BAB V
KESIMPULAN DAN SARAN

Kesimpulan

Komunitas Arthropoda permukaan tanah di 4 petak dan 3 di luar petak pada tegalan jagung di desa Deresan, menunjukkan adanya perbedaan pada macam Famili dan jumlah individunya. Perbedaan ini disebabkan karena adanya pengaruh faktor lingkungan di habitatnya yaitu suhu tanah, suhu udara dan kelembaban udara yang sangat menentukan keberadaan dan kepadatan Arthropoda permukaan tanah.

Macam Famili yang paling banyak dan sering dijumpai adalah Entomobryidae dan Isotomidae, yang termasuk dalam Ordo Collembola serta kelompok Parasitiformes yang termasuk dalam Ordo Acarina. Sedangkan famili yang selalu ditemukan pada setiap pengambilan sampel selain Entomobryidae, Isotomidae dan Acarina adalah Carabidae, Nitidulidae, Formicidae, Mymaridae, Acrididae, Termitidae, Anthomyzidae, Drosophilidae dan Culidae. Famili yang jumlahnya paling sedikit dan jarang dijumpai adalah Campodeidae dari Ordo Diplura dan Anobiidae dari Ordo Coleoptera.

Indeks keanekaragaman pada daerah tersebut cukup tinggi. Ini berarti bahwa komunitas Arthropoda permukaan tanah pada daerah tersebut cukup beragam dan mempunyai kestabilan yang mantap.

Saran

Diperlukan penelitian lebih lanjut untuk mengetahui peran masing-masing kelompok Arthropoda permukaan tanah, sehingga dapat diketahui gambaran pentingnya di dalam lingkungan tanah.

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LAMPIRAN

Tabel lampiran I. Data pengamatan arthropoda lantai tegalan jagung di Deresan Yogyakarta

No	Ordo	Familia	Periode pengambilan sampel						jumlah
			1	2	3	4	5	6	
1	Coleoptera	Staphylinidae	1	5	6	1		1	14
2		Carabidae	5	4	8	6	6	10	39
3		Anobiidae		1	2	1			4
4		Nitidulidae	13	8	23	17	13	50	124
5	Collembola	Isotomidae	111	27	15	186	78	308	725
6		Entomobryidae	115	120	189	225	77	264	990
7		Neelidae	5	4	2	5	2		18
8		Sminthuridae	90					132	222
9	Diptera	Cecidomyiidae		3	2	1		3	9
10		Dolichopodidae		2	1	1		3	7
11		Anthomyzidae	5	2	1	6	1	1	16
12		Drosophilidae	2	2	8	8	6	16	42
13		Culidae	2	6	1	1	2	1	13
14	Hymenoptera	Formicidae	39	19	14	16	19	33	140
		Ponerinae (sf)		11		2			
		Formicinae (sf)	39	3	8	2	14		
		Myrmicinae (sf)		5	6	12	5		
15		Mymaridae	10	4	5	7	11	11	48
16	Orthoptera	Tridactylidae		3	4			3	10
17		Acrididae	32	2	3	20	19	46	122
18		Gryllidae	17		3	2		14	36
19	Araneae	Araneidae	1		3	13	2	2	21
20		Salticidae	8		1	3	1	17	30
21	Acari	Parasitiformes(so)	43	40	40	31	70	84	308
22	Isoptera	Termitidae	9	12	18	20	28	82	169
23	Diplura	Campodeidae	1					2	3
						TOTAL			3110

Tabel Lampiran II. Data pengamatan faktor lingkungan

Lokasi	Faktor Lingkungan	Periode Pengambilan Sampel					
		1	2	3	4	5	6
Petak 1	Kelembaban Udara (%)	88	76	70	72	87	90
	Temperatur Udara (' C)	29	30	30	31	29	27.5
	Temperatur Tanah (' C)	26	24	26	24.5	25.5	25
	Derajat Keasaman	7	6.8	6.8	7	6.7	7
Petak 2	Kelembaban Udara (%)	84	76	68	69	83	91
	Temperatur Udara (' C)	29	30	31	32	30	28.5
	Temperatur Tanah (' C)	25	26	24.5	25.5	25	24
	Derajat Keasaman	7	7	7	6.8	7	7
Petak 3	Kelembaban Udara (%)	82	77	68	70	84	90
	Temperatur Udara (' C)	30	30	30	32	30	29
	Temperatur Tanah (' C)	26	29	26	24	25	25.5
	Derajat Keasaman	6.8	7	6.7	7	6.8	7
Petak 4	Kelembaban Udara (%)	85	75	67	67	81	91
	Temperatur Udara (' C)	29	30	31.5	33	30	28.5
	Temperatur Tanah (' C)	24	29	27	24.5	25	24
	Derajat Keasaman	6.8	6.7	7	7	7	7
Di Luar Petak 1	Kelembaban Udara (%)	86	61	62	63	79	79.5
	Temperatur Udara (' C)	29	32	32	34	31	30
	Temperatur Tanah (' C)	25	30	26	24	29	25
	Derajat Keasaman	7	6.8	6.8	6.8	6.7	7
Di Luar Petak 2	Kelembaban Udara (%)	81	61	61	71	85	80
	Temperatur Udara (' C)	30	33	33	31	29	30
	Temperatur Tanah (' C)	26	26	29	24.5	25	24
	Derajat Keasaman	6.7	7	7	7	7	7
Di Luar Petak 3	Kelembaban Udara (%)	80	60	60	70	84	83
	Temperatur Udara (' C)	30	33	33	31	29.5	29.5
	Temperatur Tanah (' C)	26	27	24	30	24	24
	Derajat Keasaman	7	7	7	7	7	7

