Yayın Geliş Tarihi (Submitted): Mart/March-2024| Yayın Kabul Tarihi (Accepted): Mart/March-2025

# Dynamics of Usage and Transmission of Traditional Knowledge of Edible Wild Plants: The Case of Central Black Sea Region*

## *Yenilebilir Yabani Otların Kullanım Biçimleri ve Yenilebilir Yabani Otlara İlişkin Geleneksel Bilginin Aktarımı: Orta Karadeniz Örneği*

Dr. Öğr. Üyesi Ayla AYDIN [1]

## Öz

Bu çalışmanın amacını Anadolu mutfak kültüründe tüketilen yenilebilir yabani ot çeşitleri, etnobotanik özellikleri, kullanım alanları, kullanım biçimleri ve yöreye özgü yabani otların kullanımını etkileyen faktörlerin tespit edilmesi oluşturmaktadır. Araştırma alanını Orta Karadeniz Bölgesi (Tokat, Samsun, Ordu illeri) oluşturmaktadır. Araştırmada veri toplama tekniği olarak doküman analizi ve yarı yapılandırılmış görüşme kullanılmıştır. Veri analiz yöntemi olarak da içerik analizi kullanılmıştır. Görüşmeler gönüllülük esasına dayalı olarak seçilen 18 katılımcı ile gerçekleştirilmiştir. Görüşmelerde kullanılan yarı yapılandırılmış soru formu, konuya ilişkin yapılan doküman incelemesi doğrultusunda oluşturulmuştur. Alanda yapılan görüşmelere ilişkin bulgular ve içerik analizi sonucu elde edilen dört ana kategoriyi yenilebilir yabani otların Karadeniz mutfağında kullanım alanları, yenilebilir yabani otların elde edilme ve muhafaza yöntemleri, yabani bitkilere ilişkin bilginin edinilme şekli, yöreye özgü yabani otların kullanımını etkileyen faktörler oluşturmaktadır. Araştırma sonuçları yenilebilir yabani bitkileri kullanma geleneğinin, Orta Karadeniz'de halen canlılığını koruduğuna ve yenilebilir yabani bitkilere ilişkin ortak bir kültürel mirasın varlığına işaret etmektedir.

**Anahtar Kelimeler:** Yenilebilir Yabani Bitkiler, Geleneksel Bilginin Aktarımı, Anadolu, Nitel Araştırma.

**Makale Türü:** Araştırma

## Abstract

The purpose of this study was to determine the types, ethnobotanical characteristics, usage fields, and usage patterns of edible wild plants consumed Central Black Sea Region (Tokat, Samsun, Ordu provinces) in Turkey. In the study, document analysis and semi-structured interviews were used as data collection techniques and content analysis was applied as the data analysis method. The interviews were carried out with 18 participants selected on a voluntary basis. The semi-structured question form used in interviews was developed in line with the document review on the subject. The findings of the field interviews and the literature review revealed four main categories: the uses of edible wild plants in Black Sea cuisine, the methods of collecting and preserving edible wild plants, the way of obtaining information on wild plants, and the factors affecting the use of local wild plants. The results of the research have shown that the tradition of using edible wild plants is still widespread in the Central Black Sea region and that there is a common cultural heritage regarding them.

**Keywords:** Edible Wild Plants Traditional Knowledge, Anatolia, Qualitative Research.

**Paper Type:** Research

## Introduction

[1]Tokat Gaziosmanpaşa Üniversitesi, Güzel Sanatlar Fakültesi, ayla.aydin@gop.edu.tr

**Atıf için *(to cite)*:** Aydın, A. (2025). Dynamics of Usage and Transmission of Traditional Knowledge of Edible Wild Plants: The Case of Central Black Sea Region, *Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi*, 27(3), 1255-1281.

Edible wild plants are defined in literature as the plants that grow on their own in the natural environment without human intervention and are consumed as a whole or their roots, leaves, and fruits, especially in agricultural societies and modern societies (Heinrich et al., 2006, p.159; Rasool Hassan, 2012, p.140). When humans domesticated plants and animals, they had such an active impact on the life cycles of species that in the course of time the survival of these species has become dependent on human intervention. Nevertheless, edible wild plants can grow independently without human intervention and their population densities do not decline even with seasonal climate changes. Therefore, these plants have been used by communities suffering from food shortages during wars or natural disasters to survive. This relationship is explained by physical anthropologists with the concept of 'scarcity foods', which refers to foods that have no place in the daily diet and are consumed only in times of scarcity (Aydin, 2021, p. 25). For example, in prehistoric times, seasonal famine caused hominids to feed on tubers and bulbs (the bulbous part of the underside of some plants) when foods such as fruits and seeds, which hominids preferred more in their daily diet, became temporarily unavailable (Peters et al., 1981, pp.127-140). However, some modern cultures have been still consuming wild plants as their regular food source (Schunko et al., 2022, p.5), from which they could obtain adequate levels of important vitamins. Although this consumption may primarily be related to the richness of the flora, it is also attributed to socio-economic factors because these plants have played an important role in the formation of human culture all over the world. The documentation of local knowledge through ethnobotanical studies of plant resources is very important for the preservation and use of cultural heritage.

Turkey is one of the richest countries in Europe and the Middle East in terms of plant resources (Dogan et al., 2004, p. 687; Güner et al., 2012, p.92). The Black Sea Region has a high potential for edible wild plants in Turkey (Dogan et al., 2004, p. 687). Some of this wild edible plants used as medicinal and aromatic plants in the black sea region (Oğan & Cömert, 2022, p. 32). They also has an important gastronomy value as a food supplement and food additive in the black sea region. Aromatic plants are used in medicine as well as in pharmacy, food industry, perfumery. These plants used as tea and in cosmetics (Göktaş & Gıdık, 2019, p. 147). The consumption of herbs is also common in Ordu, particularly in rural areas (Uğur et al., 2021, p. 9). Among the edible wild plants, Melocan, with its roasted Melocan dish, and galdirik edible herb, with its roasted galdirik dish, are among the products that have gained geographical indication (Ordu Metropolitan Municipality, 2021). It can be stated that Samsun reflects the biodiversity of the Black Sea region and has favorable soil properties and climate in terms of edible plants (Demir, E. et al., 2017, p. 68). Similarly, Tokat has a rich vegetation cover on account of its climate and geographical characteristics. Besides, it is among the twelve provinces that are well-known with respect to ethnobotany in the Turkish Ethnobotanical Database (Kendir & Güvenç, 2010, p. 52).

Especially in recent years, there has been a significant interest in organic nutrition worldwide (Dinc & Huang, 2024, pp. 1-9). In this context, the high nutritional content of edible herbs has directed this interest towards edible weeds (De Toni et al, 2018, p. 462). For this reason, the usage area of edible wild herbs has expanded considerably (Duguma, 2020, p. 302). In the relevant literature, edible wild herbs are discussed in the context of health dimension (González, 2025, p.412), gastronomy tourism (Pehlivan, 2023, p. 367) areas of use in Anatolia (Dogan, 2004, p.687), traditional beliefs and myths (Kindscher, 2024, p.88). However, the fact that there is no study within the scope of the relevant literature that examines edible weeds in the context of all the dimensions mentioned above and the relationships of these dimensions with each other and with edible wild plants makes this study important.

Poor diets is considered to be, a universal menace, shows that need for sustainable food system (Motti, 2022, pp. 1-344). Edible wild plant can therefore play an important role as an essential component of people's diets. So, learning processing ways and the nourishing constituents of wild edible plants is important. In this context, the aim of the research is to

determine the types of edible wild plants consumed Anatolian culinary culture, their ethnobotanical properties, areas of use, usage patterns and factors affecting the use of local wild plants. It is thought that this study will make an important contribution to documenting traditional knowledge in order to sustain healthy diet of humanity and constitute sustainable food system. However, the use of edible wild plants requires very specific cultural knowledge about the areas where these plants can be found, their management in the field, how to gather, transport, store and prepare them, and other ways of processing them (Turner et al., 2011, pp. 198-225). According to researchers, traditional knowledge plays an important role in ensuring the permanence of these resources.

Thereby, it is considered that the evaluation of wild plants as a gastronomic tourism product in the region and presenting them after adapting to today's consumption patterns will contribute also transferring traditions from generation to generation. In this respect, gastronomic tourism activities can be carried out within the scope of tours in the region (collecting and cooking plants from nature), and the recipes applied can be served as local dishes in restaurants.

