

## FOLK MEDICINAL PLANTS IN KÜRECİK AREA (AKÇADAĞ/MALATYA-TURKEY)

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### Abstract

*In this study, 47 flowering plant taxa belonging to 19 families that are used as medicine are documented in Kürecik (Akçadağ/Malatya). These folk medicinal plants are mostly used for treatment of cold, diabetes, inflamed wound, menstrual and abdominal pain. All settlements in Kürecik township (20 villages) were visited during the field works. The plants that collected with folk medicinal plant user were identified and prepared voucher specimens were kept in the Herbarium of Istanbul University Faculty of Pharmacy (ISTE).*

**Keywords:** Medicinal Plants, Folk Medicine, Kürecik, Malatya.

### Kürecikte (Akçadağ/Malatya-Türkiye) Geleneksel Olarak Kullanılan Tıbbi Bitkiler

*Bu çalışmada, Kürecik Bucuğunda (Akçadağ/Malatya) tıbbi amaçla kullanılan 19 familyaya ait, 47 çiçekli bitki taksonu kaydedilmiştir. Bu çalışmada bitkiler başlıca soğuk algınlığı, şeker hastalığı, adet ağrıları, iltihaplı yaralar ve karın ağrısı için kullanılmaktadır. Arazi çalışmaları boyunca bütün yerleşim yerleri (20 köy) ziyaret edilmiştir. Bilgi veren kişilerle birlikte toplanan bitkiler teşhis edilmiş ve hazırlanan herbaryum örnekleri İstanbul Üniversitesi Eczacılık Fakültesi Herbariyumu'nda (ISTE) saklanmaktadır.*

**Anahtar kelimeler:** Tıbbi bitkiler, Geleneksel tıp, Kürecik, Malatya.

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## INTRODUCTION

Malatya is located in the East Anatolia Region of Turkey. Small worn hills and extinct formations are very common in the area. There are wide plateaus and plains created by the lava and ashes from the extinct volcanoes.

The study is centered in the township Kürecik (Figure 1 and 2), Akçadağ, the district of Malatya province. It is composed by highland place up to 3200 m. The surveyed region distributed in 20 villages and it has a population of 5000 inhabitants mostly employed in apricot horticulture, agriculture and stock-rearing.

Civilization in this area is based on B.C. 3000 and Kürecik has very rich flora especially with great percentage of endemic and rare plants, also Irano-Turanian vegetation regions are largely represented. 10 Endemic plants are using as medicinal (\* signed in Table 1) (19). Kürecik is near the Tohma Vale (Gürün-Darende) 101. Important Plant Area of Turkey (12).

The floristic composition of Kürecik (Malatya/Akçadağ) is similar to East Anatolia with most Irano-Turanian elements; pulvinate plants (*Acantholimon* sp., *Astragalus* sp.), *Achillea* sp., *Ferula* sp., *Prangos* sp., *Rosa* sp., *Pyrus* sp., *Crataegus* sp., *Quercus cerris* are the most common plants in vegetation.

Although Kürecik has very rich flora and plant culture, people who live in there immigrate to big cities. A literature survey revealed no previous research on this region. Primary aim of this research is to collect ethnomedicinal and ethnobotanical the complex relationships between used plants and cultures information about the still obtaining usages in Kürecik before they are completely lost.

