



## The bryophyte flora of Aydın Mountain

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### Abstract

This study was planned and completed to reveal the bryophyte flora of the Aydın Mountains. A total of 268 bryophytes were identified from the research area, of which 216 taxa belong to Bryophyta, 51 taxa belong to Marchantiophyta and one taxon belongs to Anthocerotophyta. *Acaulon mediterraneum* Limpr. has been recorded for the second time for Turkish bryophyte flora. Among liverworts, *Riccia* (17 taxa), and among mosses, *Didymodon* (13 taxa), *Tortula* (13 taxa), *Grimmia* (12 taxa), *Syntrichia* (12 taxa), *Orthotrichum* (11 taxa), *Ptychostomum* (10 taxa), *Fissidens* (9 taxa) and *Lewinskya* (7 taxa) were found as the richest genera. In addition, different habitats in Aydın Mountains and bryophytes representing these habitats were determined, as well. The study of a large mountain range which was not known for bryophytes in Western Anatolia has filled a significant gap in this area.

**Keywords:** Aydın, biodiversity, cryptogams, Western Anatolia, Türkiye

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## Aydın Dağları karayosunları florası

### Özet

Bu çalışma, Aydın Dağları'nın karayosunları florasını ortaya çıkarmak amacıyla planlanmış ve tamamlanmıştır. Araştırma alanında yapraklı karayosunlarına ait 216, ciğerotlarına ait 51 ve boynuzlu otlara ait 1 takson olmak üzere toplam 268 karayosunu tespit edilmiştir. *Acaulon mediterraneum* Limpr. Türkiye karayosunları florası için ikinci kez kaydedilmiştir. Ciğerotlarından *Riccia* (17 takson), karayosunlarından *Didymodon* (13 takson), *Tortula* (13 takson), *Grimmia* (12 takson), *Syntrichia* (12 takson), *Orthotrichum* (11 takson), *Ptychostomum* (10 takson), *Fissidens* (9 takson) ve *Lewinskya* (7 takson) en zengin cins olarak bulunmuştur. Ayrıca Aydın Dağları'ndaki farklı habitatlar ve bu habitatları temsil eden karayosunları da belirlenmiştir. Batı Anadolu'da karayosunları açısından bilinmeyen geniş bir dağ silsilesinin incelenmesi bu alanda büyük bir boşluğu doldurmuştur.

**Anahtar kelimeler:** Aydın, biyoçeşitlilik, tohumuz bitkiler, Batı Anadolu, Türkiye

### 1. Introduction

Studies aimed at determining the diversity of bryophytes in Turkey are continuing intensively [1, 20, 24, 25]. In this sense, Western Anatolia is one of the most studied areas with regard to Bryophytes [2, 3, 4, 9]. Despite this high level of research activity, there is a noticeable scarcity of studies conducted in the Aydın Mountains [10, 12, 14].

Aydın Mountains, determined as the study area, is a mountain range located between Bozdağ and Menteşe Mountains in the Western Anatolian Mountain ranges. It extends perpendicularly to the Aegean Sea conforming to the

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Table 1. Collected localities

No	Date	Latitude	Longitude	Altitude (m)	Locality
1	06.11.2018	37° 59' 37.9" N	28° 44' 52.6" E	518	Aydın: Buharkent, Ortakçı
2	06.11.2018	38° 00' 17.4" N	28° 45' 25" E	684	Denizli: Buldan, Çatak
3	06.11.2018	38° 01' 21.3" N	28° 41' 33.3" E	900	Aydın: Buharkent, Gündoğan
4	20.12.2018	37° 52' 19" N	27° 42' 43" E	50	Aydın: İncirliova, Hürriyet
5	20.12.2018	37° 52' 42" N	27° 42' 38" E	60	Aydın, İncirliova, Karabağ
6	07.02.2019	37° 54' 1" N	27° 58' 51" E	250	Aydın: Efeler, Çayyüzü
7	07.02.2019	37° 56' 33" N	27° 58' 41" E	740	Aydın: Efeler, Eğrikavak
8	07.02.2019	37° 58' 26" N	27° 59' 7" E	850	Aydın: Efeler, Eğrikavak
9	13.02.2019	37°57'12.0"N	27°53'19.7"E	630	Aydın: Efeler, Paşayaylası
10	15.04.2019	37° 59' 13.9" N	28° 41' 22.2" E	250	Aydın: Efeler, Feslek
11	15.04.2019	37° 59' 38" N	28° 45' 1" E	560	Aydın: Buharkent, Ortakçı
12	15.04.2019	38° 02' 08" N	28° 44' 34" E	1140	Aydın: Buharkent, Ericek
13	15.04.2019	38° 01' 37" N	28° 47' 44" E	1150	Denizli: Buldan, Süleymanlı
14	15.04.2019	38° 01' 18" N	28° 47' 16" E	1220	Denizli: Buldan, Çatak
15	15.04.2019	37° 59' 39" N	28° 45' 55" E	670	Denizli: Buldan, Between Çatak Savcılı
16	07.05.2019	38° 00' 10" N	28° 32' 42" E	1040	Aydın: Kuyucak, Ören
17	07.05.2019	38° 00' 24" N	28° 32' 55" E	1110	Aydın: Kuyucak, Ören
18	07.05.2019	38° 00' 48" N	28° 33' 32" E	1290	Aydın: Kuyucak, Belenova
19	07.05.2019	38° 01' 06" N	28° 33' 34" E	1290	Aydın: Kuyucak, Belenova
20	21.12.2019	37° 52' 59" N	27° 50' 32" E	90	Aydın: Efeler, Danişment/Kalfaköy
21	21.12.2019	37° 53' 37" N	27° 50' 46" E	200	Aydın: Efeler, Ambarcık köyü/Eski Değirmen
22	21.12.2019	37° 56' 19" N	27° 52' 7" E	510	Aydın: Efeler, Karaköy/Tire road
23	21.12.2019	37° 57' 49" N	27° 52' 21" E	640	Aydın: Efeler, Karaköy
24	28.12.2019	37° 52' 30" N	27° 45' 5" E	170	Aydın: İncirliova Dereağzı/İncirliova Tire road
25	28.12.2019	37° 54' 30" N	27° 47' 8" E	300	Aydın: Efeler, Gözpnar/Şirindere-Kahvedağı location
26	28.12.2019	37° 55' 58" N	27° 47' 43" E	440	Aydın: İncirliova, east of Karagözler/Şirindere
27	28.12.2019	37° 55' 58" N	27° 47' 43" E	440	Aydın: İncirliova Karagözler/Arpadere
28	28.12.2019	38° 0' 3" N	27° 45' 39" E	850	İzmir: Tire, Dağdere/İncirliova Tire road
29	28.12.2019	38° 2' 27" N	27° 44' 52" E	1070	İzmir: Tire Küçükkömürçü/İncirliova Tire road
30	14.02.2020	37° 58' 48" N	28° 44' 53" E	250	Aydın: Buharkent
31	24.02.2020	37° 59' 40" N	28° 43' 33" E	640	Aydın: Buharkent, Muratdağı
32	24.02.2020	38° 3' 22" N	28° 43' 26" E	1140	Denizli: Buldan, Kavanoluk
33	24.02.2020	38° 0' 31" N	28° 43' 34" E	810	Aydın: Buharkent, Muratdağı
34	24.02.2020	38° 3' 3" N	28° 44' 46" E	1100	Denizli: Buldan, Kavanoluk
35	24.02.2020	38° 3' 23" N	28° 44' 25" E	1180	Denizli: Buldan, Kavanoluk
36	24.02.2020	38° 4' 28" N	28° 41' 17" E	1123	Denizli: Buldan, Kurudere
37	24.02.2020	38° 4' 5.9" N	28° 38' 47.5" E	1140	Aydın: Kuyucak, Musakolu
38	24.02.2020	38° 2' 33.5" N	28° 39' 58.8" E	850	Aydın: Kuyucak, Taşoluk
39	07.03.2020	37° 59' 19" N	28° 56' 35" E	172	Denizli: Buldan, Mahmutlu
40	07.03.2020	37° 59' 14" N	28° 56' 17" E	193	Denizli: Buldan, Mahmutlu
41	07.03.2020	38° 0' 45" N	28° 54' 34" E	298	Denizli: Buldan, Bölmekaya
42	07.03.2020	38° 1' 18" N	28° 53' 42" E	328	Denizli: Buldan, Bölmekaya
43	07.03.2020	38° 2' 29" N	27° 47' 43" E	763	Denizli: Buldan, Süleymanlı
44	07.03.2020	38° 2' 56" N	28° 46' 21" E	1157	Denizli: Buldan, Yayla lake
45	07.03.2020	38° 0' 10" N	28° 45' 20"E	640	Denizli: Buldan, Aktaş
46	09.03.2020	37° 57' 1" N	28° 53' 1" E	180	Denizli: Sarayköy, Karataş
47	09.03.2020	37° 57' 1" N	28° 52' 37" E	160	Denizli: Sarayköy, Karataş water tank
48	09.03.2020	37° 56' 53" N	28° 49' 2" E	330	Aydın: Buharkent, Kızıldere village
49	09.03.2020	37° 58' 6" N	28° 44' 30" E	390	Aydın: Buharkent, Savcılı
50	20.03.2020	37° 52' 19" N	27° 56' 15" E	110	Aydın: Efeler, Emirdoğan village
51	20.03.2020	37° 55' 20" N	27° 55' 59" E	655	Aydın: Efeler, Ortaköy
52	20.03.2020	37° 54' 33" N	27° 55' 57" E	457	Aydın: Efeler, Aşağı Kayacık
53	20.03.2020	37° 54' 26" N	27° 56' 5" E	318	Aydın: Efeler, Aşağı Kayacık
54	26.03.2020	37° 58' 49.6" N	28° 36' 12" E	1079	Aydın: Kuyucak, Dereköy
55	26.03.2020	37° 59' 5.8" N	28° 36' 0.2" E	1233	Aydın: Kuyucak, Dereköy
56	26.03.2020	38° 0' 39.7" N	28° 36' 2.4" E	1480	Aydın: Kuyucak, Dereköy
57	20.04.2020	38°05'14.0" N	28°22'09.0" E	540	Aydın: Nazilli, Çaylı
58	20.04.2020	38°06'46.6" N	28°22'04.6" E	1056	Aydın: Nazilli, Derebaşı
59	29.04.2020	37°56'52.0" N	28°09'56.0" E	330	Aydın: Sultanhisar, Malgaçmustafa
60	29.04.2020	37°58'50.0" N	28°09'04.0" E	540	Aydın: Sultanhisar, Malgaçmustafa
61	29.04.2020	37°58'02.0" N	28°09'24.0" E	560	Aydın: Sultanhisar, Malgaçmustafa