## 1. Literature Review

In recent decades, studies concerning edible wild plants used among rural populations have received growing attention, and many researchers have sought to analyze the persistence of traditional uses of plants (Jabbar et al., 2007, p.88 ; Luković et al., 2023, p. 205). Many floristic inventories regarding the use of edible wild plants at the local scale have been produced in Europe, the Americas, Africa, and Asia. (Motti, 2022, pp. 1-344). According to Valdes et al. (2025) approximately 500 species of wild plants are commonly collected for food in the Iberian Peninsula. and they are now important crops grown worldwide and used as medicines also. The concept of medicinal plants encompasses the plants that can be used in the maintenance and improvement of health, and medicinal plants are also utilized in the production of medicines. Medicinal plants have been defined in the literature as plants that have beneficial pharmacological effects and therapeutic properties on the human and animal body (Rasool Hassan, 2012, p.140). About 50,000 species of half a million flowering plants are used as medicinal plants (Govaerts, 2001, pp. 1085–1090; Salmerón-Manzano et al., 2020, p.3; Schippmann et al., 2002, pp.142-167). According to the reports issued by the World Health Organization, 60% of the world population in developing countries use medicinal plant species in the treatment of various diseases (Palhares et al., 2015, pp. 16-18). Rasool Hassan, (2012) classified the properties and uses of medicinal plants into three groups: synergistic drugs, supportive drugs, and preventive drugs. According to the researcher, the elements in the composition of plants used as synergistic drugs can complement or neutralize negative effects by interacting simultaneously. On the other hand, it has been proven that wild plants used as supportive medicines are effective in complicated diseases such as cancer. In preventive medicines, the constituents of plants appear to have the ability to prevent the occurrence of certain diseases. Nevertheless, (Low Dog, 2006, pp. 446-449) made a different classification of medicinal drugs and examined wild plants according to their properties such as improving digestion, antimicrobial, chemoprevention, drying inflammation, soothing pain, and respiratory disorders. In this context genaralized about the use of medicinal plants has been around since ancient times and can even be considered the origin of modern medicine. Plant-derived compounds have been and remain an important source of compounds for medicines.

The empirical results show there is a high demand for wild edible plants by tourists and local people for green and medicinal plants (Lukovic et al., 2023, p. 205). Tourism also involves the interaction of tourists with the local community and the ecological environment, therefore, sustain-able development is a central issue for the future of tourism planning and development (Paunović & Jovanović, 2017, p. 226). Food plant diversity in cultural ecosystem evaluate edible plants as a driving force for improving the offer of gastro-tourism (Wu, Hou & Wen, 2018, p. 492).

There are several studies in the literature that deal with edible wild plants within the context of gastro- tourism. For example Lukovic et al (2023) research results show limited plant diversity patterns used as traditional food components compared to natural resource potentials. In the range of cultural ecosystem services, results indicate the variety of categories in which wild edible plants represent the catalyst of local eco-gastro tourism improvements through the authentic sense of gastronomy, herbal tours, rare species, etc (Lukovic et al., 2023, p. 205). Food plant diversity in cultural ecosystem services perspective: edible plants as a driver for improving the offer of gastro-tourism. Karaca, et al. (2015) discussed wild plant and dishes in gastronomy tourism in their research. Researchers believe that picking herbs from nature and the way they are cooked will contribute to the development of gastronomy tourism and the marketing of regions together with tourism activities such as rural tourism and trekking. The study conducted by Özkan et al. (2015) similarly tries to determine the effects of the Alaçatı Herb Festival on the participants. The results of the research indicate that the festival is a positive factor in the promotion of the region. Another study trying to measure the impact of Alaçatı Herb Festival on the participants was conducted by Kızılcalıoğlu et al. (2019). They aimed to measure the effects of visitors' perceptions regarding the festival on the experience, satisfaction, image, and loyalty of visitors attending the Alaçatı Herb Festival. Among the findings of the study is that adding different recreational activities to the festival will increase festival satisfaction. Avcı, (2021), on the other hand, examines the experiences of domestic tourists participating in the Alaçatı Herb Festival within the scope of the tour and focuses on the factors affecting the success of the festival. According to the results of his research, the correct selection and design of the festival area, the attitudes, and behaviors of service providers, communication with local people, entertainment, and learning experiences are among the key factors that stand out in the success of the festival. Moreover, in the literature, studies have been conducted not only on edible wild plants but also on the use of medicinal plants within the context of tourism. For example, Kala (2015) aims to develop strategies that can be used to promote herbal medicine-based tourism, and in this respect, he investigates and discusses the ways to create initiatives in the field of medicinal and aromatic plants in terms of certification, added value, marketing, and politics. According to Luković et al. (2023) within the scope of cultural ecosystem services, the results include the use of edible wild plants, unique gastronomy, plant tours, rare species, etc. The research of Lucovic et al. (2023) demonstrates the results include the use of edible wild plants, unique gastronomy, plant tours, rare species in the context of cultural ecosystem services. Likewise, Wu et al. (2018) highlights the need to fulfill ecological responsibility when tourism occurs in protected areas to ensure the conservation and sustainability of species.

Another dimension of edible wild plants that can be evaluated within the context of the literature is the studies carried out on the uses of wild plants in Anatolia. For example, Akcicek & Vural (2003) investigated the local names and uses of plants growing in and around Kumalar Mountain (Afyon province). Altıok & Behçet, (2005) tried to determine the flora of the Bitlis River valley, while Bağcı, (2000) investigated the ethnobotanical characteristics of Kayseri region (Kocabaş & Gedik, 2016) examined the ethnobotanical aspects of plants being sold in local bazaars in their study and identified 62 plant taxa belonging to different families. According to Çetinkaya & Yıldız (2008) edible herbs have an important place in the local cuisine of Erzurum. Edible plants are abundant in many areas in Anatolia and there are studies showing that it is used in different ways in local cuisine of Kars, Kastamonu, Erzurum (Kadıoğlu, et al., 2020, p.18; Şimşek, Durmuş & Çakmak, 2020, p.10; Kökler & Çetinkaya, 2022, p. 62).

The fourth dimension of edible wild plants that can be focused on in the literature is the beliefs and myths developed about wild plants. For example, in a society that started entombing their dead, it is assumed that wild plants used to be placed in the tombs with the idea that the deceased will use them when they come back to life. For instance (Dyer, 2015), in his work titled "The Folklore of Plants", mentions the belief that the ground planted with hound's tongue, prevents dogs from barking at others, and the belief that wild goats and deer heal their wounds in a short time when they eat this plant when they are injured with arrows. Similarly, (Skinner,

1911), in the research he conducted on myths and tales about flowers, trees, and plants, mentions a myth about gentian that people believed in Hungary. According to the legend, the reign of King Ladislas suffers from a pandemic. In desperation, King Ladislas wanders the fields carrying his bow and arrow and prays to God. At one point, he shoots his arrow into the forest and discovers that a plant is attached to the arrow. The gentian plant heals the ravages of the pandemic and heals the wounds. On the other hand, it was believed in Ancient Greece that the rosemary plant was both a mind-opener and a symbol of loyalty. For this reason, it is observed that in Ancient Greece, students wore crowns made of rosemary leaves and these plants were symbolically used in weddings and ceremonies as a symbol of loyalty (Keykubat, 2017, pp. 2-23).

It is observed that edible wild herbs are studied in four dimensions within the scope of literature: health, Anatolia, tourism and beliefs, myths. In this context, some studies conducted in different years indicate that the use of edible wild herbs as a gastronomy trend in experimental kitchens has attracted attention (Walker, 2008, p. 72., Guil-Guerrero, 2014, p. 325., Lucovic et al., 2023, p. 205). Due to traditions and demand for green food, the demand for wild edible plants is high among tourists and locals (Wu, Hou & Wen, 2018, p. 492). Because in recent years, there has been an increase in the number of studies focusing on the relationship between health and edible wild herbs. With the pandemic, people have turned to healthy eating, and at this point, edible wild herbs have begun to gain importance and take more place in people's daily lives. Most of the studies conducted in Anatolia are carried out to determine the local names, usage areas, usage patterns, and ethnobotanical characteristics of wild plants growing in Anatolia (Akcicek & Vural, 2003, pp. 151-162). Although the four dimensions of edible wild plants (health, wild edible plants in Anatolia, tourism and beliefs, myths) are studied in the literature, it is seen that the relationships between these four dimensions of edible plants have not been studied. As an indicator for studying edible wild plants food tourism, links between food choice, cultural identity, social status, nationality, and location could be examined. A geographical approach to food tourism can unravel the influence of tourism on the local community and their ability to maintain traditional heritage, skills, and a way of life. In this context, the current study suggests that edible wild plants can be marketed as a gastronomic tourism element by highlighting their health aspects and narrating their mythological features.

## 2. Method

The purpose of this study was to determine the types, ethnobotanical characteristics, usage fields, and usage patterns of edible wild plants consumed in Anatolian culinary culture and the factors affecting the use of local wild plants. The research area covers the Central Black Sea Region (Tokat, Samsun, Ordu provinces) in Turkey. In the study, document analysis and semi-structured interviews were used as data collection techniques and content analysis was applied as the data analysis method.

In this context, four main research questions were identified in order to investigate the usage patterns, usage areas, ethnobotanical properties of edible wild plants and the stages of transferring traditional knowledge within the context of Anatolian cuisine.

1. What are the use patterns of edible wild plants in Anatolian cuisine?

2. What are the factors affecting the use of edible wild plants in Anatolian cuisine?

3. In which areas (health, tourism, superstition) are edible wild plants used in Anatolian cuisine?

4. What are the ways of transferring traditional knowledge of edible wild plants?

The information regarding the data collection and analysis used within the scope of the research method has been presented in Table 1.

