

Flora of Yaylakonak Town (Adiyaman-Türkiye) and Near Surroundings

Ömer Kılıç^{1,*}, Şinasi Yıldırım², Talip Şahin³

¹Adiyaman University, Faculty of Pharmacy, Department Pharmaceutical Botany, Adiyaman

*Corresponding author: okilic@adiyaman.edu.tr

²Hacettepe University, Faculty of Sciences, Department of Biology-Botany, Ankara

³Adiyaman University, Science Institute, Department of Biology, Adiyaman

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Abstract: *Türkiye is one of the countries rich in natural resources, especially in terms of flora. Uncovering and sustainably utilizing this floristic richness and unique characteristics is one of our important responsibilities. This research was conducted to determine the floristic characteristics of the Yaylakonak town (Adiyaman-Türkiye) and near surroundings. 563 plant samples were collected from the research area. As a result of evaluation of these plants, a total of 477 taxa were identified. Of these taxa, 4 of them were belong to Pteridophyta and 473 of Spermatophyta divisions. Gymnospermae and Angiospermae contained 3 and 470 taxa, respectively. In Angiospermae, 413 were belong to Magnoliopsida and 57 were belong to Liliopsida class. It was determined that 24 taxa from the study area were endemic, and the endemism rate was found to be 5 %. The first four family according to number of taxa were; Asteraceae 61 (12.8%), Brassicaceae 50 (10.5%), Fabaceae 46 (9.6%), Lamiaceae 40 (8.4%). The first four genera according to te number of taxa were; Astragalus 9, Trifolium 8, Silene 7, Salvia 6. This study has the potential to contribute to similar research on this topic.*

Keywords: *Flora; Yaylakonak; Vegetation; Adiyaman; Türkiye.*

INTRODUCTION

Due to its geographical location, geomorphological structure, diverse soil types, and climatic variations, Türkiye has a rich and diverse flora, and ranks among the top countries in the world in terms of plant diversity and richness. Türkiye is home to an extraordinary diversity of plants, with over 13,000 plant taxa naturally distributed within its borders. Approximately 33% of these plants are endemic. This diversity stems from a combination of factors such as the presence of three phytogeographic regions (European-Siberian element, Mediterranean, and Anatolian-Turanian), geographical location, soil diversity, different topographic conditions, different ecological characteristics, and habitat diversity (Ekim, 2014).

The flora characteristics of the Southeastern Anatolia region of Türkiye, and consequently Adıyaman province and its surroundings, have been relatively understudied. Although recent studies (Kılıç & Yıld., 2022; Kılıç & Yıld., 2020) have been conducted on Adıyaman and its surroundings, there is no research in Yayakonak district and near surroundings. Therefore, the properties flora of Yayakonak town and its surroundings caught our attention and was deemed necessary to investigate.

Research area is located in the Anatolian-Turanian phytogeographic region, where vegetation is largely governed by the dominant topographic framework and ecological conditions. Information about the flora of Southeastern Anatolia is not adequately included in the work titled "Flora of Türkiye"; one of the main reasons for this is the limited number of botanical expeditions conducted to the region. While Adıyaman province generally has a continental climate, mediterranean climate characteristics are evident in some areas. Field research and observations have identified three main vegetation types in and around the study area: degraded forest and shrub, steppe and aquatic-humidity.

Although flowering plants constitute the best-studied plant group in Türkiye, the plant status of many areas still awaits investigation. Since a floristic study specific to this research area has not been conducted before; so a floristic study in this area will make the flora of the area well-known and will allow for the acquisition of new data regarding the distribution of plants.

This study aimed to determine the flora of Yaylakonak Township and its near surroundings, located within the Adıyaman-center, an area where no prior floristic studies have been conducted. The data obtained from this study are expected to contribute to and shed light on these kind of researches in Adıyaman (Türkiye) and provinces.

MATERIALS AND METHODS

The research materials consist of plant materials collected from the research area habitats. Research materials consist of plant specimens collected through periodic fieldwork in the vegetation between 2023 and 2025 years. Plant materials from the region were collected using herbarium collection techniques and including the necessary organs for identification. The necessary information on these specimens was recorded, and the identification of the plant materials was carried out by project member taxonomists Dr. Ö. Kılıç and Dr. Ş. Yıldırımli using the books "Flora of Turkey and the Eastern Aegean Islands" and a stereo microscope.

Some specimens have been converted into herbarium specimens and are stored in the Department of Pharmaceutical Botany, Faculty of Pharmacy, Adıyaman University. Biological types of taxa were determined according to Raunkiaer (Raunkier, 1934). IUCN red list criterias were used to determine the threat categories of endemic taxa (IUCN, 2012, 2013, 2021). The climatic characteristics of the research area were evaluated using data from the relevant meteorological station. The habitat, locality, altitude, history, collector number, life form, endemic status, and conservation status characteristics of the taxa are given below the plant names.

The research area is located in square C7 according to Davis' grid system. The main settlements within and around the research area are; Yaylakonak town and the villages of Şerefli, Karaağaç, Ulubey, Dandırmaz, and İncekoz. The altitude of the research area varies between 700-1500 m.

Adıyaman is located in southeastern Türkiye, south of the Upper Euphrates section of the Eastern Anatolia Region and north of the Middle Euphrates section of the Southeastern Anatolia Region. The study area contains various habitats such as steppe, shrubland, forest, rocky area, wetland, and meadow, and the vegetation is shaped according to these habitats. Steppe formation plant taxa are dominant in the study area. Precipitation regime types were determined based on the seasonal distribution of rainfall in the study area and its immediate surroundings. Accordingly, the seasonal distribution of rainfall in Adıyaman is winter, spring, summer, autumn, and it falls into the Eastern Mediterranean Precipitation Regime Type 1. Study area is under the influence of a semi-continental mediterranean climate. Geologically situated in front of the South Anatolian thrust belt, the area surrounding Adıyaman province consists of allochthonous units and Arabian platform sediments (Kılıç & Yıld., 2022).

Study area encompasses the Yaylakonak town and its immediate surroundings within Adıyaman Province. Adıyaman province is situated between 38° 11' - 37° 25' north latitude and 39° 14" - 37° 31" east longitude. Its average elevation above sea level is 669 meters. Adıyaman province is located in the Euphrates River basin. The northern part of Adıyaman province is surrounded by the Malatya Mountains, an extension of the Taurus Mountains, while the southern part is bordered by the Euphrates River. A large part of the Atatürk Dam is located within the borders of Adıyaman province. Adıyaman province covers an area of 7,033 km², approximately 0.9% of Türkiye's total area. The location map of the research area is shown in Figure 1.



Figure 1. Location of the Research Area (Türkiye - Adıyaman - Yaylakonak)

RESULTS

Field plant collection activities were carried out periodically during the vegetation period of 2023-2025 years, using both project and project personals budget.

As a result of field studies, 563 plant samples were collected from the research area. 478 taxa were identified as a result of the evaluation of the collected plants. 24 taxa were determined to be endemic to

the study area.

The top four families by number of taxa are: Compositae 61, Cruciferae 50, Leguminosae 46, Labiatae 40. The top four genera by number of taxa are: *Astragalus* 9, *Trifolium* 8, *Silene* 7, *Salvia* 6.

Detailed other informations can be found under the taxa listed in the below flora list of research area.

FLORA OF RESEARCH AREA

PTERIDOPHYTA

DRYOPTERIDACEAE

Dryopteris filix-mass (L.) Schott

Western parts of Şerefli village, humid stream bed, 650-700 m, June 2023, ÖK 3001, Hemicryptophyte

EQUISETACEAE

Equisetum arvense L.

The area to the left of the 2 km road inside the canyon from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam is a damp reed wetland, 710-760 m, May 2024, ÖK 3301, Cryptophyte

CYSTOPTERIDACEAE

Cystopteris fragilis (L.) Bernh.

Lower sections of Gömükhan Dam, stream bank, damp areas, 750-800 m, April 2024, ÖK 3201, Cryptofit

PTERIDACEAE

Adiantum capillus-veneris L.

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the stream banks under the culvert, 710-760 m, June 2024, ÖK 3401, Cryptophyte

SPERMATOPHYTA

GYMNOSPERMAE

PINACEAE

Cedrus libani A.Rich. var. *libani*

Gürlevik Stream, picnic area surroundings, 1260-1300 m, October 2025, ÖK 3501. Phanerophyte.

EQUISETACEAE

Equisetum arvense L.

The southern parts of the source where Gürlevik Stream emerges, along the direction of water flow, humid shaded areas, 1230-1250 m, April 2023, ÖK 2801, Cryptophyte.

CUPRESSACEAE

Juniperus oxycedrus L. subsp. *oxycedrus*

1 km before Gürlevik Stream, to the left of the road, steppe areas, 1250-1280 m, May 2023, ÖK 2901, Phanerophyte.

ANGIOSPERMAE

DYCOTYLEDONES

ACANTHACEAE

Acanthus dioscoridis L. var. *dioscoridis*

Northern parts of Yaylakonak town, steppe slopes, 930-980 m, June 2024, ÖK 3402, Hemicryptophyte.

ADOXACEAE

Sambucus nigra L.

Northern parts of Yaylakonak town, steppe slopes, 930-980 m, June 2024, ÖK 3403, Hemicryptophyte

AMARANTHACEAE

Amaranthus albus L.

The northeastern parts of Yaylakonak town, forest open areas, 900-950 m, April 2023, ÖK 2802, Therophyte.

Amaranthus retroflexus L.

The right side of the road inside the canyon, 2 km from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan Dam, rocky areas along the stream bank, 710-760 m, November 2025, ÖK 3552, Therophyte.

Atriplex lasianthus Boiss.

Southern parts of Dandırmaz village, humid wet woodland areas, May 2024, TŞ 160, 750-800 m, Therophyte.

Chenopodium album L. subsp. *album* var. *album*

Between İncekoz hamlet and Gürlevik water source, humid reedbed areas, 1090-1140 m, April 2024, ÖK 3202, Therophyte.

Chenopodium botrys L.

Between İncekoz hamlet and Gürlevik water source, humid reedbed and foresty areas, 1090-1140 m, October 2025, TŞ 180, Therophyte.

Chenopodium foliosum Asch.

Yaylakonak town, southeastern sections, stabilized road surroundings, steppe-stony areas, 770-800 m, April 2024, ÖK 3203, Therophyte.

Noaea tournefortii (Jaub. Spach) Moq.

The rocky area along the stream bank, 1 km to the right of the road inside the canyon from the bridge

over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 700-750 m, May 2023, ÖK 2903, Iran-Turan element, Chamephyte.

ANACARDIACEAE

Rhus coriaria L.

Eastern parts of Şerefli village, steppe-stony slopes, 800-850 m, June 2024. ÖK 3403, Phanerophyte

APIACEAE

Angelica purpurascens (Ave-Lall.) Gilli

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m, May 2023, ÖK 2904, Hemicryptophyte

Astrodaucus orientalis (L.) Drude

Northern parts of Şerefli village, steppe slopes, 750-800 m, April 2023, ÖK 2803, Iran-Turan element, Therophyte

Anthriscus nemorosa (M.Bieb.) Spreng.

Eastern parts of Karaağaç village, steppe field edge, 980-1000 m, June 2024, ÖK 3405, Hemicryptophyte

Artemisia squamata L.

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m, April 2024, ÖK 3204, Hemicryptophyte

Bunium paucifolium DC.

Dandırmaz village, northern parts, steppe slopes, 850-900 m, April 2023, ÖK 2804, Iran-Turan element, Cryptophyte

Bunium ferulaceum Sm.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m, May 2024, ÖK 3305, determined ŞY

Pastinaca sativa L.

Gürlevik water source area, roadside, 700-730 m, May 2024, ÖK 3310, Therophyte, determined by ŞY

Bupleurum gerardii All.

Gürlevik su kaynağı çevresi, yol kıyısı, 700-730 m, Mayıs 2024, ÖK 3309, Therophyte, determined by ŞY

Bupleurum rotundifolium L.

Inland areas of Yaylakonak town, field edge, 850-900 m, May 2023, ÖK 2905, Therophyte

Caucalis platycarpos L.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), steppe-stony areas, 650-700 m, June 2023, TŞ 130, Hemicryptophyte

Chaerophyllum crinitum Boiss.

The 4th km of the road between Dandırmaz village and İncekoz hamlet, to the left of the road, steppe-stony areas, 980-1000 m, May 2024, TŞ 170, Iran-Turan element, Cryptophyte

Eryngium billardierii F.Delaroche

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culverts, consists of steppe rocky areas, 710-760 m, June 2023, ÖK 3003, Iran-Turan element, Hemicryptophyte.

Ferula orientalis L.

Southern parts of İncekoz hamlet, sparsely forested openings, steppe, 1090-1110 m, May 2023, ÖK 2906, Irano-Turanian element, Hemicryptophyte

Falcaria vulgaris Bernh.

Between Yaylakonak and Dandırmaz villages, rocky steppe areas, 750-800 m, June 2023, ÖK 3004, Hemicryptophyte

Ferulago cassia Boiss.

The western parts of İncekoz hamlet, steppe-rocky-stony areas, 1050-1100 m, June 2024, ÖK 3406, Mediterranean element, Hemicryptophyte.

Grammosciadium macrodon Boiss.

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m, April 2024, ÖK 3205, Iran-Turan element, Hemicryptophyte

Tordylium hasselquistiae DC.

