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RESEARCH ARTICLE

Plants, people and their shared heritage: A comparative medicinal and wild food ethnobotany of Albanians, Greeks and Aromanians living in the Gjirokaster area, southern Albania

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Societal Impact Statement

Traditional knowledge about wild plants connects people to nature and sustains both cultural identity and biodiversity. This study explores how cultural exchange among Albanians, Greeks and Aromanians in southern Albania shapes the use and naming of medicinal and food plants. By revealing how linguistic and social interactions influence local ecological knowledge, the research highlights the adaptability of human–plant relationships in changing cultural landscapes. These insights support efforts to document and protect ethnobotanical heritage, promote culturally sensitive conservation and guide policies that strengthen biocultural resilience and sustainable use of natural resources in the Balkans and beyond.

Summary

- This study explores how ecological and cultural factors shape local ecological knowledge (LEK) in the Balkans, a recognized biocultural hotspot and long-standing reservoir of wild medicinal plants. Focusing on Albanian, Greek and Aromanian communities in the Gjirokastër region of southern Albania, it investigates cross-cultural ethnobotanical dynamics, linguistic adaptation and processes of knowledge transmission.
- Data were collected through 84 semistructured interviews complemented by participant observation. Quantitative ethnobotanical indices were calculated and overlaps in plant reports and uses among the three cultural groups were analysed to assess shared and idiosyncratic knowledge patterns.
- Albanians contributed the largest proportion of recorded folk plant names, and medicinal applications primarily targeted gastrointestinal and dermatological conditions. The presence of Albanian folk names cited by other groups suggests linguistic borrowing, likely reinforced during the communist period. While idiosyncratic ethnobotanical knowledge was largely maintained among Greek and

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Albanian participants, it was considerably less preserved among Aromanians, indicating substantial cultural adaptation.

- The findings highlight the vitality and adaptability of shared LEK in southern Albania and point to long-standing historical and cultural exchange in the region. The study emphasizes the importance of documenting ethnobotanical heritage to support biocultural stewardship, revitalize the regional herbal trade and promote culturally sensitive bioconservation strategies and community-led initiatives that strengthen intergenerational knowledge transmission and socio-ecological resilience across the Balkans.

KEYWORDS

Albania, Balkans, ethnobotany, food heritage, local ecological knowledge, minorities, medicinal plantswild food plants

1 | INTRODUCTION

Local ecological knowledge (LEK) refers to the cumulative body of knowledge, practices and beliefs concerning relationships among living beings including humans and their environments developed through generations of experience and cultural transmission (Berkes, 2012; Berkes et al., 2000; Hunn, 2007). In ethnobotany, LEK is expressed through the traditional knowledge and use of plants for food, medicine and ritual. This knowledge is shaped by cultural identity, language and belief systems, as well as by the surrounding biocultural landscapes (Agnoletti, 2014; Turner et al., 2000). In multiethnic contexts such as the Balkans, LEK-focused research reveals how traditional knowledge systems persist, transform and adapt through intercultural contact (Byg & Salick, 2009; Savo et al., 2016; Sulaiman, 2025).

Southern Albania represents one of these biocultural crossroads, marked by the coexistence of Albanians mainly Sunni or Bektashi Muslims and Eastern Orthodox Christians with Greek and Aromanian (Vlach) minorities (Elsie, 2021; Rexhepi, 2020; Shkreli, 2023). These groups have historically coexisted and interacted within a shared mountainous environment, especially in Gjirokastër, Dropull and surrounding areas (Kahl, 2002; Nitsiakos, 2010). Despite assimilation pressures during the communist period (1944–1991), they have maintained distinct languages, religions and oral traditions (De Rapper, 2005). Increasing intermarriage and cultural exchange in recent decades, however, have created hybrid cultural spaces where ancestral heritage continues to evolve.

Wild edible and medicinal plants have historically played a central role in these communities, supporting livelihoods, health and spiritual life (Pieroni, Nebel, et al., 2005; Papp et al., 2013; Shackleton et al., 2011). Knowledge of plant identification, naming, preparation and use has been transmitted orally, often through elder women and local healers (Alrhmoun et al., 2024; Della et al., 2006; Mustafa et al., 2012; Quave & Pieroni, 2015). Such differences sometimes may persist despite geographical proximity, shaped therefore not much by environmental factors but by cultural identity, language, epistemologies, modes of communication, cultural negotiations with neighbours, as well as social structures and codes of power within and outside the communities (González-Varo & Aparicio, 2015; Svanberg, 2016; Weller, 2007). Language barriers or bilingualism influence how knowledge is transmitted and adapted, while kinship networks and oral traditions contribute to the preservation or differentiation of expertise. Furthermore, the nature of small communities with their close interpersonal relationships and gendered roles in knowledge transmission adds complexity to how ethnobotanical knowledge is maintained and evolves.

Particularly, in the Balkans, ecological conditions, seasonal cycles and religious and social stratification have shaped the distribution and use of wild plants (Redžić, 2007). Most importantly, kinship relations (intermarriages) and everyday interactions among diverse ethnic groups in Albania have fluctuated over the past two centuries. Primarily due to the history of communism in Albania (1944–1991) and its centralised atheism, these interactions may have facilitated, to some extent, the exchange and blending of ethnobotanical practices.

This study aimed to document and analyse traditional ecological knowledge related to the use of medicinal and wild food plants among Albanian, Greek and Aromanian communities in southern Albania. Specifically, the research objectives of this study were as follows: (1) to document the LEK linked to medicinal and wild food plants uses across the three communities; (2) to compare the recorded folk names and plant reports among the three groups; (3) to possibly assess if overlaps in folk naming the considered plants corresponded to overlaps in the reports, thus better understanding how social exchanges and coexistence may have shaped transmission, variation and persistence of plant LEK. The overarching aim of this research is to contribute to broader discussions on the complex web of biocultural diversity, resilience and change in Balkan multicultural rural environments.

2 | MATERIALS AND METHODS

2.1 | Study area and data collection

Fieldwork was conducted in the mountainous regions of southern Albania (Gjirokastër County), part of the Pindus Mountain system on

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the Balkan Peninsula (Figure 1). Research took place in two phases, in autumn 2024, across the municipalities of Gjirokastër, Libohovë and Dropull. These areas encompass diverse ethnolinguistic communities: Albanians (Al), Greeks (Gr) and Aromanians (Ar) long settled in the region. Dropull hosts the officially recognised Greek minority in Albania, while Aromanian villages are primarily found within the Lunxhëri and Odrie units, including Nokovë, Dhoksat, Mingul, Qesorat and Labovë e Zhapës.

In total, 84 informants participated in the study, with a balanced gender and age distribution to capture intergenerational knowledge. Informants were selected using purposive sampling followed by sampling snowball sampling to ensure inclusion of individuals recognised for their knowledge of local medicine and wild food plants.