Table 1. The Explanation of the Research Methodology within the Context of Data Collection and Analysis Techniques

| **Stages of the Research** | **Data Collection and Analyses** | | **Research Questions** |
|---|---|---|---|
| Phase 1 | Document Review | Examination of Documents on Edible Plants in the context of the Central Black Sea Region and Anatolian Cuisine | What are the types of edible weeds grown in the region?<br>What are the ethnobotanical characteristics of edible wild plants grown in the region? |
| Phase 2 | Preparation of the interview form | Preparation of the interview form based on document review and literature | |
| Phase 3 | Interview Form approval | Submitting the prepared questions for expert approval | |
| Phase 4 | Content Analysis | Subjecting the transcribed interviews to content analysis | What are the factors affecting the use of edible wild plants in Anatolian Cuisine?<br>What are the foods and drinks prepared with local edible wild plants?<br>What are the usage areas and usage patterns of edible wild plants in Anatolian Cuisine? |

As seen in Table 1, the research consists of four consecutive and complementary stages. As seen in Table 1, the research consists of four consecutive and complementary stages. The research questions in the table consist of what are the types of edible weeds grown in the region, what are the ethnobotanical characteristics of edible wild plants grown in the region, what are the factors affecting the use of edible wild plants in Anatolian cuisine, what are the foods and drinks prepared with local edible wild plants, what are the usage areas and usage patterns of edible wild plants in Anatolian cuisine. More detailed information on the stages followed in developing and analyzing the data set has been provided below.

### 2.1. Sampling and Data Collection

Maximum diversity sampling was used within the scope of the research as part of the purposive sampling method. The maximum variation method aims to determine and described categories that contain a large number of concerning with the subject (Neuman, 2014, p.663). In many studies where sample sizes are high, the low diversity turn into significant problem

(Travers, 2001, p.82). This study use maximum variation sampling to ensure representativeness and diversity of participants. The research area was determined as the Central Black Sea region on the basis of document analysis and because of its diversity in terms of edible herbs in connection with the climatic characteristics of the region. In this respect, the sample of the research consists of people living in the provinces of Tokat, Ordu, and Samsun. Participation was ensured on a voluntary basis. The information concerning the participants and the provinces and districts where the interviews were conducted has been presented in Table 2.

Table 2: The Demographic Information of Interviews

| | **Age** | **Education** | **Occupation** | **Duration of residence in the region** |
|---|---|---|---|---|
| T1 | 56 | Bachelor's Degree | Officer | 56 |
| T2 | 65 | Bachelor's Degree | Teacher | 65 |
| T3 | 56 | Primary School | Housewife | 15 |
| T4 | 56 | Primary School | Housewife | 56 |
| T5 | 62 | Primary School | Housewife | 62 |
| T6 | 61 | Primary School | Housewife | 62 |
| S1 | 54 | Primary School | Chef | 54 |
| S2 | 50 | Primary School | Housewife | 50 |
| S3 | 41 | Bachelor's Degree | Teacher | 40 |
| S4 | 51 | Primary School | Housewife | 51 |
| S5 | 50 | Bachelor's Degree | Teacher | 50 |
| S6 | 64 | Primary School | Housewife | 64 |
| O1 | 62 | Did not go to school | Housewife | 62 |
| O2 | 42 | Primary School | Housewife | 42 |
| O3 | 55 | Primary School | Housewife | 55 |
| O4 | 42 | Primary School | Housewife | 52 |
| O5 | 60 | Primary School | Housewife | 60 |
| O6 | 57 | Primary School | Housewife | 57 |

### 2.2. Document Analysis and Development of the Interview Form

Document analysis involves the examination of written documents such as news, articles, interviews, and visual materials like photographs and movies regarding the research topic

(Yıldırım & Şimşek, 1999, p.187). A document review was conducted over the Internet between 30 September- 15 October 2023, on edible wild plants specific to Ordu, Samsun, and Tokat provinces of Türkiye within the context of the study. The documents were inspected and selected using certain keywords such as edible wild plants, wild herbs that grow in Central Anatolia, usage areas of wild plants, and local dishes. It is understood that these documents were obtained from online sources such as news sites, newspaper sites, blogs, websites, and printed sources such as books, dictionaries, and booklets. As a result, a total of 53 documents have been analyzed.

Interview is a method of collecting information verbally based on mutual interaction through asking and answering questions for a specific purpose (Bloor & Wood, 2006, p. 185). Within the scope of the study, semi-structured interview technique was used among the interview techniques. Interview techniques are classified by Patton (2022), as a conversational interview, interview using an interview form, and standardized open-ended interview. The semi-structured interview consists of a series of questions and answers directed to the participant within a pre-prepared form (Kozak, 2014, p. 89). In line with this technique, the interviewer has the opportunity to both ask pre-prepared questions and ask additional questions in line with the course of the interview (Yıldırım & Şimşek, 1999, p.72). The draft questionnaire was prepared based on the preliminary findings obtained as a result of document analysis and content analysis applied to the documents and the relevant literature. The draft questionnaire was presented to five academicians who are experts in the field and necessary corrections were made in line with their suggestions. The interview form consists of two groups of questions. There are nine questions in the first group and there are sub-questions related to each question. With these questions, it is aimed to determine the ethnobotanical characteristics of edible wild plants growing in the research area, their usage areas within the scope of Anatolian cuisine, and methods of obtaining and preservation methods. The second group of questions aimed to obtain demographic information about the participants and information about the duration of their residence in the region.

All of the interviews, which were conducted voluntarily in line with the appointments made, were conducted from 01 January- 22 January 2024 The interviews were recorded with a voice recorder. The audio recordings of the interviews were transcribed and written between the dates of 23-31 January, 2024. It is seen that the texts of the interviews vary between 1-2 pages in terms of the number of pages.

### 2.3. Data Analysis

In qualitative research, data analysis includes the preparation of data (for analysis), organization, coding, combining codes, creating themes and finally presenting the data as figures, tables, or a discussion (Creswell, 2013, pp. 42-47). In this research, the analysis of data consists of four stages as 1) coding the data 2) creating themes 3) organizing the codes and themes and 4) defining and interpreting the findings. A code scheme was created between January 1 - 15, 2023 for the analysis of the texts obtained through the interviews in accordance with the process within the scope of the current study by making use of document review and the relevant literature. Two different researchers re-read the texts according to the coding scheme between 01. February to 04. February 2024 tarihleri; and the coding was carried out. At the end of the process performed by the two different researchers, the results obtained from 10. February – 14. February 2024 were compared and discussed. After the coding process, the stage of creating categories was started. After this stage, the discussions were finalized by reaching an agreement on the naming and formation of the coding made by them.

### 2.4. Reliability and validity

A semi-structured questionnaire was conducted in line with document analysis on the subject to ensure the validity and reliability of the research results.

Than, framework of questionnaires were tested through premise interviews with two teacher from Sivas, two housewife from Tokat and two chef from Amasya. Then, the final

framework of questionnaire was submitted to send off two plant scientist from university. Than relevant corrections were made. Investigator triangulation was used for this study also. According to Noble & Heale (2019), triangulation helps to increase the reliability and validity of the research. Investigator triangulation includes many observers, coders, or data analysts (Mathison, 1988). The reliability of the study was also increased by using reliability tests conducted by two different encoders at two different times. A third expert was asked to code and results were compared with those of the previous two coders.

Guba and Lincoln (1982) developed four different criteria to increase validity in qualitative research: credibility, dependability, confirmability and transferability. Credibility is associated with the concept of "internal validity" in the literature. One of the criteria for internal validity in qualitative research is detailed description. In this context, the process of sample determination, data development and analysis in the current study is conveyed in as much detail as possible. It is claimed that reporting the results by formation of concepts, codes and themes together with detailed description can also increase internal validity. (Creswell, 2013, pp. 42-47) Within the scope of this research, the analysis of data consists of four stages as 1) coding the data 2) creating themes 3) organizing the codes and themes and 4) defining and interpreting the findings. In this context it is ensured peer review by consulting the opinions of expert researchers. Another strategy that can be considered in this context is to have the data analysis done by different coders and to support the internal validity of the findings by ensuring consensus between these independent coders. (Silverman, 2005, p.43). In the analysis of the data set developed through individual interviews within the scope of the current research, support was received from an independent coder, each time an expert researcher appropriate to the content of the data to be analyzed. External validity captures the extent to which inferences drawn from a given study's sample apply to a broader population or other target populations. (Findley, Kikuta & Denly, 2021, pp. 365-393). In qualitative research, transferability is related to the generalizability of detailed descriptions and the concepts, codes and themes obtained. In this context, the themes obtained from the current research may be similar to the results of research to be carried out in the Central Black Sea region, especially regarding edible wild herbs. External control of the research process through peer review is another strategy to increase research external validity (Creswell, 2013, pp. 42-47., Glesne, 2013, pp. 92-112). Throughout the research, peer review was frequently attempted by seeking the opinions of expert researchers in the field.

