



Some Medicinal Poisonous Plants Found in Antalya

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ABSTRACT: Nowadays, treatment with plants, which is an alternative treatment method, has become quite common. The plants used in these treatment methods can sometimes be poisonous, and misuse can lead to many negative effects and even bad situations that can result in death. Therefore, it is necessary to know such plants and pay attention to their use. In our study, poisonous plants were determined by literature review. Family name, genus name, species name, Turkish name, poisonous part of the determined plants and the name of the study conducted on the plant are given. According to this; In the study, a total of 136 poisonous plants, including 45 families, 95 genera, 130 species, 6 subspecies and 9 endemics, were identified in Antalya province. The families with the highest number of plants are Ranunculaceae (13), Fabaceae (12) and Iridaceae (12). There are many plant species identified in the literature that are known to contain poison but need in-depth research from many branches of science, and they continue to increase day by day. For this reason, it is very important to recognize these plants and people need to be careful about this.

Keywords: Poisonous plants, medicinal plants, Antalya, Biodiversity

INTRODUCTION

Plants have been widely used since ancient times (Mohammed et al., 2022). Plants that stand out with their medicinal properties are also used for different purposes (Sevindik et al., 2017; Mohammed et al., 2020a; Korkmaz et al., 2021). With their nutritional properties, plants are included in the diet list of many people around the world (Pehlivan et al., 2018; Mohammed et al., 2020b; Mohammed et al., 2023a). In addition to their nutritional properties, they are also very important medically thanks to the secondary metabolites they produce (Sevindik et al., 2023). Many studies have shown that plants have many biological activities such as anticancer, antimicrobial, antioxidant, antiproliferative, DNA protective, hepatoprotective, anti-inflammatory and antiallergic (Mohammed et al., 2018; Mohammed et al., 2019; Akgül et al., 2020; Mohammed et al., 2021b; Akgül et al., 2022; Unal et al., 2022; Mohammed et al., 2023b; Mohammed et al., 2023c; Uysal et al., 2023). In addition, some of these compounds can be quite toxic to humans (Krupodorova and Sevindik, 2020; Eraslan et al., 2021).

Ethnobotanical studies show that some of the plants that have existed within the borders of Anatolia for centuries have been used medicinally by the public, and some of the healing recipes with beneficial effects have been passed down from generation to generation and have survived to the present day. However, in living environments where the plants existing in Anatolia are not only used for therapeutic purposes, they can be used to solve undesirable situations, for example; In order to repel pests such as flies, fleas, etc. or for cleaning and protection, etc. It is also seen that it has been used for various situations from past to present (Filazi, 2016; Ulutaş Deniz et al. 2018). In addition, the poisonous content of plants was used in the assassinations of statesmen who held some important positions in history (Bakır, 2022; Selçukoğlu, 2018). Therefore, plants can only be used as therapeutics or fragrances, etc. In addition to its beneficial properties, we see in the records that it was used for other purposes because it contains poison.

There are many plant species identified in the literature that are known to contain poison but need in-depth research from many branches of science, and they continue to increase day by day. However, parameters such as the dose of use of a plant with known medicinal benefits, the time interval of use and the duration of use are also important in terms of making the plants serve the purpose (Ünverdi and Altınterim, 2015). Because the components contained in each plant are different and it should be known that using more than necessary will have a toxic effect and will cause more harm than good, sometimes resulting in irreversible damage. If we look at it from a different perspective, although some plants are not poisonous to humans, they can be poisonous to some pets (Yipel and Yersan, 2011). For this reason, it is necessary to obtain expert opinion when evaluating pastures in areas where animal husbandry is carried out, taking into account the toxicity to humans and/or domestic animals. In a study taking Bursa city parks as a sample area, they stated that different plant species of the same genus may have different toxic properties, and they determined that *Acer pseudoplatanus*, *Acer rubrum*, *Acer saccharinum* and *Acer saccharum* species belonging to the *Acer* genus have toxic properties and are used in city park design (Çelik and Zencirkıran, 2021). As seen in this

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study, some plants with toxic properties are used in landscaping works in green areas that are important in the urban structure, and expert opinion should be taken in the design planning of these works.