Ethical considerations were strictly adhered to, in accordance with the Code of Ethics of the International Society of Ethnobiology, including obtaining verbally informed consent before the interview. Interviews were open-ended, encouraging participants to share details about plant names (both folk and scientific), harvesting practices, preparation methods and the social contexts in which this knowledge was acquired and transmitted. The focus of the field ethnobotanical study was on all medicinal plants and the wild food plants that locals currently use or have used during their lives; cultivated food plants were considered only when used in unusual ways compared with their mainstream, globalised culinary uses. As the study progressed, interviews were complemented by participant observations. Informants were invited to lead foraging walks in their local environments, offering direct insights into plant identification, gathering habits and ecological awareness in situ. All interviews were conducted in the local languages by the co-authors who conducted the field study and are fluent in the three spoken languages of the study area (Avni Hajdari, Evanthia Dina, Ani Bajrami, Andrea Pieroni).

2.2 | Data classification and analysis

To ensure taxonomic accuracy, the scientific names of wild plants cited in both historical and contemporary sources were verified using authoritative databases, such as Flora Europaea, and standard floristic guides. Plant identification was further supported by specimens previously collected, classified and deposited in regional herbaria during prior ethnobotanical fieldwork conducted in the Balkan Region.

For the Albanian specimens, plant identification was performed by direct comparison with reference materials from the Herbarium of the University of Tirana (TIR). The identification process was conducted under the guidance of experienced botanists from the Faculty of Natural Sciences, using the multivolume Flora e Shqipërisë (Demiri, 1983–1992; Qosja et al., 1992–1996) as the primary taxonomic reference. All confirmed specimens were labelled with collection numbers and deposited as voucher specimens in the University of Prishtina Herbarium, ensuring traceability and enabling future verification. Nomenclatural updates were verified using major international databases, including World Flora Online, Euro+Med PlantBase and the Kew World Checklist.

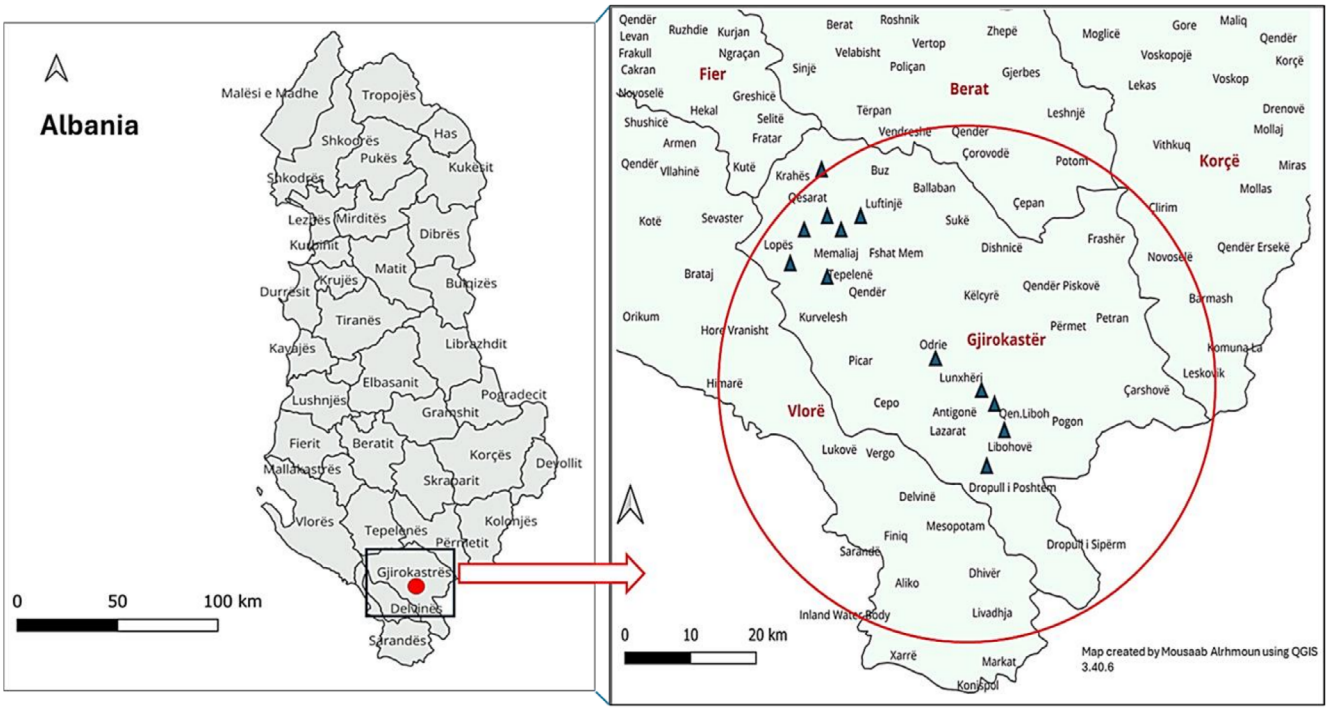

FIGURE 1 Map of the study area in Albania (triangle refers to the visited villages: Labovë e Kryqit [e Sipërme], Labovë e Kryqit [e Poshtme], Nepravishtë, Stegopul, Nokovë, Dhoksat, Mingul, Qesorat, Andon Poçi, Tërbuq, Labovë e Zhapës [Madhe], Labovë e Zhapës [Vogël] and Dropull i Poshtëm [Dervician, Terihat and Frashtan]).

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Each record was entered into a structured database with variables including Latin name, botanical family, local names (as recorded among the Greek, Aromanian and Albanian communities), plant part used, preparation method, local use (therapeutic or culinary) and the number of citations per ethnic group, along with total citations and distinct uses. Local uses were categorised by domain (e.g., gastrointestinal, dermatological, nutritional), and multiuse entries were noted.

Quantitative data analysis was conducted to assess usage patterns and cultural relevance. Descriptive statistics were used to summarise the use of categories, plant parts and preparation methods across ethnic groups.

The use value (UV) was calculated using the formula:

$$UV = \frac{\sum U_i}{N}$$

where U_i is the number of reports used for species i and N is the total number of informants.

The informant consensus factor (ICF) was computed to evaluate agreement among informants for each ailment category:

$$ICF = \frac{N_{ur} - N_t}{N_{ur} - 1}$$

where N_{ur} is the total number of use reports in a category and N_t is the number of taxa used.

Fidelity level (FL%) reflects the percentage of informants who use a plant for the same primary purpose.

$$FL(\%) = \frac{N_p}{N} \times 100$$

where N_p is the number of informants reporting the plant for a specific use and N is the total number of informants who mentioned the plant for any use.

To visualise similarities and overlaps in ethnobotanical knowledge between groups, Venn diagrams and cluster analysis were employed. All descriptive and inferential statistical analyses were performed using SAS 9.4 (SAS Institute Inc., Cary, NC, USA), while R version 4.4.2 was used for multivariate statistics and data visualisation.

3 | RESULTS

3.1 | Overview of recorded plant species and taxonomic diversity

A total of 140 plant taxa were identified across the surveyed mountain communities, belonging to 51 botanical families (Table S1).

