



**PROGRAM STUDI BIOLOGI**  
**FAKULTAS SAINS DAN TEKNOLOGI**  
**UNIVERSITAS PGRI ADI BUANA SURABAYA**  
 KAMPUS : Jl.Dukuh Menanggal XII, Telp.(031)8281183, 8281181, Surabaya 60234

**FORM SKBIO.05**

**BUKTI BIMBINGAN SKRIPSI**

Nama : Neka Alfaz Zanubah  
 NIM : 192500033  
 Judul Skripsi : Keanekaragaman Tumbuhan Bawah Di Jalur  
 Pendakian Gunung Pundak Kecamatan Pacet  
 Kabupaten Mojokerto

Dosen Pembimbing I : Purity Sabila A., S.Si, M.Si

No	Tanggal	Materi Bimbingan	Pembimbing I
1.	08 Mei 2023	Bimbingan BAB 5	
2.	22 Mei 2023	Bimbingan BAB 5	
3.	05 Juni 2023	Bimbingan BAB 1-4	
4.	13 Juni 2023	Bimbingan revisi BAB 1-4	
5.	21 Juni 2023	Bimbingan revisi BAB 1-5	
6.	27 Juni 2023	Bimbingan BAB 1-5	
7.	05 Juli 2023	Bimbingan revisi BAB 1-5	
8.	07 Juli 2023	Bimbingan BAB 1-6	
9.	10 Juli 2023	Bimbingan BAB 1-6	



Dosen Pembimbing I,

Purity Sabila A., S.Si, M.Si  
 NPP. 1302654/DY



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**FORM SKBIO.09**

**PERSETUJUAN PERBAIKAN SKRIPSI**

Dosen Pembimbing dan Penguji dibawah ini telah menyetujui atas perbaikan naskah skripsi yang dilakukan oleh:

Nama : Neka Alfaz Zanubah  
 NIM : 192500033  
 Prodi : Biologi  
 Judul : Keanekaragaman Tumbuhan Bawah Di Jalur Pendakian  
 Gunung Pundak Kecamatan Pacet Kabupaten Mojokerto

**DOSEN PEMBIMBING**

No	Nama	Tanda tangan	Tanggal Persetujuan
1.	Purity Sabila A, S.Si, M.Si		08-08-2023

**DOSEN PENGUJI**

No	Nama	Tanda tangan	Tanggal Persetujuan
1.	Dra. Diah Karunia Binawati, M.Si		08-08-2023

**\*Catatan:**

Naskah skripsi dapat digandakan dan dijilid, apabila mahasiswa yang bersangkutan telah mendapat persetujuan dari dosen pembimbing dan dosen penguji.

## LAMPIRAN

### Lampiran 1. Dokumentasi



Membuat petak ukuran 2x2 meter



Pencatatan tumbuhan bawah pada petak



Alat ukur intensitas cahaya (*Luxmeter*)



Alat ukur suhu dan kelembaban udara (*Thermohygrometer*)



Alat ukur ketinggian (*Altimeter*)