## 4. Finding and Discussion

The findings obtained from the content analysis of the interview texts have been presented in Table 3. When Table 3 is examined, it can be observed that the views of the participants on the use of edible wild plants in Anatolian cuisine and the relationship between gastronomy and tourism consist of 4 main themes and 9 sub-themes. Each of these sub-themes is also explained in Table 3. While presenting the findings, direct quotations have been made from the interview notes. In the in-depth interviews with the participants, the participants were given codes as T1, T2, T3..... and T6 for the interviews conducted in Tokat, O1, O2, O3..... and O6 for the interviews conducted in Ordu, and S1, S2, and S3 for the interviews conducted in Samsun, and the quotations have been conveyed accordingly.

Table 3. Categories and Subcategories of Transfering Traditional Knowledge on Edible Wild Plants in Anatolia

| ***THEMES*** | ***SUB-THEMES*** | ***EXPLANATIONS*** |
|---|---|---|
| | Health Intended | It involves the usage purposes and areas of wild plants that grow naturally in the Central Black Sea region, |
| | Usage in the kitchen | |

| | | |
|---|---|---|
| The usage areas of edible wild plants in Central Black Sea Cuisine | Usage in relation to beliefs and myths | and whose roots, leaves, and fruits are consumed. |
| The methods of obtaining and preservation of edible wild plants | Purchase Method<br>Collection Method<br>Drying Method | It involves the collecting and storing methods of edible wild plants. |
| The way of obtaining information on wild plants | The transfer of knowledge between generations<br>Through social media | It involves the method of acquiring information on the uses of edible wild plants (which dishes are made, how they are made, recipes, which therapeutic mixtures are prepared, and how they are prepared, etc.). |
| The factors affecting the use of local wild plants | Lack of information, lack of cultural transfer<br>Access difficulties | It covers factors that negatively affect the use of edible wild plants in foods. |

The four main themes obtained as a consequence of the findings include the usage areas of edible wild plants in Anatolian cuisine, the methods of obtaining and preserving edible wild plants, the way of obtaining information on wild plants, and the factors affecting the use of local wild plants. It is observed that edible wild plants are mainly used in Anatolian cuisine for both health purposes and as part of the dishes prepared in the kitchen. The information concerning the use of edible wild plants for health purposes and superstitions can be found in Table 4.

Table 4. The Information on the Use of Edible Wild Plants, in relation to Beliefs and Myths, for Health Purposes in the Research Area

| **Latin Name of the Plant** | **Local Name** | **Part of the plant used** | **Preparation Method** | **Intended Use** | **Participants** |
|---|---|---|---|---|---|
| *Conium maculatum* L. | Baldıran Otu | Roots and leaves. | After boiling, it is turned into a poultice and applied on the swelling part of the body. After it is boiled and allowed to | Its ashes are known to strengthen the hair when rubbed into the hair and left for a while.It is used as a pain, swelling and spasm | O1, O4, O5 |

| | | | | | |
|---|---|---|---|---|---|
| | | | cool, it is consumed as tea. | reliever.It is used to prevent rheumatism. | |
| *Beta vulgaris* L. *var. cicla* | Pazı | Stem and leaves. | It can be consumed raw or as a stewed dish. | It prevents the risk of anemia and heart attack. It is good for iron deficiency. | O1, O6 |
| *Trachystemon orientalis* (L.) G. Don | Galdirik | Stem and leaves. | First the plant is sautéed, then egg is added. | It is used as a diuretic and antipyretic | O1, O2, O3, O4, O5, O6 |
| *Urtica dioica L. subsp. dioica* | Isırgan | Whole plant | It is consumed as tea after it is boiled and left to cool | It has preventive properties against cancer and diabetes. It is used against pain in the hands and feet. | O1, O2, O3, O4, O5, O6 |
| *Polygonum cognatum Meissn.* | Madımak | Stem of the plant | It can be preserved by making canned. It can be cooked together with rice.Also used to make tea.Used to make a vegetable dish called ‘pancar yemeği’in Tokat | It regulates blood sugar and helps to reduce bleeding. It is used for stomach and intestinal disorders. | O1, O2, O3, S6, S5, T1, T3, T2, T4 |
| *Petasites hybridus (L.) Gaertner, Mey. et Scherb.* | Kabalak | Leaves | The leaves are stuffed with a mixture of rice and | In addition to asthma, it is good for stomach and intestinal | S5, S4 |

| | | | | | |
|---|---|---|---|---|---|
| | | | spices and cooked. | problems and constipation. | |
| *Portulaca oleracea L.* | Semizotu | Whole plant | There is a special vegetable dish. Also, it is used to prepare stuff for Turkish savory (börek).Used to make a vegetable dish called ‘pancar yemeği’in Tokat | It decreases cholesterol and balances blood pressure. | S3, S4,T1,T2 |
| *Asparagus officinalis L.* | Kuşkonmaz | Whole plant | The bottom parts are peeled and can be eaten after boiling. It can be consumed by sautéing. It is sautéed and cooked with eggs for breakfast, | It is good for rheumatism and osteoporosis. | S1, S2 |
| *Mentha x piperita L.* | Mutfak nanesi | Whole plant | The plant is dried. This form is crumbled and used to make tea. Lemon is used together to make tea. | It is good for common cold. | S1, S2, S3 |
| *Euphorbia ledebourii Boiss* | Sütleğen | Leaves and milk of the plant are used. | There is a special vegetable dish. It is powdered and put into henna and applied to wounds. Its milk applied | It is used in the treatment of malaria, jaundice, and foot fungus and warts, it is good for wounds. Its milk is used to stop bleeding. Used to make a vegetable dish called ‘pancar | T4, T5, T6 |

| | | | | | |
|---|---|---|---|---|---|
| | | | to wounds too. | yemeği'in Tokat | |
| *Laurus nobilis L.* | Defne yaprağı | Leaves | Bay leaves are burned one by one in the bowl and the incense is carried around the house. | It is good for headaches and removes negativity at home. | T1, T2, T3 |
| *Papaver rhoeas L.* | Gelincik | Stem of the plant | It is sautéed and cooked with rice and wheat. It is used as a savory (börek: Turkish meal like savory) filling. | It increases fertility in women, improves blood circulation, relieves pain, has a calming effect. | S1, S2, S3 |
| *Salvia viridis L. (officinalis ülke florasında yok)* | İbikli adaçayı | Whole plant | It is used for making tea. | It is good for common cold and sore throat. | S2, S3, S4 |
| *Anthemis chia L.* | Beyaz papatya | Flower of the plant | Tea is made from the dried form. | It is used for its stress relieving and calming effect. | S5, S6 |
| *Rosa canina L.* | Kuşburnu | The fruit of the plant. | Dried form used to make tea.<br>Fresh form used make jam and marmalade. | It is good for common cold. | T1, T2, T3, S1, S2, S3 |
| *Tragopogon buphthalmoides* | Yemlik | Leaves | The leaves are boiled for | It is used for stomach and | T1, T5 |

| | | | | | |
|---|---|---|---|---|---|
| (DC.) Boiss. var. *buphthalmoides* | | | a short time. The water is filtered and left to cool. It can be drunk at room temperature or cold. Used to make a vegetable dish called 'pancar yemeği' in Tokat. | intestinal disorders. | |
| *Rumex conglomeratus* Murray | Çayır labadası | Whole plant | It is used for making tea. Used to make a vegetable dish called 'pancar yemeği' in Tokat | It is used in intestinal disorders and cough. | T1, T2, T3 |
| *Malva neglecta Wallr.* | Kömeç, ebegümeci | Roots and leaves. | Used to make a vegetable dish. It is also used inside the savory (börek). Used to make a vegetable dish called 'pancar yemeği'in Tokat | It is good for common cold and respiratory diseases. | T4, T5, T6 |
| *Rumex scutatus L.* | Kuzu kıkırdağı | Whole plant | Used in salads. Used to make a vegetable dish called 'pancar yemeği'in Tokat | It decreases blood sugar. | T1, T2, T3 |
| *Ocimum basilicum L.* | Reyhan | Whole plant | It is used to make sherbet (Sherbet is made by the | It is good for anemia. It decreases blood sugar. | T5, T6 |

| | | | | | |
|---|---|---|---|---|---|
| | | | same way of lemonade). | | |
| *Peganum harmala L.* | Üzerlik Otu | Whole plant | Used as an incense. | It is believed that when burned as incense or placed between clothes, it protects the house and people from evil. | T2, T3, T4, T5 |
| *Lavandula stoechas L. subsp. cariensis (Boiss.) Rozeira* | Karabaş Otu | Leaves | Tea is made from the dried form. | When there is inflammation in the blood, it dries the inflammation. | T1, T2, T3 |
| *Bellis perennis* L. | Koyungözü | Flower of the plant | Used to make tea.<br>It is used to make a dish with beet. | It relieves headache and dizziness, toothache, and nervous pain.<br><br>Used to make a vegetable dish called ‘pancar yemeği’in Tokat | T5, T6 |
| *Capsella bursa-pastoris* (L.) Medik. | Kuşekmeği (Çoban çantası) | Leaves | Used to make a vegetable dish called ‘pancar yemeği’in Tokat | It is used to stop bleeding also for injuries, and as a diuretic.<br>It is also used for flavoring.<br>Used to make a vegetable dish called ‘pancar yemeği’in Tokat | T3, T2 |

| | | | | | |
|---|---|---|---|---|---|
| *Stelleria media* L. (Vill.) subsp. *media* | Cüce | Tümü | Used to make a vegetable dish called 'pancar yemeği'in Tokat | İt is used as a flavorer in vegetanle dishes | T3, T2 |
| *Bellis perennis* L. | Koyun gözü | Yaprakları | Used to make a vegetable dish called 'pancar yemeği' in Tokat | İt is used as a flavorer in vegetanle dishes | T3,T2 |
| *Ramumculus arvensis* L. | Sarı Balbardağı | Tümü | Used to make a vegetable dish called 'pancar yemeği' in Tokat | İt is used as a flavorer in vegetanle dishes | T3,T2 |
| *Smilax excelsa L.* | Dikenucu (Kırçan) | Roots and leaves. | The roots are dried and brewed. It is also sautéed and consumed as a vegetable dish. | It is used as a diuretic and to clean the blood in kidney disorders. | O1, O2, O3, O4, O5, O6 |
| *Amaranthus retroflexus L.* | Horozibiği | Stem and leaves. | Tea is made from dry or fresh form. | It is used for stomach and intestinal disorders. | O2, O6 |