Keterangan Pengambilan Sampel :

1 : 5 Mei 1998
2 : 19 Mei 1998
3 : 1 Juni 1998
4 : 23 Juni 1998
5 : 7 Juli 1998
6 : 30 Juli 1998

Tabel Lampiran III. Perhitungan Indeks Diversitas Arthropoda Permukaan tanggal 5 Mei 1998

No	Familia	ni							Pi = ni / N							(Pi)^2						
		P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3
1	Staphylinidae	0	0		0	0	0	1	0	0	0	0	0	0	0.0068	0	0	0	0	0	0	4.6E-05
2	Carabidae	0	0	1	1	1	2	0	0	0	0.0105	0.023	0.0303	0.027	0	0	0	0.00011	0.00053	0.00092	0.00073	0
3	Anobiidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Nitidulidae	1	4	0	1	1	5	1	0.0167	0.0702	0	0.0233	0.0303	0.0676	0.0068	0.00028	0.00492	0	0.00054	0.00092	0.00457	4.6E-05
5	Isotomidae	9	5	12	11	11	15	48	0.15	0.0877	0.1263	0.2558	0.3333	0.2027	0.3265	0.0225	0.00769	0.01596	0.06544	0.11111	0.04109	0.10662
6	Entomobryidae	3	25	26	18	7	14	22	0.05	0.4386	0.2737	0.4186	0.2121	0.1892	0.1497	0.0025	0.19237	0.0749	0.17523	0.045	0.03579	0.0224
7	Neelidae	0	1	0	0	0	0	4	0	0.0175	0	0	0	0	0.0272	0	0.00031	0	0	0	0	0.00074
8	Sminthuridae	29	6	10	0	8	2	35	0.4833	0.1053	0.1053	0	0.2424	0.027	0.2381	0.23361	0.01108	0.01108	0	0.05877	0.00073	0.05669
9	Cecidomyiidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dolichopodidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Anthomyzidae	2	0	2	1	0	0	0	0.0333	0	0.0211	0.0233	0	0	0	0.00111	0	0.00044	0.00054	0	0	0
12	Drosophilidae	0	0	1	1	0	0	0	0	0	0.0105	0.0233	0	0	0	0	0	0.00011	0.00054	0	0	0
13	Culidae	0	0	2	0	0	0	0	0	0	0.0211	0	0	0	0	0	0	0.00044	0	0	0	0
14	Formicidae	2	1	1	0	1	14	20	0.0333	0.0175	0.0105	0	0.0303	0.1892	0.1361	0.00111	0.00031	0.00011	0	0.00092	0.03579	0.01851
15	Mymaridae	0	3	4	1	0	1	1	0	0.0526	0.0421	0.0233	0	0.0135	0.0068	0	0.00277	0.00177	0.00054	0	0.00018	4.6E-05
16	Tridactylidae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Acrididae	0	2	20	0	0	10	0	0	0.0351	0.2105	0	0	0.1351	0	0	0.00123	0.04432	0	0	0.01826	0
18	Gryllidae	4	2	1	0	1	4	5	0.0667	0.0351	0.0105	0	0.0303	0.0541	0.034	0.00444	0.00123	0.00011	0	0.00092	0.00292	0.00116
19	Araneidae	0	0	0	0	1	0	0	0	0	0	0	0.0303	0	0	0	0	0	0	0.00092	0	0
20	Salticidae	1	2	1	3	0	1	0	0.0167	0.0351	0.0105	0.0698	0	0.0135	0	0.00028	0.00123	0.00011	0.00487	0	0.00018	0
21	Parasitiformes	7	6	8	6	2	6	8	0.1167	0.1053	0.0842	0.1395	0.0606	0.0811	0.0544	0.01361	0.01108	0.00709	0.01947	0.00367	0.00657	0.00296
22	Termitidae	2	0	5	0	0	0	2	0.0333	0	0.0526	0	0	0	0.0136	0.00111	0	0.00277	0	0	0	0.00019
23	Campodeidae	0	0	1	0	0	0	0	0	0	0.0105	0	0	0	0	0	0	0.00011	0	0	0	0
	N	60	57	95	43	33	74	147						Σ		0.28056	0.23423	0.15945	0.2677	0.22314	0.14682	0.2094
														D = 1-Σ(Pi)^2		0.71944	0.76577	0.84055	0.7323	0.77686	0.85318	0.7906

Tabel Lampiran IV. Perhitungan Indeks Diversitas Arthropoda Permukaan tanggal 19 Mei 1998