Table 1. Continued

62	29.04.2020	37°57'04.0" N	28°09'20.0" E	510	Aydın: Sultanhisar, Malgaçmustafa
63	29.04.2020	37°56'01.0" N	28°09'16.0" E	470	Aydın: Sultanhisar, Malgaçemir
64	29.04.2020	37°55'44.0" N	28°08'36.0" E	540	Aydın: Sultanhisar, Kavaklı village
65	06.05.2020	37°51'24.0" N	28°00'06.0" E	260	Aydın: Efeler, Kuyucular
66	06.05.2020	37°59'56.0" N	28°07'05.0" E	840	Aydın: Köşk, Sarıçam
67	06.05.2020	38°00'55.0" N	28°07'31.0" E	1040	Aydın: Sultanhisar, Malgaçmustafa
68	06.05.2020	37°57'24.0" N	28°02'30.0" E	980	Aydın: Köşk, Ildag
69	11.05.2020	37°54'23.1" N	27°51'23.7" E	320	Aydın: Efeler, Zeytinköy
70	11.05.2020	37°54'33.2" N	27°51'42.6" E	400	Aydın: Efeler, Zeytinköy
71	11.05.2020	37°55'12.5" N	27°52'03.8" E	530	Aydın: Efeler, Zeytinköy
72	11.05.2020	37°57'32.8" N	27°57'50.3" E	1000	Aydın: Efeler, Eğrikavak
73	28.05.2020	37°55'58.0" N	27°52'05.0" E	480	Aydın: Efeler, Zeytinköy
74	28.05.2020	37°56'36.0" N	27°52'09.0" E	530	Aydın: Efeler, Karaköy
75	28.05.2020	37°56'59.0" N	27°52'10.0" E	560	Aydın: Efeler, Karaköy
76	28.05.2020	37°57'45.0" N	27°52'18.0" E	650	Aydın: Efeler, Karaköy
77	28.05.2020	37°59'43.0" N	27°54'14.0" E	920	İzmir: Tire, Eğridere
78	28.05.2020	38°00'08.0" N	27°55'04.0" E	950	İzmir: Tire, Eğridere
79	28.05.2020	37°59'36.0" N	27°53'57.0" E	880	İzmir: Tire, Eğridere
80	01.02.2021	37°54'51.0" N	28°28'56.0" E	110	Aydın: Kuyucak, Aydınoğlu
81	01.02.2021	37°56'08.0" N	28°29'16.0" E	310	Aydın: Kuyucak, Çobanisa
82	01.02.2021	37°56'30.0" N	28°32'52.0" E	230	Aydın: Kuyucak, Pamukören /Değirmendere
83	01.02.2021	37°56'24.0" N	28°32'14.0" E	440	Aydın: Kuyucak, Ören
84	03.02.2021	37°57'21.0" N	28°26'04.0" E	300	Aydın: Nazilli, Kestel
85	03.02.2021	37°57'01.0" N	28°26'47.0" E	430	Aydın: Nazilli, Kestel
86	03.02.2021	38°01'58.0" N	28°27'14.0" E	590	Aydın: Nazilli, Ketenova
87	03.02.2021	38°04'32.0" N	28°28'18.0" E	940	Aydın: Nazilli, Kahvederesi
88	03.02.2021	38°04'43.0" N	28°29'18.0" E	830	Aydın: Nazilli, Aşağıyakacık
89	03.02.2021	38°04'24.0" N	28°31'47.0" E	910	Aydın: Kuyucak, Yukarıyakacık
90	27.02.2021	37°58'01.0" N	28°22'47.0" E	170	Aydın: Nazilli, Kardeşköy/Beydağ-Nazilli road
91	27.02.2021	38°03'54.0" N	28°20'50.0" E	620	Aydın: Nazilli, Işıklar/Beydağ-Nazilli road
92	27.02.2021	38°04'37.0" N	28°19'48.0" E	720	Aydın: Nazilli, Aksu
93	27.02.2021	38°04'36.0" N	28°17'15.0" E	700	İzmir: Beydağ, Palamutçuk
94	27.02.2021	38°04'43.0" N	28°16'32.0" E	680	İzmir: Beydağ, Aktepe
95	27.02.2021	38°04'53.0" N	28°16'14.0" E	620	İzmir: Beydağ, Aktepe
96	27.02.2021	38°05'39.0" N	28°15'24.0" E	380	İzmir: Beydağ
97	27.02.2021	38°05'21.0" N	28°18'12.0" E	830	İzmir: Beydağ, Yeşiltepe
98	02.03.2021	37°53'55.0" N	27°36'10.0" E	100	Aydın: Germencik, Dağkaraağaç
99	02.03.2021	37°51'14.0" N	27°36'10.0" E	120	Aydın: Germencik, Reisköy
100	02.03.2021	37°59'01.0" N	27°34'46.0" E	520	Aydın: Germencik, Dampınar
101	02.03.2021	37°59'01.0" N	27°33'17.0" E	440	Aydın: Germencik, Dağyeni
102	02.03.2021	38°00'21.0" N	27°36'39.0" E	580	Aydın: Germencik, Habibler
103	02.03.2021	37°59'36.0" N	27°39'03.0" E	330	İzmir: Tire, Başköy
104	02.03.2021	38°02'01.0" N	27°40'50.0" E	590	İzmir: Tire, Yemişler
105	02.03.2021	38°02'32.0" N	27°41'28.0" E	890	İzmir: Tire, Çukurköy
106	02.03.2021	38°00'08.0" N	27°41'31.0" E	660	İzmir: Tire, Akmescit
107	07.03.2021	37°53'54.0" N	27°28'35.0" E	110	Aydın: Germencik, Balatçık
108	07.03.2021	37°53'21.0" N	27°29'41.0" E	120	Aydın: Germencik, Ortaklar
109	07.03.2021	37°53'22.0" N	27°25'38.0" E	280	İzmir: Selçuk, Havutçulu
110	07.03.2021	37°53'40.0" N	27°26'22.0" E	260	İzmir: Selçuk, Havutçulu
111	07.03.2021	37°53'53.0" N	27°26'35.0" E	190	İzmir: Selçuk, Havutçulu
112	07.03.2021	37°53'54.0" N	27°26'55.0" E	200	İzmir: Selçuk, Havutçulu
113	07.03.2021	37°58'20.0" N	27°29'43.0" E	410	İzmir: Tire, Selatin
114	07.03.2021	37°56'31.0" N	27°31'01.0" E	180	İzmir: Tire, Selatin
115	08.03.2021	37°53'36.0" N	27°41'24.0" E	120	Aydın: İncirliova, Hürriyet
116	08.03.2021	37°53'51.0" N	27°41'51.0" E	150	Aydın: İncirliova, Arzular
117	08.03.2021	37°56'34.0" N	27°41'31.0" E	270	Aydın: İncirliova, Çarıklar
118	13.03.2021	37°55'01.0" N	28°12'24.0" E	200	Aydın: Sultanhisar, Yağdere
119	13.03.2021	37°56'40.0" N	28°12'44.0" E	380	Aydın: Sultanhisar, İncealan
120	13.03.2021	37°59'18.0" N	28°13'22.0" E	720	Aydın: Nazilli, Çobanlar
121	13.03.2021	37°59'05.0" N	28°13'38.0" E	740	Aydın: Nazilli, Çobanlar
122	13.03.2021	37°58'37.0" N	28°15'13.0" E	680	Aydın: Nazilli, Yaylapınar
123	13.03.2021	38°00'02.0" N	28°15'19.0" E	1010	Aydın: Nazilli, Yaylapınar
124	13.03.2021	38°02'01.0" N	28°14'46.0" E	1340	Aydın: Nazilli, Beyköy,