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m, May 2024, ÖK 3303, Terophyte, determined ŞY

Tordylium aegyptiacum (L.) Poir.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, Terophyte, ŞY 49304

Heracleum persicum Desf.

The eastern parts of the source where Gürlevik Water emerges, humid wetlands, 1270-1300 m, October 2025, ÖK 3502, Iran-Turan element, Hemicryptophyte.

Lecokia cretica (Lam.) DC.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-moist wetlands, 650-700 m, April 2024, ÖK 3206, Hemicryptophyte

Malabaila lasiocarpa Boiss.

Near Ulubey village, stream bank, spring area, pond top, foresty, damp, shady, rocky areas, 800-820 m, May 2024, ÖK 3316, Endemic, Least Concern, Iran-Turan element, Hemicryptophyte

Orlaya daucooides (L.) Greuter

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, right side of the road, damp wetlands, 650-670 m, April 2023, ÖK 2907, Mediterranean element, Therophyte

Physocaulis nodosus (L.) Tausch

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m, April 2023, ÖK 2805, Therophyte

Pimpinella cappadocica Boiss. & Balansae var. *cappadocica*

The area to the right of the road at the 4th km between Dandırmaz village and İncekoz hamlet, sparse steppe openings, 980-1000 m, May 2023, TŞ162 Iran-Turan element, Hemicryptophyte

Pimpinella corymbosa Boiss.

Yaylakonak town, northeastern sections, garden area, 850-900 m, June 2024, ÖK 3407, Vulnerable, Iran-Turan element, Hemicryptophyte

Prangos pabularia Lindl.

The left side of the 1 km road inside the canyon from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam is steppe slopes, 700-750 m, April 2024, TŞ 150, Iran-Turan element, Hemicryptophyte

Scandix aucheri Boiss.

Northern parts of Karaağaç village, steppe field edge, 940-990 m, April 2023, TŞ 110, Iran-Turan element, Therophyte

Scandix pecten-veneris L.

Yaylakonak town, northwestern parts, steppe areas, 850-900 m, April 2024, ÖK 3207, Therophyte

Seseli libanotis (L.) W. Koch

Western parts of Karaağaç village, garden-like humid foresty area, 920-970 m, June 2024, TŞ 171, European-Siberian element, Hemicryptophyte

Torilis arvensis (Huds.) Link subsp. *neglecta* (Spreng.) Thell.

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culverts, consists of steppe rocky areas, 710-760 m, June 2023, ÖK 3005, Therophyte

Torilis leptocarpa (Huchst.) C.C. Towns.

Western parts of Şerefli village, steppe-stony slopes, 800-850 m, May 2024, TŞ 161, Irano-Turanian element, Therophyte

Turgenia latifolia (L.) Hoffm.

Inland areas of Yaylakonak town, field edge, 850-900 m, May 2023, ÖK 2909, Therophyte

Zosima absinthifolia (Vent.) Link

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m, April 2023, ÖK 2806, Hemicryptophyte

APOCYNACEAE

Vincetoxicum tmoleum Boiss.

The western parts of the source where Gürlevik Water emerges, steppe rocky slopes, 1320-1340 m, June 2024, ÖK 3408, Iran-Turan element, Hemicryptophyte

ARISTOLOCHIACEAE

Aristolachia bottae Jaub. & Spach.

Eastern parts of Yaylakonak town, humid area, 840-890 m, June 2023, ÖK 3006, Iran-Turan element, Cryptophyte

ASTERACEAE

Achillea millefolium L. subsp. *millefolium* var. *millefolium*

Yaylakonak town, southwestern sections, degraded forest, steppe areas, 830-880 m, May 2023, TŞ 121, European-Siberian element, Hemicryptophyte

Achillea vermicularis Trin.

Western parts of Yaylakonak town, roadside steppe slopes, 930-980 m, October 2025, ÖK 3503, Iran-Turan element, Hemicryptophyte

Anthemis kotschyana Boiss. var. *discoidea* (Bornm.) Grierson

The left side of the 2 km canyon road from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam is steppe slopes, 710-760 m, June 2024, ÖK 3409, Hemicryptophyte

Arctium minus (Hill.) Bernh. subsp. *pubens* (Bab.) Arènes

Southern parts of Karaağaç village, steppe rocky sparse foresty areas, 930-980 m, June 2024, ÖK 3410, Hemicryptophyte

Artemisia absinthifolia L.

Lower sections of Gömükhan Dam, steppe rocky slopes, 750-800 m, April 2023, ÖK 2808, Hemicryptophyte

Bidens tripartita L.

The southern parts of the source where Gürlevik Stream emerges, wetland, 1210-1240 m, June 2023, TŞ 131, Therophyte.

Bellis perennis L.

The southern parts of the source where Gürlevik Water emerges, along the direction of water flow, are humid shaded areas, 1230-1250 m, March 2023, ÖK 2740, European-Siberian element, Cryptophyte.

Carduus pycnocephalus L. subsp. *albidus* (M.Bieb.) Kazmi

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, left side of the road, steppe slopes, 750-780 m, May 2025, ÖK 3460, Therophyte.

Carlina oligocephala Boiss. & Kotschy subsp. *oligocephala*

Between İncekoz hamlet and Gürlevik water source, steppe-stony areas, 1200-1250 m, April 2025,

ÖK 3450, Hemicryptophyte.

Carthamus dentatus (Forssk.) Vahl

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m, September 2025, ÖK 3492, Therophyte.

Centaurea aggregata Fisch. & C.A.Mey. ex DC. subsp. *aggregata*

The area to the left of the 2 km road between Dandırmaz village and İncekoz hamlet is steppe-stony areas, 920-970 m, June 2025, ÖK 3475, Hemicryptophyte.

Centaurea solstitialis L. subsp. *solstitialis*

2 km before Gürlevik Stream, roadside, steppe areas, 1220-1270 m, June 2025, TŞ 200, Therophyte

Centaurea iberica Trev. ex Spreng.

Between Yaylakonak and Dandırmaz villages, near the stream, field edges, 640-690 m, October 2023, ÖK 3092, Hemicryptophyte.

Centaurea virgata Lam.

Western parts of Şerefli village, humid stream bed, 650-700 m, September 2023, ÖK 3081, Iran-Turan element, Hemicryptophyte

Chardinia orientalis (L.) Kuntze

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), steppe-stony areas, 650-700 m, April 2025, ÖK 3451, Irano-Turanian element, Therophyte.

Chondrilla juncea L.

Western parts of Karaağaç village, garden-like humid foresty area, 920-970 m, October 2023, ÖK 3093, Hemicryptophyte.

Cichorium intybus L.

Near Ulubey village, by the stream, above the pond, foresty, damp, shady, rocky areas, 800-820 m, April 2025, ÖK 3452, Hemicryptophyte.

Cirsium arvense (L.) Scop.

Yaylakonak town, southwestern sections, degraded forest, steppe areas, 830-880 m, May 2025, ÖK 3461, Hemicryptophyte

Cnicus benedictus L.

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m, March 2023, ÖK 2741, Therophyte.

Cota altissima (L.) J. Gay

Near Ulubey village, by the stream, above the pond, foresty, damp, shady, rocky areas, 800-820 m, May 2024, ÖK 3302, determined by ŞY

Crepis foetida L. subsp. *rhoeadifolia* (M.Bieb.) Čelak.

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of

Şerefli village) towards the Gömükhan dam, below the culvert, by the stream, 710-760 m, May 2025, ÖK 3462, Therophyte.

Crepis pulchra L. subsp. *pulchra*

Dandırmaz köyü batı kesimleri, step yamaçlar, 930-960 m, Mayıs 2025, TŞ 193, Therophyte.

Crupina crupinastrum (Moris) Vis.

The northeastern parts of Yaylakonak town, forest open areas, 900-950 m, April 2025, ÖK 3453, Therophyte.

Cyanus triumfettii (All.) Dostál ex Á.Löve & D.Löve

Western parts of İncekoz hamlet, steppe-rocky-stony areas, 1050-1100 m, May 2025, ÖK 3463, Hemicryptophyte.

Echinops orientalis Trautv.

1 km before Gürlevik Stream, to the left of the road, steppe areas, 1250-1280 m, June 2025, ÖK 3479, Iran-Turan element, Hemicryptophyte.

Echinops pungens Trautv. var. *pungens*

Northern parts of Şerefli village, steppe slopes, 750-800 m, June 2023, ÖK 3008, Irano-Turanian element, Hemicryptophyte.

Erigeron acris L. subsp. *acris*

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culverts, consists of steppe rocky areas, 710-760 m, May 2025, ÖK 3464, European-Siberian element, Hemicryptophyte.

Filago arvensis L.

The northern parts of the source where Gürlevik Stream emerges, steppe-rocky areas, 1310-1330 m, June 2023, ÖK 3009, Therophyte.

Gundelia tournefortii L. var. *tournefortii*

The right side of the road at the 3rd km between Dandırmaz village and İncekoz hamlet, steppe-stony areas, 970-990 m, May 2025, ÖK 3465, Iran-Turan element, Hemicryptophyte.

Gundelia komagenense Fırat

Between İncekoz hamlet and Gürlevik water source, steppe-stony areas, 1200-1250 m, June 2023, ÖK 3010, Irano-Turanian element, Endemic, Hemicryptophyte.

Helichyrsium armenium DC. subsp. *armenium*

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culverts, consists of steppe rocky areas, 710-760 m, May 2025, ÖK 3466, Iran-Turan element, Chamephyte.

Helichyrsium plicatum DC. subsp. *plicatum*

2 km before Gürlevik Stream, roadside, steppe areas, 1220-1270 m, June 2023, ÖK 3011,

Chamephyte.

Inula graveolens L.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m, September 2025, ÖK 3494, Mediterranean element, Hemicryptophyte.

Inula oculus-christi L.

The southern parts of the source where Gürlevik Stream emerges, along the direction of water flow, are humid shaded areas, 1230-1250 m, September 2025, ÖK 3495, European-Siberian element, Cryptophyte.

Lactuca orientalis (Boiss.) Boiss.

Inland areas of Yaylakonak town, field edge, 850-900 m, April 2024, ÖK 3208, Iran-Turan element, Hemicryptophyte

Lactuca hispida DC.

Gömükhan Dam lower sections, steppe rocky slopes, 750-800 m, May 2025, ÖK 3467, Hemicryptophyte.

Jurinea cataonica Boiss. & Hausskn. ex Boiss.

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m, June 2025, ÖK 3481, Endemic, Least Concern, Irano-Turanian element, Hemicryptophyte.

Jurinella moschus (Hablitz) Bobrov subsp. *Moschus*

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, left side of the road, steppe slopes, 750-780 m, June 2025, ÖK 3482, Iran-Turan element, Hemicryptophyte.

Lapsana communis L. subsp. *intermedia* (M.Bieb.) Hayek var. *intermedia*

The western parts of the source where Gürlevik Stream emerges, steppe rocky slopes, 1320-1340 m, April 2024, ÖK 3209, Therophyte.

Klasea serratuloides (DC.) Greuter & Wagenitz

Northern parts of İncekoz hamlet, steppe-stony areas, 1050-1100 m, June 2025, ÖK 3483, Iran-Turan element, Hemicryptophyte.

Leontodon crispus Vill. subsp. *asper* (Waldst & Kit.) var. *asper*

Eastern parts of Şerefli village, steppe-stony slopes, 800-850 m, June 2025, ÖK 3484, Hemicryptophyte.

Matricaria chamomilla L. var. *recutita* (L.) Fiori

Yaylakonak town, southeastern sections, stabilized road surroundings, steppe-stony areas, 770-800 m, May 2023, ÖK 2911, Therophyte.

Onopordum acanthifolium L.

The area to the left of the 2 km road between Dandırmaz village and İncekoz hamlet is steppe land, 920-970 m, June 2025 ÖK 3503, Hemicryptophyte.

Picris strigosa M.Bieb. subsp. *strigosa*

Dandırmaz village, northern parts, steppe slopes, 850-900 m, June 2025, ÖK 3485, Iran-Turan element, Hemicryptophyte.

Picnomon acarna (L.) Cass.

The left side of the 2 km canyon road from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam is steppe slopes, 710-760 m, June 2024, TŞ 172, Therophyte.

Pilosella hoppeana (SKamefitult.) F.WSchultz & Sch. Bip. subsp. *cilicica* (Nägeli & Peter).P.D.Sell& C.West

Eastern parts of Karaağaç village, steppe rocky slopes, 980-1000 m, June 2025, ÖK 3486, Hemicryptophyte.

Psephellus bornmuelleri (Hauskn. ex Bornm.) Wagenitz

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m, June 2023, ÖK 3012, Endemic, Least Concern, Irano-Turanian element, Hemicryptophyte.

Pulicaria dysenterica (L.) Bernh. subsp. *dysenterica*

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 1 km road inside the canyon is steppe rocky slopes, 700-750 m, June 2025, ÖK 3486, Hemicryptophyte.

Reichardia dichotoma (Vahl) Freyn

Between İncekoz hamlet and Gürlevik water source, humid reedbed areas, 1090-1140 m, June 2024, ÖK 3413, Iran-Turan element, Hemicryptophyte.

Scorzonera mollis M.Bieb. subsp. *mollis*

Steppe areas to the left of the 2 km road between Dandırmaz village and İncekoz hamlet, 920-970 m, March 2023, ÖK 2742, Cryptophyte.