*Colocasia formosana*



*Piper aduncum*



*Piper sarmentosum*



*Cyperus rotundus*



*Tetrastigma leucostaphylum*



*Pollia japonica*



*Pilea pumila*



*Pilea melastomoides*



*Laportea aestuans*





*Pandanus tectorius*



*Elatostema lineolatum*



*Rungia sp.*



*Ficus septica*



*Nephrolepis exaltata*



*Sellaginella caudata*



*Ficus ruginervia*



*Metaxya rostrata*



*Urena lobata*



*Peristrophe roxburgh*



*Cyathea spinulosa*



*Dryopteris sp.*



*Ageratina riparia*

## Lampiran 2. Tabulasi Data Keanekaragaman

Pos 1

No.	Nama ilmiah	Nama local	Jumlah
<b>POS 1 - PETAK 1</b>			
1.	<i>Ageratina riparia</i>	Teklan	60
2.	<i>Piper aduncum</i>	Sirih hutan	8
3.	<i>Dryopteris sp.</i>	Paku kayu	12
4.	<i>Oplismenus hirtellus</i>	Rumput bamboo	100
5.	<i>Ficus ruginervia</i>	-	10
6.	<i>Tetrastigma leucostaphylum</i>	Oyod gepeng	23
7.	<i>Urena lobata</i>	Pulutan	8
8.	<i>Peristrophe roxburgh</i>	Daun magenta	15
<b>PETAK 2</b>			
1.	<i>Ageratina riparia</i>	Teklan	128
2.	<i>Piper aduncum</i>	Sirih hutan	10
3.	<i>Oplismenus hirtellus</i>	Rumput bamboo	22
4.	<i>Peristrophe roxburgh</i>	Daun magenta	34
<b>PETAK 3</b>			
1.	<i>Ageratina riparia</i>	Teklan	8
2.	<i>Sauropus androgynus</i>	Daun katuk	5
3.	<i>Piper aduncum</i>	Sirih hutan	13
4.	<i>Oplismenus hirtellus</i>	Rumput bamboo	44
5.	<i>Urena lobata</i>	Pulutan	5
<b>PETAK 4</b>			
1.	<i>Zephyranthes sp.</i>	Lili hujan	3
2.	<i>Nephrolepis exaltata</i>	Paku pedang	34
3.	<i>Elatostema lineolatum</i>	Sibarebe	4
4.	<i>Oplismenus hirtellus</i>	Rumpu bamboo	58

5.	<i>Ficus ruginervia</i>	-	2
<b>PETAK 5</b>			
1	<i>Nephrolepis exaltata</i>	Paku pedang	33
2	<i>Ageratina riparia</i>	Teklan	47
3	<i>Cyperus rotundus</i>	Rumput teki	3
4	<i>Peristrophe roxburgh</i>	Daun magenta	24
5	<i>Smilax glabra</i>	Akar cina	2
<b>PETAK 6</b>			
1	<i>Elatostema lineolatum</i>	Sibarebe	42
2	<i>Nephrolepis exaltata</i>	Paku pedang	36
3	<i>Peristrophe roxburgh</i>	Daun magenta	27
4	<i>Smilax glabra</i>	Akar cina	1
<b>PETAK 7</b>			
1	<i>Nephrolepis exaltata</i>	Paku pedang	35
2	<i>Ageratina riparia</i>	Teklan	149
3	<i>Peristrophe roxburgh</i>	Daun magenta	6
4	<i>Urena lobata</i>	Pulutan	7
5	<i>Perrottetia sp.</i>	-	4
<b>PETAK 8</b>			
1	<i>Nephrolepis exaltata</i>	Paku pedang	29
2	<i>Ageratina riparia</i>	Teklan	42
3	<i>Cyperus rotundus</i>	Rumput teki	4
4	<i>Oplismenus hirtellus</i>	Rumput bamboo	6
5	<i>Urena lobata</i>	Pulutan	5
6	<i>Rungia sp.</i>	Sayur hitam	48



Pos 2

NO.	Nama ilmiah	Nama lokal	Jumlah
<b>POS 2 - PETAK 1</b>			
1.	<i>Ageratina riparia</i>	Teklan	128
2.	<i>Cyathea spinulosa</i>	Paku pohon	8
3.	<i>Peristrophe roxburgh</i>	Daun magenta	16
4.	<i>Oplismenus hirtellus</i>	Rumput bambu	6
5.	<i>Cyperus rotundus</i>	Rumpu teki	3
<b>PETAK 2</b>			
1.	<i>Ageratina riparia</i>	Teklan	113
2.	<i>Oplismenus hirtellus</i>	Rumput bamboo	73
3.	<i>Sellaginella caudata</i>	Raku rane	8
4.	<i>Cyperus rotundus</i>	Rumput teki	24
5.	<i>Nephrolepis exaltata</i>	Paku pedang	9
6.	<i>Elatostema lineolatum</i>	Sibarebe	9
7.	<i>Ficus septica</i>	Daun awar-awar	3
<b>PETAK 3</b>			
1.	<i>Sellaginella caudata</i>	Paku rane	140
2.	<i>Oplismenus hirtellus</i>	Rumput bamboo	108
3.	<i>Polliia japonica</i>	Linduang rimbo	11
4.	<i>Pandanus tectorius</i>	Daun pandan	8
5.	<i>Colocasia formosana</i>	Talas	1
6.	<i>Piper sarmentosum</i>	Sirih karuk	1
7.	<i>Pilea melastomoides</i>	Pohpohan	4
<b>PETAK 4</b>			
1.	<i>Dryopteris sp.</i>	Paku kayu	22
2.	<i>Polliia japonica</i>	Linduang rimbo	5
3.	<i>Elatostema lineolatum</i>	Sibarebe	19