No	Familia	ni							Pi = ni / N							(Pi)^2						
		P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3
1	Staphylinidae		3		2				0	0.0566	0	0.0392	0	0	0	0	0.0032	0	0.00154	0	0	0
2	Carabidae			2	1		1		0	0	0.0435	0.0196	0	0.0333	0	0	0	0.00189	0.00038	0	0.0011	0
3	Anobiidae					1			0	0	0	0	0.027	0	0	0	0	0	0	0	0.00073	0	0
4	Nitidulidae	1	2	1		2	1	1	0.0556	0.0377	0.0217	0	0.0541	0.0333	0.0345	0.0031	0.00142	0.00047	0	0.00292	0.0011	0.0012
5	Isotomidae		7	5	3	4	8		0	0.1321	0.1087	0.0588	0.1081	0.2667	0	0	0.01744	0.01181	0.00346	0.01169	0.0711	0
6	Entomobryidae	14	18	20	16	25	15	12	0.7778	0.3396	0.4348	0.3137	0.6757	0.5	0.4138	0.6049	0.11534	0.18904	0.09842	0.45654	0.25	0.1712
7	Neelidae		4						0	0.0755	0	0	0	0	0	0	0.0057	0	0	0	0	0
8	Sminthuridae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Cecidomyiidae			3					0	0	0.0652	0	0	0	0	0	0	0.00425	0	0	0	0
10	Dolichopodidae		2						0	0.0377	0	0	0	0	0	0	0.00142	0	0	0	0	0
11	Anthomyzidae		2						0	0.0377	0	0	0	0	0	0	0.00142	0	0	0	0	0
12	Drosophilidae				2				0	0	0	0.0392	0	0	0	0	0	0	0.00154	0	0	0
13	Culidae			6					0	0	0.1304	0	0	0	0	0	0	0.01701	0	0	0	0
14	Formicidae		8		11				0	0.1509	0	0.2157	0	0	0	0	0.02278	0	0.04652	0	0	0
15	Mymaridae				4				0	0	0	0.0784	0	0	0	0	0	0	0.00615	0	0	0
16	Tridactylidae				1		2		0	0	0	0.0196	0	0.0667	0	0	0	0	0.00038	0	0.0044	0
17	Acrididae		1	1					0	0.0189	0.0217	0	0	0	0	0	0.00036	0.00047	0	0	0	0
18	Gryllidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Araneidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	Salticidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	Parasitiformes		4	8	10	4	2	12	0	0.0755	0.1739	0.1961	0.1081	0.0667	0.4138	0	0.0057	0.03025	0.03845	0.01169	0.0044	0.1712
22	Termitidae	3	2		1	1	1	4	0.1667	0.0377	0	0.0196	0.027	0.0333	0.1379	0.0278	0.00142	0	0.00038	0.00073	0.0011	0.019
23	Campodeidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
N		18	53	46	51	37	30	29						Σ		0.6358	0.17622	0.2552	0.19723	0.4843	0.3333	0.3627
														D = 1-Σ(Pi)^2		0.3642	0.82378	0.7448	0.80277	0.5157	0.6667	0.6373

Tabel Lampiran V. Perhitungan Indeks Diversitas Arthropoda Permukaan tanggal 1 Juni 1998

No	Familia	ni							Pi = ni / N							(Pi)^2						
		P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3
1	Staphylinidae			6					0	0	0.0706	0	0	0	0	0	0	0.00498	0	0	0	0
2	Carabidae		4	2		2			0	0.0385	0.0235	0	0.0909	0	0	0	0.00148	0.00055	0	0.0083	0	0
3	Anobiidae		1		1				0	0.0096	0	0.01	0	0	0	0	9.2E-05	0	0.0001	0	0	0
4	Nitidulidae	3	2	6	10	2			0.1304	0.0192	0.0706	0.1	0.0909	0	0	0.017	0.00037	0.00498	0.01	0.0083	0	0
5	Isotomidae		1	5	7			2	0	0.0096	0.0588	0.07	0	0	0.25	0	9.2E-05	0.00346	0.0049	0	0	0.0625
6	Entomobryidae	9	74	42	62		2		0.3913	0.7115	0.4941	0.62	0	0.2857	0	0.1531	0.50629	0.24415	0.3844	0	0.0816	0
7	Neelidae				2				0	0	0	0.02	0	0	0	0	0	0	0.0004	0	0	0
8	Sminthuridae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Cecidomyiidae		1	1					0	0.0096	0.0118	0	0	0	0	0	9.2E-05	0.00014	0	0	0	0
10	Dolichopodidae		1						0	0.0096	0	0	0	0	0	0	9.2E-05	0	0	0	0	0
11	Anthomyzidae		1						0	0.0096	0	0	0	0	0	0	9.2E-05	0	0	0	0	0
12	Drosophilidae				8				0	0	0	0.08	0	0	0	0	0	0	0.0064	0	0	0
13	Culidae			1					0	0	0.0118	0	0	0	0	0	0	0.00014	0	0	0	0
14	Formicidae	1	2	11					0.0435	0.0192	0.1294	0	0	0	0	0.0019	0.00037	0.01675	0	0	0	0
15	Mymaridae				5				0	0	0	0.05	0	0	0	0	0	0	0.0025	0	0	0
16	Tridactylidae		1		3				0	0.0096	0	0.03	0	0	0	0	9.2E-05	0	0.0009	0	0	0
17	Acrididae			3					0	0	0.0353	0	0	0	0	0	0	0.00125	0	0	0	0
18	Gryllidae		1	2					0	0.0096	0.0235	0	0	0	0	0	9.2E-05	0.00055	0	0	0	0
19	Araneidae		3						0	0.0288	0	0	0	0	0	0	0.00083	0	0	0	0	0
20	Salticidae				1				0	0	0	0.01	0	0	0	0	0	0	0.0001	0	0	0
21	Parasitiformes	6	12	4	1	10	3	4	0.2609	0.1154	0.0471	0.01	0.4545	0.4286	0.5	0.0681	0.01331	0.00221	0.0001	0.2066	0.1837	0.25
22	Termitidae	4		2		8	2	2	0.1739	0	0.0235	0	0.3636	0.2857	0.25	0.0302	0	0.00055	0	0.1322	0.0816	0.0625
23	Campodeidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
N		23	104	85	100	22	7	8						Σ		0.2703	0.5233	0.27972	0.4098	0.3554	0.3469	0.375
														D = 1 - Σ(Pi)^2		0.7297	0.4767	0.72028	0.5902	0.6446	0.6531	0.625