Although there are many studies in the literature on the antioxidant, antimicrobial and antifungal properties of natural plants, they have recently become very popular both among scientists working in this field and by citizens of developing countries. Considering heavy metal pollution, one of the consequences of environmental pollution, which has increased in a large and unstoppable way after the industrial revolution in today's world, many studies show that heavy metal pollution has a great impact not only on edaphic factors but also on climatic factors, and it provides soil, water and water for the life of plants, which are the locomotive of the ecosystem and the quality of the content of the atmosphere is known to be important. In this context, even though a plant species does not produce harmful/poisonous secondary metabolites for living things, especially for humans, it can become poisonous for living things if it stores heavy metals in its systems. However, the points we focus on in this study are natural plants that have been determined to be poisonous to both human life and pets or animals that have output in the food industry due to secondary metabolites, or are approached and accepted with caution due to the components they contain. It is necessary to know the main components and distinctive components of plants in terms of secondary metabolites, both for nutritional, alternative treatment and visual purposes, that is, for landscape purposes, and they should be taken into consideration in the planning and evaluation of these areas.

Turkey has an important value in terms of floristic richness as it has more than 12 thousand species in its geography. Due to its geopolitical location, climatic characteristics and topographic structure providing different ecological conditions, it provides conditions for a wide variety of species richness. Three phytogeographic regions intersect in Turkey within the borders of the mainland. In terms of plant biological diversity, Davis introduced more than 8 thousand plants to the scientific world by 1985 with his work "Flora of Turkey and the East Aegean Islands", which he compiled in 10 volumes for the first time (Davis, 1965-1988). With the compilation and recovery of new species in the studies carried out in the following years, additional contributions were made to 11 volumes in 2000 (Güner et al., 2000). In the first 22 years of the 21st century, newly identified plant species continue to be reported in supplementary lists to 11 volumes. (Özhatay et al., 2011; Özhatay et al., 2013; Özhatay et al., 2015; Özhatay et al., 2017; Özhatay et al., 2019; Özhatay et al., 2022). It is accepted that there are more than 12 thousand taxa within the borders of Türkiye. More than 3000 thousand of these more than 12 thousand taxa are endemic and the endemism rate is determined as 34%. When compared to Europe, it competes with both the number of taxa and the rate of endemism. It is not clear in the literature exactly how many of the plants that make up this diversity contain poison.

Antalya, on the other hand, has its share of the rich biological diversity of Anatolia and has climatic and unique microclimatic factors along with its geopolitical characteristics and topography. With an endemism rate of 30% compared to other areas in Turkey, it competes with the European continent and is a small Anatolian projection in the south in terms of endemism rate. As a matter of fact, in a study evaluating the flora studies conducted in Antalya, there are areas in Antalya province with an endemism rate of 30% (Ünal and Gökoğlu, 2022), which is close to the endemism rate of Turkey and even Europe. In this sense, Antalya has a very important value in terms of plant biodiversity.

There are some plants that are naturally found and grow in the Antalya region of Turkey and have been reported to be poisonous. It is possible to say that these poisonous plants appear at different times of the year in very variable vegetation and altitudes. We see that there are some endemic plant examples such as *Colchicum baytopiorum*, *Crocus asumaniae*, *Iris xanthospuria*, *Iris purpureobracteata*, *Crocus flavus* subsp. *sarichinarensis*. It is important to conduct research on poisonous plants, create plant lists and identify the causative agent. For example, areas such as evaluating and planning the availability and quality of grazing areas/pastures in agriculture and animal husbandry, and determining medical interventions against poisoning in terms of public health can be listed. However, it is possible to say that preparation for military missions and knowing and detecting the beneficial and harmful qualities of the plants in the flora of the target area where the operation is carried out will be beneficial in many military terms.

MATERIAL AND METHODS

In the study, poisonous plants that are widespread in Antalya and used especially in the medical field and alternative treatment were identified by detailed literature review. In the literature, it has been determined which parts of the plant are poisonous. All data were evaluated and presented in tabular form.

RESULTS

As a result of the literature review, plants used for medicinal and alternative treatment purposes in Antalya are given in Table 1. Accordingly, a total of 136 poisonous plants, including 45 families, 95 genera, 130 species, 6 subspecies and 9 endemics, have been identified in Antalya province. The families with the highest number of plants are Ranunculaceae (13), Fabaceae (12) and Iridaceae (12).