4.	<i>Pilea melastomoides</i>	Pohpohan	84
<b>PETAK 5</b>			
1.	<i>Nephrolepis exaltata</i>	Paku pedang	16
2.	<i>Culcita macrocarpa</i>	Pakis berbulu	36
3.	<i>Elatostema lineolatum</i>	Sibarebe	25
4.	<i>Pandanus tectorius</i>	Daun pandan	3
5.	<i>Sellaginela caudata</i>	Paku rane	7
6.	<i>Pilea melastomoides</i>	Pohpohan	18
<b>PETAK 6</b>			
1.	<i>Nephrolepis exaltata</i>	Paku pedang	43
2.	<i>Sauropus androgynus</i>	Daun katuk	1
3.	<i>Colocasia formosana</i>	Talas	2
4.	<i>Pollia japonica</i>	Linduang rimbo	5
5.	<i>Laportea aestuans</i>	Daun jelatang	7
6.	<i>Ageratina riparia</i>	Teklan	146
7.	<i>Cyperus rotundus</i>	Rumput teki	14
8.	<i>Oplismenus hirtellus</i>	Rumput bambu	57
<b>PETAK 7</b>			
1.	<i>Pollia japonica</i>	Linduang rimbo	53
2.	<i>Nephrolepis exaltata</i>	Paku pedang	8
3.	<i>Diplazium esculentum</i>	Paku sayur	21
4.	<i>Sellaginela caudata</i>	Paku rane	3
5.	<i>Piper sarmentosum</i>	Sirih karuk	5
<b>PETAK 8</b>			
1.	<i>Metaxya rostrata</i>	Paku-pakuan	4
2.	<i>Diplazium esculentum</i>	Paku sayur	14

Pos 1

	Nama Spesies	P1	P2	P3	P4	P5	P6	P7	P8	ni
SP1	<i>Ageratina riparia</i>	60	128	8	0	47	0	149	42	434
SP2	<i>Piper aduncum</i>	8	10	13	0	0	0	0	0	31
SP3	<i>Dryopteris</i> sp.	12	0	0	0	0	0	0	0	12
SP4	<i>Oplismenus hirtellus</i>	100	22	44	58	0	0	0	6	230
SP5	<i>Ficus ruginervia</i>	10	0	0	2	0	0	0	0	12
SP6	<i>Tetrastigma leucostaphylum</i>	23	0	0	0	0	0	0	0	23
SP7	<i>Urena lobate</i>	8	0	5	0	0	0	7	5	25
SP8	<i>Peristrophe roxburgh</i>	15	34	0	0	24	27	6	0	106
SP9	<i>Sauropus androgynus</i>	0	0	5	0	0	0	0	0	5
SP10	<i>Zephyranthes</i> sp	0	0	0	3	0	0	0	0	3
SP11	<i>Nephrolepis exaltata</i>	0	0	0	34	33	36	35	29	167
SP12	<i>Elatostema lineolatum</i>	0	0	0	4	0	42	0	0	46
SP13	<i>Cyperus rotundus</i>	0	0	0	0	3	0	0	4	7
SP14	<i>Smilax glabra</i>	0	0	0	0	2	1	0	0	3
SP15	<i>Rungia</i> sp.	0	0	0	0	0	0	0	48	48
SP16	<i>Perrottetia</i> sp.	0	0	0	0	0	0	4	0	4
	<b>Total (N)</b>									<b>1156</b>