Table 1. Continued

125	13.03.2021	38°02'01.0" N	28°14'45.0" E	1330	Aydın: Nazilli, Beyköy
126	13.03.2021	38°02'22.0" N	28°14'21.0" E	1210	İzmir: Beydağ, Beyköy
127	13.03.2021	37°57'32.0" N	28°16'25.0" E	510	Aydın: Nazilli, Hasköy
128	13.03.2021	37°56'30.0" N	28°16'49.0" E	190	Aydın: Nazilli, Ocaklı
129	21.03.2021	37°52'42.0" N	28°03'23.0" E	180	Aydın: Köşk, Baklaköy
130	21.03.2021	37°53'04.0" N	28°03'48.0" E	290	Aydın: Köşk, Baklaköy
131	21.03.2021	37°54'52.0" N	28°04'32.0" E	790	Aydın: Köşk, Mezeköy
132	21.03.2021	37°56'10.0" N	28°05'22.0" E	840	Aydın: Köşk, Karatepe
133	21.03.2021	37°56'31.0" N	28°05'36.0" E	830	Aydın: Köşk, Karatepe
134	21.03.2021	37°57'35.0" N	28°06'30.0" E	610	Aydın: Köşk, Kızılcaköy
135	10.04.2021	37°55'34.0" N	28°00'55.0" E	160	Aydın: Köşk, Koçak
136	10.04.2021	37°56'22.0" N	28°01'09.0" E	330	Aydın: Köşk, Gündoğan
137	10.04.2021	37°57'38.0" N	28°01'38.0" E	640	Aydın: Köşk, Akçaköy
138	10.04.2021	37°59'40.0" N	28°00'30.0" E	660	Aydın: Köşk, Çayır
139	10.04.2021	38°00'34.0" N	27°59'51.0" E	610	İzmir: Ödemiş, Hamam
140	10.04.2021	38°01'17.0" N	27°59'36.0" E	650	İzmir: Ödemiş, Küçükören
141	10.04.2021	38°02'45.0" N	27°59'37.0" E	890	İzmir: Ödemiş, Küre
142	10.04.2021	38°03'34.0" N	27°59'58.0" E	1030	İzmir: Ödemiş, Küre
143	10.04.2021	38°03'47.0" N	28°01'20.0" E	1030	İzmir: Ödemiş, Bademli
144	10.04.2021	38°05'07.0" N	28°03'43.0" E	300	İzmir: Ödemiş, Between Bademli/Prinçci, dam edge
145	10.04.2021	38°03'51.0" N	28°06'45.0" E	550	İzmir: Ödemiş, Bıçakcı
146	10.04.2021	38°02'55.0" N	28°07'04.0" E	900	İzmir: Ödemiş, Bıçakcı
147	10.04.2021	38°02'03.0" N	28°07'32.0" E	1240	İzmir: Ödemiş, Bıçakcı
148	20.04.2021	38°00'32.0" N	27°26'56.0" E	30	İzmir: Selçuk, Belevi
149	20.04.2021	38°00'57.0" N	27°27'55.0" E	20	İzmir: Selçuk, Belevi,
150	20.04.2021	37°59'43.0" N	27°29'02.0" E	120	İzmir: Selçuk, Tire road
151	20.04.2021	37°59'03.0" N	27°30'08.0" E	250	İzmir: Tire, Halkapınar
152	20.04.2021	38°01'41.0" N	27°31'50.0" E	110	İzmir: Tire, Küçükkale
153	20.04.2021	38°04'09.0" N	27°41'35.0" E	190	İzmir: Tire, Hisarlık
154	20.04.2021	38°02'49.0" N	27°37'21.0" E	160	İzmir: Tire, Akçaşehir
155	20.04.2021	38°01'02.0" N	27°35'50.0" E	220	İzmir: Tire, Akyurt
156	20.04.2021	38°00'25.0" N	27°37'24.0" E	470	İzmir: Tire, Akyurt
157	20.04.2021	37°57'08.0" N	27°35'35.0" E	340	Aydın: Germencik, Çamköy
158	17.02.2022	37°54'40" N	27°22'40" E	150	İzmir: Selçuk, Acarlar
159	17.02.2022	37°56'49" N	27°23'24" E	210	İzmir: Selçuk, Between Selçuk-Şirince
160	17.02.2022	37°56'49" N	27°23'24" E	490	İzmir: Selçuk, Şirince
161	17.02.2022	37°57'19" N	27°27'21" E	520	İzmir: Selçuk, Şirince
162	17.02.2022	37°57'44" N	27°28'37" E	430	Aydın: Germencik, between Şirince-Selatin village
163	17.02.2022	37°57'28" N	27°25'6" E	160	İzmir: Selçuk, between Selçuk-Şirince (old way)
164	17.02.2022	37°57'27" N	27°23'12" E	50	İzmir: Selçuk, Zafer
165	19.02.2022	38°5'5" N	27°45'42" E	190	İzmir: Tire, Karaca Ali
166	19.02.2022	38°4'46" N	27°47'6" E	410	İzmir: Tire, Boynu Yoğun
167	19.02.2022	38°3'17" N	27°48'46" E	970	İzmir: Tire, Dallık South ridge
168	19.02.2022	38°1'53" N	27°50'45" E	1350	İzmir: Tire, Yamandere
169	19.02.2022	38°2'53" N	27°49'57" E	890	İzmir: Tire, Yamandere
170	19.02.2022	38°3'22" N	27°49'40" E	690	İzmir: Tire, Kürdüllü
171	19.02.2022	38°4'23" N	27°49'54" E	500	İzmir: Tire, between Ekindik-Kürdüllü
172	19.02.2022	38°5'35" N	27°49'12" E	140	İzmir: Tire, Kürdüllü Kuyucak road
173	15.03.2022	37°57'25" N	28°37'22" E	410	Aydın: Kuyucak, Kurtuluş, Dereköy entrance
174	15.03.2022	37°58'55" N	28°36'52" E	710	Aydın: Kuyucak, Dereköy ahead
175	15.03.2022	37°58'37" N	28°36'15" E	1060	Aydın: Kuyucak, Dereköy
176	15.03.2022	37°59'1" N	28°36'3" E	1190	Aydın: Kuyucak, Dereköy
177	15.03.2022	37°58'27" N	28°35'43" E	1030	Aydın: Kuyucak, Dereköy
178	15.03.2022	37°55'28" N	28°26'54" E	190	Aydın: Kuyucak, Mustafapaşa
179	15.03.2022	37°55'56" N	28°28'6" E	400	Aydın: Kuyucak, Cumhuriyet
180	15.03.2022	37°57'12" N	28°28'45" E	980	Aydın: Kuyucak, Çobanisa
181	15.03.2022	37°57'30" N	28°28'48" E	1130	Aydın: Kuyucak, above Çobanisa
182	15.03.2022	37°58'32" N	28°28'54" E	990	Aydın: Kuyucak, Kayran



### 3. Results

As a result of the examination of approximately 10000 samples collected during field studies in the Aydın Mountains, designated as the research area, 216 taxa (26 families and 76 genera) belonging to Bryophyta, 51 taxa (22 families and 25 genera) belonging to Marchantiophyta and only one taxon belonging to Anthocerotophyta were found. In total, the moss diversity of the research area was recorded as comprising 102 genera and 268 taxa belonging to 49 families. The list of taxa is provided with a list with their Turkish names [15]. The floristic list is presented in evolutionary order. [7].

#### Floristic List of Aydın Mountains

##### ANTHOCEROTOPHYTA/BOYNUZLUOTLAR

###### 1- NOTOXYLADACEAE [YEŞİLBOYNUZGİLLER]

*Phaeoceros laevis* (L.) Prosk. [Yeşilboynuz] Common, Substr: S, SCR, GZD 552

##### MARCHANTIOPHYTA/ CİĞEROTLARI

###### 1- CEPHALOZIELLACEAE [SARGINCİKİGİLLER]

*Cephaloziella baumgartneri* Schiffn. [Kireç sargıncığı] Loc: 103, Substr: S, GZD 1530

*C. divaricata* (Sm.) Schiffn. [Koyu sargıncık] Loc: 163, Substr: SCR, GZD 2110

*C. hampeana* (Nees) Schiffn. [Sargıncık] Loc: 69,73, 92, 96, 100, 117,125, Substr: S, R, GZD 1155

###### 2- SCAPANACEAE [SATIRCAGİLLER]

3- *Scapania undulata* (L.) Dumort. [Katlı satırca] Loc: 78, Substr: R, GZD 1223

###### 4- GYMNOMITRIACEAE [KURTÇUKGİLLER]

*Marsupella emerginata* (Ehrh.) Dumort. [Dikilcik] Loc: 116, Substr: S, R, GZD 1677

###### 5- JUNGERMANNIACEAE [YAKACIKGİLLER]

*Mesophytica turbinata* (Raddi) L. Söderstr & Vana [Sokulgan] Loc: 6, 59, 60, 82, 101, 103, 107, 114, 115, 116, 119, 120, 134, Substr: S, R, SCR, GZD 1714

###### 6- SOLENOSTOMATAACEAE [BAĞIRCİKİGİLLER]

*Solenostoma hyalinum* (Lyell) Mitt. [Parlak bağircık] Loc: 82, Substr: S, GZD 1258

###### 7- SOUTHBYACEAE [GERÇEKYAKALIGİLLER]

*Gongylanthus ericetorum* (Raddi) Nees [Dikyakalı] Loc: 129, Substr: R, GZD 1810

*Southbya nigrella* (De Not.) Henriques [Kara yakalı] Loc: 101,130, 152, Substr: S, R, SCR, GZD 1824

*S. tophacea* (Spruce) Spruce [Yakalı] Loc: 6, 21, 25, 26, 63, 69, 73, 75, 82, 101, 108, 114, 115, 129, 134, 138, 149, Substr: S, R, GZD 447

###### 8- FRULLANIACEAE [MIĞFERCEGİLLER]

*Frullania dilatata* (L.) Dumort. [Miğferce] Loc: 43, 60, 117, 119, 120, 133, 134, 139, Substr: E, GZD 1872

###### 9- PORELLACEAE [KATLICAGİLLER]

*Porella cordeana* (Hübener) Moore [Sarı katlıca] Loc: 125, Substr: R, SCR, GZD 1774

*P. pinnata* L. [Su katlıcası] Loc: 77, 125, Substr: R, SCR, GZD 1779

*P. platyphylla* (L.) Pfeiff. [Katlıca] Loc: 23, 66, 75, 77, 78, 88, 120, 125, 126, 133, 134, 144, Substr: R, SCR, GZD 1191

###### 10- RADULACEAE [YASSICIKGİLLER]

*Radula complanata* (L.) Dumort. [Yassıcık] Loc: 120, Substr: E, GZD 1726

###### 11- METZGERIACEAE [TÜLLÜCEGİLLER]

*Metzgeria furcata* (L.) Corda [Tüllüce] Loc: 58, 63, 77, 120, 133, Substr: SCR, E, GZD 1058

###### 12- FOSSOMBRONACEAE [FIRFIRLIGİLLER]

*Fossombronia angulosa* (Dicks.) Raddi [Uzun firfırlı] Loc: 69, 77, 149, 151, 158, Substr: S, SCR, GZD 2013

*F. caespitiformis* (Raddi) De Not.ex Rabenh [Zar firfırlı] Loc: 101, Substr: S, GZD 1518

*F. echinata* Macvicar [Diken firfırlı] Loc: 107, 109, 158, 159, Substr: S, GZD 1607

*F. pusilla* (L.) Nees [Fırfırlı] Common, Substr: S, GZD 877

###### 13- PETALOPHYLLACEAE [DALGALIKGİLLER]

*Petalophyllum ralfsii* (Wilson) Nees & Gottsche ex Lindenb [Dalgalık] Loc: 90, 107, Substr: S, GZD 1367

###### 14- PELLICEAE [SUPULCUĞUGİLLER]

*Apollia endiviifolia* (Dicks.) Nebel & D. Quandt [Çatalsupulcuğu] Loc: 23, 59, 62, 68, 76, 78, 92, 103, 120, 134, 145, 154, 158, Substr: S, SCR, GZD 1727

###### 15- LUNULARIACEAE [AYÇANAKGİLLER]

*Lunularia cruciata* (L.) Dumort. ex Lindb. [Ayçanak] Common, Substr: S, SCR, GZD 514

###### 16- AYTONIACEAE [KAPAKLIGİLLER]

*Mannia androgyna* (L.) A. Evans [Mantarbaş] Common, Substr: S, SCR, E, GZD 587

*M. fragrans* (Balb.) Frye & L. Clark [Kokar mantarbaş] Loc: 50, Substr: S, GZD 639

*Plagiochasma rupestre* (J.R. Forst. & G. Forst.) Steph. [Çatalparmak] Loc: 26, Substr: SCR, GZD 620