Tabel Lampiran VI. Perhitungan Indeks Diversitas Arthropoda Permukaan tanggal 23 Juni 1998

No	Familia	ni							Pi = ni / N							(Pi)^2						
		P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3
1	Staphylinidae				1				0	0	0	0.0122	0	0	0	0	0	0	0.0001	0	0	0
2	Carabidae	1			5				0.0169	0	0	0.061	0	0	0	0.00029	0	0	0.0037	0	0	0
3	Anobiidae			1					0	0	0.0047	0	0	0	0	0	0	2.2E-05	0	0	0	0
4	Nitidulidae				4		5	8	0	0	0	0.0488	0	0.2381	0.3333	0	0	0	0.0024	0	0.0567	0.1111
5	Isotomidae	17	22	113	21	6	4	3	0.2881	0.1447	0.533	0.2561	0.3	0.1905	0.125	0.08302	0.02095	0.28411	0.0656	0.09	0.0363	0.0156
6	Entomobryidae	29	94	56	36	1	6	3	0.4915	0.6184	0.2642	0.439	0.05	0.2857	0.125	0.2416	0.38244	0.06978	0.1927	0.0025	0.0816	0.0156
7	Neelidae	1	1		3				0.0169	0.0066	0	0.0366	0	0	0	0.00029	4.3E-05	0	0.0013	0	0	0
8	Sminthuridae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Cecidomyiidae	1							0.0169	0	0	0	0	0	0	0.00029	0	0	0	0	0	0
10	Dolichopodidae			1					0	0	0.0047	0	0	0	0	0	0	2.2E-05	0	0	0	0
11	Anthomyzidae		3	2	1				0	0.0197	0.0094	0.0122	0	0	0	0	0.00039	8.9E-05	0.0001	0	0	0
12	Drosophilidae				8				0	0	0	0.0976	0	0	0	0	0	0	0.0095	0	0	0
13	Culidae			1					0	0	0.0047	0	0	0	0	0	0	2.2E-05	0	0	0	0
14	Formicidae	2	2	12					0.0339	0.0132	0.0566	0	0	0	0	0.00115	0.00017	0.0032	0	0	0	0
15	Mymaridae					3		4	0	0	0	0	0.15	0	0.1667	0	0	0	0	0.0225	0	0.0278
16	Tridactylidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Acrididae		10	10					0	0.0658	0.0472	0	0	0	0	0	0.00433	0.00222	0	0	0	0
18	Gryllidae		2						0	0.0132	0	0	0	0	0	0	0.00017	0	0	0	0	0
19	Araneidae	3	4	2	3			1	0.0508	0.0263	0.0094	0.0366	0	0	0.0417	0.00259	0.00069	8.9E-05	0.0013	0	0	0.0017
20	Salticidae			3					0	0	0.0142	0	0	0	0	0	0	0.0002	0	0	0	0
21	Parasitiformes		14	6		4	2	5	0	0.0921	0.0283	0	0.2	0.0952	0.2083	0	0.00848	0.0008	0	0.04	0.0091	0.0434
22	Termitidae	5		5		6	4		0.0847	0	0.0236	0	0.3	0.1905	0	0.00718	0	0.00056	0	0.09	0.0363	0
23	Campodeidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
N		59	152	212	82	20	21	24						Σ		0.3364	0.41768	0.36112	0.2769	0.245	0.22	0.2153
														D = 1 - Σ(Pi)^2		0.6636	0.58232	0.63888	0.7231	0.755	0.78	0.7847

Tabel Lampiran 7. Perhitungan Indeks Diversitas Arthropoda Permukaan tanggal 7 Juli 1998 Tanah Selama Pengambilan Sampel