Keterangan :

P : Petak

ni : Jumlah

Pos 2

	<b>Nama Spesies</b>	<b>P1</b>	<b>P2</b>	<b>P3</b>	<b>P4</b>	<b>P5</b>	<b>P6</b>	<b>P7</b>	<b>P8</b>	<b>ni</b>
SP1	<i>Ageratina riparia</i>	128	113	0	0	0	146	0	0	387
SP2	<i>Piper sarmentosum</i>	0	0	1	0	0	0	5	0	6
SP3	<i>Dryopteris</i> sp.	0	0	0	22	0	0	0	0	22
SP4	<i>Oplismenus hirtellus</i>	6	73	108	0	0	57	0	0	244
SP5	<i>Cyathea spinulosa</i>	8	0	0	0	0	0	0	0	8
SP6	<i>Pandanus tectorius</i>	0	0	8	0	3	0	0	0	11
SP7	<i>Diplazium esculentum</i>	0	0	0	0	0	0	21	14	35
SP8	<i>Peristrophe roxburgh</i>	16	0	0	0	0	0	0	0	16
SP9	<i>Sauropus androgynus</i>	0	0	0	0	0	1	0	0	1
SP10	<i>Pollia japonica</i>	0	0	11	5	0	5	53	0	74
SP11	<i>Nephrolepis exaltata</i>	0	9	0	0	16	43	8	0	76
SP12	<i>Elatostema lineolatum</i>	0	9	0	19	25	0	0	0	53
SP13	<i>Cyperus rotundus</i>	3	24	0	0	0	14	0	0	41
SP14	<i>Sellaginela caudate</i>	0	8	140	0	7	0	3	0	158
SP15	<i>Ficus septica</i>	0	3	0	0	0	0	0	0	3
SP16	<i>Metaxya rostrate</i>	0	0	0	0	0	0	0	4	4
SP17	<i>Colocasia formosana</i>	0	0	1	0	0	2	0	0	3
SP18	<i>Pilea melastomoides</i>	0	0	4	84	18	0	0	0	106
SP19	<i>Culcita macrocarpa</i>	0	0	0	0	36	0	0	0	36
SP20	<i>Laportea aestuans</i>	0	0	0	0	0	7	0	0	7
	<b>Total (N)</b>									<b>1291</b>

Keterangan :

P : Petak

ni : Jumlah

## Lampiran 3. Tabulasi Data Indeks Nilai Penting

## Indeks Nilai Penting di Pos 1

No.	Nama Spesies	ni	K	KR%	F	FR%	INP
SP1	<i>Ageratina riparia</i>	434	6,78125	37,5433	0,75	14,2857	51,829
SP2	<i>Piper aduncum</i>	31	0,48437	2,68166	0,375	7,14285	9,82452
SP3	<i>Dryopteris</i> sp.	12	0,1875	1,03806	0,125	2,38095	3,41901
SP4	<i>Oplismenus hirtellus</i>	230	3,59375	19,8962	0,625	11,9047	31,801
SP5	<i>Ficus ruginervia</i>	12	0,1875	1,03806	0,25	4,76190	5,79997
SP6	<i>Tetrastigma leucostaphylum</i>	23	0,35937	1,98962	0,125	2,38095	4,37057
SP7	<i>Urena lobate</i>	25	0,39062	2,16263	0,5	9,52381	11,6864
SP8	<i>Peristrophe roxburgh</i>	106	1,65625	9,16955	0,625	11,9047	21,0743
SP9	<i>Sauropus androgynous</i>	5	0,07812	0,43253	0,125	2,38095	2,81348
SP10	<i>Zephyranthes</i> sp	3	0,04687	0,25952	0,125	2,38095	2,64047
SP11	<i>Nephrolepis exaltata</i>	167	2,60937	14,4464	0,625	11,9047	26,3511
SP12	<i>Elatostema lineolatum</i>	46	0,71875	3,97924	0,25	4,76190	8,74114
SP13	<i>Cyperus rotundus</i>	7	0,10937	0,60554	0,25	4,76190	5,36744
SP14	<i>Smilax glabra</i>	3	0,04687	0,25952	0,25	4,76190	5,02142
SP15	<i>Rungia</i> sp.	48	0,75	4,15225	0,125	2,38095	6,5332
SP16	<i>Perrottetia</i> sp.	4	0,0625	0,34602	0,125	2,38095	2,72697
	<b>Total semua (N)</b>	<b>1156</b>	<b>18,0625</b>	<b>100</b>	<b>5,25</b>	<b>100</b>	<b>200</b>