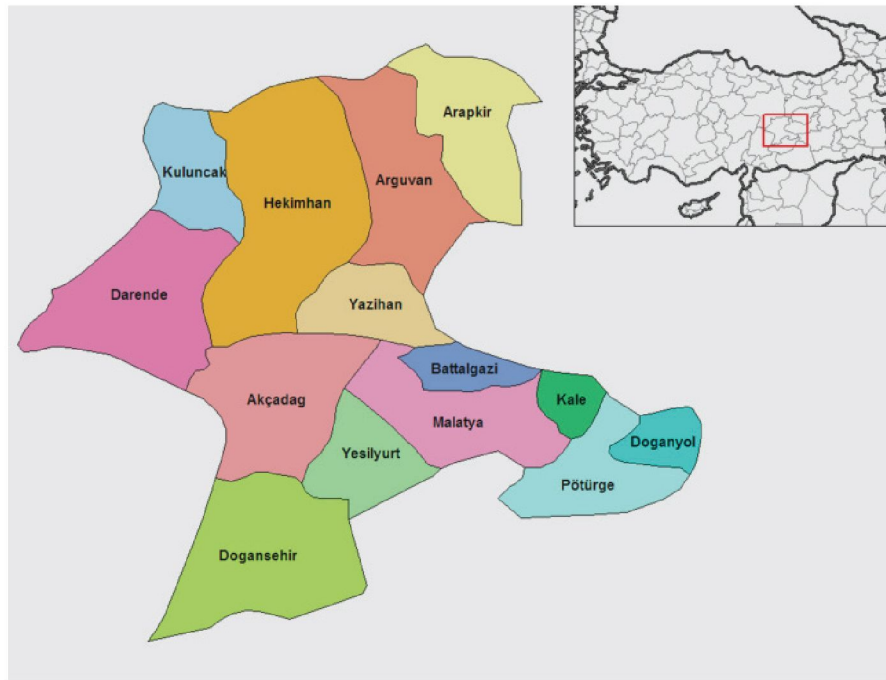


Figure 1. Map of Malatya and Turkey.

## EXPERIMENTAL

The field work was carried out in July 2005-April 2007, during 84 days. The information including the various data such as local names, part of the used plants, ailments and preparation methods were obtained by mean of direct interviews (approximately 120 informants in 20 visited villages) with villager who knows practice about the herbal medicine efforts were made to double-check any information by asking the opinion of people in neighboring villages.

During the field studies, the plant specimens were collected together with accompanied informants. The collected fresh materials were numbered and kept as samples for botanical identification. Taxonomical determination of the collected specimen was made using 'Flora of Turkey and the East Aegean Islands' (2,3,6) and 'Flora Iranica (14,15). A voucher specimen of each species was kept in ISTE (The Herbarium of Istanbul University Faculty of Pharmacy).

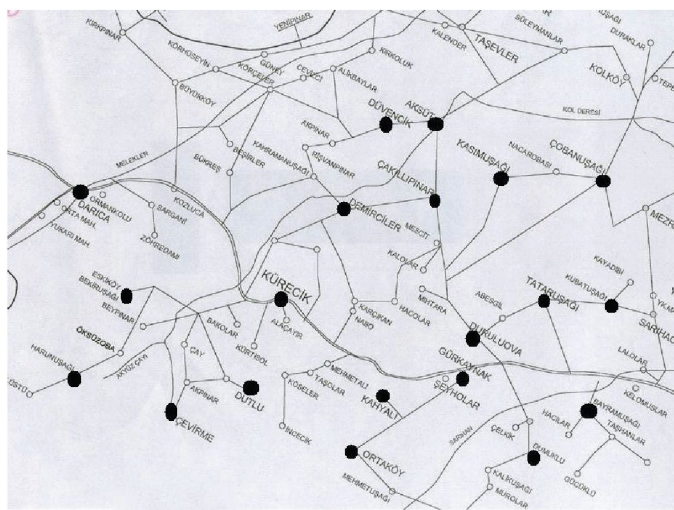


Figure 2. Map of Kürecik; 20 villages are marked with ●.

## RESULT AND DISCUSSION

During the study 130 specimens were collected in the area. According to the results of the identification, 43 wilds and 4 cultivated taxa are used as folk medicine in Kürecik (19,20). The plants are presented in Table 1, followed by family name and herbarium numbers. In the respective columns; the local names, the used parts, the medicinal uses, village numbers (but if it is use extensively, village numbers do not write), and the methods of preparation and administration are given. In the last column, the study was compared with one thesis [Ovacık (4)] and two scientific articles [Pınarbaşı (13), Doğu Anadolu (17)] that the medicinal uses had been reported. 24 taxa are not using in these works and 17 taxa have different uses. According our results, using of 8 taxa (*Alcea apterocarpa*, *Armeniaca vulgaris*, *Betula litwinowii*, *Juglans regia*, *Inula heterolepis*, *Orthurus heterocarpus*, *Stachys cretica* subsp. *mersinaea*, and *Verbascum asperuloides*) have not recorded in traditional medicine before (10,16). The plants are being used as multiherbal recipies are presented in Table 2, arranged in an alphabetical order according to their botanical names. In the respective columns the used parts, the medicinal uses, the methods of preparation and administration are given.