*Reboulia hemisphaerica* (L.) Raddi [Yarımbaş] Common, Substr: S, R, SCR, GZD 859

#### 17- CONOCEPHALACEAE [KONİKBAŞGİLLER]

*Conocephalum conicum* (L.) Dumort. [Konikbaş] Loc: 23, 32, 56, 59, 62, 77, 78, 119, 120, 134, 160, Substr: S, SCR, GZD 937

#### 18- CORSINIACEAE [BAĞRIYARIKGİLLER]

*Corsinia coriandrina* (Spreng.) Lindb. [Bağrıyarık] Common, Substr: R, SCR, GZD 1616

#### 19- MARCHANTIACEAE [CİĞEROTUGİLLER]

*Marchantia polymorpha* L. [Cığerothu] Loc: 77, Substr: SCR, GZD 1201

#### 20- OXYMITRACEAE [KARNİYARIKLIGİLLER]

*Oxymitra incrassata* (Brot.) Sérgio & Sim-Sim [Karnıyarıklı] Loc: 22, 24, 30, 83, 107, 111, 118, 129, 158, Substr: S, R, SCR, GZD 1692

#### 21- RICCIACEAE [ÇATALCIKGİLLER]

*Riccia beyrichiana* Hampe ex Lehm. [Kanallı çatalcık] Loc: 6, 21, 96, 107, 108, 146, Substr: S, GZD 1468

*R. bicarinata* Lindb. [Çiftdişli çatalcık] Loc: 87, 107, 110, 118, 129, 148, 158, Substr: S, GZD 1304

*R. bifurca* Hoffm [Ayrık çatalcık] Loc: 87, 96, 107, 118, 158, Substr: S, GZD 1311

*R. ciliata* Hoffm [Kısatüylü çatalcık] Loc: 83, 96, 141, 158, Substr: S, GZD 1272

*R. ciliifera* Link [Kıllı çatalcık] Loc: 44, Substr: S, GZD 819

*R. crinita* Taylor [Sakallı çatalcık] Loc: 83, Substr: S, GZD 1271

*R. crozalsii* Lev. [Ege çatalcığı] Loc: 96, 107, 109, 111, 116, 128, 129, 146, 148, 158, Substr: S, GZD 1792

*R. glauca* L. [Çatalcık] Loc: 83, 107, Substr: S, GZD 1270

*R. gougetiana* Durieu & Mont. [Koca çatalcık] Common, Substr: S, GZD 432

*R. gougetiana* Durieu & Mont. var. *armatissima* Levier ex Müll. Frib. [Yoz çatalcık] Loc: 24, 44, Substr: S, GZD 901

*R. lamellosa* Raddi [Akçatalcık] Loc: 26, 41, 107, 123, Substr: S, GZD 1751

*R. macrocarpa* Lev. [İri çatalcık] Loc: 83, Substr: S, GZD 1269

*R. michelii* Raddi [Paslı çatalcık] Loc: 21, 44, 85, 89, 101, 103, 179, Substr: S, GZD 821

*R. nigrella* DC. [Kara çatalcık] Loc: 24, 28, 81, 83, 85, 86, 91, 96, 107, 171, 174, 176, Substr: S, GZD 1464

*R. papillosa* Moris. [Siğilli çatalcık] Loc: 22, 30, 83, 89, 96, 179, Substr: S, GZD 1465

*R. sorocarpa* Bisch. [Bol çatalcık] Common, Substr: S, GZD 450

*R. subbifurca* Warnst. ex Croz. [Uzun çatalcık] Loc: 20, 28, 92, 96, 99, 109, 110, 116, 118, 121, 128, 129, 136, 144, Substr: S, GZD 533

#### 22- TARGIONIACEAE [ARDIKARAGİLLER]

*Targionia hypophylla* L. [Ardıkara] Common, Substr: S, GZD 1098

#### 23- SPHAEROCARPACEAE [DİŞİKÜREGİLLER]

*Sphaerocarpos michelii* Belardi [Diken dişiküre] Loc: 107,153,172, Substr: S, GZD 2037

*S. europaeus* Lorb. [Dişiküre] Common, Substr: S, GZD 442

#### BRYOPHYTA/YAPRAKLI KARAYOSUNLARI

##### 1- POLYTRICHACEAE [BÖRKLÜCEGİLLER]

*Polytrichum juniperinum* Hedw. [Bol börklüce] Loc: 18, 32, 36, 57, 89, 93, 133, 141, Substr: S, SCR, GZD 676

##### 2- TIMMIACEAE [YILDIZVERENGİLLER]

*Timmiella barbuloidea* (Brid.) Mönk. [Duvarlık] Common, Substr: S, R, SCR, GZD 2042

##### 3- ENCALYPTACEAE [DUVAKLIGİLLER]

*Encalypta rhaptocarpa* Schwagr. [Koca duvaklı] Loc: 55, 131, Substr: R, GZD 1842

*E. streptocarpa* Hedw. [Kıvrık Duvaklı] Loc: 162, Substr: SCR, GZD 2106

*E. vulgaris* Hedw. [Duvaklı] Loc: 12, 14, 19, 23, 26, 93, 105, 113, 131, 155, 169, Substr: S, R, SCR, GZD 1553

##### 4- FUNARIACEAE [KEPÇEBAŞGİLLER]

*Enthostodon attenuatus* (Dicks.) Bryhn [Uzun topuzcuklu] Loc: 158, Substr: S, GZD 2076

*E. convexus* (Spruce) Brugués. [Şiş topuzcuklu] Loc: 90, 136, Substr: S, GZD 1911

*E. fascicularis* (Hedw.) Müll. Hal. [Kat topuzcuklu] Loc: 107, Substr: S, GZD 1573

*E. muhlenbergii* (Turner) Fife [Topuzcuklu] Loc: 45, 107, 121, 153, 158, Substr: S, GZD 2038

*E. pulchellus* (H. Philib.) Brugués [Bol topuzcuklu] Loc: 62, 96, 99, 101, 103, 118, 121, 127, 128, 131, 133, 142, 148, 157, Substr: S, R, GZD 1538

*Funaria hygrometrica* Hedw. [Kepçebaş] Common, Substr: S, R, SCR, GZD 1083

##### 5- DICRANELLACEAE [İNCELİKGİLLER]

*Dicranella howei* Renaud & Cardot. [Ayrı incelik] Common, Substr: S, SCR, GZD 2012

*D. varia* (Hedw.) Schimp. [İncelik] Loc: 98, 108, 163, Substr: S, GZD 1595

##### 6- FISSIDENTACEAE [CEPKENLİGİLLER]

*Fissidens dubius* P. Beauv [Yoz cepkenli] Loc: 63, 69, 70, 73, 136, 155, Substr: S, E, GZD 2058

*F. taxifolius* Hedw. [Zarif cepkenli] Loc: 152, 160, Substr: S, GZD 2094

- F. arnoldii* R.Ruthe [Cüce cepkenli] Loc: 50, 103, Substr: R, GZD 1141  
*F. bryoides* Hedw. [Bol cepkenli] Loc: 158, Substr: S, GZD 2081  
*F. crispus* Mont. [Kıvrık cepkenli] Loc: 57, 71, Substr: S, SCR, GZD 964  
*F. incurvus* Starke ex Röhl. [Dönük cepkenli] Loc: 98, Substr: S, GZD 1487  
*F. rufulus* Bruch & Schimp. [Uzun cepkenli] Loc: 26,154, Substr: SCR, GZD 621  
*F. viridulus* (Sw. ex anon.) Wahlenb. [Cepkenli] Common, Substr: S, R, SCR, GZD 1938  
*F. exilis* Hedw. [Yitik cepkenli] Loc: 158, Substr: S, GZD 2079

**7- RHABDOWEISIAEAE [BAKIRLIKĞİLLER]**

- Dicranoweisia cirrata* (Hedw.) Lindb. [Kütükcan] Loc: 5, 25, 32, 34, 72, 88, 99, 125, 134, 145, Substr: S, SCR, E, GZD 1774

**8- DITRICHACEAE [ÇATALDIŞĞİLLER]**

- Ceratodon conicus* (Hampe) Lindb. [Sivri boynuzdiş] Loc: 85, Substr: R, GZD 1285  
*C. purpureus* (Hedw.) Brid. [Boynuzdiş] Loc: 5, 36, 125, Substr: R, SCR, GZD 419  
*Cheilothea chloropus* (Brid.) Broth. [Ayrıkdış] Loc: 22, 47, 48, 55, 57, 101, 107, 108, 111, 113, 123, 149, 158, 159, 171, Substr: S, SCR, GZD 1625  
*Pleuroidium acuminatum* Lindb. [Silli kapaksız] Loc: 92, Substr: S, GZD 1402