The most represented families include Rosaceae, with 18 species, including various fruit trees and wild shrubs such as *Rosa canina*, *Crataegus monogyna* and *Rubus fruticosus*. Lamiaceae includes 12 species, notably *Salvia officinalis*, *Mentha spicata* and *Origanum vulgare*, all widely used for aromatic, digestive and soothing properties. Asteraceae, comprising 12 species such as *Matricaria chamomilla* and *Taraxacum officinale*, is commonly used in traditional infusions and other remedies. Brassicaceae includes eight species, including *Brassica oleracea* varieties and *Raphanus raphanistrum*, reflecting food-related diversity with some folk medicinal use. Apiaceae includes eight species, including *Foeniculum vulgare*, *Daucus carota* and *Petroselinum crispum*, which are valued both nutritionally and medicinally. Other families with notable contributions include Amaranthaceae, with five species; Moraceae, with four species; Fabaceae, with six species, including *Trifolium* and *Vicia* species; Cucurbitaceae, with five species; and Solanaceae and Polygonaceae, with four species each; and Boraginaceae three species each, single-species family (Table S1).

Several families were represented by single species, reflecting narrow ecological niches or culturally specific uses (e.g., *Actinidia chinensis*, *Ephedra foeminea*, *Orchis* spp. and *Vaccinium myrtillus*).

3.2 | Community-specific ethnobotanical knowledge in plant use

The ethnobotanical survey among Albanians, Greeks and Aromanians documented over 140 plant taxa used for both medicinal and culinary purposes, addressing ailments from common colds to chronic conditions like hypertension and diabetes (Table S1). Key species included *M. chamomilla*, primarily cited by Greeks for eye, nervous system, digestive and wound-related uses; *Sideritis raeseri*, valued by Greeks and Aromanians for respiratory and general health; *O. vulgare* and *M. spicata*, used across groups for digestive, respiratory and culinary purposes; and *Urtica dioica*, noted for nutrition, blood purification and skin and hair care. Cross-cultural patterns emerged: Greeks reported broader pharmacological applications, Albanians emphasized culinary uses and health of women, and Aromanians focused on respiratory and gynaecological uses. Multipurpose plants such as *Anethum graveolens*, *Allium cepa*, *Allium sativum* and *M. spicata* bridged food and medicine. Unique uses were also observed: *Ephedra foeminea* and *Cuscuta* spp. by Greeks for kidney stones and hair care, and *Lycoperdon dermoxanthum* by Albanians for wound healing. A wide range of plant parts such as latex, leaves, petals, fruits, seeds and underground organs were employed for diverse therapeutic and nutritional roles. These findings illustrate both shared and community-specific knowledge, highlighting the interplay of culture, ecology and social exchange in shaping LEK.

3.3 | Comparative distribution of wild plant genera across communities

A total of 109 genera were identified, with over half (55 genera, 50.5%) common to all three communities (Figure 2), including notable genera such as *Allium*, *Amaranthus*, *Artemisia*, *Brassica*, *Capsicum*, *Citrullus*, *Cucumis*, *Cynodon*, *Ficus*, *Helleborus*, *Malus*, *Melissa*, *Mentha*, *Olea*, *Punica*, *Rosa*, *Rubus*, *Solanum*, *Spinacia*, *Taraxacum*, *Tilia*, *Vitis* and *Ziziphus*.

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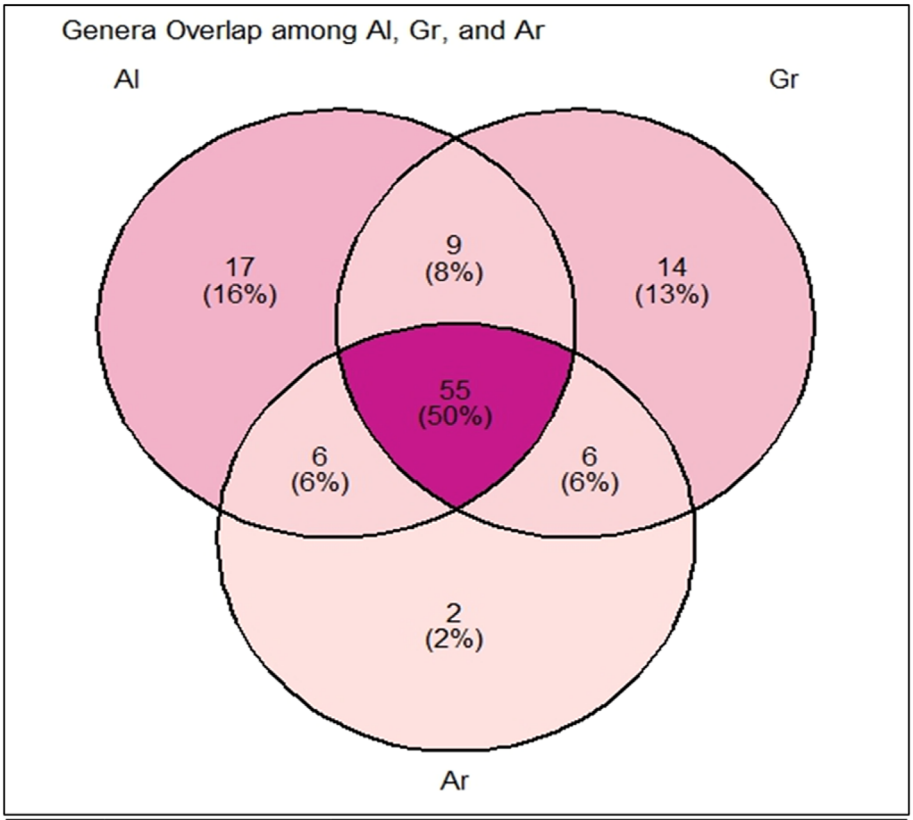

FIGURE 2 Ethnobotanical genera overlap among the three communities in our study, as shown by Venn diagram (Al: Albanian, Ar: Aromanian, Gr: Greek).

Community	Number and Percentage (n, %)	Genera
Al only	17 (15.6)	*Eriobotrya, Sempervivum, Helichrysum, Osyris, Lactuca, Torilis, Quercus, Bellis, Digitalis, Phaseolus, Lycoperdon, Eruca, Asparagus, Micromeria, Ecballium, Juniperus, and Pelargonium.*
Gr only	14 (12.8)	*Cichorium, Actinidia, Cynara, Cuscuta, Celtis, Hedera, Valeriana, Lavandula, Corylus, Cupressus, Ephedra, Vicia, Nerium, and Hylotelephium.*
Ar only	2 (1.8)	*Ulmus, Laburnum*
Al + Gr	9 (8.3)	*Daucus, Paliurus, Platanus, Ocimum, Plantago, Echium, Juglans, Sinapis, and Morus*
Al + Ar	6 (5.5)	*Chenopodium, Lathyrus, Vaccinium, Papaver, Borago, Rumex*
Gr + Ar	6 (5.5)	*Diospyros, Trifolium, Crepis, Aloe, Raphanus, Erodium*
Al+Gr+Ar	55 (50.5)	*Ziziphus, Helleborus, Citrullus, Cynodon, Rubus, Silybum, Olea, Cucumis, Apium, Amaranthus, Citrus, Capsicum, Punica, Vitis, Orchis, Portulaca, Melissa, Sideritis, Asplenium, Atriplex, Cucurbita, Taraxacum, Zea, Brassica, Ficus, Cornus, Hypericum, Trigonella, Malus, Foeniculum, Sonchus, Artemisia, Capsella, Tilia, Allium, Malva, Matricaria, Crataegus, Cydonia, Sambucus, Tordylium, Laurus, Pyrus, Prunus, Petroselinum, Salvia, Mentha, Anthriscus, Spinacia, Beta, Origanum, Urtica, Rosa, Anethum, and Solanum.*

Distinctive genera were also found exclusively within each community. The Albanian community uniquely harboured 17 genera (15.6%), including *Asparagus*, *Bellis*, *Digitalis*, *Eriobotrya*, *Helichrysum*, *Juniperus*, *Lactuca*, *Osyris*, *Quercus* and *Sempervivum*.