Most of the interviewers stated that they know that using high amount of *Euphorbia macroclada*, *Teucrium polium*, and *Ranunculus pinardii* can be dangerous and must use them carefully.

*Arum detrunctatum* var. *detrunctatum* is used for after birth pains as soap but dried for winter or leaves are boiled with filtered cheese and çökelik water.

According to research there were been women who nickname 'ebe' and they had gotten birth otherwise had cured especially women's sterility, miscarriage by different mixtures (Table 2). Women had been standed above on the mixtures decoction.

*Verbascum asperuloides*, *Berberis crataegina*, and *Rosa canina* are not only used in human but also used in animal treatment.

*Thymus sipyleus* subsp *rosulans*, *Thymus kotschyanus* var. *kotschyanus*, *Thymus fallax* are known with same local names (Catır, Catri) and usage, otherwise *Teucrium polium* are known with seven different local names (19,20).

This study will contributed to the studies had been prepared in our department since 1994 (1,5,7,8,9,11,18).

**Table 1.** Plants used as medicinal purpose in Küreçik

| Botanical name, family, voucher number  | Local names                 | Used parts | Uses (Village names given in the bafom)   | Preparation, administration, dosage, duration of the treatment                      | Other traditional uses reported earlier in Turkish ethnobotanical literature (4,13,17)          |
|---|-----------------------------|------------|---|---|---|
| <i>Achillea biebersteinii</i> Afan.<br>Compositae<br>ISTE 83598                   | Ğirtkesan                   | Areal part | Menstrual pains (3, 5, 6, 7, 14, 17, 20), stomachache<br>Menstrual pains, women's sterility     | Infusion and decoction, int.<br>Decoction int.                                      | Invigorate the body, for skin (13), wound (4), skin disease in children, jaundice, abscess (17) |
| <i>Achillea cappadocica</i> Hausskn.& Bornm.*<br>ISTE 83633                       | Ğirtkesan                   | Areal part | Menstrual pains (3, 5, 6, 7, 14, 17, 18, 20), stomachache<br>Menstrual pains, women's sterility | Infusion and decoction, int.<br>Decoction int                                       |   |
| <i>Achillea setacea</i> Waldst. & Kit.<br>ISTE 83628                              | Ğirtkesani ispi             | Areal part | Menstrual pains (5,8), birth pains (5, 8, 14), stomachache (3)                                  | Infusion, int.  | For stomachache (13)  |
| <i>Achillea wilhelmii</i> C. Koch.<br>ISTE 83591                                  | Ğirtkesan                   | Areal part | Menstrual pains (3, 6, 7, 5, 14, 17, 20), stomachache.<br>Menstrual pains, women's sterility    | Infusion and decoction, int.<br>Decoction, int.                                     | Against herpes infections in mouth and toothache (13), bronchitis (17)                          |
| <i>Alcea apterocarpa</i> (Fenzl) Boiss.*<br>Malvaceae<br>ISTE 83636, 83730, 83684 | Hürü, Hürü,<br>Hürun, Hürin | Areal part | Intestinal and stomach ailments (8, 15),<br>Cough (9, 12, 15, 18, 20)<br>Wound healing (6)      | Infusion int.<br>Infusion and decoction int.<br>Boiled direct or mixed with raw egg |   |

Table 1. (continued)