**9- POTTIACEAE [POTURCUKĞİLLER]**

- Acaulon fontiquerianum* Casas & Sérgio [Kit boncukçuk] Loc: 83, Substr: S, GZD 1274  
 \**A. mediterraneum* Limpr. [Ege boncukçuk] Loc: 95, 172, Substr: S, GZD 1433  
*A. muticum* (Hedw.) Müll. Hal. [Boncukçuk] Loc: 47, Substr: S, GZD 838  
*A. triquetrum* (Spruce) Müll. Hal. [Üçgen boncukçuk] Loc: 39, 50, 54, 128, 135, 179, Substr: S, GZD 1792  
*Aloina aloides* (Koch ex Schultz) Kindb [Pidecik] Loc: 5, 15, 25, 39, 50, 71, 100, 101, 102, 107, 111, 116, 159, 163, Substr: S, R, SCR, GZD 400  
*A. ambigua* (Bruch & Schimp.) Limpr. [Etlı pidecik] Loc: 46, 84, 85, 90, 96, 107, 108, 127, 129, 149, 153, Substr: S, R, SCR, GZD 1563  
*B. unguiculata* Hedw. [Fırçacık] Common, Substr: S, SCR, GZD 2021  
*Crossidium aberrans* Holz. & E.B.Bartram [Düz kartpulcuk] Loc: 58, Substr: S, GZD 982  
*C. squamiferum* (Viv.) Jur [Kartpulcuk] Loc: 2, 24, 41, 46, 80, 85, 100, 107, 108, 130, 159, Substr: S, R, SCR, GZD 1830  
*Dialytrichia mucronata* (Brid.) Broth. [Gergeflice] Loc: 21, 154, Substr: R, GZD 2049  
*Didymodon acutus* (Brid.) K. Saito [Sivri ikizcik] Common, Substr: S, R, SCR, GZD 1519  
*D. australiase* (Hook. & Grev.) R.H.Zander [Yaban ikizcik] Loc: 134, Substr: S, GZD 1897  
*D. bistratosus* Hébrard & Pierrot [Katlı ikizcik] Loc: 50, 64, Substr: S, GZD 1060  
*D. cordatus* Jur. [Üçgen ikizcik] Loc: 5, 81, 93, 146, Substr: S, R, Substr: S, R, SCR, GZD 1239  
*D. fallax* (Hedw.) R.H. Zander [Dönük ikizcik] Loc: 44, 84, 170, Substr: S, SCR, GZD 1281  
*D. insulanus* (De Not.) M.O. Hill [Uzun ikizcik] Common, Substr: S, R, SCR, E, GZD 2065  
*D. luridus* Hornsch. [Bol ikizcik] Common, Substr: S, R, SCR, GZD 1648  
*D. rigidulus* Hedw. [Boncuklu ikizcik] Loc: 47, 57, 64, 93, 95, 115, 125, 131, 156, Substr: S, R, SCR, GZD 1849  
*D. spadiceus* (Mitt.) Limpr. [Düz ikizcik] Loc: 2, 3, 36, 48, GZD 695  
*D. tophaceus* (Brid.) Lisa [Çok ikizcik] Loc: 23, 26, 46, 57, 62, 63, 97, 103, 115, 119, 120, 135, 138, 156, 157, 158, 163, Substr: S, R, SCR, Substr: S, R, SCR, GZD 2071  
*D. tophaceus* subsp. *sicculus* M.J.Cano, Ros, García- Zam. & J.Guerra) Jan Kučera [Küçük ikizcik] Loc: 142, Substr: S, GZD 1953  
*D. umbrosus* (Müll. Hal.) R.H. Zander [Dalgalı ikizcik] Loc: 3, 24, 64, 92, 96, 147, Substr: S, R, SCR, E, GZD 579  
*D.vinealis* (Brid.) R.H. Zander [İkizcik] Common, Substr: S, R, SCR, GZD 1546  
*Microbryum curvicolium* (Hedw.) R.H.Zander [Kıvrık küfecik] Loc: 47, Substr: S, GZD 838  
*M. rectum* (With.) R.H. Zander [Son küfecik] Loc: 46, 107, Substr: S, GZD 1563  
*M. starkeanum* (Hedw.) R.H. Zander [Küfecik] Common, Substr: S, SCR, GZD 2003  
*Pseudocrossidium hornschuchianum* (Schultz) R.H. Zander [Dönükçe] Loc: 5, 18, 24, 46, 96, 102, 105, 107, 111, 118, 123, 127, Substr: S, SCR, GZD 1697  
*P. revolutum* (Brid.) R.H. Zander [Kıvrık dönükçe] Loc: 100, Substr: SCR, GZD 1503  
*Pterygoneurum ovatum* (Hedw.) Dixon [Atkılıca] Loc: 13, Substr: S, GZD 495  
*Syntrichia calcicola* J.J. Aman [Kireç ulduzu] Loc: 89, 142, Substr: S, GZD 1350  
*S. caninervis* Mitt var. *gypsophila* (J.J. Amann ex G. Roth) Ochyra [Kurak ulduz] Loc: 55, 88, 133, Substr: R, SCR, GZD 1862  
*S. handelii* (Schiffn.) S.Agnew & Vondr. [Öz ulduz] Loc: 126, Substr: R, GZD 1783  
*S. laevipila* Brid. [Ağaç ulduzu] Loc: 4, 167, Substr: E, GZD 356  
*S. minör* (Bizot) M.T.Gallego [Cüce ulduz] Loc: 167 Substr: E, GZD 2127  
*S. montana* Nees [Bol ulduz] Loc: 14, 21, 57, 59, 134, Substr: R, E, GZD 1894  
*S. papillosissima* (Copp.) Loeske [Uzun ulduz] Loc: 58, Substr: SCR, GZD 979



- S. princeps* (De Not.) Mitt. [Kaba ulduz] Common, Substr: S, R, SCR, GZD 1747  
*S. ruraliformis* (Besch.) Mans. [Sivri ulduz] Loc: 44, 88, 122, 125, Substr: S, SCR, GZD 1737  
*S. ruralis* (Hedw.) F. Weber & D. Mohr [Ulduz] Common, Substr: S, R, SCR, E, GZD 1339  
*S. subpapillosissima* (Bizot & R.B. Pierrot ex W.A. Kramer) M.T. Gallego & J. Guerra [Zarif ulduz] Loc: 17, 18, 58, 124, 131, 133, 142, 176, Substr: S, R, SCR, GZD 1844  
*S. virescens* (De Not.) Ochyra [Küçük ulduz] Loc: 60, 91, 94, 141, Substr: E, GZD 1390  
*Tortula acaulon* (With.) R.H. Zander [Cüce kurucan] Loc: 39, 50, 80, 83, 95, 96, 128, 131, 162, 181, Substr: S, GZD 1793  
*T. acaulon* var. *pilifera* (Hedw.) R.H. Zander [Tüylü kurucan] Loc: 127, Substr: S, GZD 1790  
*T. atrovirens* (Sm.) Lindb. [Küt kurucan] Loc: 5, Substr: R, GZD 426  
*T. brevissima* Schiffn. [Narin kurucan] Loc: 5, 39, 51, 168, 180, Substr: S, GZD 391  
*T. canescens* Mont. [Boz kurucan] Loc: 107, 127, Substr: R, SCR, GZD 1789  
*T. caucasica* Broth. [Kaf kurucan] Loc: 144, Substr: S, GZD 1961  
*T. cuneifolia* (Dicks.) Turner [Seyrek kurucan] Loc: 47, 66, 91, 96, 118, 158, 165, 171, Substr: S, R, SCR, GZD 1075  
*T. inermis* (Brid.) Mont [Tüysüz kurucan] Loc: 2, 13, 18, 54, 57, 99, 105, 120, 133, 142, 156, Substr: S, R, SCR, E, GZD 1954  
*T. marginata* (Bruch & Schimp.) Spruce [Kenarlı kurucan] Loc: 83, 84, 95, 96, Substr: S, GZD 1283  
*T. muralis* Hedw. [Kurucan] Loc: 2, 5, 45, 59, 65, 84, 104, 105, 118, 122, 127, 137, 153, 165, Substr: S, R, SCR, E, GZD 1918  
*T. muralis* Hedw. var. *aestiva* Hedw. [Köse kurucan] Loc: 141, 154, Substr: SCR, GZD 409  
*T. subulata* Hedw. [Biz kurucan] Common, Substr: S, R, SCR, E, GZD 1653  
*T. vahliana* (Schultz) Mont [Efe kurucan] Loc: 80, 122, 130, 180, Substr: R, SCR, GZD 1828  
*Streblotrichum convolutum* (Hedw.) P.Beauv. [Bol firçacık] Common, Substr: S, R, GZD 422  
*S. convolutum* P.Beauv. var. *commutatum* (Jur.) J.J. Amann [Yoz firçacık] Loc: 13, 95, 137, Substr: SCR, E, GZD 1918  
*Ephemerum serratum* (Hedw.) Hampe [Cüce tezgiden] Loc: 22, Substr: S, GZD 567  
*Eucladium verticillatum* (With.) Bruch & Schimp. [Sızıcık] Common, Substr: S, R, SCR, E, GZD 1637  
*Gymnostomum aeruginosum* Sm. [Damlacık] Loc: 50, 108, Substr: SCR, GZD 1593  
*G. calcareum* Nees & Hornsch. [Kireç damlacık] Common, Substr: S, R, SCR, GZD 1602  
*G. viridulum* Brid. [Yeşil damlacık] Loc: 21, 22, 39, 81, 100, 130, 163, Substr: S, R, SCR, GZD 1826  
*Gyroweisia tenuis* (Schrad. ex Hedw.) Schimp [Dilcikli] Loc: 24, 59, 63, 64, 101, 108, 114, 130, 135, 152, 163, 170, Substr: S, R, SCR, GZD 1823  
*Hydrogonium bolleanum* (Müll.Hal.) A.Jaeger [Dere firçacığı] Loc: 6, Substr: R, GZD 446  
*Hymenostylium recurvirostrum* (Hedw.) [İnce kıvrık] Loc: 23, Substr: R, GZD 573  
*Tortella flavovirens* (Bruch) Broth. [Kokar camtaban] Loc: 21, 107, 108, Substr: R, SCR, GZD 1577  
*T. humilis* (Hedw.) Jenn. [Bodur camtaban] Loc: 48, 107, 108, 115, 130, 151, Substr: S, R, SCR, GZD 2027  
*T. nitida* (Lindb.) Broth. [Cıbil camtaban] Loc: 108, 115, Substr: R, GZD 1589  
*T. squarrosa* (Brid.) Limpr. [Dönük camtaban] Common, Substr: S, R, SCR, GZD 427  
*T. tortuosa* (Hedw.) Limpr. [Camtaban] Loc: 2, 45, 49, 50, 52, 60, 69, 77, 82, 92, 114, 133, 179, Substr: S, SCR, GZD 1026  
*Trichostomum brachydontium* Bruch [Dik kayıkçık] Loc: 24, 69, 125, Substr: S, GZD 1607  
*T. crispulum* Bruch [Kayıkçık] Common, Substr: S, R, SCR, GZD 1775  
*Weissia brachycarpa* (Nees & Hornsch.) Jur. [Kısa kıvrıklı] Loc: 66, 67, Substr: S, GZD 1099  
*W. condensa* (Voit) Lindb. [Bol kıvrıklı] Loc: 87, 95, 100, 107, 111, 148, Substr: S, R, SCR, GZD 1508  
*W. controversa* Hedw. [Kıvrıklı] Common, Substr: S, SCR, GZD 1620  
*W. longifolia* Mitt. [Uzun kıvrıklı] Loc: 148, Substr: S, GZD 2003
- 10- GRIMMIACEAE [YASTIKÇIKGİLLER]**  
*Grimmia anodon* Bruch & Schimp. [Düz yastıkçık] Loc: 17, 124, GZD Substr: S, R, 1757  
*G. dissumulata* E. Maier [Zeytin yastıkçık] Loc: 88, Substr: S, GZD 1327  
*G. elongata* Kaulf. [Boylu yastıkçık] Loc: 28, 80, 105, 125, 135, 142, 129, 133, 148, Substr: R, SCR, GZD 1869  
*G. funalis* (Schwägr.) Bruch & Schimp. [Sarı yastıkçık] Loc: 55, 66, 125, 133, 166, 169, Substr: R, GZD 1768  
*G. laevigata* (Brid.) Brid. [Akça yastıkçık] Loc: 17, 22, 46, 54, 55, 67, 80, 123, 129, 130, 142, 168, Substr: R, SCR, GZD 1815  
*G. lisae* De Not. [Cam yastıkçık] Loc: 14, 47, 50, 57, 58, 66, 88, 102, 106, 115, 123, 124, 136, 139, 148, 164, Substr: S, R, SCR, E, GZD 1323  
*G. nutans* Bruch. [Öz yastıkçık] Loc: 130, Substr: SCR, GZD 1829  
*G. orbicularis* Bruch ex Wilson [Göz yastıkçık] Loc: 47, GZD 836  
*G. ovalis* (Hedw.) Lindb. [Katlı yastıkçık] Loc: 1, 2, 58, 87, 117, 145, 168, Substr: R, GZD 330  
*G. pulvinata* (Hedw.) Sm. [Yastıkçık] Common, Substr: R, SCR, GZD 1686  
*G. torquata* Hornsch. in Grev. [Kıvrımlı yastıkçık] Loc: 125, Substr: R, GZD 1766  
*G. trichophylla* Grev. [Bol yastıkçık] Loc: 86, 130, 133, 141, 148, Substr: SCR, GZD 1293

