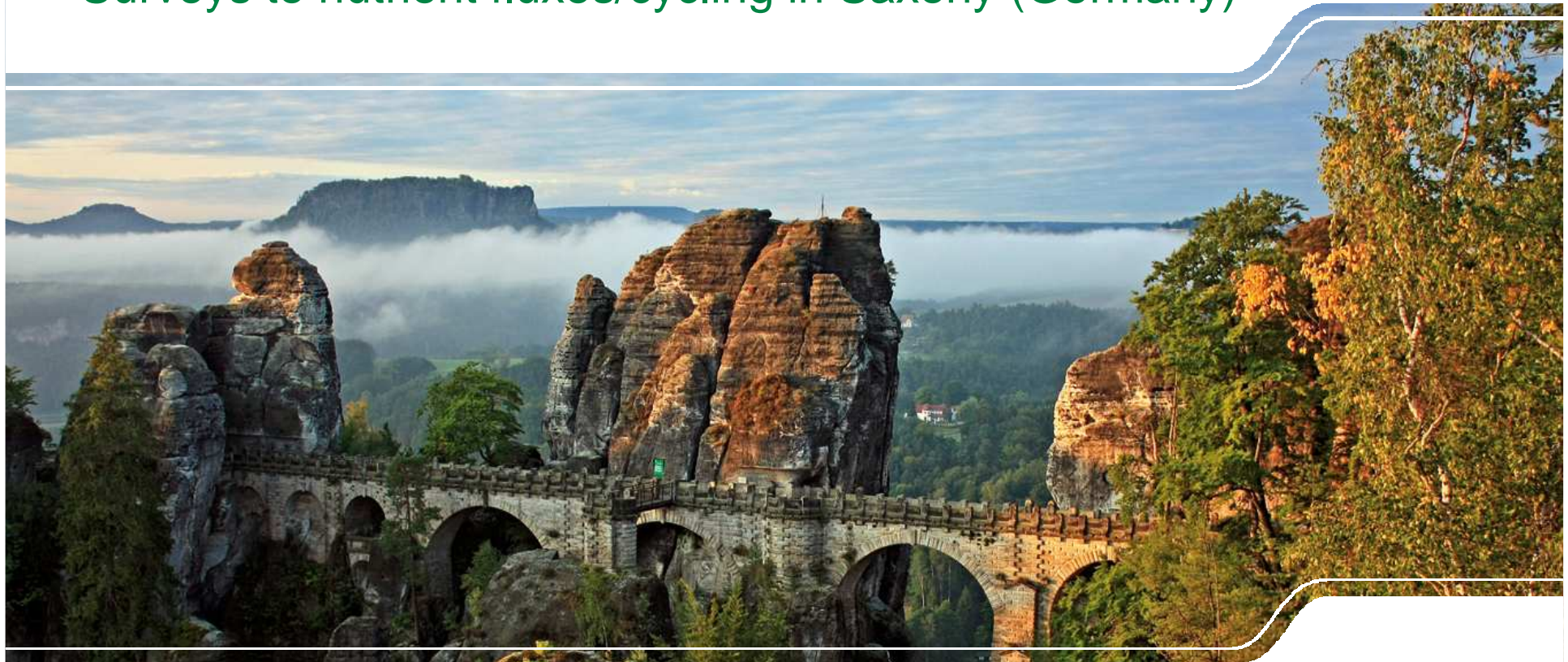


Activities in Action Group D2

Surveys to nutrient fluxes/cycling in Saxony (Germany)



Activities in Action Group D2

Activity	remarks	problems
Litterfall	<ul style="list-style-type: none"> → adjustment from 9 to 10 samplers → subdivision into functional groups (seeds, foliar, fruits) 	<ul style="list-style-type: none"> ■ data submission 2009 ■ dried sample quantity sometimes not big enough for analyzing C/N <u>and</u> ICP
Interlaboratory Comparisons 2009/10	<ul style="list-style-type: none"> → own lab participated in needle/ leaf-, water- and soil-ring-tests → results in *.pdf-file 	<ul style="list-style-type: none"> ■ extra ring test for litterfall or in combination with needle/leaf e. g. 1-2 samples ■ conversion into *.xls-file ■ ineffective data submission of the results to the FutMon database
Soil vegetation	<ul style="list-style-type: none"> → 4 sample frames à 0.5 m² → rough subdivision into functional groups in the stand and in the lab precisely 	<ul style="list-style-type: none"> ■ dried sample quantity sometimes not big enough for analyzing C/N <u>and</u> ICP