The Greek community exhibited 14 unique genera (12.8%), such as *Actinidia*, *Cichorium*, *Cupressus*, *Cuscuta*, *Cynara*, *Ephedra*, *Lavandula* and *Valeriana*. The Aromanian community exhibited the smallest unique flora, comprising two genera (1.8%), namely, *Ulmus* and *Laburnum*.

Several genera were shared between pairs of communities. Nine genera (8.3%) were common to both Albanian and Greek communities, including *Daucus*, *Juglans*, *Morus*, *Ocimum* and *Plantago*. The Albanian and Aromanian communities shared six genera (5.5%), including *Chenopodium*, *Lathyrus* and *Papaver*. Similarly, six genera (5.5%) were shared between Greek and Aromanian communities, including *Aloe*, *Crepis*, *Diospyros*, *Raphanus* and *Trifolium* (Figure 2).

3.4 | Folk Name Origin Patterns and Cross-Community Use Patterns

The ethnobotanical survey identified 28 plant species with Albanian folk names, representing 24 distinct genera. These species are primarily documented in the Albanian community, with minimal usage recorded among neighbouring ethnic groups. Of the 28 species, all were used by the Albanian community, with dominant uses including food (e.g., *Brassica juncea*, *Eruca vesicaria*, *Lactuca sativa*, *Phaseolus vulgaris*, *Prunus armeniaca*, *Morus alba* and *Morus nigra*) and a substantial number applied in folk medicine. Medicinal applications were diverse, addressing ailments such as rheumatism (*Asparagus acutifolius*), diabetes (*Crataegus germanica*, *Malus sylvestris*), cold and cough (*Helichrysum italicum*, *Osyris alba*, *Juniperus oxycedrus*), digestive issues (*Micromeria juliana*, *Malus sylvestris*), breast infection (*Rumex hydrolapathum*) and

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wound healing (*Sempervivum tectorum*, *Lycoperdon dermoxanthum*). Among the species with Albanian-origin folk names, notable examples include *Crepis* sp., *Erodium cicutarium* and *Malus sylvestris*, which are widely cited and used by the Greek and Aromanian communities. The Greek and Aromanian communities showed only minimal overlaps in the use of these Albanian-origin folk-name species. Still, the vast majority of the 22 genera were exclusively used within the Albanian group. Notably, no uniquely medicinal uses associated with these species were recorded outside the Albanian tradition (Table 1). Meanwhile, the Albanian group presents a robust and locally rooted LEK, partially shared with the Greek one.

Among the species identified with Greek-origin folk names, 22 plant taxa were uniquely named by members of the Greek community. However, analysis of their uses reveals that, while most remain culturally specific, a limited number have crossed ethnolinguistic boundaries and are also employed by Aromanian and Albanian informants. For example, *Ziziphus jujuba* is primarily cited by Greek participants for treating sore throats (three citations), with no use recorded among Albanian and Aromanian communities. Similarly, the fungus *Lycoperdon dermoxanthum*, used by Greek informants to stop bleeding, is also cited by two Albanian informants for the same purpose, despite its folk name being of Greek origin. The Greek community demonstrates a resilient LEK, maintaining distinct plant uses and folk names despite external socio-political pressures, as the communist regime sought cultural homogenization to forge a unified national identity. Other plants, such as *Mentha* × *piperita*, named after the Greeks, exhibit a rich diversity of internal uses within the Greek community (ranging from food flavouring to treating hypertension, stomachache and nervous tension). Still, the other groups do not broadly mirror these uses. A striking case is *Prunus amygdalus Batsch* (almond), cited up to four times by the Greeks for managing diabetes and also for cognitive and circulatory benefits, but not referenced by the Aromanian or Albanian participants. The majority of these species, including *Ephedra foeminea* (for kidney stones), *Cuscuta* sp. (for hair care) and *Corylus avellana* (for cardiovascular and brain health), were used exclusively by Greek participants.

Within the Aromanian community, only four species, belonging to three genera, are identified by local Aromanian folk names, associated with diverse traditional uses. These include *Citrus reticulata* (used for cough and improving general health), *Laburnum anagyroides* (used for sciatic nerve pain) and *Ulmus* species (used for skin diseases and stomachache). Notably, *Ecballium elaterium*, documented in Aromanian ethnobotany for rheumatism, jaundice and as food, is recorded with usage citations in the Albanian community in our study, rather than among Aromanians themselves. This indicates an impressive adaptation this community may have undergone. The uses of these plants, predominantly for respiratory, rheumatic, digestive and dermatological conditions, underscore their medicinal importance within the Aromanian cultural heritage while also illustrating cross-community ethnobotanical exchanges.

TABLE 1 Cross-community use and distribution of plant species with folk names of Albanian, Greek and Aromanian origin.

Folk name origin	Number of species	Number of genera	Cross-community use	Notable examples and uses	Comments
Albanian	28	24	Primary user community: Albanian—limited uses by Greek and Aromanian	Food: *Brassica juncea*, *Eruca vesicaria*, *Lactuca sativa*, *Phaseolus vulgaris*, *Prunus armeniaca*, *Morus alba*, *Morus nigra* Medicinal: *Asparagus acutifolius* (rheumatism), *Crataegus germanica*, *Malus sylvestris* (diabetes), *Helichrysum italicum*, *Osyris alba*, *Juniperus oxycedrus* (cold, cough), *Micromeria juliana*, *Rumex hydrolapathum* (digestive, breast infection), *Sempervivum tectorum*, *Lycoperdon dermoxanthum* (wound healing)	Species like *Crepis* sp., *Erodium cicutarium* and *Malus sylvestris* have Albanian folk names but are mainly cited by Greek and Aromanian communities and not by Albanians themselves
Greek	22	21	Primary user community: Greek—limited use by Albanian and Aromanian	*Ziziphus jujuba* (sore throat, burns, kidney stones)—*Lycoperdon dermoxanthum* (stop bleeding)—*Mentha* × *piperita* (food flavouring, hypertension, stomachache)—*Prunus amygdalus* (diabetes, cognitive and circulatory benefits)	Most species retain cultural specificity with limited ethnobotanical exchange; some uses transcend boundaries due to shared conditions
Aromanian	4	3	Uses cited mostly by Aromanians, but some by Albanians too	*Citrus reticulata* (cough, general health)—*Laburnum anagyroides* (sciatic nerve pain)—*Ulmus* sp. (skin diseases, stomachache)—*Ecballium elaterium* (rheumatism, jaundice, food) noted in Albanian use, not Aromanian	Indicates knowledge transfer or sharing between Aromanians and Albanians; important medicinal uses related to respiratory, rheumatic, digestive and dermatological ailments

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3.5 | Quantitative indices across the data collected in the three communities

The ICF values for various medicinal plant use categories were calculated for the Albanian, Greek and Aromanian communities, revealing patterns of agreement and variability among the communities (Table 2).