*Schistidium apocarpum* (Hedw.) Bruch & Schimp. [Aldışli] Loc: 53, 125, Substr: R, GZD 907

*S. confertum* (Funck) Bruch & Schimp. [Pek aldişli] Loc: 170, Substr: R, GZD 2153

*S. flaccidum* (De Not.) Ochyra [Öykü aldişli] Loc: 56, 124, 168, Substr: R, GZD 1762

*S. helveticum* (Schkuhr) Deguchi [Mine aldişli] Loc: 58, Substr: SCR, GZD 989

#### **11- HEDWIGIACEAE [AKTÜYLÜGİLLER]**

*Hedwigia ciliata* (Hedw.) P.Beauv [Aktüylü] Loc: 1, 31, 57, 58, 126, 133, Substr: R, GZD 1780

*H. stellata* Hedenäs [Kıvrık aktüylü] Loc: 14, 66, Substr: R, GZD 502

#### **12- BARTRAMIACEAE [KÜRELİGİLLER]**

*Anacolia webbii* (Mont.) Schimp. [Misketçik] Loc: 49, 55, 56, 58, 125, 18, 87, 124, 125, 142, 169, Substr: S, R, GZD 984

*Bartramia pomiformis* Hedw. [Kıvrık kürelî] Loc: 14, 34, 36, 89, 92, 93, 125, Substr: S, R, GZD 1763

*B. aprica* Müll. Hal. [Kürelî] Loc: 2, 10, 50, 54, 57, 81, 83, 92, 129, 133, 136, 152, 155, 165, Substr: S, R, SCR, GZD 2030

#### **13- BRYACEAE [İLİMİKGİLLER]**

*Bryum argenteum* Hedw. [Boz ılımlık] Loc: 30, 50, 95, 96, 111, 130, 142, 143, Substr: S, SCR, GZD 1958

*B. dichotomum* Hedw. [Al tomurcuklu] Loc: 41, 96, 99, 107, 111, 127, 143, 153, 164, Substr: S, R, SCR, E, GZD 1789

*B. gemmilucens* (R.Wilczek & Demaret) J.R.Spence [Cüce tomurcuklu] Loc: 95, Substr: S, GZD 1437

*Ptychostomum capillare* (Hedw.) Holyoak & N.Pedersen [Gülilimik] Common, Substr: S, R, SCR, E, GZD 1149

*P. cellulare* (Hook.) D.Bell & Holyoak [Dik ılımlık] Loc: 64, 141, 146, Substr: S, SCR, GZD 1950

*P. cernuum* (Hedw.) Hornsch. [Damla karayosunu] Loc: 57, Substr: S, GZD 974

*P. donianum* (Grev.) Holyoak & N.Pedersen [Bey karayosunu] Loc: 57, 59, 97, 99, 134, 147, Substr: S, R, SCR, GZD 1880

*P. elegans* (Nees) D.Bell & Holyoak Loc: 54, Substr: S, GZD 916

*P. imbricatum* (Müll.Hal.) Holyoak & N.Pedersen [Pul tomurcuklu] Loc: 39, 96, 104, 105, 107, 129, 143, 163, 168, Substr: S, SCR, GZD 1578

*P. inclinatum* (Sw. ex Brid.) J.R.Spence [Ece karayosunu] Loc: 96, Substr: S, GZD 1468

*P. moravicum* (Podp.) Ros & Mazimpaka [Gür gülilimik] Loc: 93, Substr: SCR, GZD 1423

*P. pseudotriquetrum* (Hedw.) J.R.Spence & H.P.Ramsay ex D.T.Holyoak & N.Pedersen [Bol karayosunu] Loc: 78, 169, Substr: S, GZD 1221

*P. torquescens* (Bruch & Schimp.) J.R.Spence [Kıvrık gülilimik] Loc: 25, 43, 87, 88, 104, 156, Substr: S, R, GZD 2061

#### **14- MNIACEAE [YIŞILCAGİLLER]**

*Pohlia artropurpurea* (Wahlenb.) H. Lindb. [Mor balırcık] Loc: 125, Substr: S, GZD 1767

*P. elongata* Hedw. [Yaban balırcık] Loc: 36, 39, 145, Substr: S, GZD 1971

*P. melanodon* (Brid.) A.J. Shaw [Kara balırcık] Loc: 39, 120, Substr: S, GZD 1723

*P. wahlenbergii* (F.Weber & D.Mohr) A.L.Andrews var. *calcareo* (Warnst.) E.F.Warb. [Kireç balırcığı] Loc: 23, 59, Substr: R, GZD 576

*Epipterygium tozeri* (Grev.) Lindb. [Zarkanat] Loc: 145, Substr: S, GZD 1978

*Plagiomnium affine* (Blandow ex Funck) T.J.Kop. [Yatkın yışılcalı] Loc: 134, Substr: S, GZD 1886

*P. cuspidatum* (Hedw.) T.J. Kop. [Biz yışılcalı] Loc: 59, Substr: S, GZD 1018

*P. medium* (Bruch & Schimp.) T.J. Kop. [Orta yışılcalı] Loc: 69, 70, 77, 103, 134, 155, Substr: S, SCR, GZD 1886

*P. undulatum* (Hedw.) T.J. Kop. [Yışılcalı] Loc: 59, 78, 120, 139, Substr: S, R, E, GZD 1927

#### **15- ORTHOTRICHACEAE [YOSGUNCUKGİLLER]**

*Lewinskya acuminata* (H. Philib.) F. Lara, Garilleti & Goffinet [Sivri yosguncuk] Loc: 86, 141, Substr: E, GZD 1944

*L. affinis* (Schrad. ex Brid.) F. Lara, Garilleti & Goffinet [Deli yosguncuk] Common, Substr: E, GZD 1872

*L. breviseta* (F. Lara, Garilleti & Mazimpaka) F. Lara, Garilleti & Goffinet [Kısa Yosguncuk] Loc: 126, Substr: E, GZD 1788

*L. rupestris* (Schleich. ex Schwägr.) F. Lara, Garilleti & Goffinet [Yosguncuk] Common, Substr: R, SCR, E, GZD 1746

*L. shawii* (Wilson) F. Lara, Garilleti & Goffinet [Çizik yosguncuk] Loc: 2, Substr: E, GZD 345

*L. speciosa* (Nees) F. Lara, Garilleti & Goffinet [Güz yosguncuk] Loc: 16, 56, 89, 92, 123, 132, 134, 167, 169, 172, Substr: E, GZD 682

*L. striata* (Hedw.) F. Lara, Garilleti & Goffinet [Koru yosguncuk] Loc: 67, 77, 88, 91, 105, 118, 123, 127, 132, 137, 139, 143, 170, Substr: E, GZD 1750

*Orthotrichum bistratosum* (Schiffn.) Guerra [Katlı yosguncuk] Loc: 59, 68, 87, 130, 146, Substr: S, R, GZD 1303

*O. cupulatum* Hoffm. ex Brid. [Yosguncuk] Loc: 17, 53, 67, Substr: R, SCR, E, GZD 908

*O. diaphanum* Schrad. ex Brid. [Tüylü yosguncuk] Common, Substr: R, SCR, E, GZD 1712

*O. macrocephalum* F.Lara, Garilleti & V. Mazimpaka [Kabuklu yosguncuk] Loc: 143, 154, Substr: E, GZD 1959

*O. pallens* Bruch ex Brid. [Soluk yosguncuk] Loc: 37, 91, 136, 141, 153, Substr: E, GZD 699