## Indeks Nilai Penting di Pos 2

No.	Nama Spesies	ni	K	KR%	F	FR%	INP
SP1	<i>Ageratina riparia</i>	387	6,04687	29,9768	0,375	6,81818	36,7949
SP2	<i>Piper sarmentosum</i>	6	0,09375	0,46476	0,25	4,54545	5,01021
SP3	<i>Dryopteris</i> sp.	22	0,34375	1,70411	0,125	2,27272	3,97683

SP4	<i>Oplismenus hirtellus</i>	244	3,8125	18,9001	0,5	9,0909	27,991
SP5	<i>Cyathea spinulosa</i>	8	0,125	0,61967	0,125	2,27272	2,8924
SP6	<i>Pandanus tectorius</i>	11	0,17187	0,85205	0,25	4,54545	5,39751
SP7	<i>Diplazium esculentum</i>	35	0,54687	2,71108	0,25	4,54545	7,25653
SP8	<i>Peristrophe roxburgh</i>	16	0,25	1,23935	0,125	2,27272	3,51208
SP9	<i>Sauropus androgynous</i>	1	0,01562	0,07746	0,125	2,27272	2,35019
SP10	<i>Pollia japonica</i>	74	1,15625	5,73199	0,5	9,0909	14,8229
SP11	<i>Nephrolepis exaltata</i>	76	1,1875	5,88691	0,5	9,0909	14,9778
SP12	<i>Elatostema lineolatum</i>	53	0,82812	4,10534	0,375	6,81818	10,9235
SP13	<i>Cyperus rotundus</i>	41	0,64062	3,17583	0,375	6,81818	9,99401
SP14	<i>Sellaginella caudate</i>	158	2,46875	12,2386	0,5	9,0909	21,3295
SP15	<i>Ficus septica</i>	3	0,04687	0,23238	0,125	2,27272	2,50511
SP16	<i>Metaxya rostrate</i>	4	0,0625	0,30984	0,125	2,27272	2,58256
SP17	<i>Colocasia formosana</i>	3	0,04687	0,23238	0,25	4,54545	4,77783
SP18	<i>Pilea melastomoides</i>	106	1,65625	8,21069	0,375	6,81818	15,0289
SP19	<i>Culcita macrocarpa</i>	36	0,5625	2,78854	0,125	2,27272	5,06126
SP20	<i>Laportea aestuans</i>	7	0,10937	0,54222	0,125	2,27272	2,81494
	<b>Total semua (N)</b>	1291	20,1718	100	5,5	100	200

Keterangan :

INP : Indeks nilai penting

ni : Jumlah

K : Kerapatan

F : Frekuensi



## Lampiran 4. Tabulasi Data Faktor Lingkungan

## Pos 1

Petak	Faktor lingkungan				Jam
	Intensitas cahaya	Suhu	Kelembaban	Ketinggian	
P1	117	21,5	93%	1157	11.31
P2	118	21	99%	1172	12.02
P3	532	20,2	99%	1218	15.00
P4	397	19,9	99%	1270	14.44
P5	322	19,9	99%	1277	14.40
P6	511	20	99%	1284	14.36
P7	618	20,2	99%	1297	14.31
P8	1052	20,4	99%	1301	14.26