Table 1. Poisonous plants of Antalya province

No	Family	Genus	Species	Turkish name	Toxic section	References
1	Adoxaceae	<i>Sambucus</i>	<i>Sambucus ebulus</i> L.	Mürverotu	Leaves, fruit	Ozturk et al., 2008
2	Amaranthaceae	<i>Amaranthus</i>	<i>Amaranthus retroflexus</i> L.	Tilkikuyruğu	Vegetative and generative parts	Ozturk et al., 2008
3	Amaryllidaceae	<i>Leucojum</i>	<i>Leucojum aestivum</i> L.	Gölsoğanı	Whole plant	Anonymous
4	Amaryllidaceae	<i>Pancratium</i>	<i>Pancratium maritimum</i> L.	Kumzambağı	Whole plant	Anonymous
5	Amaryllidaceae	<i>Sternbergia</i>	<i>Sternbergia candida</i> B.Mathew & T.Baytop (Endemik)	Çakalnergisi	Whole plant	Baytop, 1984
6	Amaryllidaceae	<i>Narcissus</i>	<i>Narcissus tazetta</i> L.	Nergis	Tuber	Seçmen, 1987.
7	Apiaceae	<i>Conium</i>	<i>Conium maculatum</i> L.	Baldıran	Whole plant	Seçmen, 1987.
8	Apiaceae	<i>Echinophora</i>	<i>Echinophora tournefortii</i> Jaub. & Spach	Dikenli çördük	Whole plant	Ozturk et al., 2008
9	Apocynaceae	<i>Apocynum</i>	<i>Apocynum venetum</i> L.	Pembekız	Whole plant	Anonymous
10	Apocynaceae	<i>Cionura</i>	<i>Cionura erecta</i> (L.) Griseb.	Bodur otu, Babrik, Dağ sarmaşığı	Vegetative and generative parts	Ozturk ve ark. 2008
11	Apocynaceae	<i>Cynanchum</i>	<i>Cynanchum acutum</i> L.	Bırgan	Whole plant	Anonymous
12	Apocynaceae	<i>Nerium</i>	<i>Nerium oleander</i> L.	Zakkum	Leaves	Ozturk et al., 2008; Seçmen, 1987.
13	Apocynaceae	<i>Periploca</i>	<i>Periploca graeca</i> L.	Garipler urganı	Whole plant	Anonymous
14	Araceae	<i>Dracunculus</i>	<i>Dracunculus vulgaris</i> Schott	Yılanbıçağı	Vegetative and generative parts	Ozturk et al., 2008
15	Araliaceae	<i>Hedera</i>	<i>Hedera helix</i> L.	Duvar sarmaşığı	Leaves and fruit	Seçmen, 1987.
16	Aquifoliaceae	<i>Ilex</i>	<i>Ilex aquifolium</i> L.	Çobanpüskülü	Fruit	Seçmen, 1987.
17	Asparagaceae	<i>Muscari</i>	<i>Muscari armeniacum</i> Leichtlin ex Baker	Gâvurbaşı	Whole plant	Anonymous
18	Asparagaceae	<i>Muscari</i>	<i>Muscari neglectum</i> Guss. ex Ten.	Arapüzümü	Whole plant	Anonymous
19	Asparagaceae	<i>Ornithogalum</i>	<i>Ornithogalum narbonense</i> L.	Akbaldır, Kurt soğanı	Whole plant	Ozturk et al., 2008
20	Asparagaceae	<i>Ornithogalum</i>	<i>Ornithogalum umbellatum</i> L.	Sunbala	Tuber	Seçmen, 1987.
21	Asteraceae	<i>Achillea</i>	<i>Achillea grandifolia</i> Friv.	Akyavşan	Whole plant	Anonymous
22	Asteraceae	<i>Artemisia</i>	<i>Artemisia absinthium</i> L.	Acıpelin	Whole plant	Ozturk et al., 2008
23	Asteraceae	<i>Bellis</i>	<i>Bellis perennis</i> L.	Koyungözü	Whole plant	Ozturk et al., 2008; Pehlivan Karakaş et al., 2014
24	Asteraceae	<i>Centaurea</i>	<i>Centaurea urvillei</i> DC.	Alakötürüm	Whole plant	Ozturk et al., 2008
25	Asteraceae	<i>Centaurea</i>	<i>Centaurea solstitialis</i> L.	Çakırdikeni	Whole plant	Ozturk et al., 2008
26	Asteraceae	<i>Cnicus</i>	<i>Cnicus benedictus</i> L.	Topdiken	Whole plant	Ozturk et al., 2008
27	Asteraceae	<i>Helichrysum</i>	<i>Helichrysum plicatum</i> DC.	Mantuvar	Whole plant	Ozturk et al., 2008
28	Asteraceae	<i>Xanthium</i>	<i>Xanthium strumarium</i> L.	Kocapıtrak	Whole plant	Ozturk et al., 2008
29	Boraginaceae	<i>Echium</i>	<i>Echium italicum</i> L.	Kurtkuyruğu	Vegetative and generative parts	Ozturk et al., 2008
30	Boraginaceae	<i>Echium</i>	<i>Echium plantagineum</i> L.	Kırkbatıran	Whole plant	Anonymous