Senecio vernalis Waldst. & Kit.

The eastern parts of the source where Gürlevik Stream emerges, humid, rocky areas, 1270-1300 m, March 2024, ÖK 3102, Therophyte.

Solidago virgaurea L. subsp. *alpestris*

The southern parts of the source where Gürlevik Stream emerges, wetland, 1210-1240 m, June 2024, ÖK 3414, Hemicryptophyte.

Sonchus asper (L.) Hill. subsp. *glaucescens* (Jord.) Ball

Between Yaylakonak and Dandırmaz villages, near the stream, field edges, 640-690 m, September 2023, ÖK 3083, Therophyte.

Tanacetum cilicium (Boiss.) Grierson

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m, May 2023, ÖK 2914, Mediterranean element, Cryptophyte.

Taraxacum montanum (C.A.Mey.) DC.

Gömükhan Dam lower reaches, stream banks, rocky, humid areas, 750-800 m, April 2025, ÖK 3455, Iran-Turan element, Hemicryptophyte.

Tragopogon bupthalmoides (DC.) Boiss. var. *latifolius* Boiss.

Southern parts of Şerefli village, steppe area, 750-800 m, June 2023, ÖK 3013, Iran-Turan element, Hemicryptophyte.

Tripleurospermum oreades (Boiss.) Rech. f.

Northern parts of Karaağaç village, steppe field edge, 940-990 m, April 2025, ÖK 3456, Hemicryptophyte.

Tussilago farfara L.

The area to the left of the 2 km road inside the canyon from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam is a humid reed wetland, 710-760 m, March 2024, TŞ 112 European-Siberian element, Hemicryptophyte.

Xanthium strumarium L. subsp. *strumarium*

Inland areas of Yaylakonak town, field edge, 850-900 m, June 2024, TS 173, Therophyte.

Xanthium spinosum L.

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m, May 2025, ÖK 3469, Therophyte.

Xeranthemum annuum L.

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, on the right side of the road, damp wetlands, 650-670 m, June 2025, TŞ 201, Therophyte.

BERBERIDACEAE

Bongardia chrysogonum (L.) Spach

The western parts of Yaylakonak town, roadside steppe slopes, 930-980 m, April 2023, ÖK 2809, Iran-Turan element, Cryptophyte.

BORAGINACEAE

Alkanna kotschyana DC.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49305, Hemicryptophyte.

Anchusa azurea Mill. var. *azurea*

The area to the left of the 4 km road between Dandırmaz village and İncekoz hamlet, steppe-stony areas, 980-1000 m, April 2025, ÖK 3457, Hemicryptophyte

Anchusa leptophylla Roem. & Schult. subsp. *incana* (Ledeb.) D.F. Chamb.

Southern parts of Yaylakonak town, humid stream foresty area, 800-850 m, June 2024, ÖK 3415, Endemic, Least Concern, Irano-Turanian element, Hemicryptophyte.

Asperugo procumbens L.

Western parts of Şerefli village, humid stream bed, 650-700 m, April 2023, ÖK2810, European-

Siberian element, Therophyte.

Buglossoides arvensis (L.) I.M.Johnston subsp. *sibthorpiana* (Griseb.) R.Fern.

Southern parts of Yaylakonak town, humid stream foresty area, 800-850 m, March 2023, ÖK 2743, Therophyte.

Brunnera orientalis I.M.Johnst.

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m, April 2024, TŞ 150, European-Siberian element, Hemicryptophyte

Cynoglossum montanum L.

Dandirmaz village, northern parts, steppe slopes, 850-900 m, May 2025, ÖK 3470, European-Siberian element.

Cerintho minor L. subsp. *auriculata* (Ten.) Domac

The rocky area along the stream bank, 1 km to the right of the road inside the canyon from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 700-750 m, April 2023, TŞ 112, Hemicryptophyte.

Echium italicum L.

Western parts of İncekoz hamlet, steppe-rocky-stony areas, 1050-1100 m, May 2024, TŞ 162, Mediterranean element, Hemicryptophyte

Heliotropium circinatum Griseb.

The western parts of the source where Gürlevik Water emerges, steppe rocky slopes, 1320-1340 m, June 2024, ÖK 3416, Iran-Turan element, Therophyte.

Lappula barbata (M.Bieb.) Gürke

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m, June 2023, ÖK 3014, Iran-Turan element, Hemicryptophyte.

Lithospermum arvense L.

Eastern parts of Karaağaç village, steppe rocky slopes, 980-1000 m, May 2025, TŞ 194, European-Siberian element, Hemicryptophyte.

Macrotomia densiflora (Ledeb.) McBride

The northeastern parts of Yaylakonak town, steppe, forest open areas, 900-950 m, June 2025, ÖK 3488, Iran-Turan element, Hemicryptophyte.

Myosotis heteropoda Trautv.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-moist wetlands, 650-700 m, May 2025., ÖK 3471, Iran-Turan element, Therophyte.

Myosotis sicula Guss.

Between İncekoz hamlet and Gürlevik water source, humid reedbed and foresty areas, 1090-1140 m, May 2023, ÖK 2915, Therophyte.

Onosma alborosea Fisch. & C.A.Mey. subsp. *alborosea* var. *alborosea*

The 4th km of the road between Dandırmaz village and İncekoz hamlet, to the left, stony-rocky, 980-1000 m, April 2023, ÖK 2811, Iran-Turan element, Hemicryptophyte.

Onosma isaurica Boiss. & Heldr.

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m, April 2024., ÖK 3210, Endemic., Least Concern, Irano-Turanian element, Hemicryptophyte.

Onosma sericea Willd.

Northern parts of Yaylakonak town, rocky steppe slopes, 930-980 m, May 2025, ÖK 3472, Iran-Turan element, Hemicryptophyte.

Paracaryum cristatum (SKamefitreb.) Boiss. subsp. *carduchorum* R.R. Mill.

Gürlevik water source area, roadside, 700-730 m, May 2024, ÖK 3311, Therophyte, determined by ŞY, Iran-Turan element, Hemicryptophyte.

Phyllocara aucheri (A.DC.) Guşul

Southern parts of Şerefli village, humid area, 750-800 m, March 2024, ÖK 3103, Therophyte.

Rindera albida (Wettst.) Kusn.

The 4th km road between Dandırmaz village and İncekoz hamlet, to the right of the road, is a foresty steppe opening, 980-1000 m, TŞ 156, April 2025, Iran-Turan element, Hemicryptophyte.

Rochelia disperma (L.f.) K.Koch var. *microcalycina* (Bornm.) Edmonson

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 4930, Therophyte.

BRASICACEAE

Aethionema arabicum (L.) Andr. ex DC.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49308, Therophyte.

Aethionema grandiflorum Boiss. & Hohen. var. *grandiflorum*

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culvert, is steppe rock, 710-760 m, May 2023, ÖK 2916, Iran-Turan element, Chamephyte.

Aethionema adiyamanense Yıld. & Kılıç

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49307, Irano-Turanian element, Endemic, Chamephyte.

Alliaria petiolata (M.Bieb.) Cavara & Grande

The southeastern parts of Yaylakonak town, along the stabilized road, steppe-stony area, 770-800 m, March 2023, ÖK 2744, Therophyte.

Alyssum armenum Boiss.

Eastern parts of Şerefli village, steppe-stony slopes, 800-850 m, May 2025, ÖK 3473,

Hemicryptophyte.

Alyssum desertorum Stapf

Eastern parts of Yaylakonak town, humid area, 840-890 m, April 2023, V 2812, Therophyte.

Alyssum alyssoides (L.) L.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49309, Therophyte.

Alyssum praecox Boiss. & Balansae var. *praecox*

Between Yaylakonak and Dandırmaz villages, rocky steppe areas, 750-800 m, June 2023, ÖK 3007, Iran-Turan element, Hemicryptophyte.

Alyssum pateri Nyar subsp. *pateri*

The rocky area along the stream bank, 1 km to the right of the road inside the canyon from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 700-750 m, October 2023, TŞ 142, Iran-Turan element, Cryptophyte.

Anchonium elichrysifolium (DC.) Boiss.

Lower sections of Gömükhan Dam, steppe rocky slopes, 750-800 m, June 2023, ÖK 3015, Hemicryptophyte.

Arabidopsis thaliana (L.) Heynh.

Near Ulubey village, stream bank, spring area, above pond, foresty, damp, shady, rocky areas, 800-820 m, March 2023, ÖK 2745, Therophyte.

Arabis alpina L. subsp. *alpina*

Between Yaylakonak and Dandırmaz villages, rocky steppe, 750-800 m, April 2024, ÖK 3211, Hemicryptophyte.

Barbarea plantaginea DC.

Southern parts of Dandırmaz village, humid wet woodland area, 750-800 m, April 2025, TŞ 180, Hemicryptophyte.

Boreava orientalis Jaub. & Spach

Between Yaylakonak and Dandırmaz villages, humid wetlands, 650-700 m, May 2025, ÖK 3467, European-Siberian element, Hemicryptophyte.

Bornmuellera angustifolia (Hauskn. & Bornm.) Cullen & T.R.Dudley

2 km before Gürlevik Stream, roadside, steppe, 1220-1270 m, May 2024, OC 3318, Endemic, Critically endangered, Iran-Turan element, Hemicryptophyte.

Brassica nigra (L.) K.Koch

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49316, Therophyte.

Bunias orientalis L.

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, on the right side of the road, damp wetlands, 650-670 m, June 2025, ÖK 3489, Hemicryptophyte

Camelina hispida Boiss. var. *hispida*

The area to the right of the road at the 4th km between Dandırmaz village and İncekoz hamlet, a foresty steppe opening, 980-1000 m, June 2025, ÖK 3476, Iran-Turan element, Hemicryptophyte.

Capsella bursa-pastoris (L.) Medik.

Inland areas of Yaylakonak town, field edge, 850-900 m, March 2024, ÖK 3104, Therophyte.

Cardamine uliginosa M.Bieb.

The southern parts of the source where Gürlevik Stream emerges, along the direction of water flow, humid shade, 1230-1250 m, April 2023, ÖK 2813, Hemicryptophyte.

Cardaria draba L.

Dandırmaz village, eastern parts, humid wet woodlands, 730-770 m, May 2023, ÖK 2910, Iran-Turan element, Hemicryptophyte.

Camelina rumelica Velen.

Western parts of Şerefli village, steppe-stony slopes, 800-850 m, May 2024, ÖK 3105, Therophyte.

Chorispora syriaca Boiss.

The northern parts of the source where Gürlevik Water emerges, steppe-rocky areas, 1310-1330 m, June 2025, ÖK 3477, Iran-Turan element, Hemicryptophyte.

Clypeola aspera (Grauer) Turrill

Steppe areas to the left of the 2 km road between Dandırmaz village and İncekoz hamlet, 920-970 m, March 2023, TŞ 96, Iran-Turan element, Therophyte.

Coluteocarpus vesicaria (L.) Holmboe subsp. *vesicaria*

Located 2 km from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan Dam, on the right side of the canyon road, rocky stream bank, 710-760 m, June 2025, ÖK 3489, Iran-Turan element, Hemicryptophyte.

Conringia perfoliata (C.A.Mey.) N.Busch

Western parts of Şerefli village, steppe-stony slopes, 800-850 m, May 2023, ÖK 2912, Iran-Turan element, Hemicryptophyte

Descurainia sophia (L.) Webb ex Partl

Between Yaylakonak and Dandırmaz villages, humid wetland, 650-700 m, May 2024, ÖK 3318, Therophyte.

Draba nuda (Bélangier) All-Shehbaz & M.Koch

Gömükhan Dam lower sections, stream bank, rocky, humid area, 750-800 m, April 2025, ÖK 3459, Therophyte.

Drabopsis verna K.Koch

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ÖK 3317, Therophyte

Carduus nutans L. subsp. *nutans*

Dandırmaz village, western parts, steppe slopes, 930-960 m, September 2023, ÖK 3080, Hemicryptophyte.

Erophila verna (L.) Chevall. subsp. *verna*

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-moist wetlands, 650-700 m, October 2023, ÖK 3094, Hemicryptophyte

Erysimum purpureum Aucher

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49310, Hemicryptophyte.

Erysimum thyrsoideum Boiss. subsp. *thyrsoideum*

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49311, Hemicryptophyte.

Erysimum diffusum Ehrh.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49312, Hemicryptophyte.

Fibigia clypeata (L.) Medik subsp. *clypeata* var. *clypeata*

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49313, Hemicryptophyte.

Fibigia macrocarpa (Boiss.) Boiss.

The left side of the 2 km canyon road from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam is steppe slopes, 710-760 m, May 2023, ÖK 2917, Hemicryptophyte.

Hesperis bicuspidata (Willd.) Poir.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49314, Hemicryptophyte.

Isatis cappadocica Desv. subsp. *steveniana* (Trautv.) P.H.Davis

Northern parts of Şerefli village, steppe slopes, 750-800 m, May 2023, ÖK 2917, Hemicryptophyte

Lepidium draba L.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m, April 2024, ÖK 3212, Hemicryptophyte.

Lepidium perfoliatum L.

Southern parts of Dandırmaz village, humid wet woodlands, 750-800 m, May 2023, ÖK 2913, Iran-Turan element, Hemicryptophyte

Malcolmia africana (L.) R.Br.

