <i>Orchis mascula</i>	7.0		-7.0	-1.0
K <i>Orchis morio</i>	7.0		-7.0	-1.0
K <i>Hieracium cymosum</i>	14.0	6.2	-7.8	-0.4
K <i>Globularia elongata</i>	9.3	1.0	-8.3	-0.8
K <i>Luzula campestris</i>	18.6	9.7	-8.9	-0.3
K <i>Sedum acre</i>	12.8	2.6	-10.2	-0.7
K <i>Linum tenuifolium</i>	12.8	0.5	-12.3	-0.9
K <i>Anthyllis vulgaris</i>	68.6	53.8	-14.8	-0.1
K <i>Anacamptis pyramidalis</i>	30.2	15.4	-14.8	-0.3
K <i>Sedum sexangulare</i>	25.6	8.7	-16.9	-0.5
K <i>Crepis alpestris</i>	20.9	3.6	-17.3	-0.7
K <i>Gymnadenia conopea</i>	38.4	19.0	-19.4	-0.3
K <i>Platanthera chlorantha</i>	25.6		-25.6	-1.0

h) Arten im *Seselio libanotidis-Mesobrometum*.
Species of Seselio libanotidis-Mesobrometum.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Satureja vulgaris</i>	1.2	8.7	7.6	0.8
K <i>Geranium sanguineum</i>	5.8	7.7	1.9	0.1
K <i>Anthericum ramosum</i>	11.6	10.8	-0.9	0.0
K <i>Ophrys insectifera</i>	3.5	2.1	-1.4	-0.3
K <i>Seseli libanotis</i>	12.8	11.3	-1.5	-0.1
K <i>Lactuca perennis</i>	9.3	3.1	-6.2	-0.5

i) Arten auf wechselfeuchten und/oder schattigen, mageren Standorten.
Species on periodically damp and/or shady, poor sites:

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Deschampsia caespitosa</i>		1.0	1.0	1.0
K <i>Cirsium oleraceum</i>	1.2	2.1	0.9	0.3
K <i>Geum rivale</i>	1.2	2.1	0.9	0.3
K <i>Trollius europaeus</i>	2.3	2.6	0.2	0.0
K <i>Angelica silvestris</i>	1.2	1.0	-0.1	-0.1
K <i>Ranunculus auricomus</i>	2.3	1.0	-1.3	-0.4
K <i>Phyteuma spicatum</i>	5.8	2.6	-3.2	-0.4
K <i>Carum carvi</i>	14.0	6.7	-7.3	-0.4
K <i>Colchicum autumnale</i>	14.0	6.7	-7.3	-0.4
K <i>Geranium silvaticum</i>	17.4	3.1	-14.4	-0.7

j) Arten auf wechsellrockenen Standorten.
Species on periodically arid sites.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Rhinanthus angustifolius</i>	1.2	7.2	6.0	0.7
K <i>Chrysanthemum praecox</i>		3.6	3.6	1.0