|   |                                |               |  |                                 |  |
|---|--------------------------------|---------------|--|---------------------------------|--|
| <i>Allium cepa</i> L.<br>Liliaceae  | Pivaz                          | Bulb          | Inflamed wound   | Ext.                            | For stomachache (13), bee stings, fractured bones (17) |
| <i>Armeniac vulgaris</i> Lam.<br>Rosaceae   | Herung, Kayısı                 | Fruit         | Diuretic   | Freshly eaten.                  |  |
| <i>Arium detruncatum</i> C. A. Meyer ex Schott var. <i>detruncatum</i><br>Araceae<br>ISTE 83727   | Nivic                          | Leaf          | Pains after birth (4, 6, 7, 11, 17)  | Infusion int. and as soap       | For sore throat, common cold, treat rheumatism (13)    |
| <i>Berberis crataegina</i> DC.<br>Berberidaceae<br>ISTE 83721, 83771                              | Karamuk                        | Fruit<br>Root | Diarrhea (7, 16, 17)<br>Hemorrhoids (1, 4, 11, 16, 18)<br>Diabetes (8), worms (on animals) | Freshly eaten<br>Infusion, int. | For wound healing (13)                                 |
| <i>Betula litwinowii</i> Doluch.<br>Betulaceae<br>ISTE 83680                                      | Karağaç                        | Root          | Women pains  | Decoction, int.                 |  |
| <i>Centaurea virgata</i> Lam.<br>Compositae<br>ISTE 83738   | Ardavık                        | Areal part    | Antiallergic (on child) (4), Jaundice (1,4,6,16,17)  | Infusion as shower              |  |
| <i>Cerasus hippophaeoides</i> (Bornm.)<br>Bornm. *<br>Rosaceae<br>ISTE 83646, 83671, 83704, 83712 | Ceraz, Ceraza çe<br>Dağ kirazı | Fruit         | Diarrhea (1,7,17)  | Freshly eaten                   |  |

Table 1. (continued)

|   |                           |                                     |  |  |  |
|---|---------------------------|-------------------------------------|--|--|--|
| <i>Chrysophthalmum montanum</i> (DC.)<br>Boiss.<br>Compositae<br>ISTE 83600                   | Nezle otu                 | Areal part                          | Common Cold (nezle) ve Colds (17)                            | Infusion, int.   | To relieve catarrh (13)                        |
| <i>Crataegus x bornmuelleri</i> Zabel*<br>Rosaceae<br>ISTE 83785                              | Civica zar, Givica zar    | Root<br>Root bark<br>Ancillary root | Antihypertansive (14,17)<br>Rheumatism (4)<br>Rheumatism (4) | Infusion, int.<br>Infusion and decoction, int.<br>Infusion, int. |  |
| <i>Crataegus meyeri</i> Pojark.<br>ISTE 83785   | Roğuk, Rıgok              | Fruits<br>Root                      | Antidiarrhoeic (4)<br>Diabetes (4)                           | Freshly eaten<br>Decoction, int.                                 | To treat cardiac disorders,<br>rheumatism (13) |
| <i>Crataegus orientalis</i> Palas ex Bieb.<br>var. <i>orientalis</i><br>ISTE 83645            | Givica sur,<br>Civica sur | Root<br>Root bark<br>Ancillary root | Antihypertansive (14,17)<br>Rheumatism (4)<br>Rheumatism (4) | Infusion, int.<br>Infusion and decoction, int.<br>Infusion, int. |  |
| <i>Eremurus spectabilis</i> (Bieb.) Fedtsch.<br>Liliaceae<br>ISTE 83924                       | Çiğlık, Çiriş             | Leaves                              | Pains of the eyes  | Freshly eaten.   | Diabetes, eczema (4)                           |
| <i>Euphorbia macroclada</i> Boiss.<br>Euphorbiaceae<br>ISTE 83607                             | Çaşıl                     | Latex                               | Scorpion and bee bites<br>Wound (6,14)                       | Ext.   | For eczema, fungal infection<br>(13)           |
| <i>Ficus carica</i> L. subsp. <i>rupestris</i><br>(Hauskn.) Browicz<br>Moraceae<br>ISTE 83664 | Hincir                    | Latex                               | Wounds (1)   | Ext.   | For gastric ulcer (13)                         |

x

Table 1. (continued)