The right side of the road at the 3rd km between Dandirmaz village and İncekoz hamlet, steppe-stony areas, 970-990 m, May 2024, ÖK 3317, Hemicryptophyte.

Matthiola longipetala (Vent.) DC. subsp. *bicornis* (Sibtht. & Sm.) P.W.Ball

Gürlevik water source area, roadside, 700-730 m, May 2024, ÖK 3312, Therophyte, determined by ŞY

Nasturtium officinale R.Br.

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, along the stream banks below the culvert. 710-760 m. September 2025, ÖK 3496. Hemicryptophyte.

Neslia paniculata (L.) Desv.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49317, Therophyte

Peltaria angustifolia DC.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024, ŞY 49315, Therophyte

Raphanus raphanistrum L.

Yaylakonak village, canyon surroundings, damp meadow, 900-1100 m, May 2024, ÖK 3319, Therophyte

Neslia paniculata (L.) Desv.

Dandirmaz village, eastern parts, humid wet woodland, 730-770 m. September 2023, ÖK 3084, Therophyte.

Thlaspi arvense L.

The eastern parts of the source where Gürlevik Stream emerges are moist, wet, rocky areas, 1270-1300 m. April 2024, ÖK 3213, Therophyte

Sisymbrium altissimum L.

Northern parts of İncekoz hamlet, steppe-stony areas, 1050-1100 m. May 2025, ÖK 3474, Therophyte.

Sinapis arvensis L.

The southern parts of the source where Gürlevik Stream emerges, wetland, 1210-1240 m. June 2023, ÖK 3015. Therophyte.

CAMPANULACEAE

Asyneuma amplexicaule (Willd.) Hand.-mazz. subsp. *amplexicaule* var. *amplexicaule*

Southern parts of İncekoz hamlet, sparsely forested openings, steppe, 1090-1110 m. June 2024, ÖK 3417. Hemicryptophyte

Campanula involucrata Aucher ex A.DC.

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, left side of the road, steppe slopes, 750-780 m. May 2024, TŞ 162, Iran-Turan element, Hemicryptophyte.

Campanula strigosa Banks & Sol.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m. May 2024, ŞY 49318.

Michauxia campanuloides L' Herit. Ex Aiton

Gürlevik water source road, left side of the road, shrubby moist area, 700-730 m. May 2024, ÖK 3323, Mediterranean element, Hemicryptophyte.

Campanula reuteriana Boiss. & Balansae

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m. May 2024, Therophyte, ŞY 49319.

Legousia pentagonia (L.) Therophyteell.

Gürlevik water source area, roadside, 700-730 m. May 2024, ÖK 3313, Mediterranean element, Therophyte, determined by ŞY

CAPRIFOLIACEAE

Centranthus longiflorus Steven subsp. *longiflorus*

The northwestern parts of Yaylakonak town, steppe areas, 850-900 m. June 2023, ÖK 3015, Iran-Turan element, Cryptophyte.

Cephalaria microcephala Boiss.

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. June 2024, ÖK 3418. Iran-Turan element, Hemicryptophyte.

Dipsacus laciniatus L.

Western parts of Karaağaç village, garden-like humid foresty area, 920-970 m. September 2023, ÖK 3085, Hemicryptophyte.

Lonicera caucasia Pall.

Yaylakonak town, southwestern sections, degraded forest, steppe, 830-880 m. May 2024, ÖK 3319, Phanerophyte.

Pterocephalus plumosus (L.) Coulter

Northern parts of Karaağaç village, steppe field edge, 940-990 m. April 2023, ÖK 2814, Therophyte

Scabiosa persica Boiss.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 2 km road inside the canyon is a humid reed wetland, 710-760 m. May 2024, V 3319, Iran-Turan element, Therophyte.

Scabiosa rotata M.Bieb.

1 km before Gürlevik Stream, to the left of the road, steppe, 1250-1280 m. May 2025, ÖK 3475, Iran-

Turan element, Therophyte.

Valeriana alliariifolia Adams

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 2.5 km along the canyon road, to the right, around the culvert, by the stream, 710-760 m. June 2023, ÖK 3016, Cryptophyte.

Valerianella coronata (L.) DC.

Yaylakonak town, northeastern sections, humid garden area, 850-900 m. April 2024, ÖK 3214, Therophyte

CARYOPHYLLACEAE

Agrostemma githago L.

The area around the bridge over the Tilkihan stream (northwest of Şerefli village), steppe-stony, 650-700 m. June 2025, ÖK 3489, Therophyte.

Arenaria serpyllifolia L. subsp. *serpyllifolia*

The western parts of Yaylakonak town, steppe slopes along the road, 930-980 m. June 2023, TŞ 132, Therophyte.

Bufonia virgata Boiss.

Inland areas of Yaylakonak town, field edge, 850-900 m. May 2024, ÖK 3320, Therophyte.

Cerastium dichotomum L. subsp. *dichotomum*

Southern parts of Karaağaç village, steppe rocky foresty areas, 930-980 m. April 2023, ÖK 2815, Therophyte.

Cerastium glomeratum Thuill.

Between Yaylakonak and Dandırmaz villages, near the stream, field edges, 640-690 m. March 2023, ÖK 2746, Therophyte.

Cucubalus baccifer L.

The right side of the road at the 3rd km between Dandırmaz village and İncekoz hamlet, steppe-stony, 970-990 m. May 2024, ÖK 3321, Hemicryptophyte.

Dianthus floribundus Boiss.

Between İncekoz hamlet and Gürlevik water source, steppe-stony, 1200-1250 m. May 2023, ÖK 2918, Iran-Turan element. Hemicryptophyte

Dianthus masmenaus Boiss. var. *glabrescens* Boiss.

Dandırmaz village, western parts, steppe slopes, 930-960 m. June 2024, ÖK 3418, Endemic, Least Concern, Irano-Turanian element, Hemicryptophyte.

Dianthus orientalis Adams

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m. June 2025, ÖK 3476, Hemicryptophyte

Eremogone gypsophyloides (L.) Fenzl

The northern parts of the source where Gürlevik Water emerges are steppe-rocky, 1310-1330 m. June 2024, TŞ 174, Iran-Turan element, Hemicryptophyte.

Gypsophila pallida Stapf

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 1 km road inside the canyon consists of steppe rocky slopes, 700-750 m. June 2023. ÖK 3016. Iran-Turan element. Chamephyte.

Gypsophila nodiflora (Boiss.) Bark.

2 km before Gürlevik Stream, roadside, steppe, 1220-1270 m. June 2023. ÖK 3016. Endemic. Hemicryptophyte.

Herniaria hirsuta L.

Western parts of Şerefli village, humid stream bed, 650-700 m. June 2024. ÖK 3419. Therophyte.

Holosteum umbellatum L. var. *umbellatum*

Inland areas of Yaylakonak town, field edge, 850-900 m. March 2024. ÖK 3106. Therophyte.

Minuartia erythrosepala (Boiss.) Hand.-Mazz. var. *erythrosepala*

Northern parts of Şerefli village, steppe slopes, 750-800 m. June 2025. ÖK 3476. Kamefit.

Moenchia mantica (L.) Bartl.

Yaylakonak town, southeastern sections, stabilized road surroundings, steppe-stony, 770-800 m. April 2023. ÖK 2816. Therophyte.

Paronchia kurdica Boiss. subsp. *kurdica* var. *kurdica*

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m. June 2023. ÖK 3017. Hemicryptophyte.

Petrorhagia alpina (Hablitz.) P.W.Ball & Heynwood subsp. *olympica* (Boiss.) P.W.Ball & Heynwood

Yaylakonak town, southwestern sections, degraded forest, steppe, 830-880 m. June 2024. ÖK 3420. Therophyte.

Saponaria prostrata Willd. subsp. *anatolica* Hedge

Southern parts of İncekoz hamlet, sparsely forested openings, steppe, 1090-1110 m. June 2023. ÖK 3017. Endemic, Least Concern, Irano-Turanian element, Hemicryptophyte.

Scleranthus annuus L. subsp. *annuus*

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m. June 2023. ÖK 3017. Therophyte.

Silene ampullata Boiss.

Dandırmaz village, western parts, steppe slopes, 930-960 m. May 2024. ÖK 3322. Iran-Turan element. Hemicryptophyte.

Silene capitellata Boiss.

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m. April 2023. ÖK 2817. Endemic, Least Concern, Irano-Turanian element. Hemicryptophyte.

Silene vulgaris (MoenKamefit) Garcke subsp. *commutata* (Guss.) Hayek

Yaylakonak town, northeastern parts, steppe, forest open areas, 900-950 m. June 2024. ÖK 3421. Hemicryptophyte

Silene chlorifolia Sm.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan Dam, the left side of the 2 km road inside the canyon is steppe slopes, 710-760 m. June 2024. ÖK 3422. Iran-Turan element. Hemicryptophyte

Silene compacta Fisch. ex Hornem

The area to the left of the 2 km road inside the canyon from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan Dam is a damp reed wetland, 710-760 m. May 2023. ÖK 2919. Therophyte.

Silene spergulifolia (Desf.) M.Bieb.

Gürlevik village, picnic area, water source surroundings, steppe, rocky, 650-700 m, May 2024. ÖK 3314, determined by ŞY. Iran-Turan element, Hemicryptophyte.

Silene latifolia Poir.

Western parts of Karaağaç village, garden-like moist foresty area, 920-970 m. May 2025. ÖK 3476. Hemicryptophyte.

Stellaria media (L.) Vill.

Lower sections of Gömükhan Dam, stream bank, rocky, damp area, 750-800 m. March 2023. ÖK 2747. Therophyte.

Velezia rigida L.

The 4th km of the road between Dandırmaz village and İncekoz hamlet, left side, rocky/stony, 980-1000 m. May 2024. ÖK 3323. Therophyte.

Telephium imperati L. subsp. *orientale* (Boiss.) Nyman

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m. June 2025. ÖK 3477. Hemicryptophyte.

Vaccaria pyramidata

Between Yaylakonak and Dandırmaz villages, near the stream, field edges, 640-690 m. June 2024. ÖK 3423. Therophyte.

CISTACEAE

Helianthemum microcarpum Coss ex Boiss.

Near Ulubey village, by the stream, around the spring, above the pond, foresty, damp, shady, rocky areas, 800-820 m. April 2024. ÖK 3215. Therophyte.

CLEOMACEAE

Cleome ornithopodioides L.

Inland areas of Yaylakonak town, garden area, 850-900 m. June 2023. ÖK 3018. Mediterranean Element, Therophyte.

CONVOLVULACEAE

Convolvulus arvensis L.

Yaylakonak town, northeastern sections, humid garden area, 850-900 m. May 2023. ÖK 2920. Therophyte.

Convolvulus holosericeus M.Bieb. subsp. *holosericeus*

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m, May 2024. ÖK 3306, determined by ŞY, Therophyte.

Convolvulus phrygius Bornm.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 1 km road inside the canyon is steppe rocky slopes, 700-750 m. June 2024. Endemic, ÖK 3425. Hemicryptophyte

Cuscuta campestris Yunck. (Konak: *Xanthium strumarium*)

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. June 2023. ÖK 3018. Therophyte (parasite).

CRASSULACEAE

Rosularia sempervivum (M.Bieb.) A.Berger subsp. *persica* (Boiss.) Eggli

Western parts of Şerefli village, rocky area, 800-850 m. June 2025. ÖK 3488. Iran-Turan element. Hemicryptophyte.

Sedum pallidum M.Bieb.

The right side of the 2.5 km road inside the canyon from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culvert, is steppe rock, 710-760 m. TŞ 182, Mediterranean Element. Therophyte.

Sempervivum davisii Muirhead subsp. *davisii*

The eastern parts of the source where Gürlevik Water emerges are humid, rocky wetlands, 1270-1300 m. June 2023. ÖK 2921. Endemic, Endangered, Irano-Turanian element, Cryptophyte.

Umbilicus erectus DC.

Southern parts of Karaağaç village, steppe rocky foresty areas, 930-980 m. June 2025. ÖK 3478. Hemicryptophyte.

CUCURBITACEAE

Bryonia aspera Stev. ex Ledeb.

The area between Yaylakonak and Dandırmaz villages is a rocky, stony steppe, 750-800 m. June 2023. ÖK 3019. Cryptophyte.

ELAEAGNACEAE

Elaeagnus angustifolia L. var. *angustifolia*

Southern parts of Yaylakonak town, humid stream woodland, 800-850 m. October 2025. ÖK 3504. Phanerophyte.

EUPHORBIACEAE

Euphorbia altissima Boiss. var. *altissima*

Northern parts of Yaylakonak town, rocky steppe slopes, 930-980 m. April 2023. ÖK 2818. Iran-Turan element, Hemicryptophyte.

Euphorbia chamaesyce L.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), steppe-stony, 650-700 m. October 2025. ÖK 3504, Therophyte.

Euphorbia denticulata Lam.

Western parts of İncekoz hamlet, steppe-rocky-stony areas, 1050-1100 m. April 2023. ÖK 2819. Iran-Turan element, Hemicryptophyte.

Euphorbia macrocarpa Boiss. & Buhse

The western parts of the source where Gürlevik Water emerges, steppe rocky slopes, 1320-1340 m. May 2024. ÖK 3324. Iran-Turan element. Hemicryptophyte.