No	Familia	ni							Pi = ni/N							(Pi)^2						
		P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3
1	Staphylinidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Carabidae	1		3	2				0.0172	0	0.0326	0.0435	0	0	0	0.0003	0	0.00106	0.00189	0	0	0
3	Anobildae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Nitidulidae	6	1	1	1	3		1	0.1034	0.0132	0.0109	0.0217	0.25	0	0.0526	0.0107	0.00017	0.00012	0.00047	0.0625	0	0.00277
5	Isotomidae	18	10	28	12	3	7		0.3103	0.1316	0.3043	0.2609	0.25	0.2188	0	0.09631	0.01731	0.09263	0.06805	0.0625	0.0479	0
6	Entomobryidae	16	20	17	7	4	13		0.2759	0.2632	0.1848	0.1522	0.3333	0.4063	0	0.0761	0.06925	0.03414	0.02316	0.1111	0.165	0
7	Neelidae		2						0	0.0263	0	0	0	0	0	0	0.00069	0	0	0	0	0
8	Sminthuridae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	Cecidomylidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Dolichopodidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Anthomyzidae				1				0	0	0	0.0217	0	0	0	0	0	0	0.00047	0	0	0
12	Drosophilidae		6						0	0.0789	0	0	0	0	0	0	0.00623	0	0	0	0	0
13	Culidae			1	1				0	0	0.0109	0.0217	0	0	0	0	0	0.00012	0.00047	0	0	0
14	Formicidae	6	2	9	2				0.1034	0.0263	0.0978	0.0435	0	0	0	0.0107	0.00069	0.00957	0.00189	0	0	0
15	Mrmaridae		11						0	0.1447	0	0	0	0	0	0	0.02095	0	0	0	0	0
16	Tridactylidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Acrididae		10	9					0	0.1316	0.0978	0	0	0	0	0	0.01731	0.00957	0	0	0	0
18	Gryllidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	Araneidae			2					0	0	0.0217	0	0	0	0	0	0	0.00047	0	0	0	0
20	Salticidae	1							0.0172	0	0	0	0	0	0	0.0003	0	0	0	0	0	0
21	Parasitiformes	10	8		20	2	12	18	0.1724	0.1053	0	0.4348	0.1667	0.375	0.9474	0.02973	0.01108	0	0.18904	0.0278	0.1406	0.89751
22	Termitidae		6	22					0	0.0789	0.2391	0	0	0	0	0	0.00623	0.05718	0	0	0	0
23	Campodeidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
	N	58	76	92	46	12	32	19						Σ		0.22414	0.14993	0.20487	0.28544	0.2639	0.3535	0.90028
														D = 1 - Σ(Pi)^2		0.77586	0.85007	0.79513	0.71456	0.7361	0.6465	0.09972

Tabel Lampiran VIII. Perhitungan Indeks Diversitas Arthropoda Permukaan tanggal 30 Juli 1996

No	Familia	ni							Pi = ni / N							(Pi)^2						
		P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3	P1	P2	P3	P4	DLP1	DLP2	DLP3
1	Staphylinidae				1				0	0	0	0.0064	0	0	0	0	0	0	4.1E-05	0	0	0
2	Carabidae	1	1	3	3	1		1	0.0044	0.0063	0.0112	0.0191	0.01	0	0.0093	1.9E-05	3.9E-05	0.00013	0.00037	0.0001	0	8.7E-05
3	Anoblidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Nitidulidae	14	4	14	8	3	2	5	0.0614	0.025	0.0524	0.051	0.03	0.0313	0.0467	0.00377	0.00063	0.00275	0.0026	0.0009	0.00098	0.00218
5	Isotomidae	67	38	60	62	29	12	40	0.2939	0.2375	0.2247	0.3949	0.29	0.1875	0.3738	0.08635	0.05641	0.0505	0.15595	0.0841	0.03516	0.13975
6	Entomobryidae	74	35	47	45	20	18	25	0.3246	0.2188	0.176	0.2866	0.2	0.2813	0.2336	0.10534	0.04785	0.03099	0.08215	0.04	0.0791	0.05459
7	Neelidae								0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Sminthuridae	31	12	21	10	24	14	20	0.136	0.075	0.0787	0.0637	0.24	0.2188	0.1869	0.01849	0.00563	0.00619	0.00406	0.0576	0.04785	0.03494
9	Cecidomyiidae		1	1			1		0	0.0063	0.0037	0	0	0.0156	0	0	3.9E-05	1.4E-05	0	0	0.00024	0
10	Dolichopodidae	1		1		1			0.0044	0	0.0037	0	0.01	0	0	1.9E-05	0	1.4E-05	0	0.0001	0	0
11	Anthomyzidae				1				0	0	0	0.0064	0	0	0	0	0	0	4.1E-05	0	0	0
12	Drosophilidae	4		1	5	3	2	1	0.0175	0	0.0037	0.0318	0.03	0.0313	0.0093	0.00031	0	1.4E-05	0.00101	0.0009	0.00098	8.7E-05
13	Culidae					1			0	0	0	0	0.01	0	0	0	0	0	0	0.0001	0	0
14	Formicidae	7	5	8	3		5	5	0.0307	0.0313	0.03	0.0191	0	0.0781	0.0467	0.00094	0.00098	0.0009	0.00037	0	0.0061	0.00218
15	Mymaridae			3		5		3	0	0	0.0112	0	0.05	0	0.028	0	0	0.00013	0	0.0025	0	0.00079
16	Tridactylidae		1	1	1				0	0.0063	0.0037	0.0064	0	0	0	0	3.9E-05	1.4E-05	4.1E-05	0	0	0
17	Acrididae			44			2		0	0	0.1648	0	0	0.0313	0	0	0	0.02716	0	0	0.00098	0
18	Gryllidae	3	1		1	8		1	0.0132	0.0063	0	0.0064	0.08	0	0.0093	0.00017	3.9E-05	0	4.1E-05	0.0064	0	8.7E-05
19	Araneidae			2					0	0	0.0075	0	0	0	0	0	0	5.6E-05	0	0	0	0
20	Salticidae		3	2	8	3	1		0	0.0188	0.0075	0.051	0.03	0.0156	0	0	0.00035	5.6E-05	0.0026	0.0009	0.00024	0
21	Parasitiformes	8	34	32	5		5		0.0351	0.2125	0.1199	0.0318	0	0.0781	0	0.00123	0.04516	0.01436	0.00101	0	0.0061	0
22	Termitidae	17	25	26	4	2	2	6	0.0746	0.1563	0.0974	0.0255	0.02	0.0313	0.0561	0.00556	0.02441	0.00948	0.00065	0.0004	0.00098	0.00314
23	Campodeidae	1		1					0.0044	0	0.0037	0	0	0	0	1.9E-05	0	1.4E-05	0	0	0	0
N		228	160	267	157	100	64	107						Σ		0.22222	0.18156	0.14276	0.25092	0.194	0.17871	0.23784
														D = 1 - Σ(Pi)^2		0.77778	0.81844	0.85724	0.74908	0.806	0.82129	0.76216