Proposal for improvements in data submission

Results of the ring-tests

12th Needle/Leaf Interlaboratory Comparison Test 2009/2010

Element: N Sample: 1 Dimension: mg/g

No.	Lab. Code	Method code	D	Replications				n	Lab. mean	Lab. standard dev.		Recovery %	
				1	2	3	4			SI	VI		
1	A59	1	19.2	1.24	1.17	1.17	1.12	0	1.19	b *	0.04	3.02	9.31
2	F24x	3.52	11	12.03	11.75	11.59	11.65	4	11.76		0.19	1.64	91.73
3	F22x	1	17.4	11.84	12.03	11.86	11.87	4	11.90		0.09	0.74	92.84
4	FD4	3.51	82	12.19	11.90	11.80	11.85	4	11.94		0.17	1.46	93.11
5	A49x	1	15.1	12.63	12.22	11.55	11.73	4	12.03		0.49	4.06	93.87
6	FD6x	1	15.4	12.02	12.26	12.08	12.00	4	12.09		0.12	1.00	94.32
7	A50	1	15.4	12.59	12.08	11.78	12.31	4	12.19		0.34	2.82	95.10
8	A55	1	12.3	12.50	12.10	12.10	12.10	4	12.20		0.20	1.64	95.18
9	F27x	1	17.1	12.25	12.15	12.26	12.37	4	12.25		0.09	0.73	95.65
10	A35	3.50	11.2	12.34	12.13	12.45	12.24	4	12.29		0.14	1.10	95.87
11	FD3	3.51	11.2	12.20	12.30	12.40	12.30	4	12.30		0.08	0.65	95.96
12	A65	1	18.2	11.50	13.00	12.20	12.40	4	12.38		0.46	3.75	96.54
13	F17x	0	17.1	12.44	12.42	12.45	12.48	4	12.45		0.02	0.20	97.11
14	F16x	1	15.3	12.57	12.32	12.53	12.56	4	12.50		0.12	0.94	97.48
15	A69x	3.31	51	12.57	12.52	12.56	12.45	4	12.53		0.05	0.40	97.73
16	A71	3.51	82	12.42	12.63	12.57	12.54	4	12.54		0.09	0.70	97.83
17	F28	0	17.3	13.00	12.60	12.60	12.00	4	12.55		0.41	3.29	97.91
18	A42	1	18.1	12.53	12.72	12.17	12.84	4	12.59		0.33	2.59	98.22
19	FD1	3.51	11.3	12.62	12.65	12.55	12.73	4	12.64		0.07	0.59	98.59
20	E18	0	15.2	12.50	12.70	12.60	12.60	4	12.70		0.14	1.11	99.08
21	A46	1	12.3	12.52	12.75	12.94	12.72	4	12.71		0.14	1.05	99.14
22	A45	1	17.2	12.80	12.70	12.60	12.80	4	12.73		0.10	0.75	99.28
23	F15x	1	15.2	12.57	12.78	12.67	12.89	4	12.73		0.14	1.09	99.30
24	A53	3.51	11.1	12.70	12.70	12.80	12.80	4	12.75		0.06	0.45	99.47
25	F11x	1	17.2	12.52	12.78	12.61	12.84	4	12.79		0.13	1.03	99.76
26	F13x	1	15.3	12.80	12.70	13.00	12.70	4	12.80		0.14	1.10	99.86
27	A34	1	19	12.78	12.72	13.06	12.70	4	12.82		0.17	1.30	99.98
28	A57	1	15.2	12.78	12.79	12.94	12.86	4	12.84		0.07	0.59	100.21
29	A43	3.52	11	12.88	12.88	12.74	12.88	4	12.85		0.07	0.54	100.21
30	F20x	0	18.1	12.90	12.90	12.90	12.80	4	12.85		0.06	0.45	100.25
31	FD5x	1	17	12.83	12.99	12.95	12.75	4	12.88		0.11	0.86	100.45
32	FD2x	1	15.2	12.52	12.90	12.87	12.85	4	12.89		0.03	0.24	100.52
33	A56	1	15.3	12.79	12.76	12.86	13.14	4	12.89		0.17	1.36	100.54
34	F23	3.51	11	12.90	12.86	12.97	12.94	4	12.92		0.05	0.37	100.78
35	F07x	1	17.1	13.50	12.92	12.41	12.96	4	12.95		0.45	3.44	101.01
36	F30	3.31	51.3	12.60	13.00	13.30	13.10	4	13.00		0.29	2.26	101.42
37	A60x	1	15.1	12.77	12.95	13.46	12.88	4	13.02		0.31	2.35	101.54
38	F14x	1	15.4	13.42	12.99	12.77	12.99	4	13.04		0.27	2.09	101.75
39	F25x	1	15.4	13.05	12.92	13.20	13.01	4	13.05		0.12	0.90	101.77
40	A51	1	15.4	13.00	13.20	12.80	13.30	4	13.08		0.22	1.70	102.01
41	F21	1	17	13.00	13.00	13.20	13.70	4	13.23		0.33	2.50	103.18
42	A58x	0	17.2	13.14	13.27	13.52	13.12	4	13.26		0.18	1.39	103.47
43	FD8x	1	15.3	13.29	13.18	13.51	13.09	4	13.26		0.18	1.38	103.48
44	A67	3.31	15	13.65	13.05	13.41	13.20	4	13.33		0.26	1.93	104.00
45	F12x	1	15.5	13.07	13.51	13.23	13.60	4	13.35		0.25	1.84	104.17
46	A39	1	15.1	13.02	13.30	13.52	13.71	4	13.39		0.30	2.22	104.44
47	F44x	3.52	11.2	13.34	13.48	13.48	13.60	4	13.46		0.11	0.79	105.13
48	F32	1	15.3	13.20	13.70	13.70	13.50	4	13.53		0.24	1.75	105.52
49	F19	1	18.1	13.80	13.40	13.50	13.80	4	13.63		0.21	1.51	106.30
50	A65	1	17.1	13.72	13.74	13.65	13.54	4	13.66		0.09	0.65	106.59
51	F26	2	17.1	14.30	14.10	13.94	13.84	4	14.07		0.24	1.69	109.73
52	A62x	1	15	14.40	14.20	14.20	13.80	4	14.18		0.21	1.45	110.59
53	A61x	3.31	53.3	13.70	15.30	15.00	15.00	0	15.10	b *	0.14	0.94	117.80
54													
55													