*O. pulchellum* Brunt. [Kit yosguncuk] Loc: 51, Substr: E, GZD 899

- O. pumilum* Sw. ex anon. [Bıdık yosguncuk] Loc: 50, 57, 72, 86, 87, 91, 132, 140, 165, Substr: R, E, GZD 1858  
*O. scanicum* Gronvall [Uçlu yosguncuk] Loc: 44, 52, 173, Substr: E, GZD 2166  
*O. schimperi* Hammar [Şirin yosguncuk] Loc: 8, 91, Substr: E, GZD 455  
*O. stellatum* Brid. [Yıldız yosguncuk] Loc: 167, Substr: E, GZD 2117  
*O. tenellum* Bruch ex Brid. [İnce yosguncuk] Loc: 2, 17, 21, 51, 52, 59, 91-106-120-129-131-134-136-137-140, 172, Substr: R, E, GZD 331  
*Pulviger a lyellii* (Hook. & Taylor) Plášek, Sawicki & Ochyra [Paslı yosguncuk] Common, Substr: E, GZD 1756  
*Zygodon catarinoides* C. Garcia, F. Lara, Sérgio & Sim-Sim [Katlı girişik] Loc: 119, 120, Substr: E, GZD 1720  
*Z. rupestris* Schimp. ex Lorentz [Girişik] Common, Substr: R, E, GZD 1788  
*Z. viridissimus* (Dicks.) Brid. [Yeşil girişik] Loc: 167, Substr: E, GZD 2127
- 16- AULACOMNIACEAE [YİVLİCEGİLLER]**  
*Aulacomnium androgynum* (Hedw.) Schwägr. [Er yivlice] Loc: 89, Substr: E, GZD 1355
- 17- FABRONIACEAE [KADEHLİGİLLER]**  
*Fabronia pusilla* Raddi. [Kadehli] Common, Substr: SCR, E, GZD 1581
- 18- PTERYGYNANDRACEAE [TELKİLİMGİLLER]**  
*Pterigynandrum filiforme* Hedw. [Telkilim] Loc: 88, Substr: R, GZD 1324
- 19- HABRODONTACEAE [KABUKTÜYÜGİLLER]**  
*Habrodon perpusillus* (De Not.) Lindb. [Kabuktüyü] Loc: 120, 136, Substr: E, GZD 1913
- 20- AMBLYSTEGIACEAE [ÜSÜMGİLLER]**  
*Cratoneuron filicinum* (Hedw.) Spruce [Kancacık] Loc: 26, 56, 60, Substr: R, SCR, GZD 611  
*Palustriella commutata* (Hedw.) Ochyra [Kancalı] Loc: 23, Substr: R, GZD 578  
*Amblystegium serpens* (Hedw.) Schimp. [Üsüm] Loc: 71, 77, 120, 154, 166, Substr: S, R, GZD 1731  
*Hygroamblystegium humile* (P.Beauv.) Vanderp., Goffinet & Hedenäs [Koca yaşüsüm] Loc: 89, Substr: E, GZD 1363  
*H. tenax* (Hedw.) Jenn. [Yaşüsüm] Loc: 23, 26, 76, 116, Substr: R, SCR, GZD 1199  
*H. varium* (Hedw.) Mönk. [Ala yaşüsüm] Loc: 139, Substr: S, GZD 1933  
*Leptodictyum riparium* (Hedw.) Warnst. [Islak dereüsümü] Loc: 89, Substr: E, GZD 1362
- 21- BRACHYTHECIACEAE [ÖSÜMLÜKGİLLER]**  
*Eurhynchium striatum* (Hedw.) Schimp. [Dikburun] Loc: 25, Substr: S, GZD 596  
*Rhynchostegium confertum* (Dicks.) Schimp. [İnce gagalık] Loc: 88, 89, Substr: S, GZD 1318  
*R. megapolitanum* (Blandow ex F. Weber & D. Mohr) Schimp. [Kaba gagalık] Loc: 89, 173, Substr: S, GZD 1352  
*R. riparioides* (Hedw.) Cardot [Gagalık] Loc: 26, 77, 88, 101, 106, 134, 140, 147, 149, 153, 154, 164, Substr: R, SCR, GZD 1523  
*Scorpiurium circinatum* (Bruch) M. Fleisch. & Loeske [Kıvrık akrepli] Loc: 4, 21, 50, 59, 108, 114, 128, 151, Substr: S, SCR, GZD 2026  
*S. deflexifolium* (Solms) M. Fleisch. & Loeske [Küt akrepli] Loc: 68, 71, Substr: R, GZD 1119  
*S. sendtneri* (Schimp.) [Akrepli] Loc: 21, 28, 50, 134, 150, Substr: R, E, GZD 1891  
*Cirriphyllum crassinervium* (Taylor) Loeske & M. Fleisch. [Kaba tuğluca] Loc: 34, 69, Substr: R, E, GZD 1129  
*Microeurhynchium pumilum* (Wilson) Ignatov & Vanderp. [Cüce dikburun] Loc: 59, 70, 153, Substr: S, R, SCR, GZD 1013  
*Oxyrrhynchium hians* (Hedw.) Loeske [İri emzikli] Loc: 4, 6, 56, 67, 69, 77, 78, 92, 103, 118, 120, 134, 136, 139, 145, 154, Substr: S, R, SCR, GZD 365  
*O. schleicheri* (R. Hedw.) Röhl [Kıvrık emzikli] Loc: 4, 59, 67, 158, 166, 167, Substr: S, R, GZD 361  
*O. speciosum* (Brid.) Warnst [Emzikli] Loc: 4, 35, 71, 77, 89, 120, Substr: S, R, GZD 1142  
*Rhynchostegiella curviseta* (Brid.) Limpr. [Kıvrık gagalıca] Loc: 28, 70, 77, 103, 134, 140, Substr: S, R, SCR, GZD 1539  
*R. litorea* (De Not.) Limpr. [Taş gagalıcası] Loc: 13, 14, 89, 92, 97, 115, 120, Substr: S, R, E, GZD 1358  
*R. teneriffae* (Mont.) Dirkse & Bouman [Narin gagalıca] Loc: 59, Substr: R, GZD 1005  
*Brachytheciastrum velutinum* (Hedw.) Ignatov & Huttunen [Kadifeli] Loc: 29, 36, 43, 50, 70, 89, 92, 93, 108, 117, 167, Substr: S, R, SCR, E, GZD 1597  
*Brachythecium albicans* (Hedw.) Schimp. [Ak ösümlük] Loc: 43, 50, 67, 134, Substr: R, GZD 1087  
*B. rivulare* Schimp. [Islak ösümlük] Loc: Common, Substr: S, R, SCR, E, GZD 1773  
*B. rutabulum* (Hedw.) Schimp. [Kaba ösümlük] Loc: Common, Substr: S, R, SCR, E, GZD 1671  
*Eurhynchiastrum pulchellum* (Hedw.) Ignatov & Huttunen [Hunicik] Loc: 36, 77, 82, 93, 116, 120, 134, Substr: S, R, SCR, GZD 1265  
*Homalothecium lutescens* (Hedw.) H. Robins [Yeşil Halıcık] Loc: 21, Substr: E, GZD 547  
*H. sericeum* (Hedw.) Schimp. [Halıcık] Common, Substr: S, R, SCR, E, GZD 1718  
*Kindbergia praelonga* (Hedw.) Ochyra [Narince] Loc: 34, 59, Substr: S, GZD 671  
*Sciuro-hypnum starkei* (Brid.) Ignatov & Huttunen [Bey ösümce] Loc: 43, Substr: SCR, GZD 802  
*Scleropodium cespitans* (Wilson ex Müll. Hal.) L.F. Koch. [Cemrecik] Loc: 77, 82, 86, 89, 90, 99, 102, 117, 125, 166, Substr: S, R, SCR, E, GZD 1202

*S. tourettii* (Brid.) L.F. Koch. [Bey cemrecik] Loc: 21, 25, 34, 50, 56, 57, 66, 81, 104, 131, 150, 169, Substr: S, E, GZD 2022

#### 22- HYPNACEAE [ORAKLIGİLLER]

*Hypnum andoi* A.J.E. Sm. [Bay oraklı] Loc: 25, Substr: SCR, GZD 597

*H. cupressiforme* Hedw. [Oraklı] Common, Substr: S, SCR, GZD 1799

*H. cupressiforme* Hedw. var. *lacunosum* Brid. [Kaba oraklı] Loc: 58, Substr: SCR, GZD 988

*H. resupinatum* Taylor [Zarif oraklı] Loc: 21, 25, 89, Substr: E, GZD 599

#### 23- LEUCODONTACEAE [ÖRTENCEGİLLER]

*Leucodon sciuroides* (Hedw.) Schwägr. [Örtence] Common, Substr: R, SCR, E, GZD 1916

*Nogopterium gracile* (Hedw.) Crosby & W.R. Buck [Örtücü] Common, Substr: R, SCR, E, GZD 1527

#### 24- ANTITRICHACEAE [TELLİCANGİLLER]

*Antitrichia californica* Sull. [Tellican] Common, Substr: R, SCR, E, GZD 1760

*A. curtipendula* (Hedw.) Brid. [Kaba tellican] Loc: 126, Substr: R, GZD 1782

#### 25- NECKERACEAE [YIŞSACAĞIGİLLER]

*Leptodon smithii* (Hedw.) F. Weber & D. Mohr [Kayasaçağı] Loc: 59, 63, 120, 126, 131, 133, 134, 136, Substr: S, R, SCR, E, GZD 1850

*Neckera menziesii* Drumm [Yışsaçağı] Loc: 125, 126, 131, 169, Substr: R, GZD 1772

#### 26- LEMBOPHYLLACEAE [BALIRLIKİLLER]

*Isoetecium alopecuroides* (Lam. ex Dubois) Isov. [Bol balırlık] Loc: 69, 100, Substr: S, R, GZD 1134

*I. myosuroides* Brid. [Balırlık] Loc: 28, 119, Substr: S, R, GZD 634

### 4. Conclusions and discussion

268 bryophyte records obtained from the research area indicate the highest rate of representation among bryofloristic studies conducted in nearby regions to date [2, 12, 13]. Ricciaceae (17 taxa belonging to 1 genus), Aytoniaceae (4 taxa belonging to 3 genera), Fossombroniaceae (4 taxa belonging to 1 genus), Southbyaceae (3 taxa belonging to 2 genera) and Cephaloziellaceae (3 taxa belonging to 1 genus) families with 8 genera and 31 taxa constitute 60,7 % of the liverworts in study area. Considering the taxa determined from the research area at the genus level, *Riccia* emerges as the richest genus with 17 taxa. While *Fossombronia* is the second with 4 taxa, *Cephaloziella* and *Porella* are represented by 3, *Sphaerocarpos*, *Mannia*, *Southbya*, 2 taxa each. *Reboulia hemisphaerica*, one of the liverworts distributed in the study area, is the most common taxon when the percentage ratio is calculated according to the number of localities (34,6 %). This taxon is followed by *Lunularia cruciata*, *Riccia sorocarpa*, *Mannia androgyna*, *Targionia hypophylla*, *Corsinia coriandrina* and *Fossombronia pusilla*, respectively. As it can be understood from the floristic list, many ephemeral liverwort records were given from our research area. Among these, the genus *Riccia* has a very important place in terms of the taxa it contains. The representation rate of this genus, which is represented by approximately 250 taxa in the world [21], in our country has increased to 28 (26 species and 2 subspecies) in recent studies [19, 20]. The genus *Riccia* determined from the research area constitutes 60% of the total number in our country with 17 taxa, and Aydın Mountains is seen as an important refuge area for this genus. Among the liverworts recorded in our research area, there are also taxa with limited distribution. *Scapania undulata*, *Fossombronia caespitiformis*, *F. echinata*, *Petalophyllum ralfsii*, *Gongylanthus ericeterum*, *Southbya nigrella*, *Cephaloziella baumgartneri*, *Solenostoma hyalinum* and *Marsupella emarginata* are examples of this category. *Scapania undulata* is one of the remarkable taxa among liverworts. Especially, this taxon, which is more common in the Black Sea Region, was also recorded in Western Anatolia [17]. It was found in only one locality in our study area. This finding can be considered as an indication of the formation of microhabitats in the north-facing and relatively heavy rainfall areas of the Aydın Mountains. The presence of the high cover *Conocephalum conicum* in the areas where *Scapania* congregates supports this situation. Another remarkable liverwort taxon included in our list is *Solenostoma hyalinum*, primarily found in the eastern Black Sea Region. Like *Scapania*, it thrives in acidic or slightly calcareous streams and in permanently moist, sandy, or clayey areas. Similarly, *Marsupella emarginata* is a common taxon in the Eastern Black Sea Region. This taxon, registered in Kütahya province, is likely to appear in different localities in Western Anatolia depending on the appropriate environmental conditions [17].