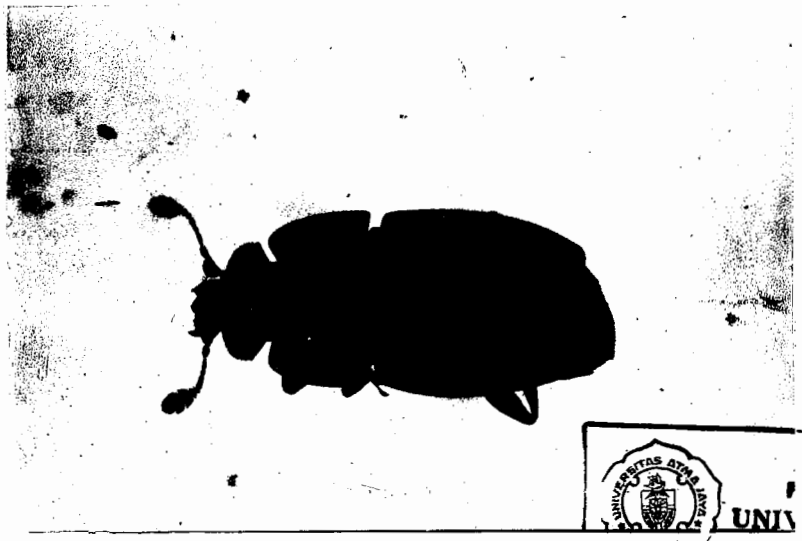
Tabel 9. Hasil Cacah Individu Arthropoda Permukaan Tanah Selama Pengambilan Sampel

No	Familia	Periode Pengambilan Sampel																																				
		1							2							3							4							5							6				
		P1	P2	P3	P4	D1	D2	D3	P1	P2	P3	P4	D1	D2	D3	P1	P2	P3	P4	D1	D2	D3	P1	P2	P3	P4	D1	D2	D3	P1	P2	P3	P4	D1	D2	D3	P1	P2	P3	P4	D1	D2	D3
1	Staphylinidae	0	0	0	0	0	0	1	0	3	0	2	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
2	Carabidae	0	0	1	1	1	2	0	0	0	2	1	0	1	0	0	4	2	0	2	0	0	1	0	0	5	0	0	0	1	0	3	2	0	0	0	1	1	3	3	1	0	1
3	Anobildae	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	Nitidulidae	1	4	0	1	1	5	1	1	2	1	0	2	1	1	3	2	6	10	2	0	0	0	0	0	4	0	5	8	6	1	1	1	3	0	1	14	4	14	8	3	2	5
5	Isotomidae	9	5	12	11	11	15	48	0	7	5	3	4	8	0	0	1	5	7	0	0	2	17	22	113	21	6	4	3	18	10	28	12	3	7	0	67	38	60	62	29	12	40
6	Entomobryidae	3	25	26	18	7	14	22	14	18	20	16	25	15	12	9	74	42	62	0	2	0	29	94	56	36	1	6	3	16	20	17	7	4	13	0	74	35	47	45	20	18	25
7	Neelidae	0	1	0	0	0	0	4	0	4	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	3	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
8	Sminthuridae	29	6	10	0	8	2	35	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	31	12	21	10	24	14	20
9	Cecidomyiidae	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0
10	Dolichopodidae	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
11	Anthomyzidae	2	0	2	1	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	3	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0
12	Drosophilidae	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	0	0	8	0	0	0	0	0	0	8	0	0	0	0	6	0	0	0	0	0	4	0	1	5	3	2	1
13	Culidae	0	0	2	0	0	0	0	0	0	6	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0
14	Formicidae	2	1	1	0	1	14	20	0	8	0	11	0	0	0	1	2	11	0	0	0	0	2	2	12	0	0	0	0	6	2	9	2	0	0	0	7	5	8	3	0	5	5
15	Mymaridae	0	3	4	1	0	1	1	0	0	0	4	0	0	0	0	0	0	5	0	0	0	0	0	0	0	3	0	4	0	11	0	0	0	0	0	0	0	3	0	5	0	3
16	Tridactylidae	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
17	Acrididae	0	2	20	0	0	10	0	0	1	1	0	0	0	0	0	0	3	0	0	0	0	0	10	10	0	0	0	0	0	10	9	0	0	0	0	0	0	44	0	0	2	0
18	Gryllidae	4	2	1	0	1	4	5	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	8	0	1
19	Araneidae	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	4	2	3	0	0	1	0	0	2	0	0	0	0	0	0	2	0	0	0	0
20	Salticidae	1	2	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	3	2	8	3	1	0
21	Parasitiformes	7	6	8	6	2	6	8	0	4	8	10	4	2	12	6	12	4	1	10	3	4	0	14	6	0	4	2	5	10	8	0	20	2	12	18	8	34	32	5	0	5	0
22	Termitidae	2	0	5	0	0	0	2	3	2	0	1	1	1	4	4	0	2	0	8	2	2	5	0	5	0	6	4	0	0	6	22	0	0	0	0	17	25	26	4	2	2	6
23	Campodeidae	0	0	1	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	1	0	1	0	0	0	0
	Total	60	57	95	43	33	74	147	18	53	46	51	37	30	29	23	104	85	100	22	7	8	59	152	212	82	20	21	24	58	76	92	46	12	32	19	228	160	267	157	100	64	107