No	Family	Genus	Species	Turkish name	Toxic section	References
31	Boraginaceae	<i>Solenanthes</i>	<i>Solenanthes stamineus</i> (Desf.) Wettst.	Yayla tütünü	Whole plant	Ozturk et al., 2008
32	Brassicaceae	<i>Sisymbrium</i>	<i>Sisymbrium officinale</i> (L.) Scop.	Ergelenhardalı	Seeds	Ozturk et al., 2008
33	Caryophyllaceae	<i>Agrostemma</i>	<i>Agrostemma githago</i> L.	Buğdaykaramuğu	Whole plant	Ozturk et al., 2008; Seçmen, 1987
34	Caryophyllaceae	<i>Dianthus</i>	<i>Dianthus calocephalus</i> Boiss.	Güzelkaranfil	Whole plant	Ozturk et al., 2008
35	Colchicaceae	<i>Colchicum</i>	<i>Colchicum burtii</i> Meikle	Tüylümahrut	Whole plant	Baytop, 1984
36	Colchicaceae	<i>Colchicum</i>	<i>Colchicum atticum</i> Spruner ex Tommas	Yırtıkçiğdem	Whole plant	Ozturk et al., 2008
37	Colchicaceae	<i>Colchicum</i>	<i>Colchicum baytopiorum</i> C.D.Brickell (Endemik)	Güzçiğdemi	Whole plant	Ozturk et al., 2008
38	Colchicaceae	<i>Colchicum</i>	<i>Colchicum kotschy</i> Boiss.	Acıçiğdem	Whole plant	Ozturk et al., 2008
39	Colchicaceae	<i>Colchicum</i>	<i>Colchicum cilicicum</i> (Boiss.) Dammer	ayıçiğdemi	Whole plant	Ozturk et al., 2008
40	Colchicaceae	<i>Colchicum</i>	<i>Colchicum variegatum</i> L.	vargit	Whole plant	Ozturk et al., 2008
41	Colchicaceae	<i>Colchicum</i>	<i>Colchicum trigynum</i> (Steven ex Adam) Stearn	Üç mahrut	Whole plant	Ozturk et al., 2008
42	Cupressaceae	<i>Juniperus</i>	<i>Juniperus excelsa</i> M.Bieb.	Boz ardıç	Whole plant	Ozturk et al., 2008
43	Dennstaedtiaceae	<i>Pteridium</i>	<i>Pteridium aquilinum</i> (L.) Kuhn	Eğrelti	Whole plant	Anonymous
44	Dioscoreaceae	<i>Dioscorea</i>	<i>Dioscorea communis</i> (L.) Caddick & Wilkin	dolanbaç	Tuber and fruit	Seçmen 1987.
45	Euphorbiaceae	<i>Euphorbia</i>	<i>Euphorbia peplis</i> L.	Kıyı sütleğeni	Whole plant	Ozturk et al., 2008
46	Euphorbiaceae	<i>Euphorbia</i>	<i>Euphorbia palustris</i> L.	Su sütleğeni	Whole plant	Anonymous
47	Euphorbiaceae	<i>Mercurialis</i>	<i>Mercurialis annua</i> L.	parşen	Whole plant	Ozturk et al., 2008
48	Euphorbiaceae	<i>Ricinus</i>	<i>Ricinus communis</i> L.	Hintyağı	Whole plant	Ozturk et al., 2008 Seçmen, 1987
49	Fagaceae	<i>Quercus</i>	<i>Quercus coccifera</i> L. ve <i>Quercus türleri</i>	Meşe	Fruit	Seçmen, 1987
50	Fabaceae	<i>Anagyris</i>	<i>Anagyris foetida</i> L.	Zivircik	Whole plant. Especially its seeds and herbaceous parts are toxic when in bloom.	Ozturk et al., 2008 Seçmen, 1987
51	Fabaceae	<i>Coronilla</i>	<i>Coronilla scorpioides</i> (L.) W.D.J.Koch	Akrep burçağı	Whole plant	Ozturk et al., 2008
52	Fabaceae	<i>Genista</i>	<i>Genista tinctoria</i> L.	boyacıkatırtırnağı	Whole plant	Ozturk et al., 2008
53	Fabaceae	<i>Glycyrrhiza</i>	<i>Glycyrrhiza glabra</i> L.	Meyan	Whole plant	Ozturk et al., 2008
54	Fabaceae	<i>Lathyrus</i>	<i>Lathyrus aphaca</i> L.	Sarıburçak	Whole plant	Ozturk et al., 2008
55	Fabaceae	<i>Lathyrus</i>	<i>Lathyrus sativus</i> L.	Mürdümük	Immature seeds	Ozturk et al., 2008; Seçmen, 1987.