k) Arten mit geringen Frequenzunterschieden.
Species with small differences in frequency.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Ononis repens</i>	46.5	55.4	8.9	0.1
M <i>Pleurozium schreberi</i>	3.5	12.3	8.8	0.6
K <i>Rumex acetosa</i>	17.4	26.2	8.7	0.2
K <i>Veronica chamaedrys</i>	26.7	35.4	8.6	0.1
K <i>Medicago falcata</i>	40.7	49.2	8.5	0.1
K <i>Trifolium campest. et dubium</i>	17.4	25.6	8.2	0.2
K <i>Trisetum flavescens</i>	48.8	56.9	8.1	0.1
M <i>Mnium affine</i>	3.5	9.2	5.7	0.5
K <i>Sanguisorba minor</i>	87.2	92.8	5.6	0.0
K <i>Plantago lanceolata</i>	70.9	76.4	5.5	0.0
K <i>Plantago media</i>	70.9	76.4	5.5	0.0
K <i>Cerastium caespitosum</i>	22.1	27.2	5.1	0.1
K <i>Silene vulgaris</i>	4.7	9.2	4.6	0.3
K <i>Cerastium arvense</i>	3.5	7.7	4.2	0.4
K <i>Thlaspi perfoliatum</i>	3.5	7.7	4.2	0.4
K <i>Campanula patula</i>	17.4	21.0	3.6	0.1
K <i>Polygala amarella</i>	5.8	9.2	3.4	0.2
K <i>Chrysanthemum leucanthem.</i>	67.4	70.8	3.3	0.0
M <i>Thuidium philib. et tamarisc.</i>	12.8	15.9	3.1	0.1
K <i>Lolium perenne</i>	3.5	5.6	2.2	0.2
K <i>Ranunculus bulbosus</i>	61.6	63.6	2.0	0.0
K <i>Teucrium chamaedrys</i>	14.0	15.9	1.9	0.1
K <i>Lotus corniculatus</i>	84.9	86.2	1.3	0.0
K <i>Hieracium pilosella</i>	43.0	44.1	1.1	0.0
K <i>Agrimonia eupatoria</i>	7.0	7.7	0.7	0.0
M <i>Rhytiadelphus squarrosus</i>	7.0	7.7	0.7	0.0
K <i>Prunella sp.</i>	19.8	20.0	0.2	0.0
K <i>Pimpinella major</i>	3.5	3.6	0.1	0.0
K <i>Hieracium murorum</i>	8.1	8.2	0.1	0.0
K <i>Bromus erectus</i>	95.3	95.4	0.0	0.0
K <i>Centaurea jacea s.l.</i>	47.7	47.7	0.0	0.0
K <i>Carex humilis</i>	4.7	4.6	0.0	0.0
M <i>Hylocomium splendens</i>	19.8	19.5	-0.3	0.0
K <i>Vicia tenuifolia</i>	17.4	16.9	-0.5	0.0
K <i>Stachys recta</i>	9.3	8.7	-0.6	0.0
K <i>Carlina vulgaris</i>	5.8	5.1	-0.7	-0.1
K <i>Briza media</i>	74.4	73.3	-1.1	0.0
K <i>Potentilla verna et heptaph.</i>	45.3	44.1	-1.2	0.0
K <i>Leontodon hispidus</i>	41.9	40.5	-1.3	0.0
K <i>Festuca rubra</i>	3.5	2.1	-1.4	-0.3
K <i>Onobrychis viciifolia</i>	37.2	35.4	-1.8	0.0
K <i>Galium verum</i>	29.1	27.2	-1.9	0.0
K <i>Campanula glomerata</i>	12.8	10.8	-2.0	-0.1
K <i>Veronica teucrium</i>	15.1	12.8	-2.3	-0.1
K <i>Heracleum sphondylium</i>	19.8	17.4	-2.3	-0.1

k) (Fortsetzung - *continued*)

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Ajuga reptans</i>	8.1	5.6	-2.5	-0.2
K <i>Asperula cynanchica</i>	38.4	35.4	-3.0	0.0
K <i>Euphorbia verrucosa</i>	18.6	14.9	-3.7	-0.1
K <i>Listera ovata</i>	12.8	8.7	-4.1	-0.2
K <i>Buphthalmum salicifolium</i>	47.7	43.6	-4.1	0.0
M <i>Rhytidadelphus triquetrus</i>	18.6	14.4	-4.2	-0.1
K <i>Scabiosa columbaria</i>	58.1	53.8	-4.3	0.0
K <i>Medicago lupulina</i>	73.3	67.7	-5.6	0.0
K <i>Thymus serpyllum</i> s.l.	72.1	62.6	-9.5	-0.1

l) Arten mit stark schwankenden Beständen und jahreszeitlich früh oder spät erscheinende Arten.

Species with strongly fluctuating frequencies and which appear early or late in the course of the year.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Rhinanthus minor</i>	20.9	34.4	13.4	0.2
K <i>Rhinanthus alectorolophus</i>	4.7	11.3	6.6	0.4
K <i>Orobanche spec.</i>		3.8	3.8	1.0
K <i>Euphrasia rostkoviana</i>	1.2	3.6	2.4	0.5
K <i>Cardamine pratensis</i>	4.7	1.0	-3.6	-0.6
K <i>Anemone nemorosa</i>	8.4		-8.4	-1.0
K <i>Linum catharticum</i>	47.7	33.8	-13.8	-0.2

m) Arten, deren systematische Zuordnung 1947/48 und 1976/77 eventuell unterschiedlich beurteilt wurde.