When Table 4 has been analyzed, it is seen that wild edible plants are mainly consumed for health purposes, while their use in relation to beliefs and myths is very low. However, it is seen that the current information about their usage concerning beliefs and myths is also acquired from the past. For example, the participants coded as T2 and T3 gave the following information about the use of edible wild plants.

*"Sometimes they hang up wild rue above the door or somewhere in the house, they say it protects from the evil eye... some people burn it in a small pan and smoke it at home because they think that the guest, for example, you may have heard that he or she may look with an evil eye. Long ago, my grandmother used to put them among the clothes to protect the house from demons and djinns..."*

*"The bay leaf is not generally consumed for culinary purposes. It is used as a protection from the evil eye. It is sold in herbalists. You buy it and boil the leaves, then you carry the incense around the house, it both dissipates the negativity of the house and is good for headaches caused by the evil eye."*

It is seen that the plants used for health purposes are mostly used for preventive purposes, but when there is a disease, conventional medicine is practiced. The usage of stinging nettle can be given as an example of the preventive use of edible herbs. Regarding the use of stinging nettle,

euphorbia, and chamomile, participants who were coded as O1, T4 and S5 gave the following *example.*

*"We use it as a spice because it is healthy. But mostly we consume it for our health. We cook stinging nettle for our health. We cook it before the thunder. Then it becomes a medicine, so they say. They always call stinging nettle a medicine after all."*

*"Euphorbia... its milk is put on the bleeding wounds so that it stops the bleeding"*

*"Chamomile tea is good... I drink it at night when I can't sleep, it is known to relieve nerves and takes away stress."*

As a healing effect, the participant coded as T2 gave the example of French lavender.

*"Today French lavender is also used for urinary tract infections, probably when there is inflammation in the blood.*

Table 5. The Information on Culinary Uses of Edible Wild Plants in the Research Area

| **Latin Name of the Plant** | **Local Name** | **Part of the plant used** | **Local People's Usage** | **Participants** |
|---|---|---|---|---|
| *Urtica dioica* L. subsp. *dioica* | Isırgan | Branch and leaf | It is boiled first and then passed through a blender. Add corn flour, white flour, mint and garlic than sauté for a while. It is served with milk or olive oil on top. | S1, S2, S3, S4, S5, T1, T2, T3, T4, T5 |
| *Polygonum cognatum* Meissn. | Madımak | Branch and leaf | Madımaks are chopped, sauteed with onion and tomato paste, then water is poured. When it starts to boil, bulgur and pastrami are added. | S1, S2, S3, S4, S5, S6, T1, T2, T3, T4, T5, T6 |
| *Smilax excelsa* L. | Dikenucu (Kırçan) | Whole plant | After the hard parts are cut, it is boiled as a whole, after being boiled, it is squeezed and roasted by cutting into small pieces. | O1, O2, O3, O4 |
| *Trachystemon orientalis* (L.) G. Don | Galdirik | Whole plant | The whole plant is boiled, after it is boiled, its juice is squeezed and roasted by cutting into small pieces. In addition, the leaf parts are stuffed with rice and wrapped. | O1, O2, O3, O4 |
| *Amaranthus retroflexus* L. | Hoşgıran | Stem and leaf | Stems and leaves are sautéed. | O4, O5 |

| | | | | |
|---|---|---|---|---|
| *Ornithogalum umbellatum L.* | Tükürük Otu | Whole plant | It is consumed by sautéing with potatoes. It is also cooked in the form of kaygana (like an omelette with vegetables) after sautéing. | O2, O3, 04 |
| *Papaver rhoeas L.* | Gelincik | Branch and leaf | It is cooked with bulgur in a stew-like technique. | S1, S2, S3, S4, S5, S6 |
| *Chenopodium album L. subsp. album var. album* | Kazayağı (Sirken) | Branch and leaf | It is used for borek (savory) stuffing. This plant is mixed with flour and cooked as phyllo bread. | S1, S2, S3, S4 |
| *Asparagus officinalis L.* | Kuşkonmaz | Whole plant | Sauted in vegetable oil and eggs are added, cooked like an omelette. | S1, S2, S3, S4 |
| *Rumex scutatus L.* | Kuzu kıkırdağı | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T1,T2,T3 |
| *Portulaca oleracea L.* | Semizotu | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T1,T2 |
| *Ramumculus arvensis L.* | Balbardağı | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T3,T2 |
| *Bellis perennis L.* | Koyungözü | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T3,T2 |
| *Stelleria media L. (Vill.) subsp. media* | Cüce | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T3,T2 |
| *Capsella bursa-pastoris (L.) Medik.* | Çoban çantası (Kuş ekmeği) | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T3,T2 |
| *Rumex conglomeratus* Murray | Çayır labadası | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur | T1,T2,T3 |

| | | | | |
|---|---|---|---|---|
| | | | and pastrami called ‘pancar yemeği’in Tokat | |
| *Spinacia oleracea* L. | Ispanak | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T1,T2 |
| *Euphorbia ledebourii* Boiss. | Sütleğen | Whole plant | Used in salads. Used to make a vegetable dish made with bulgur and pastrami called ‘pancar yemeği’in Tokat | T4, T5,T6 |

The information on the culinary uses of edible wild plants has been examined in Table 5. When Table 5 is analyzed, it can be observed that they are generally used in meals for flavor, as herbal tea, and some plants are dried and used as spices. As the table is further reviewed, it is seen that the people in the region continue to use different types of herbs. For example, the participant coded as O2 gives the following information about the wild plants they use;

*"Melocan, galdirik, hoşkıran... these are the ones I mainly prefer consuming. I consume them since I was a child primarily because they are healthy. I like their taste, they suit our palatal delight and they give flavor to our food as a spice."*

*"I pan fry melocan, galdirik, as well as hoşkıran... it is called fried hoşkıran. We consume it as pan-fried. No other type of cooking is preferred. Melocan is also called thorn tip, it is at the tip of the thorn. The recipe is as follows; First, collect the thorn tips, and break them into small pieces, then separate them from the hard parts and boil them well, after boiling, squeeze and chop them finely and then pan fry the melocan in a separate pan. You can add tomato paste optionally, sometimes I don't add tomato paste, it gives a more flavorful taste. After that pan fry the onion without tomato paste. Finally we pan fry the chopped melecon thorn tip a little more with the onions, that way it becomes more homogenized. Personally, I don't use black pepper, but you can add it if you want. Galdirik is also grown naturally in gardens, on its own, it is not cultivated. It has a long stem. To cook the galdirik first separate it from its leaves, then boil and chop them like melocan. After that chop and pan fry it with onions together. Melocan and Galdirik are cooked in the same style, as for the cooking method they are the same dish.... Pan fried galdirik has just received a geographical sign. This is an important value for our region."*

The participant coded as O3 described stinging nettle anointing as follows.

*“Boil the nettles, run them through a food processor, don't drain the water at all, and add three spoons of corn flour while boiling. Then blend it in a food processor. Add garlic and mint, mix it, and then add two spoons of white flour and cook it in its own water. After cooking, put it on the plates and serve it with either milk or oil on top. Other than this, they make nettle soup or nettle pastries.”*

The participant coded as T2 gave the following information about making the beetroot dish.

*"Beetroot... It is called short tirit, it contains pastrami, bulgur, and fenugreek. We put mashed garlic in it. Short tirit is not as watery as soup; it means it contains less water."*

The participant coded S3 gave the recipe for melocan roasting as follows.

*"The thorn tip... you pick it... if there is a hard part, you rip it off while picking it from the top... then you boil it in water, salty water, then you roast it with onion. It's also called Melecon roasting."*

The information gathered on the methods of obtaining and preserving wild plants indicates that wild plants are mostly consumed by collecting them from their natural environment and stored by drying, through fermentative methods, and in deep freezers.

For instance, the participant coded as T2 and O3 gave the following information about the obtaining methods of the plants.