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56	Fabaceae	<i>Melilotus</i>	<i>Melilotus indicus</i> (L.) All.	Otuzluyonca	Leaves are insect repellent.	Anonymous
57	Fabaceae	<i>Melilotus</i>	<i>Melilotus albus</i> Desr.	Ak taşyoncası	Whole plant	Ozturk et al., 2008
58	Fabaceae	<i>Securigera</i>	<i>Securigera varia</i> (L.) Lassen	Körigen	Whole plant	Ozturk et al., 2008
59	Fabaceae	<i>Spartium</i>	<i>Spartium junceum</i> L.	Katırtırnağı	Whole plant, especially flowers and seeds	Seçmen, 1987.
60	Fabaceae	<i>Vicia</i>	<i>Vicia sativa</i> L.	Fiğ	Whole plant	Ozturk et al., 2008
61	Fabaceae	<i>Caesalpinia</i>	<i>Caesalpinia gilliesii</i> (Hook) D.Dietr.	Zamparabıyığı	Unripe fruits and seeds.	Seçmen, 1987.
62	Hypericaceae	<i>Hypericum</i>	<i>Hypericum pamphylicum</i> N.Robson & P.H.Davis (Endemik)	Alara kantaronu	Whole plant	Baytop, 1984
63	Hypericaceae	<i>Hypericum</i>	<i>Hypericum perforatum</i> L.	Kantaron	Whole plant	Ozturk et al., 2008
64	Iridaceae	<i>Crocus</i>	<i>Crocus asumaniae</i> B.Mathew & T.Baytop (Endemik)	Mor çiğdem	Whole plant	Baytop, 1984
65	Iridaceae	<i>Crocus</i>	<i>Crocus baytopiorum</i> B.Mathew (Endemik)	Hanım çiğdemi	Whole plant	Baytop, 1984
66	Iridaceae	<i>Crocus</i>	<i>Crocus speciosus</i> subsp. <i>speciosus</i> M.Bieb.	Çayır çiğdemi	Whole plant	Baytop, 1984
67	Iridaceae	<i>Crocus</i>	<i>Crocus speciosus</i> M.Bieb.	Çayır çiğdemi	Whole plant	Baytop, 1984
68	Iridaceae	<i>Crocus</i>	<i>Crocus pallasii</i> subsp. <i>pallasii</i> Goldb.	Güzçimi	Whole plant	Baytop, 1984
69	Iridaceae	<i>Crocus</i>	<i>Crocus pallasii</i> Goldb.	Güzçimi	Whole plant	Baytop, 1984
70	Iridaceae	<i>Crocus</i>	<i>Crocus flavus</i> subsp. <i>sarichinarenis</i> Rukšāns (Endemik)	Yeriğdesi	Whole plant	Baytop, 1984
71	Iridaceae	<i>Crocus</i>	<i>Crocus flavus</i> Weston	Yer çiğdemi	Whole plant	Baytop, 1984
72	Iridaceae	<i>Crocus</i>	<i>Crocus cancellatus</i> Herb.	Gözenek	Whole plant	Ozturk et al., 2008
73	Iridaceae	<i>Iris</i>	<i>Iris xanthosporia</i> B.Mathew & T.Baytop (Endemik)	Sarı süsen	Whole plant	Baytop, 1984
74	Iridaceae	<i>Iris</i>	<i>Iris purpureobracteata</i> B.Mathew & T.Baytop (Endemik)	Mor süsen	Whole plant	Baytop, 1984
75	Iridaceae	<i>Iris</i>	<i>Iris pseudacorus</i> L.	Batak süseni	Whole plant	Anonymous
76	Lamiaceae	<i>Marrubium</i>	<i>Marrubium parviflorum</i> Fisch. & C.A.Mey.	bozotu	Whole plant	Ozturk et al., 2008
77	Lamiaceae	<i>Phlomis</i>	<i>Phlomis armeniaca</i> Willd.	bozşavlak	Whole plant	Ozturk et al., 2008
78	Lamiaceae	<i>Phlomis</i>	<i>Phlomis pungens</i> Willd.	silvanok	Whole plant	Ozturk et al., 2008
79	Lamiaceae	<i>Scutellaria</i>	<i>Scutellaria orientalis</i> L.	Sarı kaside	Whole plant	Baytop, 1984; Ozturk et al., 2008
80	Lamiaceae	<i>Stachys</i>	<i>Stachys lavandulifolia</i> Vahl	tüylüçay	Whole plant	Ozturk et al., 2008
81	Lamiaceae	<i>Teucrium</i>	<i>Teucrium chamaedrys</i> L.	Kısamahmut	Whole plant	Ozturk et al., 2008

