

AN ETHNOBOTANICAL STUDY FROM ISPERİH (RAZGRAD-BULGARIA)

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S U M M A R Y

In this study, 38 vascular plants species are reported that are used as food, spice and the other purposes (except medicinal). Among them 11 species as food, 7 species as spice and 25 species for different purposes using were noted.

Key words: Ethnobotany, İsperih, Bulgaria, local name

Ö Z E T

Bu çalışmada, İsperih (Razgrad-Bulgaristan) ilçesinde halkın yiyecek, baharat ve diğer amaçlarla (tıbbi kullanılışları hariç) kullandığı 38 tür kaydedilmiştir. Bu bitkiler arasından 11 türün gıda, 7 türün baharat ve 25 türün ise diğer farklı amaçlarla kullanıldıkları saptanmıştır.

Anahtar kelimeler: Etnobotanik, İsperih, Bulgaristan, yöresel isim

I N T R O D U C T I O N

Bulgaria is situated in the Balkan peninsula, South East Europe, between 22° 21' 40" and 28° 36' 35" E longitude, and 41° 14' 05" and 44° 12' 45" N latitude, occupies the area of 110 912 km² with elevations ranging from 0 to 2925 m and has corresponding subalpine, Mediterranean and continental climates (1).

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The Bulgarian flora is remarkable for its diversity with 3896 plant species and 600 of them are known as medicinal plants. The use of drugs prepared from medicinal plants in Bulgarian traditional medicine dates from centuries ago (2).

Ispernih district is located 43° 71' 7" N, 26° 83' 3" E (elevation 230-305 m) in the Northeastern Bulgaria, part of Razgrad province and situated in the central part of the Ludogorie region and covers an area of 402 km² (Fig.1). The average annual rainfall of the district is 656 mm, annual average temperature of 10.3 °C. Rainy season extends from the month of November to April. Winter lasts about 3 months, spring and autumn are rainy and the summer is hot (3).

This is a part of a master thesis named “An Ethnobotanical Investigation in Ispernih (Razgrad-Bulgaria) district” (4).

The aim of this ethnobotanical study is to collect systematic information about the still obtaining ethnobotanical usages in Ispernih (Razgrad-Bulgaria) before completely lost.



Fig. 1. The map of Ispernih district showing the studied villages

MATERIAL AND METHODS

The ethnobotanical field study was carried out during the years 2005-2006. The information including the various data such as local names, part of the used plants, their usages was obtained from local people through individual interviews. During the field

studies, the plant specimens were collected together with accompanied informants. All settlements (23, including 1 centre and 22 villages) were visited in different seasons of the year (Fig. 1). The collected plant specimens were numbered and taxonomically identified according to “Flora of Turkey and the East Aegean Islands”(5, 6, 7) “Flora na Republika Bulgaria” (8, 9, 10) and “Flora Italiana Illustrata”(11). A voucher specimens of each species was kept in ISTE (The Herbarium of Istanbul University, Faculty of Pharmacy). The some material of plant parts which are not convenient for herbarium are kept in the bottles with the number of collector SS (Semra Sami).



Fig. 2: “Survaknıtza” which arranged with *Cornus mas* stems



Fig. 3: The pericaps of *Juglans regia*

RESULTS AND DISCUSSION

During the field studies (totally for 59 days) 99 voucher specimens were collected in the investigated area. According to identification results, 68 medicinal plants (44 wild species and 24 cultivated species) have been determined (4). Identification of the plant specimens from our field collections revealed 38 plant species belonging to 20 families. Among these plants, 11 species are used as food (Table 1), 7 species are used as spice (Table 2) and 25 species are used for different purposes (Table

3). Ethnobotanical uses of the plants are given in alphabetical order with their family names in bracket. In the respective columns are put the voucher specimen numbers (ISTE); local names of plants and which parts of the plants are used. The last column shows the application of the plant specimens.

Some of the wild plant species (only *Melissa officinalis* is cultivated) were collected by villagers for commercial purposes: *Urtica dioica*, *Aesculus hippocastanum*, *Crataegus monogyna* subsp. *monogyna*, *Rosa canina*, *Thymus* sp., *Tilia* sp.

Some species have two different uses: food and as hair care (*Urtica dioica*); food and toy (*Pinus sylvestris*). *Juglans regia* is used in three different purposes such as: food, dying and hair care. Also *Zea mays* subsp. *indurata* is used in three different purposes: food, fodder and making basket. Many specimens have different common names. For example, *Crataegus monogyna* subsp. *monogyna* is known as yemişken, yemişgen, cherven glog, glog; *Pinus sylvestris* as kızıl çam, sarı çam, bjal bor, cherven bor; *Urtica dioica* as sırgan, ısırğan, sıgan, kopriva, kupriva; *Vitis vinifera* subsp. *vinifera* as üzüm, asma, bağ, loza, grozde. In other cases, some plants have the same local name in spite of belonging to different species, for instance: *Vinca major* subsp. *major* and *Vinca minor* (zimzelen, zelenika).