important information for lab`s to do their own statistic evaluation ! should be available for all participants as *.xls-file

* - non tolerable mean because more than +/-

	N	Mean	SI	VI
all labs	204	12.82	0.182	1.420
10 % from the mean	10			
L	51		SR	VR
			0.524	4.080

Surveys in soil vegetation



Results of ground vegetation- and needle/leaf-analysis Comparison

plot	survey	Cu	Fe	Pb	Co	Cr	K	S
1405	grass	4,44	143,0	1,83	0,07	0,59	7274	1013
1405	blueberry	5,81	64,6	0,74	0,03	0,42	4022	951
1405	moss	9,54	474,6	6,20	0,32	1,52	2982	1495
1405	pine, c+1	3,27	86,6	0,45	0,24	0,26	4755	1076
1402	grass	5,90	127,0	2,58	0,13	0,46	12095	1391
1402	spruce saplings	6,39	126,9	1,88	0,12	0,41	5820	1025
1402	herbs	13,90	54,0	0,53	0,08	0,12	26960	2322
1402	moss	9,73	1178,5	14,68	0,67	3,41	4443	1689
1402	spruce, c+4	1,99	58,6	0,45	0,08	0,32	2930	943

- mosses store long-times high quantities of heavy metals
- differences between the functional groups and the investigated plots

*all values in mg/kg



Thank you for your attention!