The ICF values, ranging from 0 to 1, represent the degree of agreement among informants regarding plant use for specific health categories; higher values indicate greater consensus and potentially more substantial cultural agreement. The Aromanian community exhibited the highest consensus in the food category (ICF = 0.849), while the Albanian community showed the strongest agreement in the pain, inflammation and rheumatism category (ICF = 0.93). The Greek community also displayed high consensus in food (ICF = 0.814) and respiratory diseases (ICF = 0.79). Interestingly, the Albanian community had a relatively low consensus for Genitourinary system disorders (ICF = 0.588) compared with the Aromanian (0.73) and Greek (0.7) communities. Similarly, infections and immune system showed high consensus within the Albanian community (0.82), suggesting strong shared knowledge of plant uses in this category. The lower ICF values in some categories, such as beverage (alcoholic beverage) for the Greek community (ICF = 0), suggest limited or highly varied use of plants in that category.

The UV (Figure 3) reflects how frequently each genus was mentioned by informants, regardless of the number of specific uses, thereby serving as an indicator of the cultural importance of each plant. The Greek community (Gr) exhibited the highest overall UVs across several genera; notably, *Allium* had the highest UV among all genera, with consistently elevated values in the Greek community, indicating its extensive culinary and medicinal use.

In contrast, the Albanian community (Al) displayed a more moderate pattern of plant use, with specific genera standing out. For example, *Urtica*, *Rumex*, *Anethum* and *Beta* were among the most valued, suggesting their relevance for both nutritional and medicinal purposes. Though the range of highly valued genera in Al was smaller compared with Gr, the UV indices indicate a still meaningful and structured traditional knowledge system.

The Aromanian community (Ar) generally showed lower UVs overall (Figure 3). Variation in UV among shared genera indicates differing cultural salience and intensity of use across communities.

FL% analysis highlights community agreement on specific plant uses. In Albanians, *U. dioica* had an FL% of 88%, consistently cited as a nutritive spring tonic, while *Malva sylvestris* reached 80% for digestive and anti-inflammatory uses.

Among Greek informants, *Sideritis* exhibited an outstanding FL% (92%), indicating strong agreement around its use for respiratory ailments such as colds and sore throats. Similarly, *O. vulgare* and *Tilia* recorded high FL% values (85% and 75%, respectively), highlighting their roles in digestive and calming remedies and confirming their cultural embeddedness in Greek folk phytotherapy (Table 3).

Aromanians displayed lower, more variable FL% values, though *O. vulgare* (60%) and *Hypericum perforatum* (58%) maintained moderate consensus, indicating retained knowledge for digestive and minor skin conditions (Table 3).

High UV generally corresponded with high FL%, particularly in Albanians and Greeks, highlighting culturally central species. At the same time, the Aromanian group's lower FL% values suggest a more generalised or fragmented use pattern.

The combined ethnobotanical indices reveal the cultural importance and use patterns of medicinal plants among Albanians, Greeks, and Aromanians. Species such as *M. chamomilla*, *Sideritis raeseri* and *O. vulgare* consistently show high values across all indices, highlighting their central role in Balkan Mountain tea traditions. As shown in Figure 4, UV and ICF are strongly correlated ($r = 0.94$), indicating that widely cited plants also have higher UVs. FL% shows moderate correlations with other indices ($r = 0.60–0.75$), capturing a distinct dimension of specificity, as it reflects the proportion of informants agreeing on a particular use rather than general popularity.

TABLE 2 Informant consensus factor (ICF) values for medicinal plant use categories among the three communities.

Category	Albanian ICF	Aromanian ICF	Greek ICF
Food	0.769	0.849	0.814
Blood system category	0.788	0.745	0.718
Respiratory diseases	0.589	0.797	0.79
Digestive and gastrointestinal	0.769	0.676	0.595
Improving general health	0.746	0.687	0.61
Genitourinary system disorders	0.588	0.73	0.7
Infections and immune system	0.82	0.66	0.692
Circulatory system disorders	0.78	0.73	0.7
Metabolic and endocrine	0.8	0.73	0.8
Pain, inflammation and rheumatism	0.93	0.59	0.59
Neurological system disorders	0.63	0.77	0.63
Relaxation and mental health	0.6	0.67	0.529
Skin disorders	0.56	0.804	0.67
Beverage (alcoholic beverage)	0.6	0.615	0

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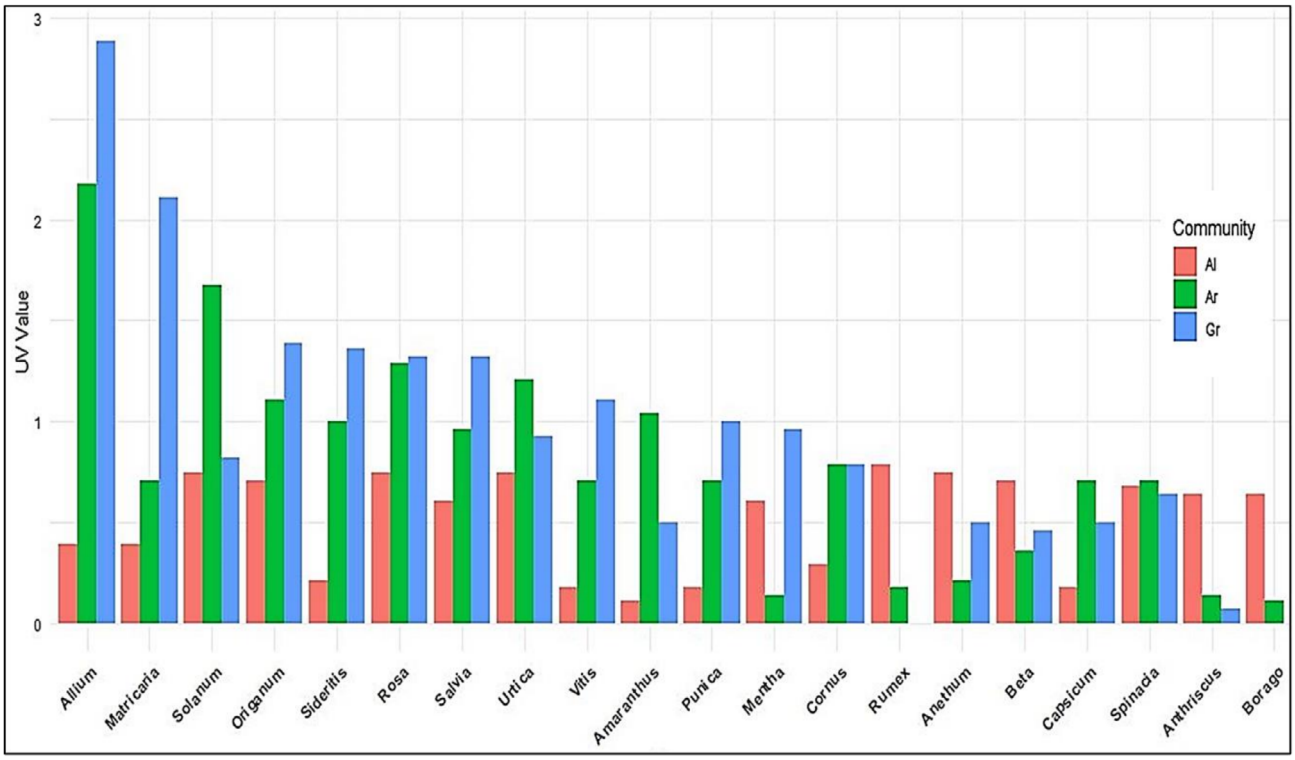