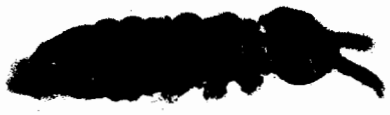
Keterangan :

1 : Tanggal 5 Mei 1998
2 : Tanggal 19 Mei 1998
3 ; Tanggal 1 Juni 1998
4 : Tanggal 23 Juni 1998
5 : Tanggal 7 Juli 1998
6 : Tanggal 30 Juli 1998

P : Petak
D : Di Luar Petak



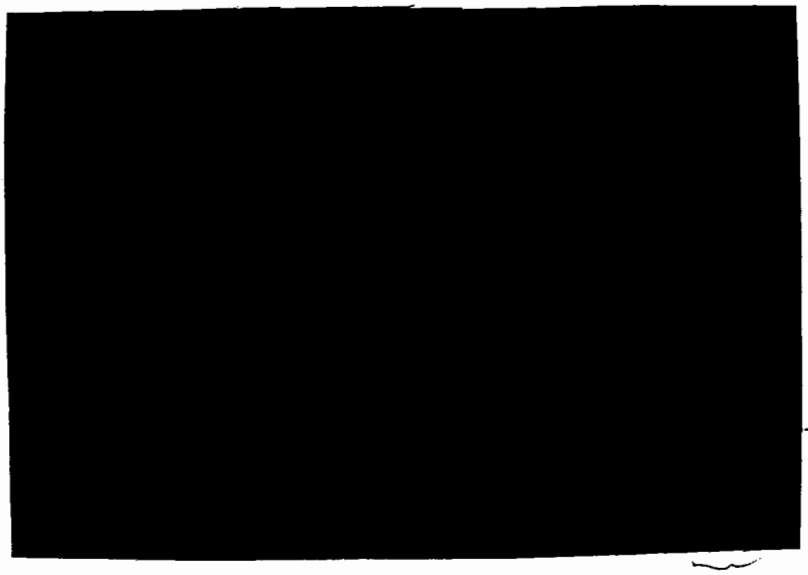
Gambar 4. Foto Nitidulidae



Gambar 5. Foto Isotomidae

Gambar 6. Foto Entomobryidae

Gambar 7. Foto Sminthuridae



Gambar 8. Foto Drosophilidae

Gambar 9. Foto Formicidae

OBS	LOKASI	TANGGAL	SUHU_UDR	SUHU_TNH	PH	KLEMBABN
1	P1	05_05_98	29.0	26.0	7.0	88.0
2	P1	19_05_98	30.0	24.0	6.8	76.0
3	P1	01_06_98	30.0	26.0	6.8	70.0
4	P1	23_06_98	31.0	24.5	7.0	72.0
5	P1	07_07_98	29.0	25.5	6.7	87.0
6	P1	30_07_98	27.5	25.0	7.0	90.0
7	P2	05_05_98	29.0	25.0	7.0	84.0
8	P2	19_05_98	30.0	26.0	7.0	76.0
9	P2	01_06_98	31.0	24.5	7.0	68.0
10	P2	23_06_98	32.0	25.5	6.8	69.0
11	P2	07_07_98	30.0	25.0	7.0	83.0
12	P2	30_07_98	28.5	24.0	7.0	91.0
13	P3	05_05_98	30.0	26.0	6.8	82.0
14	P3	19_05_98	30.0	29.0	7.0	77.0
15	P3	01_06_98	30.0	26.0	6.7	68.0
16	P3	23_06_98	32.0	24.0	7.0	70.0
17	P3	07_07_98	30.0	25.0	6.8	84.0
18	P3	30_07_98	29.0	25.5	7.0	90.0
19	P4	05_05_98	29.0	24.0	6.8	85.0
20	P4	19_05_98	30.0	29.0	6.7	75.0
21	P4	01_06_98	31.5	27.0	7.0	67.0
22	P4	23_06_98	33.0	24.5	7.0	67.0
23	P4	07_07_98	30.0	25.0	7.0	81.0
24	P4	30_07_98	28.5	24.0	7.0	91.0
25	DLP1	05_05_98	29.0	25.0	7.0	86.0
26	DLP1	19_05_98	32.0	30.0	6.8	61.0
27	DLP1	01_06_98	32.0	26.0	6.8	62.0
28	DLP1	23_06_98	34.0	24.0	6.8	63.0
29	DLP1	07_07_98	31.0	29.0	6.7	79.0
30	DLP1	30_07_98	30.0	25.0	7.0	79.5
31	DLP2	05_05_98	30.0	26.0	6.7	81.0
32	DLP2	19_05_98	33.0	26.0	7.0	61.0
33	DLP2	01_06_98	33.0	29.0	7.0	61.0
34	DLP2	23_06_98	31.0	24.5	7.0	71.0
35	DLP2	07_07_98	29.0	25.0	7.0	85.0
36	DLP2	30_07_98	30.0	24.0	7.0	80.0
37	DLP3	05_05_98	30.0	26.0	7.0	80.0
38	DLP3	19_05_98	33.0	27.0	7.0	60.0
39	DLP3	01_06_98	33.0	24.0	7.0	60.0
40	DLP3	23_06_98	31.0	30.0	7.0	70.0
41	DLP3	07_07_98	29.5	24.0	7.0	84.0
42	DLP3	30_07_98	29.5	24.0	7.0	83.0