*"I mean, for the past 8-9 years, neither lettuce nor arugula, cress, or parsley has entered my house, I have completely banished them from my kitchen. In Tokat, we have a neighborhood called Gezlik, and everyone grows them there, in greenhouses, they use too many pesticides, so I don't eat them in winter, but in spring and fall, when they naturally come out of the ground, I eat them."*

*"We collect the nettle, bıldıran, and thorn tips ourselves. When we cannot collect them, we buy them. We also collect the galdirik ourselves. If not, we buy it from the bazaar. It is available in summer. Depending on the season... yes... nettles, but it is also available now."*

The participant coded as T3 gave the following information about the storage of edible wild plants.

*"After I pick it in the summer, it's quite troublesome to clean and sort it. There's the naturally grown one, and then there's the cultivated one. In the natural ones, you can find a lot of sheep wool or other animals' hair. You have to select them like this, prepare them as follows. After washing, cleaning, and chopping them, I undercook them on the stove, then put them in bags, pour a little water, put them in the freezer, and consume in them the winter."*

*"I do it like this; I also keep it in the fridge. I also store it in bottles. I boil it. I put it in a bag with the same broth in the fridge, with the broth, yes. I keep it in the freezer with its broth. I put the plums in bottles, boil them, and consume them like canned food."*

The fourth theme of the research findings involves the method of acquiring information on wild plants. According to the findings obtained, the majority of the participants emphasized that they acquired information about wild plants and their use from their families and environment. It is observed that television programs and the media are not very influential in this regard. The participant coded as T6 gave the following information regarding the subject.

*"No, not from the television; I learned these things from the village women when I worked as a teacher in the villages, now I tell them to the children when they ask."*

The last theme of the findings obtained from the content analysis consists of the factors affecting the usage of local wild plants. As some participants stated, while these factors are related to lifestyle and transportation difficulties (S2), some participants associated them with the inability to achieve cultural transmission (O1).

*"Now, we have been living in the center for years. Those who live in the villages collect and use those herbs. Since lifestyles have changed... Of course, access is also important, you need to spend time on it, you have to go to the village, go to the plateau, collect, dry, etc. We only use herbs like rose hips and sage tea, maybe for colds, but we buy them from the herbalist."*

*"Our mothers used to cook, we used to ask, and watch them... Nowadays people don't cook at home; I have 3 daughters and 8 grandchildren. They are grown up and no one asks me which herb is good for what. But I know."*

The findings of this study have also indicated similar results to those of Abbasi A.M. et al. 2013. The results of both studies show that the use patterns of edible wild plants depend mainly on socioeconomic factors rather than climatic conditions or flora richness (Abbasi A.M. et al., 2013).

## 5. Conclusion

This study has been carried out to obtain information on the types of edible wild plants consumed in Central Black Sea Region in Anatolian culinary culture, along with their usage areas, usage methods, local dishes made with these plants, and determining the factors affecting the use of local wild plants. The four main categories obtained as a result of the findings of the interviews conducted in the research field and the literature review are the usage areas of edible wild plants in Anatolian cuisine, the methods of collecting and preserving edible wild plants, the way of getting information on wild plants, and the factors affecting the use of local wild plants. The findings of the research have indicated that the tradition of using edible wild plants is still preserved in Anatolia and that there is a common cultural heritage related to edible wild plants. According to the results of the research, edible wild plants have been used for both health and culinary purposes in the region. However, it is observed that there are no uses related to beliefs and myths about edible wild plants today, but the knowledge about these uses is still evident in Anatolia. Research findings indicate that the younger generation learns about the use of edible wild plants and beliefs, myths about them by the way of social media, school and daily life. The older generation receives information from their parents. In this context, the results obtained from the current study on the transmission of traditional knowledge from generation to generation are consistent with the studies of Tuerreia-Garcia et al. (2015). In their research on the transfer of traditional knowledge on wild edible plants, Turreira-García et al. (2015) concluded that knowledge about edible wild plants was mostly transferred from relatives, as in this study. Research findings show that the younger generation acquires information about the use of edible wild plants from school, daily life, helping their parents in the fields. The older generation receives information about natural resources from their parents by following the stages of acquiring knowledge (recognizing, observing and helping) presented by Ohmagari & Berkes (1997). Geng et al. (2016) results indicate that the traditional food knowledge was dynamic and affected by social factors. Also, it was descending partly among younger generations. It is necessary to prevent traditional knowledge from being lost in subsequent generations, and understanding traditional knowledge dynamics is one of the important solutions to this dilemma. Therefore, the recording, preserving, and infusing this knowledge to future generations is pressing and fundamental (Ali-Shtayeh et al., 2008, pp.1-13).

The transfer of knowledge from generation to generation is an important investment tool for the protection and continuity of local and regional diversity and cultural richness (Bachetta et al., 2016, pp. 180-187). Even if well preserved, food-related traditions, cooking styles, rituals, etc. are very open to change and imitation (Guil-Guerrero, 2014, pp. 322–328). Moreover, each tradition contains a series of innovations and maintains its continuity by adapting to the new through certain interventions and modifications to the old (Walker, 2008, pp. 69-85). In this respect, gastronomic tourism activities also can ensure this continuity by the way of finding new using local food. There is increasing interest using edible wild plants for the development of new experimental cuisines (Bacchetta et al., 2016, pp. 180-187). As people become more aware of the benefits of consuming local foods and herbal medicines grown without artificial chemical inputs, they are also beginning to recognize the importance of wild plants in their environment (Walker, 2008, pp. 69-85). A new food culture consist of edible wild plants is also emerged in Western countries (Guil pp. 69-85-Guerrero, 2014, pp. 322–328). In a case study investigating factors affecting edible wild plant consumption, wild edible fruits were found to be more likely to be eaten for fun (Shumskyet al., 2014, p. 34). Similarly, a study on the relationship between edible wild plants and tourism examines relationships between harvest/eating wild edible plants and the tourism experience based on an investigation conducted on 202 tourists and 334 households in the Qinling Mountains in China (Wu, Hou & Wen, 2018, pp. 489–503) The results shows that edible wild plants can be used for fun and taste as part of an gastranomic experience in the context of gastronomic tourism.

This research results too indicate that edible wild plants can contribute to gastronomy tourism by developing menus that include these edible wild plants. There are studies emphasized that edible wild plants have an important place in the tourism sector ( Lucovic et al., 2023, p. 205, Bacchetta et al., 2016, pp. 180-187). According to Lucovic et al. (2023) wild edible plants act as a catalyst for improving gastronomy tourism through gastronomy tours and gastronomy experiments. In this context, it is considered that the evaluation of wild plants as a gastronomic tourism product will contribute to both transferring traditions from generation to generation and gastronomy tourism presenting them after adapting to today's consumption patterns.

The usage areas, purposes, and ways of using plants have been changing since ancient times depending on the social, cultural, and economic needs of people. In this respect, in order to ensure the protection and continuity of cultural heritage, these changes should be identified, the needs should be determined and the continuity should be maintained by adapting the traditional to the modern ones. Therefore, it is of great importance to obtain information on edible wild plants by conducting field surveys and inventory studies and to adapt them to today's food culture and pass them on to future generations. There are book studies and articles conducted on edible wild plants in Türkiye. However, it is observed that the edible wild plants of the regions are not much included in the books or brochures prepared regarding local culinary culture. In this context, the inclusion of the recipes for edible wild plants in these books by creating inventory studies can be used as an assistive element in providing cultural continuity and ensuring the continuity of the culture of edible wild plants by adapting it to today's lifestyles. In terms of tourism, the current study suggests that edible wild plants can be marketed as a gastronomic tourism element by highlighting their health aspects and narrating their mythological features.

## 6. Limitations of the Study and Suggestions for Future Studies

In the study, within the scope of the qualitative approach, document analysis and semi-structured interview techniques were used as data collection techniques. In future research, based on the findings of this study, new scales could be developed and the subject can be further investigated through quantitative research. The fact that the research covers only Ordu, Samsun, and Tokat provinces and the tourism activities carried out within these regions are scarce may constitute a limitation for the research. However, conducting similar studies in tourism regions will also shed light on the findings of this study.

## References

Abbasi, A. M., Khan, M. A., Khan, N., & Shah, M. H., (2013). Ethnobotanical survey of medicinally important wild edible fruits species used by tribal communities of lesser Himalayas-Pakistan. *Journal of Ethnopharmacology*, 148, 528-536.

Akcicek, E., & Vural, M. (2003). Local names and ethnobotanical features of some plants in Kumalar Mountain (Afyon) and its vicinity. *The Herb Journal of Systematic Botany*, 10, 151–162.

Altıok, A., & Behçet, L. (2005). The Flora of Bitlis River Valley. *Turkish Journal of Botany*, 29 (5), 355–387. https://journals.tubitak.gov.tr/botany/vol29/iss5/3

Ali-Shtayeh, M. S., Jamous, R. M., Al-Shafie', J. H., Elgharabah, W. A., Kherfan, F. A., Qarariah, K. H., & Nasrallah, H. A. (2008). Traditional knowledge of wild edible plants used in Palestine (Northern West Bank): A comparative study. *Journal of ethnobiology and ethnomedicine*, 4, 1-13.