|   |  |                                       |   |  |   |
|---|--|---------------------------------------|---|--|---|
| <i>Helichrysum plicatum</i> DC. subsp.<br>Compositae<br>ISTE 83779, 83718 | Sarı çiçek,<br>Gula zar                      | Areal part                            | Kidney stones (3,8) and kidney and stomach ailments (5, 8)<br>Depreciatory (3,8)                | Infusion and decoction, int.<br><br>As tea, int.                             |   |
| <i>Hyoscyamus niger</i> L.  | Caye kumaciğe<br>(yaygın).                   | Seeds                                 | To expel warm from eyes and mouth   | Inhalation and infusion,<br>int.   | Itching, against toothaches (17)  |
| <i>Hypericum hydtum</i> Boiss.<br>Hypericaceae<br>ISTE 83692              | Kulilka zar, Caye<br>sancıyan, Sancı<br>otu  | Areal part                            | Menstrual (3,7,8, 14,15,17) and stomach ailments  | Infusion, int.   |   |
| <i>Hypericum scabrum</i> L.<br>ISTE 83691, 83694                          | Karahasan çayı,<br>Kulilka zar, Sancı<br>otu | Areal part                            | Menstrual, abdominal (3,7,8,14,15,17, 18) and stomach ailments<br>Analjezik (15), relaxing (15) | Infusion, int.   | For hemoroid (13)   |
| <i>Inula heterolepis</i> Boiss.<br>Compositae<br>ISTE 83603               | Caye röe                                     | Areal part                            | Headache (17)   | Infusion, int.   |   |
| <i>Juglans regia</i> L.<br>Juglandaceae                                   | Ceviz, Cuz                                   | Fruit barks                           | women's sterility   | Decoction, boiled in water,<br>sitting on vapour.                            |   |
| <i>Maba neglecta</i> Wallr.<br>Malvaceae<br>ISTE 83613, 83731, 83649      | Toluk  | Herb<br><br>Areal part<br>Ground part | women's sterility (3, 5, 6, 8, 11, 14, 15, 17, 19)<br>Wound, hemorrhoids<br>Miscarriage         | Boiled in water, sitting on<br>vapour<br>Crushes and direct, ext.<br>As wick | For swellings, rheumatic pain,<br>stomachache, abdominal pain,<br>abscess, ease cough, throat<br>infection, renal diseases (13),<br>peptic ulcer, common cold,<br>stomachache, bronchitis,<br>indigestion, sore throat (17) |



**Table 1.** (continued)

|   |                          |              |  |   |  |
|---|--------------------------|--------------|--|---|--|
| <i>Mentha longifolia</i> (L.) Hudson subsp. <i>typhoides</i> (Briq.) Harley var. <i>typhoides</i><br>Labiatae<br>ISTE 83661 | Pung                     | Areal part   | Carminative, Intestinal ailments (for babies)                | With heated ground mixes uses, ext.<br>Infusion, int.                 | For sore throat, tonsillitis, rash and other skin, hemorrhoids (13), shortness of breath, stomachache (4), sunstroke, stomachache, hemorrhoids, headache, cough, menstrual pain (17) |
| <i>Orthurus heterocarpus</i> (Boiss.) Juz.<br>Rosaceae<br>ISTE 83859  | Kulafir, Karamfil        | Ground part  | Cough (9,12,15,17,20)<br>Colds (9,12,15,17,19)               | Infusion, int.  |  |
| <i>Papaver dubium</i> L. subsp. <i>laevigatum</i> (M. Bieb.) Kadereit<br>Papaveraceae<br>ISTE 83611, 83713                  | Lala, Kulilkasor         | Flower       | Cough (6,13,17)  | Infusion, int   |  |
| <i>Papaver macrostomum</i> Boiss. et Huet ex Boiss.<br>ISTE 83610, 83772  | Lala, Kulilkasor         | Flower       | Cough (6,13,17)  | Infusion, int   |  |
| <i>Plantago major</i> L. subsp. <i>major</i><br>Plantaginaceae<br>ISTE 83604, 83635, 83660, 83715                           | Ca havez,<br>Gazyagi otu | Herb<br>Leaf | Stomach ailments (4,7,11)<br>Wound and inflamed wound, birms | Freshly eaten.<br>Warmed with butter, ext.                            | For abscess (13,17), toothache (13), erysipelas (17)   |
| <i>Ranunculus pinnatifidus</i> (Stev.) Boiss.<br>Ranunculaceae<br>ISTE 83860  | Karaz, Gazyagi otu       | Areal part   | Rheumatic pains<br>Inflamed wound,<br>Stomachache (4)        | Crushed or direkt, ext.<br>Crushed or direkt, ext.,<br>Infusion, int. |  |