Table 1. The plants used as food in Ispcrih (Razgrad-Bulgaria) district

Plant Scientific Name (Family)	Voucher specimen ISTE	Local names	Parts used	Uses
<i>Crataegus monogyna</i> Jacp. subsp. <i>monogyna</i> (Rosaceae)	83 512, 83 554	Yemişken, yemişgen, cherven glog, glog	Fruits	Eaten fresh
<i>Cydonia oblonga</i> Mill. var. <i>oblonga</i> (Rosaceae)	83 530	Ayva, djulja	Fruits	Eaten fresh or in jam or marmalade or compote
<i>Fragaria viridis</i> Duchesne (Rosaceae)	83 555	Deli çilek, gorska jagoda, planitza	Fruits	Eaten fresh
<i>Juglans regia</i> L. (Juglandaceae)	83 542	Ceviz, oreh	Fruits	Eaten fresh or as in jam from immature fruits
<i>Pinus sylvestris</i> L. (Pinaceae)	83 548	Kızıl çam, sarı çam, bjal bor, cherven bor	Young sterile shoots	As thick syrup named "pekmez"

<i>Robinia pseudoacacia</i> L. (Leguminosae)	83 538	Kral ağacı, akasya, bjala akatzia	Flowers	Eaten fresh
<i>Rosa canina</i> L. (Rosaceae)	83 553	Gül bubusu, shipka	Fruits	Eaten fresh or as in marmalade
<i>Rubus discolor</i> Weihe & Nees. (Rosaceae)	83 502	Karamık, karamuk, kapina	Fruits	Eaten fresh
<i>Urtica dioica</i> L. (Urticaceae)	83 481	Sırgan, ısırğan, sıgan, kopriva, kupriva	Leaves	Cooked
<i>Vitis vinifera</i> L. subsp. <i>vinifera</i> (Vitaceae)	83 549	Üzüm, asma, bağ, loza, grozde	Leaves	Cooked as “sarma”
<i>Zea mays</i> L. subsp. <i>indurata</i> (Gramineae)	SS 0660	Misir, tzarevitza, kukuruz	Fruits	Cooked

Table 2. The plants used as spice in Isperih (Razgrad-Bulgaria) district

Plant Scientific Name (Family)	Voucher specimen ISTE	Local names	Parts used
<i>Armoracia rusticana</i> (Lam.)P. Gaertn. (Cruciferae)	83 544	Hrjan, acı kök	Leaves and roots
<i>Mentha x piperita</i> L. (Labiatae)	83 490	Kara nane, djodjen	Herb
<i>Ocimum basilicum</i> L. (Labiatae)	83 500	Feslen, fesleğen, bosilek	Herb
<i>Satureja hortensis</i> L. (Labiatae)	83 510	Cibrika, tavuk otu, chubritza	Herb
<i>Trigonella foenum-graecum</i> L. (Leguminosae)	83 478	Poy, böber otu, sminduh	Herb
<i>Anethum graveolens</i> L. (Umbelliferae)	83 483	Kopar	Herb
<i>Levisticum officinale</i> Koch. (Umbelliferae)	83 503	Lüşten, ljustjan, selim	Herb

Table 3. The plants used for different purposes in Isparih (Razgrad-Bulgaria) district

Plant Scientific Name (Family)	Voucher specimen ISTE	Local names	Parts used	Uses
<i>Aesculus hippocastanum</i> L. (Hippocastanaceae)	83 541	Kestane, ketsen, konski ketsen	Seed	Adding to fodder as tonic, Protecting against clothes moths
<i>Allium cepa</i> L. (Liliaceae)	SS 0661	Suvan, luk, kromid luk	Bulb	As hair care Dying
<i>Artemisia absinthium</i> L. (Compositae)	83 506	Pelin otu, pelin, bjäl pelin	Herb	Cleaning to the barrels, beehives Adding a little part to wine and “raki” as aromatic
<i>Bellis perennis</i> L. (Compositae)	83 536	Koyun gözü, parichka	Flower	As decorative
<i>Calendula officinalis</i> L. (Compositae)	83 569	Neven, kalendula	Flower	As decorative
<i>Capsella bursa-pastoris</i> (L.) Medic. (Cruciferae)	83 514	Çoban çantası, ovcharska torbichka	Fruit	As a toy
<i>Conium maculatum</i> L. (Umbelliferae)	83 568	Baldıran	Stem	As a toy
<i>Convallaria majalis</i> L. (Liliaceae)	83 528	Momina sulza	Flower	As decorative
<i>Cornus mas</i> L. (Cornaceae)	83 523	Kızılcık, drjan	Stem	As a toy Making to “survaknitza” which used by christian for health and abundance in christmas
<i>Cynodon dactylon</i> (L.) Pers. (Gramineae)	83 477, 83 495	Ayrık otu, troskot	Herb	As fodder
<i>Ecballium elaterium</i> (L.)A.Rich. (Cucurbitaceae)	83 573	Acı kavun, morska krastavitza	Fruit	As a toy
<i>Erodium cicutarium</i> (L.) L Herit subsp. <i>cicutarium</i> (Geraniaceae)	83 539	Leylek gagası, chasovniche	Fruit	As a toy
<i>Galanthus elwesii</i> Hooker fil. (Amaryllidaceae)	83 518, 83 522	Akçabardak, akbardak,	Flower	As decorative