Euphorbia szovitsii Fisch. & C.A.Mey. var. *szovitsii*

The right side of the road, 4 km from Dandırmaz village to İncekoz hamlet, is a foresty steppe opening, 980-1000 m. April 2024. ÖK 3216. Iran-Turan element. Therophyte.

Chrozophora tinctoria (L.) A.Juss.

The southern parts of the source where Gürlevik Stream emerges, wetland, 1210-1240 m. June 2023. ÖK 3020. Terophyte.

FABACEAE

Alhagi pseudalhagi (M.Bieb.) Desv.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. TŞ 151. Iran-Turan element. Chamephyte.

Astragalus amplolepis Fisch.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m. May 2023. ÖK 2922. Iran-Turan element. Chamephyte.

Astragalus compactus Lam.

The lower sections of the Gömükhan Dam consist of steppe rocky slopes, 750-800 m. Iranian-Turanian element. Chamephyte.

Astragalus gummifer Labill.

Şerefli village, eastern parts, steppe-stony slopes, 800-850 m. June 2025. ÖK 3479. Iran-Turan element. Chamephyte.

Astragalus kurdicus Boiss.

Dandırmaz village, southern parts, humid wet woodland, 750-800 m. June 2023. ÖK 3021. Iran-Turan element. Chamephyte.

Astragalus longifolius Lam.

The area to the left of the 2 km road between Dandırmaz village and İncekoz hamlet is steppe land, 920-970 m. June 2023. ÖK 3022. Iran-Turan element, Chamephyte.

Astragalus pycnocephalus Fisch.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 1 km along the canyon road to the right, rocky stream bank, 700-750 m. May 2024. ÖK 3325. Iran-Turan element. Chamephyte.

Astragalus eriocephalus Willd. *eriocephalus*

Between İncekoz hamlet and Gürlevik water source, steppe-stony, 1200-1250 m. May 2025. ÖK 3477. Iran-Turan element. Chamephyte.

Astragalus cretaceus Boiss. & Kotschy

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49320. Chamephyte.

Astragalus campylosema Boiss. subsp. *campylosema*

Dandırmaz village, northern parts, steppe slopes, 850-900 m. June 2023. ÖK 3028. Endemic. Chamephyte.

Cicer anatolicum Alef.

İncekoz mezrası kuzey kesimleri, step-taşlık alanlar, 1050-1100 m. Mayıs 2024. ÖK 3217. İran-Turan elementi, Hemicryptophyte.

Colutea cilicica Bois. & Balansa

1 km before Gürlevik Stream, to the left of the road, steppe, 1250-1280 m. June 2025. ÖK 3480. Phanerophyte

Coronilla scorpioides (L.) W.D.J.Koch

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-moist wetlands, 650-700 m. May 2025. ÖK 3498. Therophyte.

Dorycnium pentaphyllum Scop. subsp. *haussknechtii* (Boiss.) Gams

Dandırmaz village, northern parts, steppe slopes, 850-900 m. June 2023. ÖK 3023. Endemic. Least Concern, Hemicryptophyte.

Ebenus haussknechtii Bornm ex Hub.-Mor.

Şerefli village, eastern parts, steppe-stony slopes, 800-850 m. June 2025. ÖK 3486. Iran-Turan element. Hemicryptophyte.

Genista tinctoria L.

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, on

the right side of the road, steppe areas, 650-670 m. June 2023. ÖK 3024. European-Siberian element. Chamefit.

Hedysarum varium Willd.

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, steppe area, 710-760 m. June 2023. ÖK 3025. Iran-Turan element. Chamefit.

Lathyrus sativus L.

Eastern parts of Yaylakonak town, humid-shrubland area, 840-890 m. April 2023. TŞ 113. Mediterranean element. Therophyte.

Lathyrus vinealis Boiss. & Noë

Southern parts of Şerefli village, humid area, 750-800 m. April 2024. ÖK 3217. Irano-Turanian element. Therophyte.

Lotus corniculatus L. var. *corniculatus*

Western parts of Yaylakonak town, roadside steppe slopes, 930-980 m. May 2023. ÖK 2923. Hemicryptophyte.

Lotus gebelia Vent. var. *gebelia*

Northern parts of Karaağaç village, steppe field edge, 940-990 m. May 2025. ÖK 3478. Iran-Turan element. Hemicryptophyte.

Medicago rigidula (L.) All. var. *rigidula*

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-moist wetlands, 650-700 m. May 2025. ÖK 3478. Therophyte.

Medicago minima (L.) Bartal. var. *minima*

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 2 km along the canyon road, right side, rocky stream bank, 710-760 m. May 2023. TŞ 122. Therophyte.

Medicago radiata L.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. SY 49321, Irano-Turanian element. Therophyte.

Medicago sativa L. subsp. *sativa*

Yaylakonak town, northwestern parts, steppe areas, 850-900 m. May 2023. ÖK 2924. Hemicryptophyte.

Melilotus albus Desr.

Eastern parts of Karaağaç village, steppe rocky slopes, 980-1000 m. May 2025. ÖK 3479. Hemicryptophyte.

Melilotus officinalis (L.) Desr.

From the bridge over the Tilkihan stream, towards the Gömükhan dam, 2.5 km along the canyon road, right side, around the culvert, stream bank, 710-760 m. April 2024. ÖK 3218. Hemicryptophyte

Onobrychis caput-galli (L.) Lam.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49322. Therophyte.

Onobrychis cappadocica Boiss.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. SY 49323. Endemic. Therophyte.

Ononis spinosa L. subsp. *leiosperma* (Boiss.) Sirj.

Dandirmaz village, eastern parts, humid wetland foresty area, 730-770 m. June 2023. ÖK 3026.

Ononis adenotricha Boiss. var. *stenophylla* Boiss.

Gürlevik village, picnic area, water source surroundings, steppe, rocky, 650-700 m, May 2024. ÖK 3315, determined by ŞY. Hemicryptophyte.

Pisum sativum L. subsp. *elatius* (M.Bieb.) Ascher. & Graebn. var. *elatius*

Between Yaylakonak and Dandirmaz villages, humid wetland, 650-700 m. April 2024. ÖK 3219. Mediterranean element. Therophyte.

Trifolium arvense L. var. *arvense*

The right side of the road, 3 km from Dandirmaz village to İncekoz hamlet, steppe-stony area, 970-990 m. May 2023. ÖK 2925. Therophyte

Trifolium campestre Schreb. subsp. *campestre* var. *campestre*

Between İncekoz hamlet and Gürlevik water source, humid reedbed and foresty areas, 1090-1140 m. June 2025. ÖK 3481. Therophyte

Trifolium speciosum Willd.

The southern parts of the source where Gürlevik Water emerges, along the direction of water flow, humid shade, 1230-1250 m. April 2023. ÖK 2820. Mediterranean element, Therophyte.

Trifolium pratense L. var. *pratense*

Eastern parts of Şerefli village, steppe-stony slopes, 800-850 m. March 2023. ÖK 2748. Hemicryptophyte.

Trifolium purpureum Lois. var. *pamphylicum*

Western parts of Yaylakonak town, roadside steppe slopes, 930-980 m. May 2023. ÖK 2926. Mediterranean element. Therophyte.

Trifolium repens L. var. *repens*

Dandirmaz village, western parts, steppe, 930-960 m. May 2023. ÖK 2927. Hemicryptophyte.

Trifolium resupinatum L. var. *resupinatum*

Western parts of Karaağaç village, garden-like, humid foresty area, 920-970 m. April 2024. ÖK 3220. Therophyte

Trigonella mesopotamica Hub.-Mor.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49323, Therophyte

Trigonella monantha C.A.Mey. subsp. *monantha*

Yaylakonak town, southwestern sections, degraded forest, steppe, 830-880 m. May 2025. ÖK 3480. Therophyte.

Vicia anatolica Turrill.

Yaylakonak town, northeastern parts, humid garden area, 850-900 m. April 2023. ÖK 2821. Iran-Turan element. Therophyte.

Vicia cracca L. subsp. *cracca*

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. May 2023. TS 123. European-Siberian element. Hemicryptophyte.

Vicia monantha Retz. subsp. *monantha*

Inland areas of Yaylakonak town, garden area, 850-900 m. April 2024. ÖK 3221. Therophyte

Vicia sativa L. subsp. *sativa*

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 2 km road inside the canyon is a humid reed wetland, 710-760 m. April 2025. ÖK 3460. Therophyte.

Vicia ervilia (L.) Willd.

Eastern parts of Yaylakonak town, humid-shrubland area, 840-890 m. April 2023. TŞ 123. Mediterranean element. Therophyte.

FAGACEAE

Quercus libani Oliv.

2 km before Gürlevik Stream, roadside foresty-steppe, 1220-1270 m. May 2024. ÖK 3325. Iran-Turan element. Phanerophyte.

GENTIANACEAE

Centaurium erythraea Rafn. subsp. *turcicum* (Velen.) Melderis

Between Yaylakonak and Dandırmaz villages, near the stream, field edges, 640-690 m. June 2025. ÖK 3481. Therophyte

Gentiana olivieri Griseb.

The right side of the road, 3 km from Dandırmaz village to İncekoz hamlet, steppe-stony, 970-990 m. May 2024. ÖK 3325. Iran-Turan element. Hemicryptophyte.

GERANIACEAE

Erodium amanum Boiss. & Kotsch

Between İncekoz hamlet and Gürlevik water source, steppe-stony, 1200-1250 m. June 2023. ÖK 3027. Endemic. Least Concern. Irano-Turanian element. Hemicryptophyte.

Geranium libanoticum Schenk

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m. March 2024. ÖK 3107. Cryptophyte.

Geranium tuberosum L.

Northern parts of Karaağaç village, steppe field edge, 940-990 m. March 2023. ÖK 2749. Iran-Turan element. Cryptophyte.

GROSSULARIACEAE

Ribes orientale Desf.

The right side of the road, 4 km from Dandırmaz village to İncekoz hamlet, is a foresty steppe opening, 980-1000 m. April 2023. ÖK 2822. Fanerofit

HYPERICACEAE

Hypericum lysimachoides Boiss. & Noë var. *lysimachoides*

Southern parts of İncekoz hamlet, sparsely forested openings, steppe, 1090-1110 m. June 2023. ÖK 3028. Iran-Turan element. Hemicryptophyte.

Hypericum scabrum L.

The northern parts of the source where Gürlevik Stream emerges are steppe-rocky, 1310-1330 m. June 2024. ÖK 3222. Mediterranean element. Chamefite

Hypericum perforatum

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, left side of the road, steppe slopes, 750-780 m. June 2025. ÖK 3482. Hemicryptophyte

JUGLANDACEAE

Juglans regia L.

Western parts of Şerefli village, humid stream bed, 650-700 m. June 2024. ÖK 3426. Phanerophyte. (Culture)

LAMIACEAE

Acinos rotundifolius Pers.

Northern parts of Yaylakonak town, rocky steppe slopes, 930-980 m, June 2024, ÖK 3416, Therophyte

Ajuga chamaepitys (L.) Schreb. subsp. *chia* (Schreb.) Arcang. var. *chia*

Western parts of Şerefli village, humid stream bed, 650-700 m. May 2024. ÖK 3326. Hemicryptophyte.

Ballota nigra L. subsp. *kurdica* P.H.Davis

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, on the right side of the road, steppe areas, 650-670 m. June 2025. ÖK 3482. Iran-Turan element. Hemicryptophyte.

Clinopodium vulgare L. subsp. *vulgare*

Between İncekoz hamlet and Gürlevik water source, humid reedbed areas, 1090-1140 m. May 2024. ÖK 3326. Hemicryptophyte

Lallemantia Iberica (M.Bieb.) Fisch. & C.A.Mey.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. SY 49324, Iran-Turan element, Therophyte

Lamium peltata (L.) Fisch. & C.A.Mey.

Between Yaylakonak and Dandirmaz villages, humid wetland, 650-700 m. April 2024. ÖK 3223. Iran-Turan element. Therophyte

Lamium album L. subsp. *album*

The southern parts of the source where Gürlevik Water emerges, along the direction of water flow, are humid shaded, 1230-1250 m. April 2024. ÖK 3224. European-Siberian element. Hemicryptophyte

Lamium amplexicaule L. var. *amplexicaule*

The eastern parts of the source where Gürlevik Stream emerges are moist, wet, rocky, 1270-1300 m. March 2023. ÖK 2750. European-Siberian element. Therophyte

Lycopus europaeus L.

Dandirmaz village, northern parts, steppe slopes, 850-900 m. September 2023. ÖK 3086. European-Siberian element. Hemicryptophyte

Marrubium astracanicum Jacq. subsp. *astracanicum*

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, steppe area, 710-760 m. April 2024. ÖK 3225. Hemicryptophyte

Marrubium parviflorum Fisch. & C.A.Mey. subsp. *parviflorum*

Yaylakonak town, northwestern parts, steppe areas, 850-900 m. May 2023. ÖK 2928. Iran-Turan element. Hemicryptophyte

Marrubium trachyticum Boiss.

Yaylakonak town, northwestern parts, steppe areas, 850-900 m. May 2023. ÖK 2928. Iran-Turan element. Hemicryptophyte.

Melissa officinalis L. subsp. *officinalis*

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-moist wetlands, 650-700 m. June 2025. ÖK 3483. Mediterranean element. Hemicryptophyte.