Species whose systematic classification was possibly determined differently in 1947/48 than in 1976/77.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Poa angustifolia</i>	8.1	73.3	65.2	0.8
K <i>Thymus pulegioides</i>	1.2	60.0	58.8	1.0
K <i>Viola hirta</i>	12.8	55.9	43.1	0.6
K <i>Thymus froelichianus</i>		41.0	41.0	1.0
K <i>Potentilla verna</i>	2.3	40.5	38.2	0.9
K <i>Centaurea scabiosa</i>	23.3	37.9	14.7	0.2

m) (Fortsetzung - *continued*)

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Centaurea tenuifolia</i>		11.8	11.8	1.0
K <i>Trifolium campestre</i>	17.4	25.6	8.2	0.2
K <i>Rubus caesius</i>	1.2	7.2	6.0	0.7
K <i>Hieracium bauhinii</i>		5.6	5.6	1.0
K <i>Onobrychis montana</i>		2.6	2.6	1.0
K <i>Centaurea jacea</i>	46.5	45.6	-0.9	0.0
K <i>Viola collina</i>	4.7		-4.7	-1.0
K <i>Thesium pyrenaicum</i>	5.8		-5.8	-1.0
M <i>Thuidium philibertii</i>	12.8	4.6	-8.2	-0.5
K <i>Hieracium piloselloides</i>	9.3	0.5	-8.8	-0.9
K <i>Orobancha lutea</i>	9.3		-9.3	1.0
K <i>Onobrychis arenaria</i>	9.3		-9.3	-1.0
K <i>Trifolium dubium</i>	17.4		-17.4	-1.0
K <i>Potentilla heptaphylla</i>	45.3	8.2	-37.1	-0.7
K <i>Poa pratensis</i>	40.7	7.7	-40.7	1.0

n) Arten, deren Frequenzunterschiede nicht beurteilt oder erklärt werden konnten.
Species whose differences in frequency could not be determined or explained.

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Hypericum perforatum</i>	14.0	39.5	25.5	0.5
K <i>Carex verna</i>	17.4	37.4	20.0	0.4
K <i>Carex flacca</i>	45.3	65.1	19.8	0.2
M <i>Camptothecium lutescens</i>	9.3	26.7	17.4	0.5
M <i>Scleropodium purum</i>	18.6	33.3	14.7	0.3
K <i>Thesium bavarum</i>	11.6	24.6	13.0	0.4
K <i>Salvia pratensis</i>	68.6	81.0	12.4	0.1
K <i>Campanula rotundifolia</i>	43.0	55.4	12.4	0.1
K <i>Prunella grandiflora</i>	8.1	19.5	11.3	0.4
K <i>Convolvulus arvensis</i>		11.3	11.3	1.0
M <i>Thuidium tamariscifolium</i>		11.3	11.3	1.0
K <i>Festuca ovina</i>	65.1	75.9	10.8	0.1
K <i>Arabis hirsuta</i>	45.3	55.9	10.5	0.1
K <i>Primula veris</i>	39.5	49.2	9.7	0.1
K <i>Epipactis latifolia</i>	1.2	3.6	2.4	0.5
K <i>Senecio jacobaea</i>	1.2	2.6	1.4	0.4
M <i>Fissidens taxifolia</i>	3.5	4.1	0.6	0.1
K <i>Aegopodium podagraria</i>	8.1	6.7	-1.5	-0.1
K <i>Ranunculus nemorosus</i>	4.7	2.1	-2.6	-0.4
K <i>Dianthus carthusianorum</i>	7.0	4.1	-2.9	-0.3

n) (Fortsetzung - *continued*)

Art	Frequenz Aufnahmen 1947/48	Frequenz Aufnahmen 1976/77	absolute Frequ.diff. 76/77-47/48	relative Frequ.diff. * 76/77-47/48
K <i>Alchemilla xanthochlora</i>	3.5		-3.5	-1.0
K <i>Potentilla sterilis</i>	3.5		-3.5	-1.0
K <i>Veronica officinalis</i>	3.5		-3.5	-1.0
K <i>Silene nutans</i>	8.1	4.6	-3.5	-0.3
K <i>Cephalanthera damasonium</i>	4.7	1.0	-3.6	-0.6
K <i>Aquilegia vulgaris</i>	4.7	0.5	-4.1	-0.8
M <i>Cladonia</i> sp.	4.7	0.5	-4.1	-0.8
M <i>Chrysohypnum chrysophyll.</i>	4.7		-4.7	-1.0
K <i>Phyteuma orbiculare</i>	9.3	4.6	-4.7	-0.3
K <i>Aquilegia atrata</i>	7.0	1.5	-5.4	-0.6
K <i>Myosotis palustris</i>	5.5		-5.8	-1.0
M <i>Dicranum scoparium</i>	5.8		-5.8	-1.0
K <i>Peucedanum cervaria</i>	14.0	5.1	-8.8	-0.5
M <i>Entodon orthocarpus</i>	11.6		-11.6	-1.0
K <i>Polygala vulgaris</i>	11.6		-11.6	-1.0
K <i>Prunella vulgaris</i>	16.3	2.6	-13.7	-0.7