Table 1. (continued)

|  |  |                    |   |   |  |
|--|--|--------------------|---|---|--|
| <i>Rosa canina</i> L.<br>Rosaceae<br>ISTE 83783  | Şilan  | Dry fruit<br>Root  | Colds (3, 5, 6, 7, 8, 17, 20)<br>Hemorrhoids (7,17)<br>Animal treatment (5,6,12,13,15,17)   | Decoction, int.,<br>Eaten.<br>Decoction, int.   | For diabetes, stomachache,<br>treat cardiac disorders (13),<br>cough, bronchitis (17)            |
| <i>Scorzonera tomentosa</i> L. *<br>Compositae<br>ISTE 83663, 83678, 83736   | Neraband   | L.ateks            | Stomach ailment.<br>Wound (14)  | Chewed<br>Ext.  |  |
| <i>Sideritis libanotica</i> Labill. subsp.<br><i>linearis</i> (Bentham) Bormm. *<br>Labiatae<br>ISTE 83593, 83644, 83710 | Dağ çayı, Çaya çe  | Areal part         | Colds (7,14,17)   | Infusion and decoction, int.  |  |
| <i>Stachys crelica</i> L. subsp. <i>anatolica</i><br>Rech. fl. *<br>Labiatae<br>ISTE 83595                               | Çaya çe, Dağ çayı  | Areal part         | Colds (5,7,8) and stomach ailments<br>(5,7,8)   | Infusion and decoction, int.  |  |
| <i>Stachys crelica</i> L. subsp. <i>mersinaea</i><br>Rech. fl. *<br>ISTE 83638, 83630                                    | Çaya çe, Dağ çayı  | Areal part         | Colds (5,7,8) and stomach ailments<br>(5,7,8)   | Infusion and decoction, int.  |  |
| <i>Teucrium polium</i> L.<br>Labiatae<br>ISTE 83682, 83632, 83643, 83659,<br>83676, 83745                                | Bijdo, Caye röe,<br>Caye mabasire,<br>Fatmacık otu,<br>Parihavşan, Vijdo | Areal part<br>Herb | Hemorrhoids (12,15,19),<br>tuberculosis(4),<br>diabetes (3,6,14),<br>sunstroke (on child),<br>birth pains (12,15,19),<br>abdominal ailments | Infusion, int.<br>Mixed, plant powder with<br>honey and butter (hungry,<br>1 tablespoon), int.<br>Shower, ext.<br>Decoction, int.<br>Infusion, int. | Appetite stimulant for children,<br>stomachache (13), cold (4),<br>diarrhoea, stop bleeding (17) |

Table 1. (continued)

|   |             |                |   |   |  |
|---|-------------|----------------|---|---|--|
| <i>Thymus fallax</i> Fisch. & Mey.<br>Labiatae<br>ISTE 83634                                | Catr, Catri | Areal part     | Diabetes (6,7,8,14,17), Colds,<br>Abdominal ailments (17)                                     | Infusion, int.<br>Decoction, int.       |  |
| <i>Thymus kotschyanus</i> Boiss. & Hohen<br>var. <i>kotschyanus</i><br>ISTE 83586, 83769    | Catr, Catri | Areal part     | Diabetes (6,7,8,14,17), Colds,<br>Abdominal ailments (17)                                     | Infusion, int.<br>Decoction, int.       |  |
| <i>Thymus sipyicus</i> Boiss. subsp<br><i>rosulans</i> (Borbás) Jalas*<br>ISTE 83875, 83862 | Catr, Catri | Areal part     | Diabetes (6,7,8,14,17), Colds,<br>Abdominal ailments (17)                                     | Infusion, int.<br>Decoction, int.       |  |
| <i>Tripleurospermum sevanense</i><br>(Manden.) Pobed.<br>Compositae<br>ISTE 83587           | Papatya     | Capitulum      | Hair restorer (3,6,17)  | Decoction, ext.                         |  |
| <i>Urtica dioica</i> L.<br>Urticaceae<br>ISTE 83621, 83667                                  | Gazik       | Areal part     | Rheumatism (14,17)  | Ext.                                    | For abdominal, gynecological<br>pain, shortness of breath,<br>appetite stimulant,<br>hemorrhoids,<br>(13),stomachache (13,17), cold,<br>cough (17) |
| <i>Verbascum asperuloides</i> Hub.-Mor. *<br>Scrophulariaceae<br>ISTE 83658                 | Macıyank    | Leaf<br>Flower | Antiparasitic (on animal injury) (5, 6,<br>15, 17)<br>Shortness of breath, asthma (6, 7,8,17) | Rubed as powder, ext.<br>Infusion, int. |  |