Mentha longifolia (L.) L. subsp. *typhoides* (Briq.) Briq.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 2 km road inside the canyon is a damp reed wetland, 710-760 m. June 2025. ÖK 3484. Cryptophyte

Molucella laevis L.

The right side of the road at the 4th km between Dandirmaz village and İncekoz hamlet, a foresty opening, 980-1000 m, June 2025, ÖK 3488, HemiCryptofit

Nepeta nuda L. subsp. *nuda*

The northeastern parts of Yaylakonak town, steppe, forest open areas, 900-950 m. June 2025. ÖK 3485. European-Siberian element.

Nepeta trachonitica Post

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m. June 2023. ÖK 3029. Iran-Turan element. Hemicryptophyte.

Origanum vulgare L. subsp. *gracile* (K.Koch) Letsw.

Yaylakonak town, northeastern sections, humid garden area, 850-900 m. May 2024. ÖK 3327. Hemicryptophyte.

Origanum haussknechtii Boiss.

Western parts of Şerefli village, rocky area, 800-850 m. May 2024. ÖK 3328. Irano-Turanian element. Endemic. Hemicryptophyte

Phlomis armeniaca Willd.

The 4th km of the road between Dandırmaz village and İncekoz hamlet, to the left, rocky area, 980-1000 m. June 2023. ÖK 3030. Iran-Turan element, Hemicryptophyte.

Phlomis kurdica Rech. f.

The area between Yaylakonak and Dandırmaz villages is a rocky steppe, 750-800 m. June 2023. ÖK 3031. Iran-Turan element. Hemicryptophyte.

Prunella vulgaris L.

Right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, around the culvert, stream bank, 710-760 m. April 2023. ÖK 2823. European-Siberian element. Hemicryptophyte.

Salvia brachyantha (Bordz.) Pobed. subsp. *brachyantha*

Dandırmaz village, southern parts, humid wet woodland, 750-800 m. May 2023. ÖK 2929. Iran-Turan element. Hemicryptophyte.

Salvia candidissima Vahl. subsp. *candidissima*

Dandırmaz village, eastern parts, humid wet woodland, 730-770 m. May 2024. ÖK 3328. Iran-Turan element. Hemicryptophyte.

Salvia multicaulis Vahl

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. April 2023. ÖK 2824. Iran-Turan element. Chamefite.

Salvia trichoclada Benth.

Western parts of Şerefli village, rocky area, 800-850 m. May 2024. ÖK 3328. Iran-Turan element. Hemicryptophyte.

Salvia virgata Jacq.

Lower sections of Gömükhan Dam, stream bank, rocky, humid area, 750-800 m. May 2024. ÖK

3329. Iran-Turan element. Hemicryptophyte.

Salvia verticillata L. subsp. *verticillata*

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m. May 2024. ÖK 3330. European-Siberian element. Hemicryptophyte.

Satureja boissieri Hausskn. ex Boiss.

Northern parts of İncekoz hamlet, steppe-stony areas, 1050-1100 m. April 2023. ÖK 2825. Vulnerable. Irano-Turanian element. Chamefite.

Satureja hortensis L.

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m. May 2024. ÖK 3331. Therophyte.

Scutellaria orientalis L. subsp. *orientalis*

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 1 km road inside the canyon consists of steppe rocky slopes, 700-750 m. May 2025. ÖK 3332. Iran-Turan element. Chamefit.

Sideritis montana L. subsp. *montana*

The area to the left of the 2 km road between Dandırmaz village and İncekoz hamlet is steppe land, 920-970 m. May 2023. ÖK 2930. Mediterranean element. Therophyte.

Stachys annua (L.) L. subsp. *annua* var. *annua*

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culvert, is steppe rock, 710-760 m. June 2023. ÖK 3032. Hemicryptophyte

Stachys iberica M.Bieb. subsp. *stenostachys* (Boiss.) Rech. f.

Southern parts of Yaylakonak town, humid stream forest area, 800-850 m. June 2025. ÖK 3486. Iran-Turan element. Hemicryptophyte

Teucrium chamaedrys L. subsp. *chamaedrys*

The southern parts of the source where Gürlevik Stream emerges, wetland, 1210-1240 m. June 2025. ÖK 3487. Hemicryptophyte.

Teucrium polium L. subsp. *polium*

1 km before Gürlevik Stream, to the left of the road, steppe, 1250-1280 m. May 2024. ÖK 3333. Hemicryptophyte.

Thymus kotschyanus Boiss. & Hohen. var. *kotschyanus*

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 2 km road inside the canyon is steppe slopes, 710-760 m. June 2025. ÖK 3488. Iran-Turan element. Chamefit.

Thymus hausknechtii Velen.

Northern parts of İncekoz hamlet, steppe-stony areas, 1050-1100 m, May 2123, ÖK 2807, Endemic,

Chamefit.

Ziziphora capitata L.

The western parts of the source where Gürlevik Water emerges, steppe rocky slopes, 1320-1340 m. April 2023. ÖK 2826. Iran-Turan element. Therophyte.

Ziziphora clinopodioides Lam. subsp. *kurdica* (Rechinger) Rechinger

Yaylakonak town, southeastern parts, stabilized road surroundings, steppe-stony, 770-800 m. May 2024. ÖK 3334. Iran-Turan element. Chamefit.

LINACEAE

Linum mucronatum Bertol. subsp. *mucronatum*

Northern parts of Şerefli village, steppe slopes, 750-800 m. June 2025. ÖK 3488. Iran-Turan element. Hemicryptophyte.

Linum nodiflorum L.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. SY 49327, Iran-Turan element, Hemicryptophyte.

LYTHRACEAE

Lythrum salicaria L.

Eastern parts of Yaylakonak town, humid-shrubland area, 840-890 m. May 2023. ÖK 2931. European-Siberian element. Cryptophyte

MALVACEAE

Alcea apterocarpa (Fenzl) Boiss.

Near Ulubey village, by the stream, around a spring, above a pond, foresty, damp, shady, rocky areas, 800-820 m. June 2024. ÖK 3426. Iran-Turan element. Hemicryptophyte.

Malva neglecta Wallr.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 1 km along the canyon road, right side, rocky stream bank, 700-750 m. April 2023. ÖK 2826. Hemicryptophyte.

MORACEAE

Morus nigra L.

Inland areas of Yaylakonak town, garden area, 850-900 m. May 2023. ÖK 2932. Phanerophyte (Cultivated)

Morus aba L.

Inland areas of Yaylakonak town, garden area, 850-900 m. May 2023. ÖK 2933. Phanerophyte (Cultivated)

OLEACEAE

Fraxinus angustifolia Vahl subsp. *syriaca* (Boiss.) Yalt.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam,

2 km along the canyon road to the right, rocky stream bank, 710-760 m. June 2025. ÖK 3488. Iran-Turan element. Phanerophyte.

ONAGRACEAE

Epilobium minutiflorum Hausskn.

Southern parts of Şerefli village, humid area, 750-800 m. June 2024. ÖK 3427. Iran-Turan element. Hemicryptophyte.

Epilobium stevenii Boiss.

Eastern parts of Karaağaç village, steppe rocky slopes, 980-1000 m. June 2024. ÖK 3428. Iran-Turan element. Hemicryptophyte.

OROBANCHACEAE

Bungea trifida (Vahl) C.A.Mey.

Lower sections of the Gömükhan Dam, steppe rocky slopes, 750-800 m. May 2023. ÖK 2934. Iran-Turan element. Hemicryptophyte.

Orobanche anatolica Boiss. & Reut. ex Reut.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), steppe-stony, 650-700 m. June 2025. ÖK 3489. Cryptophyte.

Orobanche kurdica Boiss. & Hausskn.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49328. Cryptofit

Parentucellia latifolia (L.) Caruel subsp. *flaviflora* (Boiss.) Hand.-Mazz.

Western parts of İncekoz hamlet, humid areas, 1050-1100 m. May 2024. ÖK 3335. Mediterranean element. Therophyte.

PAPAVERACEAE

Corydalis oppositifolia DC. subsp. *oppositifolia*

Inland areas of Yaylakonak town, field edge, 850-900 m. March 2024. ÖK 3108. Endemic. Least Concern. Cryptophyte.

Fumaria asepala Boiss.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m. April 2025. ÖK 3449. Iran-Turan element. Therophyte.

Fumaria officinalis L. subsp. *cilicica* (Husskn.) Lidén

Northern parts of Yaylakonak town, rocky steppe slopes, 930-980 m. April 2023. ÖK 2827. Iran-Turan element. Therophyte.

Papaver dubium L. var. *dubium*

Yaylakonak town, northeastern sections, humid garden area, 850-900 m. May 2024, ÖK 3336. Therophyte.

Papaver cf. *rhoeas* L.

Eastern parts of Karaağaç village, humid area, 980-1000 m. May 2024. ÖK 3337. Therophyte.

Roemeria hybrida (L.) DC. subsp. *hybrida*

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 1 km road inside the canyon consists of steppe rocky slopes, 700-750 m. April 2024. ÖK 3226. Therophyte.

Glaucium cappadocicum Boiss.

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. June 2024. ÖK 3429. Endemic. Vulnerable. Irano-Turanian element. Hemicryptophyte.

PLANTAGINACEAE

Anarrhinum orientale Benth.

Lower sections of Gömükhan Dam, stream bank, rocky, humid area, 750-800 m. May 2023. ÖK 2934. Iran-Turan element. Hemicryptophyte.

Linaria kurdica Boiss. & Hohen. subsp. *pycnophylla* (Boiss. & Balansa) P.H.Davis

Yaylakonak town, northeastern parts, steppe, forest open areas, 900-950 m. May 2023. ÖK 2935. Iran-Turan element. Hemicryptophyte.

Plantago lanceolata L.

Southern parts of Yaylakonak town, humid stream foresty area, 800-850 m. May 2024. ÖK 3338. Hemicryptophyte.

Plantago major L. subsp. *major*

The right side of the road at the 4th km between Dandırmaz village and İncekoz hamlet, a foresty steppe opening, 980-1000 m. May 2024. ÖK 3339. Therophyte.

Veronica anagallis-aquatica L.

Between Yaylakonak and Dandırmaz villages, humid wetland, 650-700 m. April 2024. ÖK 3227. Cryptophyte.

Veronica bozakmanii M.A. Fisch.

Dandırmaz village, southern parts, humid wet woodland, 750-800 m. April 2023. ÖK 2828. Iran-Turan element. Therophyte.

PLUMBAGINACEAE

Acantholimon acerosum (Willd.) Boiss. subsp. *acerosum* var. *acerosum*

The area between Yaylakonak and Dandırmaz villages is a rocky steppe, 750-800 m. June 2025. ÖK 3489. Least Concern. Irano-Turanian element. Chamefite.

POLYGALACEAE

Polygala anatolica Boiss. & Heldr.

Dandırmaz village, eastern parts, humid wet woodland, 730-770 m. June 2023. ÖK 3033. Hemicryptophyte.

POLYGONACEAE

Atraphaxis billardieri Jaub. & Spach var. *billardieri*

Northern parts of Şerefli village, steppe slopes, 750-800 m. June 2023. ÖK 3034. Iran-Turan element. Chamefite.

Polygonum arenastrum Boreau.

Eastern parts of Şerefli village, steppe-stony slopes, 800-850 m. September 2025. ÖK 3497. Terophyte.

Polygonum lapathifolium L.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank - damp wetlands, 650-700 m. June 2024. ÖK 3430. Therophyte.

Rheum ribes L.

1 km before Gürlevik Stream, to the left of the road, steppe, 1250-1280 m. June 2023. ÖK 3035. Hemicryptophyte.

Rumex acetocella L.

Western parts of İncekoz hamlet, humid areas, 1050-1100 m. October 2025. ÖK 3505. Hemicryptophyte.

PORTULACACEAE

Portulaca oleracea L.

Inland areas of Yaylakonak town, garden area, 850-900 m. May 2024. ÖK 3340. Therophyte

PRIMULACEAE

Androsace maxima L.

Northern parts of Karaağaç village, steppe field edge, 940-990 m. April 2024. ÖK 3228. Therophyte

Lysimachia vulgaris L.

Western parts of Karaağaç village, garden-like moist foresty area, 920-970 m. June 2024. ÖK 3430. Hemicryptophyte.

RANUNCULACEAE

Adonis flammea Jacq.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024.

ŞY 49330, Therophyte

Anemone narcissiflora L.

Between Yaylakonak and Dandırmaz villages, near a stream, field edges, 640-690 m. May 2024. ÖK 3340. European-Siberian element. Hemicryptophyte.

Caltha palustris L.

Moist reedy wetland, 2 km left of the canyon road from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam, 710-760 m. April 2023. ÖK 2828. Cryptophyte.

Ceratocephala falcata (L.) Pers.

Near Ulubey village, stream bank, spring area, above pond, foresty, damp, shady, rocky areas, 800-

820 m. April 2024. OC 3229. Therophyte.

Delphinium macrostachyum Boiss. ex Huth

Western parts of Şerefli village, humid stream bed, 650-700 m. June 2024. ÖK 3430. Vulnerable. Iran-Turan element. Hemicryptophyte

Consolida orientalis (J.Gay) Schrödinger

Southwestern parts of Yaylakonak town, degraded forest, steppe, 830-880 m. May 2024. ÖK 3340. Therophyte.

Ranunculus kochii Ledeb.