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82	Lamiaceae	<i>Teucrium</i>	<i>Teucrium polium</i> L.	Acıyavşan	Whole plant	Ozturk et al., 2008
83	Linaceae	<i>Linum</i>	<i>Linum mucronatum</i> Bertol.	Sarı keten	Whole plant	Ozturk et al., 2008
84	Meliaceae	<i>Melia</i>	<i>Melia azedarach</i> L.	Tesbihağacı	Whole plant	Ozturk et al., 2008; Seçmen, 1987.
85	Nitrariaceae	<i>Peganum</i>	<i>Peganum harmala</i> L.	Üzerlik	Whole plant	Ozturk et al., 2008
86	Papaveraceae	<i>Glaucium</i>	<i>Glaucium flavum</i> Crantz	Gündürmelâl esi	Whole plant	
87	Papaveraceae	<i>Papaver</i>	<i>Papaver dubium</i> L.	Köpekyacağı	Whole plant	https://kocaelibitkileri.com/papaver-dubium/
88	Phytolaccaceae	<i>Phytolacca</i>	<i>Phytolacca americana</i> L.	Şekerciboyası	Whole plant	Ozturk et al., 2008
89	Plantaginaceae	<i>Digitalis</i>	<i>Digitalis cariensis</i> Boiss. ex Benth.	İshalotu	Whole plant	Ozturk et al., 2008
90	Plantaginaceae	<i>Digitalis</i>	<i>Digitalis ferruginea</i> L.	Arıkovanı	Whole plant	Ozturk et al., 2008; Seçmen, 1987
91	Plantaginaceae	<i>Gratiola</i>	<i>Gratiola officinalis</i> L.	Hüdaverdîotu	Aerial parts	Seçmen, 1987.
92	Poaceae	<i>Lolium</i>	<i>Lolium temulentum</i> L.	Delice çim	Seeds	Ozturk et al., 2008; Seçmen 1987.
93	Poaceae	<i>Sorghum</i>	<i>Sorghum halepense</i> (L.) Pers.	Ekinsüpürge si	Its leaves store hydrogen cyanide.	https://kocaelibitkileri.com/sorghum-halepense/
94	Polygalaceae	<i>Polygala</i>	<i>Polygala anatolica</i> Boiss. & Heldr.	Yılanyoncası	Whole plant	Ozturk et al., 2008
95	Polygonaceae	<i>Rumex</i>	<i>Rumex acetosella</i> L.	Kuzukulağı	Whole plant	Ozturk et al., 2008
96	Polygonaceae	<i>Rumex</i>	<i>Rumex conglomeratus</i> Murray	Ekşikulak	Whole plant	Ozturk et al., 2008
97	Polygonaceae	<i>Rumex</i>	<i>Rumex crispus</i> L.	Labada	Whole plant	Ozturk et al., 2008
98	Polygonaceae	<i>Rumex</i>	<i>Rumex scutatus</i> L.	Ekşimen	Whole plant	Ozturk et al., 2008
99	Primulaceae	<i>Anagallis</i>	<i>Anagallis arvensis</i> L.	Farekulağı	Whole plant	Ozturk et al., 2008
100	Primulaceae	<i>Cyclamen</i>	<i>Cyclamen cilicium</i> Boiss. & Heldr. (Endemik)	Şeytankabalağı	Whole plant	Baytop, 1984

