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Traditional use of plants from the genus *Satureja* in the Pirot District

Традиционална употреба биљака из рода *Satureja* у Пиротском округу

*Abstract: The subject of this paper was the study of the traditional use of herbs from the genus *Satureja* in the Pirot District (southeastern Serbia). The investigation was conducted in the form of surveys among the rural population in*

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municipalities Pirot, Babušnica, Bela Palanka, and Dimitrovgrad. Two plant species were mentioned by respondents: *Satureja hortensis* L., and *Satureja montana* L. The use of *S. hortensis* for the treatment of diabetes, disease prevention, and as spice in nutrition was reported. *S. montana* is additionally useful for the treatment of cold, respiratory diseases in general, cough, bronchitis, sore throat, asthma, gastric ulcer, for disease prevention, digestion, as aphrodisiac, for stomach, improve the immune system, sedation, and strengthening the heart. The mentioned ethnopharmacological uses of *S. hortensis* against diabetes and for disease prevention, as well as the uses of *S. montana* as an aphrodisiac, for digestion, disease prevention, improve the immune system, for stomach, strengthening the heart, sedation, sore throat, and against gastric ulcer are different and new in this study in comparison with previously conducted ethnobotanical studies in Serbia and Balkan Peninsula.

Keywords: *Satureja hortensis*, *Satureja montana*, ethnobotanical use, Pirot District

Сажетак: Предмет овој рада било је истраживање традиционалне коришћења врста рода *Satureja* у Пиротском округу (југоисточна Србија). Истражена је студија у виду анкете међу руралним становништвом у општинама Пирот, Бабушница, Бела Паланка и Димитровград. Две биљне врсте поменуће су од стране испитаника: *Satureja hortensis* и *Satureja montana*. Поменуће је употреба *S. hortensis* за лечење дијабетеса, превенцију болести и као зачин у исхрани. *S. montana* се даље користи за лечење прехладе, репраторних обољења ушће, кашља, бронхијиса, уале рла, астме, чира на желуцу, за превенцију болести, варење, као афродизијак, за желудац, побољшање имунитета, смирење и за јачање срца. Наведене етнофармаколошке употребе *S. hortensis* против дијабетеса и за превенцију болести и употребе *S. montana* као афродизијака, за варење, превенцију болести, побољшање имунитета, за желудац, јачање срца, за смирење, болове у рлу и против желуца и против чрева су дугачије и нове у овој студији у поређењу са ранијим етноботаничким истраживањима у Србији и на Балканском полуострву.

Кључне речи: *Satureja hortensis*, *Satureja montana*, етноботаничка употреба, Пиротски округ

INTRODUCTION

The herbaceous plant species from the genus *Satureja* belongs to the family Lamiaceae. The genus *Satureja* contains about 200 species of aromatic plant species in Mediterranean region of Europe, West Asia, North Africa, and South America (Tepe & Cilikiz, 2016). According to

the same authors, more than 30 plant species of the genus *Satureja* are distributed in eastern parts of the Mediterranean area. They are used in food, pharmaceutical, and cosmetic industries.

Jafari, Ghavidel, and Zarshenas (2016) found that 13 species from genus *Satureja* had been evaluated pharmacologically. According to the same authors, *S. bachtiarica*, *S. hortensis*, *S. khuzestanica*, and *S. montana* appeared to be the most active in phytopharmacology. The plant species *S. hortensis* (Figure 1), and *S. montana* (Figure 2) were used as medicinal plants in Serbia according to Sarić (Сарић, 1989) and Tucakov (Туцаков, 1990).

Gostuški (Гостушки, 1973) mentioned the use of *S. hortensis* in Serbia against bee sting, as stomach remedy, against food poisoning, stomach cramps and gases, for the treatment of pulmonary diseases, for baths, strengthening the skin tissue, and as aphrodisiac. According to Sarić (1989), the above-ground part of *S. hortensis* was used in folk medicine as a stomachic, carminativ, antiseptic, culinary spice, for for appetite, stomach strengthening, and against bee sting. Tucakov (1990) mentioned *S. hortensis* internally as an antiseptic, for the treatment of respiratory, digestive and urinary organs, and externally against skin and mucous membrane inflammation. Tasić, Šavikin Fodulović, and Menković (2001) mentioned *S. hortensis* as a stomachic, carminative, an antidiarrheal agent, an adstingent, antiseptic, expectorant, anthelmintic, and culinary spice.