Southern parts of Şerefli village, humid area, 750-800 m. April 2024. ÖK 3229. Iran-Turan element. Cryptophyte

Ranunculus asiaticus L.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. SY 49331, Therophyte.

Ranunculus arvensis L.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49332, Therophyte.

Thalictrum isopyroides C.A.Mey.

Yaylakonak town, northeastern parts, steppe, forest open areas, 900-950 m. May 2024. ÖK 3340. Hemicryptophyte.

RESEDACEAE

Reseda lutea L.

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. June 2023. TŞ 133. Hemicryptophyte.

ROSACEAE

Agrimonia eupatoria L. subsp. *asiatica*

Eastern parts of Yaylakonak town, humid-shrubland area, 840-890 m. June 2024. ÖK 3431. Hemicryptophyte.

Amygdalus arabica

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m. May 2025. TŞ 194. Hemicryptophyte.

Amygdalus communis L.

Bridge over Tilkihan stream (northwest of Şerefli village) between Dandırmaz village, left side of the road, steppe slopes, 750-780 m. May 2025. TŞ 195. Phanerophyte

Armeniaca vulgaris Lam.

Inland areas of Yaylakonak town, garden area, 850-900 m. May 2025. TŞ 196. Phanerophyte.

(Culture)

Cotoneaster nummularius Fisch. & C.A.Mey.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), steppe-stony, 650-700 m. September 2025. ÖK 3498. Phanerophyte.

Cerasus angustifolia (Spach.) Browicz var. *angustifolia*

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m. May 2024. ÖK 3340. Iran-Turan element. Phanerophyte.

Crataegus monogyna Jacq. var. *monogyna*

Dandırmaz village, northern parts, steppe slopes, 850-900 m. September 2023. ÖK 3087. Phanerophyte.

Crataegus orientalis Pall. ex M.Bieb. var. *orientalis*

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m. May 2024. ÖK 3341. Phanerophyte.

Geum urbanum L.

The southern parts of the source where Gürlevik Water emerges, along the direction of water flow, are humid shaded, 1230-1250 m. May 2023. ÖK 2936. European-Siberian element. Hemicryptophyte.

Malus sylvestris (L.) Mill. subsp. *orientalis* (Uglitzk) Browicz var. *orientalis*

2 km before Gürlevik Stream, roadside foresty-steppe, 1220-1270 m. June 2024. TŞ 174. Phanerophyte.

Potentilla reptans L.

Between Yaylakonak and Dandırmaz villages, humid wetland, 650-700 m. June 2024. TŞ 174. ÖK 3432. Cryptofit

Rosa canina L.

The right side of the road, 4 km from Dandırmaz village to İncekoz hamlet, is a foresty steppe opening, 980-1000 m. April 2024. ÖK 3230. Phanerophyte.

Rubus sanctus Schreb.

The area between İncekoz hamlet and Gürlevik water source is steppe-stony, 1200-1250 m. September 2025. ÖK 3499. Phanerophyte.

Sanguisorba minor Scop. subsp. *minor*

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. SY 49333, Hemicryptophyte.

Sorbus torminalis (L.) Crantz var. *pinnatifida* Boiss.

The area to the left of the 2 km road between Dandırmaz village and İncekoz hamlet is steppe land, 920-970 m. June 2023. ÖK 3035. Fanerofit

RUBIACEAE

Asperula stricta Boiss. subsp. *latibracteata* (Boiss.) Ehrend.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m. May 2024. ÖK 3307. Determined by ŞY.

Callipeltis cucularis (L.) Steven

Western parts of Şerefli village, humid stream bed, 650-700 m. April 2024. TŞ 151. Iran-Turan element. Therophyte.

Cruciata taurica (Pall. ex Willd.) Ehrend.

Northern parts of Yaylakonak town, rocky steppe slopes, 930-980 m. May 2025. TŞ 197. Irano-Turanian element. Chamefite.

Galium nigricans Boiss.

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m, May 2024. ÖK 3304, determined by ŞY

Galium dumosum Boiss.

Southern parts of Yaylakonak town, humid stream woodland, 800-850 m. September 2023. ÖK 3088. European-Siberian element. Chamephyte. Endemic.

Galium setaceum Lam.

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m, May 2024. ÖK 3308, determined by ŞY

Rubia tenuifolia d'Urv. subsp. *doniettii* (Griseb.) Ehrend. & Schönb.-Tem.

The area to the left of the 2 km road inside the canyon from the bridge over Tilkihan stream (northwest of Şerefli village) towards Gömükhan dam is a damp reed wetland, 710-760 m. May 2024. ÖK 3349. Hemicryptophyte, determined by ŞY

SALICACEAE

Salix alba L. subsp. *alba*

Lower sections of Gömükhan Dam, stream bank, rocky, humid area, 750-800 m. April 2024. ÖK 3230. European-Siberian element. Phanerophyte.

SANTALACEAE

Thesium billardieri Boiss.

Yaylakonak town, northwestern parts, steppe areas, 850-900 m. June 2025. ÖK 3489. Iran-Turan element. Hemicryptophyte.

SCROPHULARIACEAE

Scrophularia umbrosa Dumort.

Eastern parts of Yaylakonak town, humid-shrubland area, 840-890 m. June 2025. ÖK 3490. European-Siberian element. Hemicryptophyte.

Verbascum agrimoniifolium (K.Koch) Hub.-Mor. subsp. *agrimoniifolium*

Yaylakonak town, southeastern parts, stabilized road surroundings, steppe-stony, 770-800 m. May 2024. TŞ 163. Iran-Turan element. Hemicryptophyte.

Verbascum lasianthum Boiss. ex Benth

Northern parts of Ulubey village, steppe, rocky and stony, 825-850 m. June 2024. ÖK 3433. Hemicryptophyte.

SOLANACEAE

Solanum dulcamara L.

Southern parts of Dandırmaz village, humid wet woodland, 750-800 m. October 2025. ÖK 3506. European-Siberian element. Chamefit.

TAMARICACEAE

Tamarix smyrnensis Bunge

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 2.5 km along the canyon road, right side, around the culvert, stream bank, 710-760 m. June 2025. ÖK 3491. Phanerophyte

URTICACEAE

Urtica dioica L. subsp. *dioica*

The eastern parts of the source where Gürlevik Stream emerges are moist, wet, rocky, 1270-1300 m. May 2024. ÖK 3342. European-Siberian element. Hemicryptophyte.

VIOLACEAE

Viola odorata L.

Eastern parts of Şerefli village, steppe-stony slopes, 800-850 m. April 2023. ÖK 2829. Cryptophyte.

Viola parvula Tineo

Southern parts of Yaylakonak town, humid stream foresty area, 800-850 m. April 2023. ÖK 2830. Therophyte

ZYGOPHYLLACEAE

Tribulus terrestris L.

Northern parts of Karaağaç village, steppe field edge, 940-990 m. June 2024. ÖK 3434. Therophyte.

MONOCOTYLEDONES

AMARYLLIDACEAE

Allium ampeloprasum L.

Northern parts of Yaylakonak town, rocky steppe slopes, 930-980 m. June 2024. ÖK 3434. Mediterranean element. Cryptophyt

Allium atroviolaceum Boiss.

Western parts of Yaylakonak town, roadside steppe slopes, 930-980 m. June 2023. ÖK 3035.

Cryptophyt

Allium scodoprasum L. subsp. *rotundum* (L.) Stearn.

The right side of the road, 4 km from Dandırmaz village to İncekoz hamlet, is a foresty steppe opening, 980-1000 m. June 2024. ÖK 3434. Mediterranean element. Cryptophyt

Allium szovitsii Regel

Between İncekoz hamlet and Gürlevik water source, steppe-stony, 1200-1250 m. June 2023. ÖK 3036. European-Siberian element. Cryptophyt

ARACEAE

Arum rupicola Boiss. var. *rupicola*

The southern parts of the source where Gürlevik Water emerges, along the direction of water flow, are humid shaded, 1230-1250 m. April 2024. ÖK 3435. Iran-Turan element.

Eminium rauwolfia (Blume) Schott var. *rauwolfia*

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m. June 2024. ÖK 3439. Cryptophyte.

ASPARAGACEAE

Bellevalia speciosa Woronow ex Grossh.

From the bridge over the Tilkihan stream, towards the Gömükhan dam, the left side of the 2 km road inside the canyon, steppe, 710-760 m. May 2024. ÖK 3343. Cryptophyte

Muscari comosum (L.) Mill.

Between Yaylakonak and Dandırmaz villages, humid wetland, 650-700 m. May 2025. ÖK 3492. Mediterranean element. Cryptophyte

Muscari wallii Rech.f.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49335, Cryptophyte.

Ornithogalum orthophyllum Ten.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49336, Cryptophyte.

Ornithogalum sphaerocarpum A.Kern.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49337. Cryptophyte.

Ornithogalum pyrenaicum L.

Yaylakonak village, canyon surroundings, limestone cliffs, stony area, meadow, 900-1100 m, May 2024. ŞY 49338, Cryptophyte.

Puschinia scilloides Adams

Yaylakonak town, southwestern parts, degraded forest, steppe, 830-880 m. April 2024. ÖK 3230. Iran-Turan element, Cryptophyte

Scilla siberica Haw. subsp. *armena* (Grosh.) Mordak

Western parts of Şerefli village, humid stream bed, 650-700 m. April 2025. ÖK 3448. Iran-Turan element. Cryptophyte

COLCHICACEAE

Colchicum szovitsii Fisch & C.A.Mey.

Southern parts of Şerefli village, humid area, 750-800 m. April 2024. ÖK 3231. Iran-Turan element. Cryptophyte

Umbilicus luteus (Huds.) Webb & Bernth.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), stream bank-shady-moist wetlands, 650-700 m. May 2025. ÖK 3459. Cryptophyte

CYPERACEAE

Carex distans L.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 1 km along the canyon road, right side, rocky stream bank, 700-750 m. May 2023. ÖK 2937. Hemicryptophyte.

Cyperus rotundus L.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, the left side of the 2 km road inside the canyon is a damp reed wetland, 710-760 m. June 2025. ÖK 3474. Cryptophyte.

Scirpoides holoschoenus (L.) Soják subsp. *holoschoenus*

The southern parts of the source where Gürlevik Stream emerges, wetland, 1210-1240 m. June 2024. ÖK 3435. Cryptophyte.

IRIDACEAE

Crocus biflorus Mill. subsp. *taurica* (Maw) B.Mathew

Southern parts of the source where Gürlevik Water emerges, humid area, 1210-1240 m. June 2024. ÖK 3436. Iran-Turan element. Cryptophyte.

Gladiolus atroviolaceus Boiss.

Southern parts of İncekoz hamlet, sparsely forested openings, steppe, 1090-1110 m. April 2023. ÖK 2831. Iran-Turan element. Cryptophyte.

Iris persica L.

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, damp area, 710-760 m. April 2024. ÖK 3231. Iran-Turan element. Cryptophyte.

Iris reticulata M.Bieb. var. *reticulata*

The 4th km of the road between Dandırmaz village and İncekoz hamlet, to the left, rocky area, 980-1000 m. April 2024. ÖK 3232. Iran-Turan element. Cryptophyte.

IXIOLIRIACEAE

Ixiolirion tataricum (Pall.) Schult. & Schult. f. var. *tataricum*

Yaylakonak town, inland areas, garden, 850-900 m. April 2023. ÖK 2832. Vulnerable. Iran-Turan element. Cryptophyte.

JUNCACEAE

Juncus articulatus L. subsp. *articulatus*

Western parts of Karaağaç village, garden-like humid foresty area, 920-970 m. May 2024. ÖK 3343. European-Siberian element. Cryptophyte.

Luzula stenophylla Steud.

Near Ulubey village, by the stream, around a spring, above a pond, foresty, damp, shady, rocky areas, 800-820 m. May 2025. TŞ 198. Mediterranean element. Hemicryptophyte.

LILIACEAE

Gagea taurica Steven

Near Ulubey village, by the stream, around a spring, above a pond, foresty, damp, shady, rocky areas, 800-820 m. April 2023. ÖK 2833. Iran-Turan element. Cryptophyte.

Gagea villosa (M.Bieb.) Sweet var. *villosa*

Towards Şerefli village, right from the bridge, hill, rocky area to the left, roadside, 600-650 m. April 2023. ÖK 2835. Mediterranean element. Cryptophyte.

Tulipa armena Boiss. var. *armena*

Yaylakonak town, northeastern parts, steppe, forest open areas, 900-950 m. April 2023. ÖK 2834. Iran-Turan element. Cryptophyte.

ORCHIDACEAE

Anacamptis pyramidalis (L.) Rich.

Lower sections of Gömükhan Dam, damp-stony slopes, 750-800 m. June 2023. ÖK 3037. Cryptophyte.

Dactylorrhiza osmanica (Klinge) P.F.Hunt & Summerh. var. *osmanica*

Dandırmaz village, eastern parts, humid wet woodland, 730-770 m. June 2024. ÖK 3436. Endemic. Least Concern. Iran-Turan element. Cryptophyte.

Orchis purpurea Huds.

Between Yaylakonak and Dandırmaz villages, near the stream, shrubland area, 640-690 m. May 2024. TŞ 164. Cryptophyte.

POACEAE

Aegilops columnaris Zhukovsky

Northern parts of Şerefli village, steppe slopes, 750-800 m. June 2023. ÖK 3038. Iran-Turan element. Therophyte.

Agrostis gigantea Roth.