Table 1. (continued)

|  |                     |            |                                |                                  |                            |
|--|---------------------|------------|--------------------------------|----------------------------------|----------------------------|
| <i>Viscum album</i> L. subsp. <i>album</i><br>Loranthaceae<br>ISTE 83728 | Çöpleme             | Herb       | Headache (3,5,8,9,12,14,15,17) | Decoction mixed with henna, ext. | For diabetes, hemoroid (4) |
| <i>Ziziphora clinopodioides</i> Lam.<br>Labiatae<br>ISTE 83735, 83673    | Cattr, Cattri, Anıĝ | Areal part | Colds (7,9,17)                 | Infusion, int.                   | Appetizer (4)              |

\* Endemic plants, int.: internal; ext: external

**Village names:** 1-Aksüt, 2-Bayramuşağı, 3-Bekiruşağı, 4-Çakılıpınar, 5-Çevirme, 6-Darıca, 7-Demirciler, 8-Dutlu, 9-Durulova, 10-Dümüklü, 11-Güneşli (Düvencik), 12-Gürkaynak, 13-Hançerli, 14-Harunuşağı, 15-Kâhyalı, 16-Kasımüşağı, 17-Kepez (Kürecek Center), 18-Kubatuşağı, 19-Ortaköy, 20-Tataruşağı.

**Table 2.** Multiherbal recipes used as folk medicine in Kürecik

| Botanical name             | Used part            | Uses                                 | Preparation, administration, duration of the treatment           |
|----------------------------|----------------------|--------------------------------------|--|
| <i>Alcea apterocarpa</i> * | Root and areal parts | Hemorrhoid, inflamed wound and wound | Crushed and made an dough with butter and flour, ext.            |
| <i>Hordeum vulgare</i>     | Seeds flour          | Women's sterility                    | Made dough with infusion and carry out to abdomen, ext.          |
| <i>Betula linwinowii</i>   | Leaves               | Hemorrhoid, inflamed wound and wound | Made dough with butter and direct plant or plant decoction, ext. |
| <i>Hordeum vulgare</i>     | Seeds flour          | Rheumatism, inflamed wound           | Made dough with butter and flour, ext.                           |
| <i>Malva neglecta</i>      | Areal parts and herb | Jaundice (3, 4, 14)                  | Infusion, int. or decoction (as shower), ext.                    |
| <i>Hordeum vulgare</i>     | Seeds flour          | Women's sterility                    | Boiled in water, sitting on vapour                               |
| <i>Ranunculus pinardii</i> | Areal part           |                                      |  |
| <i>Hordeum vulgare</i>     | Seeds flour          |                                      |  |
| <i>Scabiosa argentea</i>   | Areal parts          |                                      |  |
| <i>Armeniaca vulgaris</i>  | Dried fruits         |                                      |  |
| <i>Betula linwinowii</i>   | Branch with leaves   |                                      |  |
| <i>Plumbago europaea</i>   | Areal parts          |                                      |  |
| <i>Malva neglecta</i>      | Areal parts          |                                      |  |
| <i>Alcea apterocarpa</i> * | Areal parts          |                                      |  |

**Village names:** 1-Aksit, 2-Bayramuşağı, 3-Bekiruşağı, 4-Çakılıpınar, 5-Çevirme, 6-Darıca, 7-Demirciler, 8-Dutlu, 9-Durulova, 10-Dümlükli, 11-Güneşli (Düvencik), 12-Gürkaynak, 13-Hançerli, 14-Harunuşağı, 15-Kâhyalı, 16-Kasımuşağı, 17-Kepez (Kürecik Center), 18-Kubatuşağı, 19-Ortaköy, 20-Tataruşağı.

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