Analysis of Variance Procedure
Class Level Information

Class	Levels	Values
LOKASI	7	DLP1 DLP2 DLP3 P1 P2 P3 P4
TANGGAL	6	01_06_98 05_05_98 07_07_98 19_05_98 23_06_98 30_07_98

Number of observations in data set = 42

Analysis of Variance Procedure

Dependent Variable: SUHU_UDR

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
LOKASI	6	16.05952381	2.67658730	1.22	0.3206
Error	35	76.91666667	2.19761905		
Corrected Total	41	92.97619048			

R-Square	C.V.	Root MSE	SUHU_UDR Mean
0.172727	4.864246	1.482437	30.4761905

Duncan's Multiple Range Test for variable: SUHU_UDR

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 35 MSE= 2.197619

Number of Means	2	3	4	5	6	7
Critical Range	1.737	1.826	1.886	1.926	1.958	1.984

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	LOKASI
A	31.333	6	DLP1
A			
A	31.000	6	DLP2
A			
A	31.000	6	DLP3
A			
A	30.333	6	P4
A			
A	30.167	6	P3
A			
A	30.083	6	P2
A			
A	29.417	6	P1

Analysis of Variance Procedure

Dependent Variable: SUHU_TNH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
LOKASI	6	8.95238095	1.49206349	0.46	0.8356
Error	35	114.45833333	3.27023810		
Corrected Total	41	123.41071429			

R-Square	C.V.	Root MSE	SUHU_TNH Mean
0.072541	7.042370	1.808380	25.6785714

Duncan's Multiple Range Test for variable: SUHU_TNH

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 35 MSE= 3.270238

Number of Means	2	3	4	5	6	7
Critical Range	2.119	2.227	2.301	2.349	2.389	2.420

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	LOKASI
A	26.500	6	DLP1
A			
A	25.917	6	P3
A			
A	25.833	6	DLP3
A			
A	25.750	6	DLP2
A			
A	25.583	6	P4
A			
A	25.167	6	P1
A			
A	25.000	6	P2

Analysis of Variance Procedure

Dependent Variable: PH

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
LOKASI	6	0.10238095	0.01706349	1.33	0.2692
Error	35	0.44833333	0.01280952		
Corrected Total	41	0.55071429			

R-Square	C.V.	Root MSE	PH Mean
0.185906	1.635200	0.113179	6.92142857

Duncan's Multiple Range Test for variable: PH

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 35 MSE= 0.01281

Number of Means	2	3	4	5	6	7
Critical Range	0.133	0.139	0.144	0.147	0.150	0.151

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	LOKASI
A	7.0000	6	DLP3
A			
A	6.9667	6	P2
A			
A	6.9500	6	DLP2
A			
A	6.9167	6	P4
A			
A	6.8833	6	P1
A			
A	6.8833	6	P3
A			
A	6.8500	6	DLP1

Analysis of Variance Procedure

Dependent Variable: KLEMBABN

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
LOKASI	6	429.1547619	71.5257937	0.73	0.6255
Error	35	3410.3750000	97.4392857		
Corrected Total	41	3839.5297619			

R-Square	C.V.	Root MSE	KLEMBABN Mean
0.111773	12.96599	9.871134	76.1309524

Duncan's Multiple Range Test for variable: KLEMBABN

NOTE: This test controls the type I comparisonwise error rate, not the experimentwise error rate

Alpha= 0.05 df= 35 MSE= 97.43929

Number of Means	2	3	4	5	6	7
Critical Range	11.57	12.16	12.56	12.82	13.04	13.21

Means with the same letter are not significantly different.

Duncan Grouping	Mean	N	LOKASI
A	80.500	6	P1
A			
A	78.500	6	P2
A			
A	78.500	6	P3
A			
A	77.667	6	P4
A			
A	73.167	6	DLP2
A			
A	72.833	6	DLP3
A			
A	71.750	6	DLP1