FIGURE 3 Use value (UV) distribution of the top quoted botanical genera among the three communities (Al: Albanian, Gr: Greek, Ar: Aromanian).

TABLE 3 Fidelity level (FL%) of plant taxa across the Albanian, Greek and Aromanian communities.

Plant taxa	Dominant use	Greeks (Gr)	Albanians (Al)	Aromanians (Ar)
Sideritis spp.	Respiratory ailments (infusion)	92%	40%	30%
Origanum vulgare	Digestive/culinary	85%	55%	60%
Urtica dioica	Nutritional tonic	35%	88%	30%
Malva sylvestris	Digestive/mild anti-inflammatory	40%	80%	35%
Tilia spp.	Calming/sedative	75%	25%	20%
Hypericum perforatum	Skin wounds/antidepressant	55%	50%	58%

4 | DISCUSSION

4.1 | Cultural resilience, exchange and biocultural diversity in mountain communities

The high diversity of recorded wild plants (140 species across 51 families) demonstrates the resilience of (LEK) in Albanian, Greek and Aromanian communities of southern Albania. Despite depopulation, socio-political upheavals and cultural homogenization, these communities maintain knowledge linking health, food and ecology. Mountain and borderland zones, ecologically rich and historically marginal, act as refugia for both plant species and cultural knowledge (Barthel et al., 2013).

The continued use of emblematic species, such as *Sideritis raeseri*, *M. chamomilla* and *O. vulgare*, across all three groups highlights a shared cultural core rooted in practical efficacy and ecological familiarity. These taxa serve as biocultural anchors (Pieroni & Quave, 2006), passed down through generations and often occupying roles at the interface between food and medicine. The ability of such traditions to persist, even evolve amid increasing access to biomedical healthcare and market economies, reflects a dynamic form of cultural resilience rather than mere survival (Turner & Turner, 2008).

One of the most compelling outcomes of this study is the significant overlap in plant knowledge across ethnic boundaries, with 55 genera commonly cited among Greek, Aromanian and Albanian informants. This convergence reflects a long history of cross-cultural contact, coexistence and social exchange among the communities. A significant portion of the local population (apart from the subgroup of Bektashi affiliated within the Albanian sample) has shared the Orthodox Christian faith for centuries, which may have

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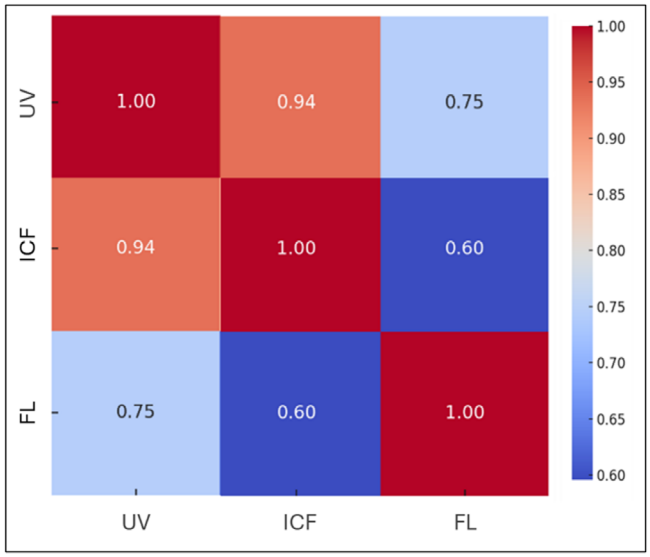

FIGURE 4 Correlation matrix of the quantitative ethnobotanical indices based on plant species data across the study communities. Fidelity level (FL), informant consensus factor (ICF) and use value (UV) represent standard quantitative measures used to assess the relative importance of plant species, agreement among informants and reported use intensity, respectively.

facilitated, in the course of history, social bonds, including intermarriages, especially but not exclusively during and after the communist period 1946–1991. However, marriages between Orthodox and Bektashi Muslim individuals have also been documented in the study area, illustrating a tradition of religious tolerance that helped maintain peaceful coexistence (Poulton, 2000). While intermarriage has been common since the communist period and continues today, these dynamics reflect complex, locally specific social processes that should not be generalised without further data (Schwandner-Sievers, 2003).

Similar patterns of knowledge hybridisation have been observed in the Andes (Ladio & Lozada, 2004) and the Caucasus (Sõukand et al., 2020), where cultural interaction has fostered ethnobotanical convergence for several decades without yet entirely erasing group-specific identities.

Yet, this convergence does not suggest homogenization. Instead, it reveals layered, negotiated uses, in which the same plant species serve different purposes across groups. For instance, while *M. chamomilla* is widely used, Greeks emphasise its application for eye treatments, whereas Aromanians cite it for immune support. This microdifferentiation in use reflects both cultural specificity and the flexibility of LEK systems to adapt to particular health concerns, symbolic associations and preparation traditions.

4.2 | Divergent cultural signatures and ecological adaptation

Although plant knowledge overlaps, clear cultural distinctions emerge in selection and use. The Greek community shows the largest repertoire (990 use-reports, 68 genera), highlighting a resilient culinary and medicinal tradition. Key genera like *Allium Mentha* and *Salvia* combine nutrition with preventive health, reflecting Mediterranean ethnobotanical patterns (Hadjichambis et al., 2008). In contrast, the Aromanian group, while drawing on the same general ecology, reports fewer genera (38) and places greater emphasis on respiratory and gynaecological health. This pattern may signal either cultural conservatism or knowledge erosion due to socio-economic marginalisation, increased mobility or the influence of external medical systems (Alexiades, 1996).

Albanians occupy an intermediate position (87 genera, 655 uses), with practical, utilitarian knowledge emphasizing multipurpose plants such as *Rumex*, *Solanum* and *Tordylium*.