Avcı, E. (2021). The Determination of the Factors Affecting the Unique Festival Experience: The Case of Alaçatı Herb Festival. *Journal of Tourism and Gastronomy Studies*, 9 (3), 1722–1740. https://doi.org/10.21325/jotags.2021.864

Aydin, A. (2021). Anadolu Mutfak Kültürünün Oluşumunda Hitit Mutfağının Rolü: Etno arkeolojik Bir Araştırma, Yayımlanmış doktora tezi. Ankara Hacı Bayram Veli Üniversitesi Lisansüstü Eğitim Enstitüsü, Ankara.

Bacchetta, L., Visioli, F., Cappelli, G., Caruso, E., Martin, G., Nemeth, E.,& Eatwild Consortium. (2016). A manifesto for the valorization of wild edible plants. *Journal of Ethnopharmacology*, 191, 180-187.

Bağcı, Y. (2000). Ethnobotanical features of Aladağlar (Yahyalı, Kayseri) and its vicinity. *The Herb Journal of Systematic Botany*, 7(1), 89–94.

Belli, S. & Uluer, C. (2023). Yenilebilir Otların Yöresel Mutfaklarda Kullanım Şekilleri. *Journal of Gastronomy, Hospitality and Travel*. 6(4). 1558-1567.

Bhatia, H., Sharma, Y. P., Manhas, R. K.,& Kumar, K. (2018). Traditionally used wild edible plants of district Udhampur, J&K, India. Journal of Ethnobiology and Ethnomedicine, 14, 1-13.

Bloor, M. & Wood, F. (2006). *Keywords in Qualitative Methods.* New York: SAGE Publications. https://doi.org/10.4135/9781849209403

Creswell, J. W. (2013). *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. New York: SAGE Publications.

Çetinkaya, N., & Yıldız, S. (2018). Erzurum'un Yenilebilir Otları ve Yemeklerde Kullanım Şekillerine Yönelik Bir Araştırma. *Güncel Turizm Araştırmaları Dergisi*, 2(1), 482-503.

Demir, E., Sürmen, B., Özer, H., & Kutbay, H.G. (2017). Ethnobotanical Characteristics of Plants Growing Naturally in Salipazarı and Its Surroundings. *Black Sea Journal of Science*, 7(2), 68.

Dinc, L., & Huang, R. (2024). Organic food consumption at casual and fine dining restaurants in the UK: Restaurant managers' perspectives. *Journal of Multidisciplinary Academic Tourism*, 10(1), 1-12.78.

De Toni, D., Eberle, L., Larentis, F., & Milan, G. S. (2018). Antecedents of perceived value and repurchase intention of organic food. *Journal Of Food Products Marketing*, 24 (4), 456-475.

Dogan, Y., Baslar, S., Ay, G., & Mert, H. H. (2004). The Use of Wild Edible Plants in Western and Central Anatolia (Turkey). *Economic Botany*, 58(4), 684–690. https://doi.org/10.1663/0013-0001(2004)058[0684:TUOWEP]2.0.CO;2

Duguma, H. T. (2020). Wild edible plant nutritional contribution and consumer perception in Ethiopia. *International Journal of Food Science*, (1), 295-623.

Dyer, T. F. T. (2015). *The Folk-lore of Plants* (2nd ed.). Tulsa: Mythik Press.

Findley, M. G., Kikuta, K., & Denly, M. (2021). External validity. *Annual Review Of Political Science*, 24 (1), 365-393.

Geng, Y., Zhang, Y., Ranjitkar, S., Huai, H., & Wang, Y. (2016). Traditional knowledge and its transmission of wild edibles used by the Naxi in Baidi Village, northwest Yunnan province. Journal of ethnobiology and ethnomedicine, 12, 1-21.

Glesne, C. (2013). *Nitel araştırmaya giriş* (3. Basım). A. Ersoy ve P. Yalçınoğlu (Çev. Edt.). Ankara: Anı Yayıncılık

Göktaş, Ö., & Gıdık, B. (2019). Uses of Medicinal and Aromatic Plants. *Bayburt Üniversitesi Fen Bilimleri Dergisi*, 2(1), 145–151. https://doi.org/10.2307/3647306

González-Zamorano, L., Cámara, R. M., Morales, P., & Cámara, M. (2025). Harnessing Edible Wild Fruits: Sustainability and Health Aspects. *Nutrients*, 17(3), 412.

Govaerts, R. (2001). How many species of seed plants are there? *Taxon,* 50(4), 1085–1090. https://doi.org/10.2307/1224723

Guba, E.G. & Lincon, Y.S. (1982), Epistemological and methodological bases for naturalistic inquiry, *Educational Communications and Technology Journ*al, Vol. 30 No. 4, pp. 363-381.

Guil Guerrero., J. L., Giménez Martínez, J. J. & Torija Isasa, M. E. (1998). Mineral Nutrient Composition of Edible Wild Plants. *Journal of Food Composition and Analysis*, 11(4), 322–328. https://doi.org/10.1006/jfca.1998.0594

Guil-Guerrero, J. L. (2014). The safety of edible wild plants: Fuller discussion may be needed. *Journal of Food Composition and Analysis*, 35(1), 18-20.

Güner, A., Akyıldırım, B., Alkayış, M. F. Çıngay B., Kanoğlu, S.S., Özkan, A.M., Öztekin, M. & Tuğ, G. N. (2012). Turkish names of plants. In Güner, A., aslan, S. Ekim, T. Vural, M. & Babaç, M. T. (Ed.), List of Plants of Türkiye (Veinous Plants). Türkiye Bitkileri Listesi (Damarlı Bitkiler). Nezahat Gökyiğit Botanik Bahçesi Yayınları Flora Dizisi 1.

Heinrich, M., Kufer, J., Leonti, M., & Pardo-de-Santayana, M. (2006). Ethnobotany and ethnopharmacology—Interdisciplinary links with the historical sciences. *Journal of Ethnopharmacology,* 107(2), 157–160. https://doi.org/10.1016/j.jep.2006.05.035

Jabbar, A., Zaman, M. A., Iqbal, Z., Yaseen, M., & Shamim, A. (2007). Anthelmintic activity of Chenopodium album (L.) and Caesalpinia crista (L.) against trichostrongylid nematodes of sheep. *Journal of Ethnopharmacology*, 114(1), 86–91. https://doi.org/10.1016/j.jep.2007.07.027

Kadıoğlu, Z., Çukadar, K., Kandemir, A., Kalkan, N. N et al. (2020). Kars İlinde Sebze Olarak Tüketilen Yabani Bitki Türlerinin Tespiti ve Kullanım Şekilleri. *Anadolu Ege Tarımsal Araştırma Enstitüsü Dergisi*, 30(1), 11-32. https://doi.org/10.18615/anadolu.727146

Kala, C. P. (2015). Medicinal and aromatic plants: Boon for enterprise development. *Journal of Applied Research on Medicinal and Aromatic Plants,* 2(4), 134–139. https://doi.org/10.1016/j.jarmap.2015.05.002

Karaca, O. B., Yıldırım, O., & Çakıcı, C. (2015). An Evaluation on Their Relation to Health and Wild Plant Meals, Wild Edible Plants in Gastronomy Tourism. *Journal of Tourism and Gastronomy Studies*, 3(3), 27-42. https://jotags.net/index.php/jotags/issue/view/26/36

Karadağ, Ü., & Özer, Ç. (2022). Gastronomi Turizmi Açısından Yenilebilir Otların Önemi: Ege Bölgesi Örneği. *Asya Studies-Academic Social Studies/Akademik Sosyal Araştırmalar,* 6(22), 249-256.

Kökler, N., & Çetinkaya, N. (2022). Yenilebilir Yabani Bitkilerin Gastronomik Açıdan Değerlendirilmesi: Erzurum Uzundere Örneği. *Turar Turizm ve Araştırma Der*gisi, 11(1), 50-74

Kendir, G., & Güvenç, A. (2010). An Overview of Ethnobotany and Ethnobotanical Studies in Turkey. *Hacettepe University Journal of the Faculty of Pharmacy*, 30(1), 49–80.

Keykubat, B. (2017). Tibbi Aromatik Bitkiler ve Iyi Yaşam.( Medical Aromatic Plants and Well Life). *Izmir Commodity Exchange*.2-23 https://itb.org.tr/makale/5-tibbi-aromatik-bitkiler-ve-iyi-yasam

Kızılcalıoğlu, G., Aybar, D., & Şen, Ö. (2019). A Study on the Perceived Food Image, Satisfaction Levels and Behavioral Intentions for the Future of the Tourists Attending the Alaçatı Herb Festival. 510–517.

Kindscher, K. (2024). Edible Wild Plants of the Prairie: An Ethnobotanical Guide. Revised and Expanded. University Press of Kansas.

Kocabaş, Y. Z., & Gedik, O. (2016). An Ethnobotanical Study of wild plants sold in district bazaar in Kahramanmaras. *Journal of the Institute of Science and Technology,* 4(6), 41–41. https://doi.org/10.21597/jist.2016624154

Kozak, M. (2014). *Scientific Research: Design, Writing and Publication Techniques.* Ankara: Detay Yayıncılık.