Yaylakonak town, inland areas, field edge, 850-900 m. June 2023. ÖK 3039. European-Siberian element. Hemicryptophyte.

Alopecurus arundinaceus Pois.

Southern parts of Yaylakonak town, steppe, field edge, 850-900 m. June 2024. ÖK 3437. European-Siberian element. Cryptophyte.

Beckmannia eruciformis (L.) Host

Yaylakonak town, canyon surroundings, limestone cliffs, stony area, meadow, 950-1050 m. June 2024. ÖK 3438. Cryptophyte.

Briza humilis M.Bieb.

Southern parts of Karaağaç village, steppe rocky foresty areas, 930-980 m. May 2024. ÖK 3344. Therophyte.

Bromus arvensis L.

Bridge surroundings over Tilkihan stream (northwest of Şerefli village), steppe-stony, 650-700 m. May 2024. ÖK 3345. Therophyte.

Bromus tectorum L.

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 2 km along the canyon road, right side, rocky stream bank, 710-760 m. May 2024. ÖK 3346. Therophyte.

Calamagrostis pseudophragmites (Haller) Koeler

From the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, 2 km along the canyon road to the right, rocky stream bank, 710-760 m. June 2025. ÖK 3500. European-Siberian element. Hemicryptophyte.

Catabrosella variegata (Boiss.) Tzvelev var. *variegata*

The right side of the 2.5 km canyon road from the bridge over the Tilkihan stream (northwest of Şerefli village) towards the Gömükhan dam, opposite the culvert, is damp rocky, 710-760 m. June 2025. ÖK 3501. Hemicryptophyte.

Cynodon dactylon (L.) Pers. var. *villosus* Regel

Between İncekoz hamlet and Gürlevik water source, humid reedbed and foresty areas, 1090-1140 m. May 2023. ÖK 2938. Cryptophyte

Dactylis glomerata L. subsp. *hispanica* (Roth.) Nyman

Dandırmaz village, western parts, steppe slopes, 930-960 m. June 2023. ÖK 3041. Hemicryptophyte.

Elymus elongatiformis (Drobow) Assadi

Dandırmaz village, northern parts, steppe slopes, 850-900 m. June 2024. ÖK 3439. Iran-Turan element. Hemicryptophyte.

Eragrostis minor Host

The area between Yaylakonak and Dandırmaz villages is a rocky, stony steppe, 750-800 m. June 2024. ÖK 3440. Therophyte.

Festuca pratensis Huds.

Northern sections of the source where Gürlevik Stream emerges, wetland, 1310-1330 m. June 2023. ÖK 3040. Hemicryptophyte.

Hordeum bulbosum L.

Western parts of İncekoz hamlet, humid areas, 1050-1100 m. June 2023. ÖK 3042. Cryptophyte.

Koeleria pyramidata (Lam.) P.Beauv.

Between Yaylakonak and Dandırmaz villages, steppe slopes, 750-800 m. May 2024. ÖK 3347. European-Siberian element. Vulnerable. Hemicryptophyte.

Melica persica Kunth subsp. *jacquemontii* (Decne. Ex Jacquem.) P.H.Davis

Between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, left side of the road, steppe slopes, 750-780 m. May 2024. ÖK 3348. Iran-Turan element. Hemicryptophyte.

Pennisetum orientale Rich.

1 km before Gürlevik Stream, to the left of the road, steppe, 1250-1280 m. June 2024. ÖK 3441. Iran-Turan element. Cryptophyte.

Phragmites australis (Cav.) Trin

The area between the bridge over the Tilkihan stream (northwest of Şerefli village) and Dandırmaz village, reedbed wetland, 650-670 m. September 2025. ÖK 3502. European-Siberian element. Cryptophyte.

Poa bulbosa L.

The area to the left of the 2 km road between Dandırmaz village and İncekoz hamlet is steppe land, 920-970 m. May 2024. ÖK 3349. Cryptophyte

Setaria viridis (L.) P.Beauv.

The area surrounding the source of Gürlevik Stream, humid region, 1320-1340 m. June 2024. ÖK 3442. Therophyte.

Sorghum halepense (L.) Pers. var. *muticum* (Hack.) Grossh.

The right side of the road, 3 km from Dandırmaz village to İncekoz hamlet, steppe-stony area, 970-990 m. June 2025. TŞ 202. Cryptophyte.

Stipa ehrenbergiana Trin. & Rupr.

Northern parts of İncekoz hamlet, steppe-stony areas, 1050-1100 m. June 2024. ÖK 3442. Iran-Turan element. Hemicryptophyte.

Taeniatherum caput-medusa (L.) Nevski subsp. *crinitum* (Schreb.) Melderis

Eastern parts of İncekoz hamlet, field edge, foresty areas, 980-1000 m. June 2024. ÖK 3443. Iran-

Turan element. Therophyte.

Vulpia myuros (L.) C.C. Gmel.

2 km before Gürlevik Stream, roadside foresty-steppe, 1220-1270 m. June 2024. ÖK 3505. Therophyte.

Abbreviations: ÖK Ömer Kılıç; ŞY Şinasi Yıldırım; TŞ Talip Şahin

DISCUSSION

This study was carried out to determine the flora of Yaylakonak (Adıyaman) and near surroundings. Within the scope of the study, 563 plant samples were collected by visiting the research area during the vegetation periods of 2023-2025.

As a result of evaluation of these plants, a total of 477 taxa were identified. Of these taxa, 4 of them were belong to Pteridophyta and 473 of Spermatophyta divisions. Gymnospermae and Angiospermae contained 3 and 470 taxa, respectively. In Angiospermae, 413 were belong to Magnoliopsida and 57 were belong to Liliopsida class. It was determined that 24 taxa from the study area were endemic, and the endemism rate was found to be 5 %.

According to the latest data on the flora of Türkiye, Asteraceae, Fabaceae, Brassicaceae, Lamiaceae, Caryophyllaceae, Poaceae, Scrophulariaceae, Apiaceae, Boraginaceae, and Rosaceae are the families with the most taxa, respectively (Ekim, 2014). Based on the evaluation of the floristic list given above, the top 4 families richest in terms of plant taxa are shown in Table 1. This classification shows very much similarities with the flora of Türkiye.

Table 1. Distribution of the first four families containing the most taxa according to studies

Research Name	First Five Family According to Number of Taxa
Flora of Yaylakonak Town (Adıyaman-Türkiye) And Near Surroundings (This Research)	Asteraceae 61, Brassicaceae 50, Fabaceae 46, Lamiaceae 40
Contributions to the Flora of Çelikhan (Adıyaman) District (Kılıç & Yıld., 2022)	Asteraceae 42, Fabaceae 37, Brassicaceae 36, Lamiaceae 35
Akdağ (Adıyaman/Malatya) Florası (Tak, 2022).	Asteraceae 65, Fabaceae 56, Brassicaceae 47, Lamiaceae 46
Besni (Adıyaman) İlçesinin Florası (Özcan, 2023).	Asteraceae 88, Fabaceae 79, Brassicaceae 47, Lamiaceae 46

Asteraceae is the family with the most members in the world and in Türkiye. While this family is represented by approximately 32.000 species worldwide (Cheek et al., 2020), 1311 taxa (Ekim, 2014) are found in Türkiye. Many members of Compositae family are cosmopolitan and grow in many parts of the world. The presence of structures in their fruits that facilitate transportation has led to the widespread distribution of species belonging to this family. In our research area and other studies in Table 1, Asteraceae ranks first among the families with the most taxa.

In our study area, the Brassicaceae family became the 2nd largest family with 50 taxa. It is the third

largest family in Türkiye with more than 602 species (Ekim, 2014). Unlike the other studies in Table 1, in this study, the Brassicaceae family ranked second in terms of the number of taxa.

In this research, Fabaceae family ranks third in the number of taxa after Brassicaceae. Globally, this family is the third largest family of flowering plants with 22,000 species (Cheek et al., 2020). In the flora of Turkey, this family ranks second with 1059 species (Ekim, 2014). The presence of large genera such as *Astragalus*, *Trifolium*, and *Vicia* within this family, and their representation by numerous taxa, is the main reason for its high ranking.

The Lamiaceae family ranks fourth in terms of the number of taxa in the Flora of Türkiye, and it also ranks fourth in all the studies in Table 1, showing a complete parallelism.

Based on the evaluation of the floristic list given above, the top 4 richest genus in terms of plant taxa are shown in Table 2.

Table 2. Distribution of the first four genus containing the most taxa according to studies

Research Name	First Five Genus According to Number of Taxa
Flora of Yaylakonak Town (Adiyaman-Türkiye) and Near Surroundings (This Research)	<i>Astragalus</i> 9, <i>Trifolium</i> 8, <i>Silene</i> 7, <i>Salvia</i> 6
Contributions to the Flora of Çelikhan (Adiyaman) District (Kılıç & Yıld., 2022)	<i>Astragalus</i> 9, <i>Silene</i> 8, <i>Salvia</i> 7, <i>Trifolium-Vicia</i> 6
Akdağ (Adiyaman/Malatya) Florası (Tak, 2022).	<i>Silene</i> 11, <i>Allium-Galium</i> 10, <i>Euphorbia</i> 9, <i>Astragalus-Erysimum-Onosma</i> 8
Besni (Adiyaman) İlçesinin Florası (Özcan, 2023)	<i>Centaurea</i> 18, <i>Ranunculus</i> 15, <i>Salvia</i> 15, <i>Astragalus</i> 11

In this study, the top 4 genera containing the most taxa are ranked as follows: *Astragalus* 9, *Trifolium* 8, *Silene* 7, *Salvia* 6. In the Flora of Turkey, *Astragalus*, *Verbascum*, *Allium* and *Centaurea* are the four genera containing the most taxa (Ekim, 2014). When compared to our study area, although the ranking of the other genera (except *Astragalus*) varies, they show differences with the Flora of Turkey, according to the ranking.

Raunkiaer focused on determining the life forms of plants by considering the location and position of renewal buds or apical shoots relative to soil level during the critical season. According to this criterion, Raunkiaer classified plants into the following classes: Phanerophytes, Chamephytes, Hemicryptophytes, Cryptophytes, Hydrophytes, and Therophytes (Akman et al., 2011). By examining the life forms of plants, it is possible to provide information about the ecology of a region. For example, in Mediterranean countries, 30% phanerophytes and 40% therophytes are found, in temperate regions 50% hemicryptophytes, 30% phanerophytes, and 20% therophytes, and in polar regions, therophytes and phanerophytes disappear, with hemicryptophytes becoming dominant (Akman et al., 2011). Hemicryptophytes are more abundant in steppe areas, cryptophytes in meadow areas, chameleons in alpine regions, and phanerophytes in forested areas. Looking at the distribution of plants according to their life forms in the research area, hemicryptophytes are in first place with 188 taxa. This is due to the dominance of steppe ecology in the area. Therophytes, which are indicative of Mediterranean phytogeography ecology, are in second place with 141 taxa.

Of the 477 taxa identified in the Yaylakonak district, 24 are endemic, resulting in an endemism rate of 5%. The endemism rate in this study (5%) is lower than Turkish flora (33.67%) and studies in nearby areas. Table 3.

Table 3. Number of taxa and endemic taxa of research areas

Research Name	Number of Taxa	Number of Endemic Taxa
Flora of Yaylakonak Town (Adiyaman-Türkiye) and Near Surroundings (This Research)	477	24
Contributions to the Flora of Çelikhan (Adiyaman) District (Kılıç & Yıld., 2022)	454	30
Akdağ (Adiyaman/Malatya) Florası (Tak, 2022).	610	66
Besni (Adiyaman) İlçesinin Florası (Özcan, 2023).	798	85

The threat categories of some plant taxa identified in the research area can be seen at the end of the plant names in the flora list.

There are 156 taxa belonging to the Iran-Turan phytogeographic region in the research area. In the Iran-Turan phytogeographic region, the continental climate with hot and dry summers and cold and rainy winters is dominant. Mediterranean phytogeographic region taxa are in the second rank in terms of the number of taxa in our area, this is the case in which the continental climate is dominant in the research area, microclimatic features are seen in some regions, it includes transitional regions with continental and Mediterranean climate characteristics, temperate and summer drought, which is typical of the Mediterranean climate. It can be attributed to the fact that the habitats that it has an impact on are more in the research area. In the Euro-Siberian phytogeographic region, humid, cool and semi-temperate climate characteristics are dominant, the ecological demands of the members of this phytogeographic region are mostly wet, less hot, humid and shaded habitats. In this study, research area is located in the Anatolian-Turanian phytogeographic region. Therefore, it is normal for Iran-Turan elements to take the first place in terms of taxa number in this study area. There are similarities and the differences in the ratios of phytogeographic regions can be caused by the geological, geomorphological, climatical, topographic, ecological characteristics of the fields.

In conclusion; this study determined the flora of Yaylakonak Town and its near surrounding area, a region that had not previously been studied from a floristic perspective. Some endemic plants found in this area were identified. This study contributed to research on the flora of Türkiye. Increasing floristic studies is crucial for accurately revealing the plant diversity of our country. As a result of these studies, data was obtained that will contribute to understanding the plant richness of our country, region, and province, as well as how to utilize this richness and what measures can be taken to protect it. The high intensity of grazing and agricultural activities in the research area poses a threat to plants. Species action plans should be developed to protect endemic and region-specific plant taxa in studied area.

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