Across all groups, the food-medicine continuum is evident: species like *Allium*, *Anethum*, *Silybum* and *Urtica* are used for both nutrition and healing (Etkin & Ross, 1991; Pieroni, Quave, et al., 2005). Our data also show fine-grained knowledge of specific plant parts, ranging from roots and petals to pericarps and fruiting fungi, demonstrating not only the depth of LEK but also its cultural sophistication. The preference for leaves (32.76%) and fruits (27.59%) reflects both practical availability and high bioactivity, consistent with other traditional pharmacopoeias globally (Leonti, 2011).

4.3 | Consensus, cultural importance and knowledge fragility

Consensus and UVs reveal distinct cultural patterns among the three communities. In Greek and Aromanian groups, shared culinary uses of wild plants emerge as a cohesive axis of LEK, reflecting a deeply rooted gastronomic heritage. This aligns with patterns observed in other Mediterranean contexts, where food plants often serve as cultural anchors, sustaining both identity and intergenerational transmission (Hadjichambis et al., 2008; Pieroni & Quave, 2007).

In contrast, the Albanian community places greater emphasis on the medicinal use of plants, particularly for treating common ailments. This therapeutic orientation may stem from historical or ongoing limitations in biomedical infrastructure, fostering reliance on home remedies and locally available resources, a phenomenon widely documented in rural ethnobotanical settings (Ceuterick et al., 2008; Redžić, 2007).

Emblematic taxa such as *Allium*, *Origanum* and *Urtica* highlight both symbolic and practical importance. However, usage frequency differs: Greeks maintain a robust, diversified knowledge supported by domestic use and cultural valorisation, while Aromanians exhibit lower engagement, indicating adaptation and partial erosion due to socio-cultural change, reduced reliance on natural resources, and linguistic shifts. These patterns underscore both the resilience and fragility of LEK across communities (Pieroni, Nebel, et al., 2005).

In contrast, Aromanians show lower engagement with traditional plant knowledge, likely due to cultural adaptation, reduced reliance on natural resources, linguistic shifts and changing social structures. This

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highlights the fragility of their ethnobotanical knowledge and underscores the need to safeguard biocultural heritage amid rapid sociocultural transitions (Alexiades, 1996; Turner & Turner, 2008).

4.4 | Implications for biocultural conservation and sustainable development

These findings highlight the vital role of LEK in biodiversity conservation, public health and cultural heritage. LEK in multilingual and historically mobile communities should be seen as a dynamic resource that informs community-based healthcare and resilient food systems.

Culturally specific genera, such as *Trifolium* and *Pelargonium* among Albanians, highlight the need for targeted education, participatory ethnobotanical initiatives and rural development policies to preserve and adapt traditional knowledge amid modernisation and climate change.

Although key plant genera are shared across groups, each community retains distinct ethnobotanical signatures shaped by historical, linguistic and ecological factors, evident in the prioritisation of different therapeutic domains. The food–medicine continuum emphasizes the dual culinary and medicinal roles of wild plants, reinforcing their accessibility, cultural relevance and contribution to well-being.

Documenting these practices supports the conservation of endangered biocultural heritage and provides a basis for sustainable healthcare, phytotherapy and community-centred conservation strategies. Integrating LEK into public health, food sovereignty, biodiversity management, ecotourism and biocultural heritage initiatives is essential, particularly in culturally complex and peripheral European contexts where traditional plant knowledge remains a key pillar of resilience and identity.

AUTHOR CONTRIBUTIONS

Design and conceptualization: Andrea Pieroni, Nektarios Aligiannis and Avni Hajdari. *Methodology design*: Andrea Pieroni and Avni Hajdari. *Field study and interviews*: Evanthia Dina, Andrea Pieroni, Avni Hajdari and Ani Bajrami. *Data analysis*: Mousaab Alrhmoun, Evanthia Dina, Avni Hajdari and Ani Bajrami. *Botanical vouchers identification and curation*: Konstantinos Ntinas, Ani Bajrami, Avni Hajdari, Marjol Meço, Andrea Pieroni and Bledar Pulaj. *First draft*: Mousaab Alrhmoun. *Funding*: Nektarios Aligiannis. *Review and editing*: all authors. *Approval of the final version of the paper*: all authors.

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CONFLICT OF INTEREST STATEMENT

The authors declare that they are aware of no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are presented in the article. Further inquiries should be directed to the corresponding author.

INSTITUTIONAL REVIEW BOARD STATEMENT

The study adhered to the International Society of Ethnobiology's Code of Ethics International Society of Ethnobiology (2006). ISE Code of Ethics (with 2008 additions) (https://www.ethnobiology.net/what-we-do/core-programs/ise-ethics-program/code-of-ethics/, accessed 12 March 2025). Before conducting interviews, verbal informed consent was obtained from all participants. Participants were fully informed about the research purpose, methods and their rights, including the right to withdraw from the study at any time.

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REFERENCES

Agnoletti, M. (2014). Cultural landscapes, traditional knowledge and sustainable development. *International Journal of Sustainable Development and World Ecology*, *21*(1), 1–4. https://doi.org/10.1080/13504509.2013.862817

Alexiades, M. N. (1996). *Selected guidelines for ethnobotanical research: A field manual*. New York Botanical Garden.

Alrhmoun, M., Sulaiman, N., & Pieroni, A. (2024). What drives herbal traditions? The influence of ecology and cultural exchanges on wild plant teas in the Balkan Mountains. *Land*, *13*(12), 2146. https://doi.org/10.3390/land13122146

Barthel, S., Crumley, C. L., & Svedin, U. (2013). Biocultural refugia: Safeguarding diversity of practices for food security and biodiversity. *Global Environmental Change*, *23*(5), 1142–1152. https://doi.org/10.1016/j.gloenvcha.2013.05.001

Berkes, F. (2012). *Sacred ecology* (3rd ed.). Routledge.

Berkes, F., Colding, J., & Folke, C. (2000). Rediscovery of traditional ecological knowledge as adaptive management. *Ecological Applications*, *10*(5), 1251–1262. https://doi.org/10.1890/1051-0761(2000)010[1251:ROTTEK]2.0.CO;2

Byg, A., & Salick, J. (2009). Local perspectives on a global phenomenon—Climate change in Eastern Tibetan villages. *Global Environmental Change*, *19*(2), 156–166. https://doi.org/10.1016/j.gloenvcha.2008.09.005

Ceuterick, M., Vandebroek, I., Torry, B., & Pieroni, A. (2008). Cross-cultural adaptation in urban ethnobotany: The Colombian folk pharmacopoeia in London. *Journal of Ethnopharmacology*, *120*(3), 342–359. https://doi.org/10.1016/j.jep.2008.09.004

De Rapper, G. (2005). Better than Muslims, not as good as Greeks: Emigration as experienced and imagined by the Albanian Christians of Lunxhëri. In S. Schwandner-Sievers & B. J. Fischer (Eds.), *Albanian identities: Myth and history* (pp. 127–144). Hurst & Co.

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Della, A., Paraskeva-Hadjichambi, D., & Hadjichambis, A. (2006). An ethnobotanical survey of wild edible plants of Paphos and Larnaca countryside of Cyprus. *Journal of Ethnobiology and Ethnomedicine*, *2*(1), 34.