Figure 1 *Satureja hortensis* L.
Слика 1 *Satureja hortensis* L.

According to Sarić (1989) and Tucakov (1990), in folk medicine of Serbia the above-ground part of *S. montana*, with the same application as *S. hortensis*, was used internally as an antiseptic, for the treatment of respiratory, digestive and urinary organs, and externally for the treatment of skin and mucous membrane inflammation. According to Tasić i sar. (2001), *S. montana* was considered an antiseptic, stomachic, carminative, against urinary tract inflammation, respiratory and digestive organs inflammation, and skin and mucous membrane inflammation. *S. montana* is protected plant species in Serbia with national legislative (Службени гласник Републике Србије, 2010), and it can only be harvested with appropriate permits.



Figure 2 *Satureja montana* L.
Слика 2 *Satureja montana* L.

This study aimed to collect and analyze the traditional knowledge about plants from the genus *Satureja* in Pirot District and their use for medicinal and other purposes and to compare the results with previous ethnopharmacological studies in surrounding areas. Also, the aim of the study was to record the new uses of plants from the genus *Satureja* in the Pirot District, which were not previously noted in neighboring regions in Serbia and the Balkan Peninsula.

METHODOLOGY

The investigation of the traditional use of plants in the Pirot District was carried out in the form of a population survey. The questionnaire about traditional knowledge of herbs for medicinal and other purposes

included inhabitants of 144 villages of Pirot District. A total of 631 informants were surveyed (Marković et al., 2023).

The systematized results about use of the plants from genus *Satureja* were presented in Table 1 according to the alphabetical order of villages in municipalities Pirot, Babušnica, Bela Palanka, and Dimitrovgrad.

RESULTS AND DISCUSSION

A total of 78 reports out of 4817 (1.62%) were mentioned by 73 respondents about the traditional use of plant species from the genus *Satureja*, of which 42 were reported from men, and 36 were reported from women (Table 1). The respondents were of Serbian (57 reports), Bulgarian (18 reports), and Roma (3 reports) nationality. The ages of respondents who mentioned the plants from the genus *Satureja* was 22 to 78 years. The mentioned plant species were *Satureja hortensis*, with folk names „čubrika“, „čubrica“ and „čubrilo“, and *Satureja montana*, with folk names „rtanjski čaj“ and „divlja čubrika“. All applications were internal.

In the municipality Pirot 39 reports were mentioned by respondents, 5 reports in municipality Babušnica, 14 reports in municipality Bela Palanka, and 20 reports in municipality Dimitrovgrad.

Table 1 Overview of the plants from genus *Satureja* use survey results in the Pirot District

Табела 1 Преглед резултата истраживања употребе биљака из рода *Satureja* у Пиротском округу

Plant	Municipality	Village	Gen.	Nat.	Age	Form	Use
<i>S. hortensis</i>	Pirot	Visočka Ržana	M	Serbian	56	Infusion	Uniknown use
	Pirot	Gostuša	M	Serbian	59	Infusion	Diabetes
	Pirot	Dojkinci	M	Serbian	67	Dry plant	Spice in nutrition
	Pirot	Oreovica	F	Serbian	60	Infusion	Disease prevention
	Pirot	Oreovica	F	Serbian	37	Dry plant	Spice in nutrition
	Pirot	Pakleštica	M	Serbian	78	Dry plant	Spice in nutrition
	Pirot	Slavinja	M	Bulgarian	60	Dry plant	Spice in nutrition
	Pirot	Crnoklište	F	Serbian	52	Dry plant	Spice in nutrition
<i>S. montana</i>	Pirot	Bazovik	F	Serbian	63	Infusion	Cold