		kokiche		
<i>Geranium macrorrhizum</i> L. (Geraniaceae)	83 540	Sakız çiçeği, zdravetz	Leaves Flower	Put the leaves and flower on the dress by christians for health in religious feast
<i>Juglans regia</i> L. (Juglandaceae)	83 542	Ceviz, oreh	Fruits (Pericarp)	Dying As hair care
<i>Malva sylvestris</i> L. (Malvaceae)	83 489	Ebegömeçi, slez	Fruit	As a brachelet
<i>Melissa officinalis</i> L. subsp. <i>officinalis</i> (Labiatae)	83 505	Oğul otu, matochina, limonche	Herb	It is put into the beehives in order to attract the swarms of bees
<i>Muscari neglectum</i> Guss. (Liliaceae)	83 527	Kukuviche grozde, muskari	Flower	As decorative
<i>Pinus sylvestris</i> L. (Pinaceae)	83 548	Kızıl çam, sarı çam, bjäl bor, cherven bor	Cortex	As a toy
<i>Polygonatum officinale</i> All. var. <i>officinale</i> (Liliaceae)	83 529	Momkova sulza	Flower	As decorative
<i>Syringa vulgaris</i> L. (Oleaceae)	83 546	Ergüven, ljuljak	Flower	As decorative
<i>Urtica dioica</i> L. (Urticaceae)	83 481	Sırgan, ısırgan, sıgan, kopriiva, kupriiva	Flower	As hair care
<i>Vinca major</i> L. subsp. <i>major</i> (Apocynaceae)	83 532	Zimzelen, zelenika, edar zimzelen	Flower	As decorative
<i>Vinca minor</i> L. (Apocynaceae)	83 525	Dreben zimzelen, zelenika	Flower	As decorative
<i>Zea mays</i> L. subsp. <i>indurata</i> (Gramineae)	SS 0660	Misir, tzarevitza, kukuruz	Whole plant Leaves	As fodder Making basket

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REFERENCES

- 1- Ivancheva, S., Stantcheva, B., *Journal of Ethnopharmacology*, **69**: 165-172 (2000).
- 2- Ivancheva, S., Stantcheva, B., Ethnobotany in Bulgaria. Proceedings of the 2nd Balkan Botanical Congress (ed.Neriman Özhatay), Vol.1. 555-568 (2001).
- 3- <http://www.isperih.hit.bg/>
- 4- Sami, N.S., İspirih (Razgrad-Bulgaristan) İlçesinde Etnobotanik Bir Araştırma, İstanbul Üniversitesi, Sağlık Bilimleri Enstitüsü, Yüksek Lisans Tezi, İstanbul (2007).
- 5- Davis, P.H. (ed.), *Flora of Turkey and the East Aegean Islands*, vol. **1-9**, Edinburgh University Press, Edinburgh (1965-1985).
- 6- Davis, P.H., Mill, R.R., Tan, Kit., *Flora of Turkey and the East Aegean Islands (Suplement I)*, vol. **10**, Edinburgh University Press, Edinburgh (1988).
- 7- Güner, A., Özhatay, N., Ekim, T., Başer, K.H.C., *Flora of Turkey and the East Aegean Islands (Supplement II)*, vol **11**, Edinburg University Press, Edinburgh (2000).
- 8- Jordanov, D., *Flora na Narodna Republika Bulgaria*, vol.**1-7**, Bulgarska Akademi ana Naukite (1963-1979).
- 9- Kojuharov, SI., *Flora na Republika Bulgaria*, vol.**10**, Akademichno Izdatelstvo Prof.Marin Drinov (1995).
- 10- Velchev, V., *Flora na Narodna Republika Bulgaria*, vol. **8-9**, Bulgarska Akademi ana Naukite (1982-1989).
- 11- Fiori, A., *Flora Italiana Illustrata*, Italy, Edagricole (1933).