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101	Ranunculaceae	<i>Adonis</i>	<i>Adonis annua</i> L.	Kanavcıotu	Whole plant	
102	Ranunculaceae	<i>Adonis</i>	<i>Adonis aestivalis</i> L.	Kandamlası	Whole plant	Ozturk et al., 2008
103	Ranunculaceae	<i>Anemone</i>	<i>Anemone blanda</i> Schott & Kotschy	Dağlâlesi	Whole plant	https://kocaelibitkileri.com/anemonoides-blanda/
104	Ranunculaceae	<i>Anemone</i>	<i>Anemone coronaria</i> L.	Manisâlâlesi	Whole plant	Ozturk et al., 2008
105	Ranunculaceae	<i>Clematis</i>	<i>Clematis flammula</i> L.	Hamilmiskin	Whole plant	
106	Ranunculaceae	<i>Consolida</i>	<i>Consolida orientalis</i> (J.Gay) Schrödinger	Morçicek	Whole plant	Ozturk et al., 2008
107	Ranunculaceae	<i>Consolida</i>	<i>Consolida regalis</i> subsp. <i>paniculata</i> (Host) Soó	Horozkuyruğu	All parts, especially the seeds, are poisonous..	
108	Ranunculaceae	<i>Ranunculus</i>	<i>Ranunculus arvensis</i> L.	Mustafaçiceği	Whole plant	Ozturk et al., 2008
109	Ranunculaceae	<i>Ranunculus</i>	<i>Ranunculus sceleratus</i> L.	Batak düğünçiceği	Whole plant	Ozturk et al., 2008; Seçmen 1987.
110	Ranunculaceae	<i>Ranunculus</i>	<i>Ranunculus muricatus</i> L.	Kutsaldefne	Whole plant	
111	Ranunculaceae	<i>Ranunculus</i>	<i>Ranunculus ficaria</i> subsp. <i>calthifolius</i> (Rchb.) Arcang.	Çöpsalebi	Damaged or crushed leaves should not be contacted..	
112	Ranunculaceae	<i>Ranunculus</i>	<i>Ranunculus ficaria</i> subsp. <i>ficariiformis</i> Rouy & Foucaud	Arpacıksalebi	Whole plant	
113	Ranunculaceae	<i>Staphisagria</i>	<i>Staphisagria macrosperma</i> Spach	Bitotu	Whole plant, especially the seeds.	Seçmen, 1987.
114	Rosaceae	<i>Amygdalus</i>	<i>Amygdalus communis</i> L.	Bozkır bademi	Seeds	Ozturk et al., 2008
115	Rosaceae	<i>Prunus</i>	<i>Prunus spinosa</i> L.	Çakal eriği	Seeds	Ozturk et al., 2008
116	Rosaceae	<i>Malus</i>	<i>Malus sylvestris</i> (L.) Mill.	Yaban elması	Seeds	Seçmen, 1987
117	Rubiaceae	<i>Galium</i>	<i>Galium verum</i> L.	boyalık	Whole plant	Ozturk et al., 2008
118	Rubiaceae	<i>Rubia</i>	<i>Rubia tinctorum</i> L.	Kökboyası	Whole plant	Ozturk et al., 2008
119	Rutaceae	<i>Ruta</i>	<i>Ruta chalepensis</i> L.	Kokar sedefotu	Whole plant	Ozturk et al., 2008
120	Santalaceae	<i>Viscum</i>	<i>Viscum album</i> L.	Ökseotu	Whole plant	Ozturk et al., 2008
121	Scrophulariaceae	<i>Scrophularia</i>	<i>Scrophularia canina</i> L.	İt sıracaotu	Whole plant	Ozturk et al., 2008
122	Scrophulariaceae	<i>Verbascum</i>	<i>Verbascum cheiranthifolium</i> Boiss.	Bozkulak	Leaves	Ozturk et al., 2008
123	Simaroubaceae	<i>Ailanthus</i>	<i>Ailanthus altissima</i> (Mill.) Swingle	Kokarağaç	Leaves and stem barks	Seçmen, 1987.
124	Solanaecae	<i>Datura</i>	<i>Datura stramonium</i> L.	Boruçiceği	Whole plant	Seçmen, 1987.
125	Solanaecae	<i>Hyoscyamus</i>	<i>Hyoscyamus reticulatus</i> L.	Kumacıotu	Whole plant	Ozturk et al., 2008
126	Solanaecae	<i>Hyoscyamus</i>	<i>Hyoscyamus niger</i> L.	Banotu	Whole plant seeds and roots. Its roots can be mistakenly eaten as parsnips or endives.	Uysal and Bayam, 2021; Seçmen, 1987.
127	Solanaecae	<i>Nicotiana</i>	<i>Nicotiana glauca</i> Graham	Yabani tütün	Whole plant	Ozturk et al., 2008
128	Solanaecae	<i>Solanum</i>	<i>Solanum alatum</i> Moench	Karagöğündürme	Whole plant and Fruit	Ozturk et al., 2008