Lesko CR, Buchanan AL, Westreich D, Edwards JK, Hudgens MG, Cole SR. 2017. Generalizing study results. *Epidemiology,* 28:553–61

Low Dog, T. (2006). A Reason to Season: The Therapeutic Benefits of Spices and Culinary Herbs. *Explore,* 2(5), 446–449.

Luković, M., Pantović, D., Kostić, M., Veljović, S., Bugarćič, J. (2023). Food Plant Diversity in Cultural Ecosystem Services Perspective: Edible Plants as a Driver for Improving the Offer of Gastro-Tourism, *Ecologica.* 30 (110). 201–208. https://doi.org/10.1016/j.explore.2006.06.010

Mathison, S. (1988). Why triangulate? *Educational Researcher*, 17(2), 13–17. doi:10.3102/ 0013189X017002013

Miles, B. M. ve Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Source Book.* New York: SAGE Publications.

Neuman, L. W. (2014). *Social Research Methods: Qualitative And Quantitative Approache*s (Seventh Ed.). Essex: Pearson Education Limited.

Noble, N., & Heale, R. (2019). Triangulation in research, with examples. *BMJ Journals*, 22(3). https://ebn.bmj.com/content/22/3/67

Motti, R. (2022). Wild edible plants: a challenge for future diet and health. Plants, 11(3), 344.

Oğan, Y., & Cömert, M. (2022). Artvin yöre gastronomisinde tıbbi ve aromatik bitkiler. *Aydın Gastronomy,* 6 (1), 29-38.

Ohmagari, K., & Berkes, F. (1997). Transmission of indigenous knowledge and bush skills among the Western James Bay Cree women of subarctic Canada. *Human Ecology*, 25, 197-222.

Ordu Metropolitan Municipality. (2021). Geographical Indication of Roasted Melocan (1217). https://ci.turkpatent.gov.tr/Files/GeographicalSigns/c23ff970-cdb2-408c-96de-7a9e3f44063e.pdf

Özkan, E., Curkan, S. C., & Sarak, E. C. (2015). The Effects of Festivals on Festival Visitors: The Case of Alaçatı Herb Festival. *Gumushane Universitesi Sosyal Bilimler Elektronik Dergisi*, 6(14). https://doi.org/10.17823/gusb.247

Palhares, R. M., Gonçalves Drummond, M., Dos Santos Alves Figueiredo Brasil, B., Pereira Cosenza, G., Das Graças Lins Brandão, M., & Oliveira, G. (2015). Medicinal Plants Recommended by the World Health Organization: DNA Barcode Identification Associated with Chemical Analyses Guarantees Their Quality. *Plos One,* 10(5), e0127866. https://doi.org/10.1371/journal.pone.0127866

Pang, S. M., Tan, B. C., & Lau, T. C. (2021). Antecedents of Consumers' Purchase Intention towards Organic Food: Integration of Theory of Planned Behavior and Protection Motivation Theory. *Sustainability,* 13(9), 5218.

Patton, M. Q. (2022). *Qualitative Research and Evaluation Methods (3rd Edition).* Kaliforniya: Sage Publications.

Paunović, I., & Jovanović, V. (2017). Implementation of sustainable tourism in the German Alps: A case study. Sustainability, 9(2), 226.

Pearl J, Bareinboim E. (2014). External validity: from do-calculus to transportability across populations. Stat. Sci. 29:579–95

Pehlivan, T. (2023). Some Important Edible Wild Plants of Türkiye and Their Use in Culinary. *Turkish Journal of Agriculture-Food Science and Technology*, 11(2), 363-371.

Peters, C. R., O'Brien, E. M., Boaz, N. T., Conroy, G. C., Godfrey, L. R., Kawanaka, K., Kortlandt, A., Nishida, T., Poirier, F. E., & Smith, E. O. (1981). The Early Hominid Plant-Food Niche: Insights From an Analysis of Plant Exploitation by Homo, Pan, and Papio in Eastern and Southern Africa [and Comments and Reply]. *Current Anthropology*, 22(2), 127–140. *JSTOR.*

Project, T. T. (2020). Beyond internal validity: Towards a broader understanding of credibility in development policy research. World Development, 127, 104802.

Rasool Hassan, B. A. (2012). *Medicinal Plants (Importance and Uses).* Pharmaceutica Analytica Acta, 03(10). https://doi.org/10.4172/2153-2435.1000e139

Salmerón-Manzano, E., Garrido-Cardenas, J. A., & Manzano-Agugliaro, F. (2020). Worldwide Research Trends on Medicinal Plants. *International Journal of Environmental Research and Public Health*, 17(10), 3376. https://doi.org/10.3390/ijerph17103376

Schippmann, U., Leaman, D., & Cunningham, A. (2002). Impact of Cultivation and Gathering of Medicinal Plants on Biodiversity: Global Trends and Issues. In Biodiversity and the Ecosystem Approach in Agriculture, *Forestry and Fisheries*. 142–167.

Schunko, C., Li, X., Klappoth, B., Lesi, F., Porcher, V., Porcuna-Ferrer, A. & Reyes-García, V. (2022). Local communities' perceptions of wild edible plant and mushroom change: A systematic review. *Global Food Security*, 32, 100601. https://doi.org/10.1016/j.gfs.2021.100601

Shumsky, S. A., Hickey, G. M., Pelletier, B., & Johns, T. (2014). Understanding the contribution of wild edible plants to rural social-ecological resilience in semi-arid Kenya. *Ecology and Society*, 19(4).

*Silverman, D. (2005 ). Instances or sequences? Improving the state of the art of qualitative research. In Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, 6, (3).*

Skinner, A. (1911). A Comparative Sketch of the Menomini. *American Anthropologist*, 13(4), 551–565. https://doi.org/10.1525/aa.1911.13.4.02a00050

Şimşek, A., Durmuş, E. N. İ. & Çakmak, S. D. (2020). Yenilebilir otlar ve mutfaklarda kullanım şekilleri: Kastamonu örneği. *Tourism and Recreation*, 2(1), 8-12.

Temizkan, S. P., & Uslu, A. N. (2023). Safranbolu'daki Yenilebilir Otlar ve Yemeklerde Kullanımı. *Journal of Tourism and Gastronomy Studies*, 11(1), 434-452

Travers, M. (2001). *Qualitative Research Through Case Studies.* New York: SAGE Publications.

Turner, N. J., Łuczaj, Ł. J., Migliorini, P., Pieroni, A., Dreon, A. L., Sacchetti, L. E., & Paoletti, M. G. (2011). Edible and tended wild plants, traditional ecological knowledge and agroecology. *Critical Reviews in Plant Sciences*, 30(1-2), 198-225.

Turreira-García, N., Theilade, I., Meilby, H., & Sørensen, M. (2015). Wild edible plant knowledge, distribution and transmission: a case study of the Achí Mayans of Guatemala. *Journal of Ethnobiology and Ethnomedicine*, 11, 1-17.

Tutar, H. (2022). Nitel araştırmalarda geçerlilik ve güvenilirlik: Bir model önerisi. *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 22 (Özel Sayı 2), 117-140.

Uğur, A., Saka, A. K., & Uçan, U. (2021). *Ordu Vegetable Culture and Edible Herbs.* In Ordu with Its Historical and Cultural Dimensions-Volume II (Erzurum). Ankara: Fenomen Yayıncılık.

Valdes, B., Kozuharova, E., & Stoycheva, C. (2025). A Review of Edible Wild Plants Recently Introduced into Cultivation in Spain and Their Health Benefits. *International Journal of Plant Biology,* 16(1), 5. https://doi.org/10.3390/ijpb16010005

Walker, H., Di Sisto, L., & McBain, D. (2008). Drivers and barriers to environmental supply chain management practices: Lessons from the public and private sectors. *Journal of purchasing and supply management,* 14(1), 69-85.

Wu, J., Hou, Y., & Wen, Y. (2018). Tourist behavior and conservation awareness on eating wild edible plants in mountainous protected areas: a case study in Northwest China. *Journal of Sustainable Forestry,* 37(5), 489–503. https://doi.org/10.1080/10549811.2018.1428901

Yıldırım, A., & Şimşek, H. (1999). *Qualitative research methods in the social sciences*. Ankara: Seçkin yayıncılık.

ETİK ve BİLİMSEL İLKELER SORUMLULUK BEYANI

Bu çalışmanın tüm hazırlanma süreçlerinde etik kurallara ve bilimsel atıf gösterme ilkelerine riayet edildiğini yazar(lar) beyan eder. Aksi bir durumun tespiti halinde Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi'nin hiçbir sorumluluğu olmayıp, tüm sorumluluk makale yazarlarına aittir. Yazarlar etik kurul izni gerektiren çalışmalarda, izinle ilgili bilgileri (kurul adı, tarih ve sayı no) yöntem bölümünde ve ayrıca burada belirtmişlerdir.

Kurul adı: Tokat Gaziosmanpaşa Üniversitesi, Sosyal Ve Beşeri Bilimler Araştırmaları Etik Kurul Kararı

Tarih: 06.11.2023

No: 359554