Demiri, M. (1983–1992). Akademia e Shkencave e Republikës së Shqipërisë, Instituti i Kërkimeve Biologjike, Tiranë. Flora e Shqipërisë (Vols. 1–4).

Elsie, R. (2021). *The Albanian Bektashi: History and culture of a dervish order in the Balkans*. I. B. Tauris.

Etkin, N. L., & Ross, P. J. (1991). Should we set a place for diet in ethnopharmacology? *Journal of Ethnopharmacology*, *32*(1–3), 25–36. https://doi.org/10.1016/0378-8741(91)90100-R

González-Varo, J. P., & Aparicio, A. (2015). Traditional ecological knowledge and landscape management: The role of small-scale societies in maintaining biodiversity. *Journal of Ethnobiology and Ethnomedicine*, *11*, 1–13. https://doi.org/10.1186/s13002-015-0047-6

Hadjichambis, A. C., Hadjichambis, A. C., Paraskeva-Hadjichambi, D., Della, A., Giusti, M. E., De Pasquale, C., Lenzarini, C., Censorii, E., Gonzales-Tejero, M. R., Sanchez-Rojas, C. P., Ramiro-Gutierrez, J. M., Skoula, M., Johnson, C., Sarpaki, A., Hmamouchi, M., Jorhi, S., El-Demerdash, M., El-Zayat, M., & Pieroni, A. (2008). Wild and semi-domesticated food plant consumption in seven circum-Mediterranean areas. *International Journal of Food Sciences and Nutrition*, *59*(5), 383–414. https://doi.org/10.1080/09637480701566495

Hunn, E. S. (2007). Ethnobiology in four phases. *Journal of Ethnobiology*, *27*(1), 1–10. https://doi.org/10.2993/0278-0771(2007)27[1:EIFP]2.0.CO;2

Kahl, T. (2002). The ethnic situation in southern Albania: Some fieldwork observations. *Ethnologia Balkanica*, *6*, 145–169.

Ladio, A. H., & Lozada, M. (2004). Patterns of use and knowledge of wild edible plants in distinct ecological environments: A case study of a Mapuche community from northwestern Patagonia. *Biodiversity and Conservation*, *13*(6), 1153–1173.

Leonti, M. (2011). The future is written: Impact of scripts on the cognition, selection, knowledge, and transmission of medicinal plant use. *Journal of Ethnopharmacology*, *134*(3), 542–555.

Mustafa, B., Hajdari, A., Pajazita, Q., Syla, B., Quave, C. L., & Pieroni, A. (2012). An ethnobotanical survey of the Gollak region, Kosovo. *Genetic Resources and Crop Evolution*, *59*(5), 739–754.

Nitsiakos, V. (2010). *On the border: Transborder mobility, ethnic groups and boundaries along the Albanian–Greek frontier*. LIT Verlag.

Papp, N., Bartha, S., Boris, G., & Balogh, L. (2013). Traditional ecological knowledge (TEK) of wild plant use in a Hungarian Roma community: A case study. *Ethnobotany Research and Applications*, *11*, 1–13.

Pieroni, A., Nebel, S., Santoro, R. F., & Heinrich, M. (2005). Food for two seasons: Culinary uses of non-cultivated local vegetables and mushrooms in a south Italian village. *International Journal of Food Sciences and Nutrition*, *56*(4), 245–272. https://doi.org/10.1080/09637480500146564

Pieroni, A., & Quave, C. L. (2006). Functional foods or food medicines? On the consumption of wild plants among Albanians and Southern Italians in Lucania. In K. Heinrich, et al. (Eds.), *Ethnopharmacology* (pp. 101–123). Food Products Press.

Pieroni, A., & Quave, C. L. (2007). Traditional pharmacopoeias and the ethnic mosaic of the Balkans: A comparison. *Journal of Ethnopharmacology*, *111*(2), 342–358.

Pieroni, A., Quave, C. L., Giusti, M. E., & Papp, N. (2005). Ethnobotanical knowledge of the Istro-Romanians of Žejane in Croatia. *Fitoterapia*, *76*(3–4), 379–399.

Poulton, H. (2000). *Who are the Macedonians?* Indiana University Press.

Qosja, X., Paparisto, K., Puto, V., & Demiri, M. (1992–1996). Akademia e Shkencave e Republikës së Shqipërisë, Instituti i Kërkimeve Biologjike, Tiranë. Flora e Shqipërisë (Vols. 5–8).

Quave, C. L., & Pieroni, A. (2015). A reservoir of ethnobotanical knowledge informs resilient food security and health strategies in the Balkans. *Nature Plants*, *1*, 14021. https://doi.org/10.1038/nplants.2014.21

Redžić, S. (2007). The ecological aspect of ethnobotany and ethnopharmacology of population in Bosnia and Herzegovina. *Collegium Antropologicum*, *31*(3), 869–890.

Rexhepi, P. (2020). Bektashism as a model and metaphor for 'Balkan Islam'. In O. Scharbrodt & Y. Shanneik (Eds.), *Shi'a minorities in the contemporary world: Migration, transnationalism and multilocality*. Edinburgh University Press.

Savo, V., Caneva, G., & Leporatti, M. L. (2016). Ethnobotanical survey on medicinal uses of wild and cultivated plants in the provinces of Matera and Potenza, Basilicata, Italy. *Journal of Ethnopharmacology*, *174*, 183–193.

Schwandner-Sievers, S. (2003). *Kinship and beyond: The use of genealogical methods in southeast European studies*. LIT Verlag.

Shackleton, C. M., Pasquini, M. W., & Drescher, A. W. (2011). The role of wild foods in food security and nutrition. *Ecology of Food and Nutrition*, *50*(1), 1–12. https://doi.org/10.1080/03670244.2010.516318

Shkreli, I. (2023). An anthropological perspective on Vlachs in Southeast Albania. *Journal of Interdisciplinary Cross-Border Studies*, *7*(2), 47–60. https://doi.org/10.35219/across.2023.2.05

Sõukand, R., Stryamets, N., Fontefrancesco, M. F., & Pieroni, A. (2020). The resilience of ethnobotanical knowledge in the East. *Journal of Ethnobiology and Ethnomedicine*, *16*(1), 1–23.

Sulaiman, N. (2025). Botanical ethnoknowledge index: A new quantitative assessment method for cross-cultural analysis. *Journal of Ethnobiology and Ethnomedicine*, *21*, 20. https://doi.org/10.1186/s13002-025-00772-6

Svanberg, I. (2016). Ethnobotany and identity in the Balkans: An overview. *Journal of Ethnobiology*, *36*(3), 620–636.

Turner, N. J., Ignace, M. B., & Ignace, R. (2000). Traditional ecological knowledge and wisdom of aboriginal peoples in British Columbia. *Ecological Applications*, *10*(5), 1275–1287.

Turner, N. J., & Turner, K. L. (2008). "Where our women used to get the food": Cumulative effects and loss of ethnobotanical knowledge and practice. *Botany*, *86*(1), 103–115.

Weller, S. C. (2007). Cultural consensus theory: Applications and frequently asked questions. *Field Methods*, *19*(4), 339–368. https://doi.org/10.1177/1525822x07303502

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