Pirot	Brlog	F	Serbian	37	Infusion	Respiratory diseases
Pirot	Brlog	M	Serbian	64	Infusion	Digestion
Pirot	Velika Lukanja	M	Serbian	63	Infusion	Asthma
Pirot	Veliko Selo	M	Serbian	48	Infusion	Uniknown use
Pirot	Vranište	F	Serbian	52	Infusion	Disease prevention
Pirot	Gnjilan	F	Serbian	64	Infusion	Strengthening the heart
Pirot	Gnjilan	F	Serbian	37	Infusion	Cold
Pirot	Gostuša	M	Serbian	48	Infusion	Cough
Pirot	Gostuša	M	Serbian	59	Infusion	Bronchitis
Pirot	Gradašnica	M	Roma	45	Infusion	Uniknown use
Pirot	Dojkinci	M	Serbian	67	Infusion	Cold
Pirot	Držina	F	Serbian	48	Infusion	Cold
Pirot	Držina	F	Serbian	22	Infusion	For stomach
Pirot	Izvor	M	Serbian	67	Infusion	Cold
Pirot	Krupac	M	Serbian	60	Infusion	Uniknown use
Pirot	Mali Suvodol	F	Serbian	70	Infusion	Coug
Pirot	Mali Suvodol	M	Serbian	65	Infusion	Cold
Pirot	Novi Zavoj	F	Serbian	55	Infusion	Respiratory diseases
Pirot	Novi Zavoj	F	Serbian	67	Infusion	Cough
Pirot	Oreovica	F	Serbian	58	Infusion	Sedation
Pirot	Pakleštica	M	Serbian	35	Infusion	Cold
Pirot	Pokrovenik	M	Serbian	58	Infusion	Cold
Pirot	Pokrovenik	F	Serbian	54	Infusion	Cold
Pirot	Sopot	F	Serbian	30	Infusion	Sore throat
Pirot	Temaska	M	Serbian	58	Infusion	Respiratory diseases
Pirot	Topli Do	M	Serbian	62	Infusion	Cold
Pirot	Trnjana	M	Serbian	46	Infusion	Respiratory diseases
Pirot	Crvenčevo	F	Serbian	70	Infusion	Disease prevention
Pirot	Crvenčevo	M	Serbian	70	Infusion	Cold
Pirot	Činiglavci	M	Serbian	71	Infusion	Cold
Babušnica	Dol	F	Serbian	72	Infusion	Sore throat
Babušnica	Dučevac	M	Serbian	44	Infusion	Cold
Babušnica	Rakita	F	Bulgarian	56	Infusion	Uniknown use
Babušnica	Resnik	M	Serbian	40	Infusion	Cold
Babušnica	Crvena Jabuka	M	Serbian	67	Infusion	Disease prevention