Pottiaceae (75 taxa belonging to 21 genera), Brachytheciaceae (26 taxa belonging to 14 genera), Orthotrichaceae (22 taxa belonging to 4 genera), Grimmiaceae (16 taxa belonging to 2 genera), Bryaceae (13 taxa belonging to 2 genera), Fissidentaceae (9 taxa belonging to 1 genus), Miniaceae (9 taxa belonging to 2 genera), Amblystegiaceae (7 taxa belonging to 5 genera), Funariaceae (6 taxa belonging to 2 genera), Hypnaceae (4 taxa belonging to 1 genus) and Ditrichaceae (4 taxa belonging to 3 genera) are the most crowded family among the other families. These families constitute 88,4 % of the mosses in our research area with a total of 57 genera and 191 taxa. *Tortula* and *Didymodon* with 13, *Grimmia* and *Syntrichia* with 12, *Orthotrichum* with 11, *Ptychostomum* with 10, *Fissidens* with 9, *Lewinskya* with 7 and *Tortella* with 5 is the most crowded genera among the flora. A very large percentage of these families and the taxa they encompass include taxa adapted to xeric environments and this observation aligns with findings from other studies conducted in the region [2, 10, 12, 13]. Among the mosses

distributed in the study area, the most common taxa are *Grimmia pulvinata*, *Homalothecium sericeum*, *Didymodon luridus*, *Dicranella howei*, *D. insulanus*, *D. acutus*, *D. vinealis*, *Barbula unguiculata*, *Syntrichia princeps*, *Tortella squarrosa*, *Lewinskya rupestris*, *Orthotricum diaphanum*, *Brachytecium rutabulum*, *Fissidens viridulus*, *Funaria hygrometrica*. *Grimmia torquata* was recently collected from the research area and added to the bryophytes of Turkey as a new record [14]. With the addition of the new record, the number of representative taxa of the genus in Turkey increased to 32 [16]. *Acaulon mediterraneum* was determined as the 2nd record, *Fissidens arnoldii*, *Pohlia arthropurpurea*, *Lewinskya shawii*, *Acaulon fontiquerianum* and *Crossidium aberans* as the 3rd record [2, 5, 6, 11, 12, 13, 20].

*Grimmia elongata*, previously recorded in Trabzon, Rize, Giresun, Gümüşhane, Kastamonu, Bartın, Zonguldak, Artvin, Ordu, Iğdır and Ankara in earlier studies, has now been discovered in 8 different localities in our research area [18]. The taxon, which has a distribution in different habitats from 30 m to 1330 m in our research area, is likely to be found in other parts of the country. The genus *Plagiomnium*, which always prefers moist and wet places, is represented by 8 taxa in our country and generally spreads in the Black Sea Region of these, *P. medium* was recorded from a single locality in Western Anatolia [18]. The taxon, which we frequently encounter in our research area, continues to thrive in suitable habitats in the Aydın Mountains. Although the basement rock formation of our study area is composed of schists, in some localities, limestone rocks are encountered among this formation. The waters, particularly enriched with CaCO<sub>3</sub>, especially when they percolate through these rocks, interact with the CO<sub>2</sub> released through the respiration of mosses and other plants that grow in these areas. This interaction leads to the precipitation of calcium bicarbonate. The most common taxa in this special habitat, also called the Tufa formation, are *Bryum cellulare*, *Eucladium verticillatum*, *Didymodon tophaceus*, *Gymnostomum calcareum*, *Pellia endiviifolia*, *Southbya tophacea*.

Finally, in this study, a Turkish name was suggested for *Grimmia torquata* which were newly recorded in our country and *Southbyaceae*. *Grimmia torquata* has been named "Kıvrımlı yastıkcık" and *Southbyaceae* has been named "Gerçekyakalığiller".

Even though Western Anatolia, including our research area, has been one of the most studied regions for bryophytes, it continues to yield new records, indicating its richness in terms of bryophyte diversity. The completion of this study holds significant importance in further uncovering and understanding the bryophyte diversity present in Western Anatolia.

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#### References

- [1] Abay, G., Erata, H., Batan, N. & Özdemir, T. (2021). Two new records for the bryophyte flora of Turkey and Southwest Asia. *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology*, 156(4), 875-881.
- [2] Ağcagil, E., Kırmacı, M. & Özenoğlu, H. (2020). The bryophyte flora of Samsun Mountain (Aydın/Turkey). *Acta Biologica Turcica*, 33, 193-204.
- [3] Batan, N. & Özdemir, T. (2016). The bryophyte flora of Burdur province (Turkey). *Arctoa*, 25(1), 160-170.
- [4] Çatak, U. & Kırmacı, M. (2020). Epiphytic bryophyte flora of *Liquidambar orientalis* forests. *Anatolian Bryology*, 6(2), 70-77. doi:10.26672/anatolianbryology.715769
- [5] Erdağ, A. & Kürschner, H. (2009). New national and regional bryophyte records, 20. *Fissidens arnoldii*, Turkey. *Journal of Bryology*, 31, 56.
- [6] Ezer T., Kara R., Seyli, T. & Ertek, A. (2015). The bryophyte flora of Aladağlar national park (Turkey). *Folia Cryptogamica Estonica*, 52, 7-20.
- [7] Hodgetts, N., Cáliz, M., Englefield, E., Fettes, N., García Criado, M., Patin, L., ... Żarnowiec, J. (2019). A miniature world in decline: European Red List of Mosses, Liverworts and Hornworts. Belgium: Brussels.
- [8] Hodgetts, N. G., Söderström, L., Blockeel, T.L., Caspari, S., Ignatov, M.S., Konstantinova, N.A., ... Porley, R.D. (2020). An annotated checklist of bryophytes of Europe, Macaronesia and Cyprus. *Journal of Bryology*, 42, 1-116.
- [9] Kırmacı, M. (2008). Tufa formation originating from bryophytes in Babadağ and Honaz Mountain (Denizli/Turkey). *Biological Diversity and Conservation*, 1, 116-126.
- [10] Kırmacı, M. & Ağcagil, E. (2009). The bryophyte flora in the urban area of Aydın (Turkey). *International Journal of Botany*, 5(3), 216-225.

- [11] Kırmacı, M. & Ağcagil, E. (2012). *Crossidium aberrans* Holz. & E.B.Bartram. In Ellis, J. (Ed.), New national and regional bryophyte records 33. *Journal of Bryology*, 281-282.
- [12] Kırmacı, M., Ağcagil, E. & Aslan, G. (2013). The Bryophyte Flora of Ancient Cities of Aydın Province (Turkey). *Botanica Serbica*, 37(1), 31-38.
- [13] Kırmacı, M. & Ağcagil, E. (2018). The bryophyte flora of Fethiye Babadağ (Muğla/Turkey). *Anatolian Bryology*, 4(1), 17-30. doi: 10.26672/anatolianbryology.389216
- [14] Kırmacı, M., Aslan, G. & Özenoğlu, H. (2022). *Grimmia torquata* Drumm. In Ellis, J. (Ed.), New national and regional bryophyte records, 69. *Journal of Bryology*, 44(1), 87-102.
- [15] Kürschner, H. & Erdağ, A. (2017). Türkiye Bitkileri Listesi Karayosunları. İstanbul: ANG Vakfı.
- [16] Kürschner, H. & Frey, W. (2020). Liverworts, mosses and hornworts of Southwest Asia (Marchantiophyta, Bryophyta, Anthocerotophyta) second enlarged and revised edition. Stuttgart: J. Cramer in Borntraeger Science Publishers.
- [17] Kürschner, H. & Erdağ, A. (2020). Bryophyte locality data from the Near and Middle East, Anthocerotophyta/Marchantiophyta 1775-2019. İstanbul: Hiperlink.
- [18] Kürschner, H. & Erdağ, A. (2021). Bryophyte locality data from the Near and Middle East 1775-2019. İstanbul: Hiperlink.
- [19] Özenoğlu, H., Kırmacı, M. & Kiremit, F. (2019). Contributions to the genus *Riccia* L. (Ricciaceae) in Turkey. *Turk Journal of Botany*, 43(2), 253-261. doi:10.3906/bot-1801-25
- [20] Özenoğlu, H. & Kırmacı, M. (2022). *Riccia anatolica* sp. nov. a new liverwort (Ricciaceae) species from Turkey. *Phytotaxa*, 532(1), 78-84.
- [21] Söderström, L., Hagborg, A., Von Konrat, M., Bartholomew-Began, S., Bell, D., Briscoe, L., ... Zhu, R.L. (2016). World checklist of hornworts and liverworts. *PhytoKeys*, 59, 1-828. doi:10.3897/phytokeys.59.6261
- [22] Tonguç Yayıntaş, Ö. (2001). Moss flora of Muğla and its environment. *Ot Sistemik Botanik Dergisi*, 8, 95-111.
- [23] URL 1. <https://www.tropicos.org/> [Accessed: 10 August 2023].
- [24] Uygur, A., Ezer, T., Erkul Karaman, S. & Alataş, M. (2022a). The bryophyte flora of Ermenek Valley (Karaman, Mersin-Turkey). *Anatolian Bryology*, 8(1), 37-49.
- [25] Uygur, A., Ezer, T. & Alataş, M. (2022b). Toros Dağları briyofit florasına katkılar. *Anatolian Bryology*, 8(2), 96-105.