## Pos 2

Petak	Faktor lingkungan				Jam
	Intensitas cahaya	Suhu	Kelembaban	Ketinggian	
P1	567	19,4	99%	1310	13.02
P2	1220	19,2	99%	1325	13.17
P3	655	20,3	99%	1333	13.35
P4	362	19,7	99%	1340	13.43
P5	812	19,6	99%	1348	13.49
P6	298	20,1	99%	1350	13.55
P7	1605	20,1	96%	1355	14.02
P8	1583	20	96%	1357	14.05

## Lampiran 5. Tabulasi Data SPSS

## Suhu

N	Pos 1 (X)	Pos 2 (Y)	(X-Y)
1.	21,5	19,4	2,1
2.	21	19,2	1,8
3.	20,2	20,3	-0,1
4.	19,9	19,7	0,2
5.	19,9	19,6	0,3
6.	20	20,1	-0,1
7.	20,2	20,1	0,1
8.	20,4	20	0,4
Rata2	20,3875	19,8	0,5875

## Kelembaban

N	Pos 1 (X)	Pos 2 (Y)	(X-Y)
1.	93	99	-6
2.	99	99	0
3.	99	99	0
4.	99	99	0
5.	99	99	0
6.	99	99	0
7.	99	96	3
8.	99	96	3
Rata2	98,25	98,25	0

## Ketinggian

N	Pos 1 (X)	Pos 2 (Y)	(X-Y)
1.	1157	1310	-153
2.	1172	1325	-153
3.	1218	1333	-115

4.	1270	1340	-70
5.	1277	1348	-71
6.	1284	1350	-66
7.	1297	1355	-58
8.	1301	1357	-56
Rata2	1247	1339,75	-92,75

Intensitas Cahaya

N	Pos 1 (X)	Pos 2 (Y)	(X-Y)
1.	117	567	-450
2.	118	1220	-1102
3.	532	655	-123
4.	397	362	35
5.	322	812	-490
6.	511	298	213
7.	618	1605	-987
8.	1052	1583	-531
Rata2	458,375	887,75	-429,375

## Lampiran 6. Hasil Analisa Data SPSS

## Suhu

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	suhu	13,5917	24	9,41608	1,92205
	ulangan	4,5000	24	2,34057	,47777

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	suhu & ulangan	24	-,024	,910

**Paired Samples Test**

		Paired Differences						Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t		df
					Lower	Upper			
Pair 1	suhu – ulangan	9,09167	9,75758	1,99176	4,97140	13,21193	4,565	23	,000

## Kelembaban

## Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	kelembaban	65,5000	24	47,35711	9,66673
	ulangan	4,5000	24	2,34057	,47777

## Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	kelembaban & ulangan	24	,016	,939

## Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error	Lower	Upper			
Pair 1	kelembaban - ulangan	61,00	47,37	9,67	40,99	81,00	6,308	23	,000

## Ketinggian

## Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
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Pair 1	ketinggian	831,3333	24	669,78976	136,72026
	ulangan	4,5000	24	2,34057	,47777

### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	ketinggian & ulangan	24	,051	,813

### Paired Samples Test

		Paired Differences							Sig.
		Std.	Std.	95% Confidence				(2-	
		Deviati	Error	Interval of the				tail	
		on	Mean	Lower	Upper	t	f	d)	
P	ketinggian -	826,83	669,67	544,05	1109,61	6,0	2	,00	
air	1	333	453	458	209	49	3	0	
1	ulangan		674						
	n								

Intensitas cahaya

### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	intensitas_cahaya	305,583	24	699,54668	142,79437
	a	3			
	ulangan	4,5000	24	2,34057	,47777



### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	intensitas_cahaya & ulangan	24	,237	,266

### Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	intensitas_cahaya - ulangan	301,08333	698,99679	142,68212	5,92287	596,24379	2,110	23	,046