Bela Palanka	Donji Rinj	M	Serbian	73	Infusion	Bronchitis
Bela Palanka	Draževo	F	Serbian	54	Infusion	Cold
Bela Palanka	Klisura	F	Serbian	59	Infusion	Bronchitis
Bela Palanka	Klisura	F	Serbian	59	Infusion	Cough
Bela Palanka	Kozja	F	Serbian	47	Infusion	Cold
Bela Palanka	Kremenica	F	Serbian	56	Infusion	Improve immune system
Bela Palanka	Lanište	F	Serbian	46	Infusion	Uniknown use
Bela Palanka	Lanište	M	Serbian	50	Infusion	Uniknown use
Bela Palanka	Ljubatovica	F	Serbian	62	Infusion	Cold
Bela Palanka	Mokra	M	Serbian	66	Infusion	Respiratory diseases
Bela Palanka	Novo Selo	M	Serbian	59	Infusion	Disease prevention
Bela Palanka	Telovac	M	Serbian	58	Infusion	Respiratory diseases
Bela Palanka	Crvena Reka	M	Serbian	36	Infusion	Cold
Bela Palanka	Šljivovik	F	Serbian	42	Infusion	Cold
Dimitrovgrad	Gojin Dol	M	Bulgarian	60	Infusion	Cold
Dimitrovgrad	Gornji Krivodol	M	Bulgarian	75	Infusion	Uniknown use
Dimitrovgrad	Gornji Krivodol	F	Bulgarian	60	Infusion	Uniknown use
Dimitrovgrad	Izatovci	M	Serbian	52	Infusion	Respiratory diseases
Dimitrovgrad	Izatovci	M	Serbian	52	Infusion	Sore throat
Dimitrovgrad	Kusa Vrana	M	Bulgarian	39	Infusion	Bronchitis
Dimitrovgrad	Lukavica	F	Bulgarian	63	Infusion	Cough
Dimitrovgrad	Lukavica	F	Bulgarian	63	Infusion	Cold
Dimitrovgrad	Lukavica	M	Bulgarian	60	Infusion	Cough
Dimitrovgrad	Lukavica	M	Bulgarian	60	Infusion	Bronchitis
Dimitrovgrad	Lukavica	F	Bulgarian	42	Infusion	Cold
Dimitrovgrad	Petrlaš	M	Bulgarian	37	Infusion	Respiratory diseases
Dimitrovgrad	Poganovo	F	Bulgarian	43	Infusion	Cold
Dimitrovgrad	Radejna	M	Bulgarian	54	Infusion	Cold
Dimitrovgrad	Radejna	M	Bulgarian	61	Infusion	Disease prevention
Dimitrovgrad	Smilovci	F	Bulgarian	47	Infusion	Respiratory diseases
Dimitrovgrad	Smilovci	F	Bulgarian	63	Infusion	Aphrodisiac
Dimitrovgrad	Smilovci	F	Roma	44	Infusion	Gastric ulcer
Dimitrovgrad	Smilovci	M	Bulgarian	28	Infusion	Respiratory diseases
Dimitrovgrad	Smilovci	M	Roma	53	Infusion	Gastric ulcer

*Gen. – gender, Nat. – nationality, All mentioned applications were internal

Eight respondents mentioned the use of the above-ground part of *S. hortensis*. The medicinal uses included the treatment of diabetes (1 report), and disease prevention (1 report) in the form of infusion. One respondent mentioned *S. hortensis*, but he didn't know how to use it (1 report). Five respondents mentioned the use of dry plant *S. hortensis* as spice in nutrition (5 reports).

There were 70 reports by 65 respondents regarding the ethnobotanical internal use of above-ground part of *S. montana*, of which the most common were the uses in the treatment of respiratory diseases: cold (24 reports), respiratory diseases in general (10 reports), cough (6 reports), bronchitis (5 reports), sore throat (3 reports), and asthma (1 reports). Eight respondent didn't know how to use *S. montana* (8 report), and the other respondents mentioned the following internal uses in the form of infusion: disease prevention (5 reports), gastric ulcer (2 reports), aphrodisiac (1 report), digestion (1 report), for stomach (1 report), improve the immune system (1 report), sedation (1 report).

Table 2 Traditional uses of *S. hortensis* and *S. montana* with number of respondents as survey results between the Pirot District population
Табела 2 Традиционалне употребе врста *S. hortensis* and *S. montana* са бројем испитаника као резултат истраживања међу становништвом Пиротског округа

Plant species	Use	Form	Number of respondents
<i>Satureja hortensis</i>	Spice in nutrition	Dry plant	5
	Diabetes	Infusion	1
	Disease prevention	Infusion	1
	Uniknown use	Infusion	1
<i>S. montana</i>	Cold	Infusion	24
	Respiratory diseases	Infusion	10
	Uniknown use	Infusion	8
	Cough	Infusion	6
	Bronchitis	Infusion	5
	Disease prevention	Infusion	5
	Sore throat	Infusion	3
	Gastric ulcer	Infusion	2
	Aphrodisiac	Infusion	1
	Asthma	Infusion	1

Digestion	Infusion	1
For stomach	Infusion	1
Improve the immune system	Infusion	1
Sedation	Infusion	1
Strengthening the heart	Infusion	1