No	Family	Genus	Species	Turkish name	Toxic section	References
129	Solanaecae	<i>Solanum</i>	<i>Solanum dulcamara</i> L.	Sofur	The entire plant, including the fruits, is poisonous. Paralyzes the central nervous system, slows the heart, causes dizziness, slows breathing, causes convulsions and death	Ozturk et al., 2008
130	Solanaecae	<i>Solanum</i>	<i>Solanum americanum</i> Mill.	İtüzümü	Leaves and immature green fruits	Seçmen, 1987.
131	Solanaecae	<i>Solanum</i>	<i>Solanum tuberosum</i> L.	Patates	Since it is an agricultural plant, it grows throughout the country. Its shoots, fruits and green tubers (potatoes) exposed to sunlight (close to the soil surface)	Seçmen, 1987.
132	Solanaecae	<i>Solanaecae</i>	<i>Mandragora autumnalis</i> Bertol.	Adamotu	Roots and Fruits	Karaköz, 2022; Seçmen, 1987.
133	Taxaceae	<i>Taxus</i>	<i>Taxus baccata</i> L.	Porsuk	Seeds, leaves and young shoots. The red flesh of the fruit is sweet and not very poisonous, but the seed inside is very poisonous.	Ozturk et al., 2008; Seçmen, 1987.
134	Thymelaeaceae	<i>Daphne</i>	<i>Daphne oleoides</i> Schreb.	Gövçek	Whole plant	Ozturk et al., 2008
135	Xanthorrhoeaceae	<i>Aloe</i>	<i>Aloe vera</i> (L.) Burm.f.	Sarisabır	Whole plant	Ozturk et al., 2008
136	Zygophyllaceae	<i>Tribulus</i>	<i>Tribulus terrestris</i> L.	Çobançökerten	Whole plant	Ozturk et al., 2008

CONCLUSION

According to the findings of the study, some plants are quite poisonous and very dangerous. Although some plants seem not to be poisonous, they can be dangerous if used excessively or incorrectly. Therefore, attention should be paid to the use and dosage of these herbs used in the field of health. Especially the use of these plants to improve people's health will have negative consequences if care is not taken. People need to be informed and raised awareness on this issue. In this context, it is thought that it will create sensitivity regarding the consumption and attention to the plant species mentioned in our study.

CONFLICT OF INTEREST

No conflict of interest was declared by the authors.

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