All mentioned applications were internal

DISCUSSION

Jarić et al. (2015) at Suva Planina Mt mentioned the use of sumer savory – *S. hortensis* against colds, as an expectorant, as a carminative, and as spice as part of person's diet, which were similar uses in comparison with the present study. Koleva, Dragoeva, Nanova, Koynova, and Dashev (2015) mentioned the use of *S. hortensis* as spice, which was the same use as in our study. Matejić et al. (2020) found that the population of the Svrljig region used *S. hortensis* for appetite, and against stomach pain, which were different uses in comparison with our study. Therefore, the internal uses of *S. hortensis* in the treatment of diabetes, and for disease prevention, can be considered novelties of our study.

Pironi, Dibra, Grishaj, G., Grishaj, I., Macai (2005) mentioned that the Albanians of Lepushe, Northern Albanian Alps, used winter savory – *S. montana* for nutraceutical purposes, i.e. added to food for flavour, which were the same use in comparison with our investigation. Šarić Kundalić, Dobeš, Klätte-Asselmeyer, and Saukel (2010) in middle, south, and west Bosnia and Herzegovina noted the use of *S. hortensis* against anemia as a single component, and for blood purification in mixtures. The mentioned uses were different in comparison with present study. Jarić et al. (2015) noted that the population of Suva Planina Mts used *S. montana* against respiratory problems: colds, coughs, asthma, bronchitis and fevers, which were similar uses in comparison with the present study. Mustafa et al. (2015) mentioned the use of *S. montana* as spasmolytic, anti-diabetic, and anti-parasitic agent, which were the different uses in comparison to our study. The same authors noted the use of *S. montana* internally in the treatment of respiratory tract infections, anti-tussive, as an expectorant, which were the similar uses as in our study. The same authors mentioned the use of *S. montana* externally in the treatment of rheumatism, in the form of ointment in

mixture with agrimony, lavender, chamomile, yarrow and sage, added to fresh lard, mixed well and heated up, without boiling. This external use was not mentioned in our study. Pieroni, Ibraliu, Mehmood Abbasi, Papajami-Toska (2015) mentioned the use of *S. montana* for seasoning in diverse culinary preparations, which was the same use as in our study. The same authors mentioned the use of *S. montana* against headaches in mixtures with wild thyme, which was different use in comparison to our study. Matejić et al. (2020) in the Svrlijig region, based on a survey of the local population, mentioned the use of *S. montana* against productive cough, bronchitis, and chills, which were similar uses in comparison with the present study in Pirot District. The same authors noted the use of *S. montana* for appetite, which was different in comparison to our study. Mustafa, Hajdari, Pulaj, Quave, and Pieroni (2020) mentioned the use of *S. montana* as a spice as in our study, as well as against stomach-ache, and anti-constipation, which were different uses in comparison to our study. Łuczaj, Jug-Dujaković, Dolina, Jeričević, and Vitasović-Kosić (2021) mentioned the use of *S. montana* against the common cold as in our study, and for urinary tract, circulation, and against hair loss, which were different uses in comparison to present study in the Pirot District.

The uses of *S. hortensis* in the treatment of diabetes and for disease prevention, and the ethnopharmacological uses of *S. montana* as aphrodisiac, for digestion, disease prevention, improve the immune system, for stomach, strengthening the heart, sedation, sore throat, and against gastric ulcer, were not mentioned in previously conducted ethnobotanical studies in neighboring regions of Serbia and the Balkan Peninsula.

CONCLUSION

It can be concluded that above-ground parts of *S. hortensis* were used internally for the treatment of diabetes, and disease prevention in the form of infusion, and as a spice in the form of dry plant. *S. montana* was used internally in the form of an infusion for the treatment of cold, respiratory diseases in general, cough, bronchitis, sore throat, asthma, gastric ulcer, for disease prevention, digestion, as aphrodisiac, for stomach, improving the immune system, sedation, and strengthening the heart.

The protection of the populations of *S. montana* should be taken into consideration. Special care in collection from the natural habitats of the Pirot District is necessary for this plant species because it is on the list of protected species in Serbia.

The ethnopharmacological uses of *S. hortensis* against diabetes, and in disease prevention obtained in our study, as well as the ethnopharmacological uses of *S. montana* as aphrodisiac, for digestion, disease prevention, improve the immune system, for stomach issues, strengthening the heart, sedation, sore throat, and against gastric ulcer were different and new in comparison with previously conducted ethnobotanical studies in Serbia and Balkan Peninsula. Further chemical and pharmacological studies on the use of these two plant species from the *Satureja* genus, for which there was no literature data so far, is suggested.

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REFERENCES

- Гостушки, Р. (1973). *Лечење лековитим биљем* (6. издање), Београд, Народна књига.
- Jafari, F., Ghavidel, F., Zarshenas, M. M. (2016). A critical overview on the pharmacological and clinical aspects of popular *Satureja* species. *Journal of acupuncture and meridian studies*, 9(3), 118-127.
- Jarić, S., Mačukanović-Jocić, M., Djurdjević, L., Mitrović, M., Kostić, O., Karadžić, B., Pavlović, P. (2015). An ethnobotanical survey of traditionally used plants on Suva planina mountain (south-eastern Serbia). *Journal of Ethnopharmacology*, 175(4), 93-108. doi: 10.1016/j.jep.2015.09.002
- Koleva, V., Drageva, A., Nanova, Z., Koynova, T., Dashev, G. (2015). An ethnobotanical study on current status of some medicinal plants used in Bulgaria. *International Journal of Current Microbiology and Applied Sciences*, 4(4), 297-305.

- Łuczaj, Ł., Jug-Dujaković, M., Dolina, K., Jeričević, M., Vitasović-Kosić, I. (2021). Insular Pharmacopoeias: Ethnobotanical Characteristics of Medicinal Plants Used on the Adriatic Islands. *Frontiers in Pharmacology*, 12, 623070. doi: 10.3389/fphar.2021.623070
- Marković, S.M., Pljevljakušić, S.D., Matejić, S.J., Nikolić, M.B., Zlatković, K.B., Rakonjac, B.Lj., Djokić, M.M., Papović, M.O., Stankov Jovanović, P.V. (2023). Traditional uses of medicinal plants in Pirot District (southeastern Serbia). *Genetic Resources and Crop Evolution*, 71, 1201-1220. doi: 10.1007/s10722-023-01685-7
- Matejić, S.J., Stefanović, N., Ivković, M., Živanović, N., Marin, D.P., Džamić, M.A. (2020). Traditional uses of autochthonous medicinal and ritual plants and other remedies for health in Eastern and South-Eastern Serbia. *Journal of Ethnopharmacology*, 261, 28 October 2020, 113186, 1-28. doi: 10.1016/j.jep.2020.113186
- Mustafa, B., Hajdari, A., Pieroni, A., Pulaj, B., Koro, X., Quave, C.L. (2015). A crosscultural comparison of folk plant uses among Albanians, Bosniaks, Gorani and Turks living in south Kosovo. *Journal of Ethnobiology and Ethnomedicine*, 11(39), 1-26. doi: 10.1186/s13002-015-0023-5
- Mustafa, B., Hajdari, A., Pulaj, B., Quave, L.C., Pieroni, A. (2020). Medical and food ethnobotany among Albanians and Serbs living in the Shtërpçë/Štrpce area, South Kosovo. *Journal of Herbal Medicine*, 60, 2055-2080. doi: 10.1016/j.hermed.2020.100344
- Pieroni, A., Dibra, B., Grishaj, G., Grishaj, I., Macai, S.G. (2005). Traditional phytotherapy of the Albanians of Lepushe, Northern Albanian Alps. *Fitoterapia*, 76(3-4), 379-399. doi: 10.1016/j.fitote.2005.03.015
- Pieroni, A., Ibraliu, A., Mehmood Abbasi, A., Papajami-Toska, V. (2015). An ethnobotanical study among Albanians and Aromanians living in the Rraice and Mokra areas of Eastern Albania. *Genetic Resources and Crop Evolution*, 62, 477-500. doi: 10.1007/s10722-014-0174-6
- Сарић, М. (ур.) (1989). *Лековитие биљке СР Србије*, Београд, Српска академија наука и уметности.
- Šarić Kundalić, B., Dobeš, C., Klatter-Asselmeyer, V., Saukel, J. (2010). Ethnobotanical study on medicinal use of wild and cultivated plants in middle, south and west Bosnia and Herzegovina. *Journal of Ethnopharmacology*, 131, 33-55. doi: 10.1016/j.jep.2010.05.061
- Службени гласник Републике Србије (2010). Правилник о проглашењу и заштити строго заштићених и заштићених дивљих врста

биљака, животиња и гљива. Службени гласник Републике Србије, бр. 5/10, 47/11 и 32/16.

- Tasić, S., Šavikin Fodulović, K., Menković, N. (2001). *Vodič kroz svet lekovitog bilja*, Beograd, Samostalno izdanje.
- Тере, В., Cilkiz, М. (2016). A pharmacological and phytochemical overview on *Satureja*. *Pharmaceutical biology*, 54(3), 375-412.
- Туцаков, Ј. (1990). *Лечење биљем : фитотерапија* (5. издање), Београд, Рад.

РЕЗИМЕ

Дат је преглед етноботаничких знања о употреби биљних врста из рода *Satureja* у Пиротском округу. Сеоско становништво у општинама Пиротског округа (Пирот, Бабушница, Бела Паланка и Димитровград) анкетирано је о познавању и коришћењу биљака из рода *Satureja*, а резултати до којих се дошло упоређени су са етноботаничким истраживањима у Србији и на Балканском полуострву. У Пиротском округу користе се следеће две биљне врсте из рода *Satureja*: *S. hortensis* L., чији је народни назив у округу „чубрика“, „чубрица“ или „чубрило“ и *S. montana* L., чији је народни назив „ртањски чај“ или „дивља чубрика“.

Осам испитаника је поменуло унутрашњу употребу надземног дела врсте *S. hortensis*, од чега су две поменуте употребе биле у виду инфузије за лековите сврхе: против шећерне болести и за превенцију против болести. Један испитаник је поменуо врсту *S. hortensis*, али није знао употребу. Пет испитаника је поменуло употребу сувог надземног дела врсте *S. hortensis* као зачин у кулинарству.

Употребу врсте *S. montana* поменуло је 65 испитаника, а све изјаве биле су за лековите сврхе. Поменуте су следеће лековите употребе врсте *S. montana*: прехлада (24 изјава), респираторне болести уопштено (10 изјава), кашаљ (6 изјава), бронхитис (5 изјава), превенција против болести (5 изјава), упала грла (3 изјаве), чир на желуцу (2 изјаве), афродизијак (1 изјава), астма (1 изјава), за боље варење (1 изјава), за желудац (1 изјава), за јачање срца (1 изјава), побољшање имунитета (1 изјава), за смирење (1 изјава). Осам испитаника је поменуло врсту *S. montana*, али није знало њену употребу.

Резултати до којих се дошло анкетавањем становништва у Пиротском округу о употреби биљака из рода *Satureja* упоређени су са претходним етноботаничким истраживањима у Србији и на Балкану. Различите и нове употребе су следеће: употреба врсте *Satureja hortensis*, чији је локални народни назив „чубрика“, „чубрица“ или „чубрило“ против шећерне болести, као и за превенцију против болести; употреба врсте *Satureja montana* чији је народни назив „ртањски чај“ или „дивља чубрика“ као афродизијака, за варење, превенцију против болести, побољшање имунитета, за желудац, јачање срца, за смирење, против болова у грлу и против чира на желуцу.

У вези са поменутиим етномедицинским употребама које су навели становници у Пиротском округу, предлажу се даља хемијска и фармаколошка истраживања употреба ове две биљне врсте из рода *Satureja*, за које до сада није било литературних података.

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