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Understanding Consumer Knowledge of Wild Edible Plants: Objective Knowledge and Customer Segmentation

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Abstract

Climate change poses a significant challenge to agriculture in the Mediterranean region, generating multiple food-related concerns. Wild edible plants (WEPs) may represent a partial solution as they provide a valuable genetic resource and possess notable nutritional properties. However, realising their full market potential is dependent on consumer knowledge. This study aimed to develop a scale for assessing consumers' objective knowledge of WEPs and to identify consumer segments based on that knowledge. Data were collected from consumers shopping at farmers' markets in Istria County, Croatia. The results suggested that consumers possess only basic knowledge of WEPs. They were very familiar with wild asparagus and least familiar with purslane, followed by sea fennel. Cluster analysis identified three distinct segments: high-knowledge, moderate-knowledge, and low-knowledge WEP consumers. These segments differed significantly in terms of gender, dietary restrictions, prior purchase of WEPs, household size, attitudes toward WEPs, and perceptions of the impact of climate change on WEPs.

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Introduction

Climate change and the growing demand for food represent two interconnected and significant challenges in modern agriculture (Fanzo *et al*., 2018). The impacts of climate change, especially intense dry periods, are expected to severely affect the Mediterranean region (Muñoz-Rojas *et al*., 2017), leading to reduced agricultural activity and food production (Jat *et al*., 2018). To address these challenges, sustainable solutions and practices are essential, such as the genetic improvement of plants to enhance their adaptation to current climatic conditions and human needs (del Pozo *et al*., 2019). In this context, wild edible plants (WEPs) represent a valuable genetic resource for developing new and improved crops (Ford-Lloyd *et al*., 2011). WEPs have traditionally been part of the culture and heritage of the Mediterranean region, used not only for food but also for medicinal purposes and ritual practices (Ceccanti *et al*., 2018), establishing their place as an integral part of the traditional Mediterranean diet (Pieroni *et al*., 2006; Rivera *et al*., 2006).

Historically, WEPs have been prepared in diverse ways, including in soups, pies, jams, and liqueurs (Ceccanti *et al*., 2018; Łuczaj *et al*., 2012) and even used in medicinal applications, such as infusions or macerates (Benitez *et al*., 2017). However, despite their historical importance, contemporary consumer knowledge of WEPs is limited (Łuczaj & Dolina, 2015; Łuczaj *et al*., 2012). Consumer knowledge plays a key role in the decision-making process, particularly during information gathering (Alba & Hutchinson, 1987). In the case of WEPs, this knowledge often takes the form of traditional knowledge, as consumption is closely linked to local cuisine and cultural identity. Consequently, the erosion of WEP knowledge reflects a broader loss of cultural heritage (Turner & Turner, 2008). There are many reasons for this decline, including modern fast-paced lifestyles, depopulation of rural areas, an ageing population (Łuczaj & Dolina, 2015; Łuczaj *et al*., 2012), and reduced interest due to the widespread availability of fast food (Aboukhalaf *et al*., 2022; Cruz *et al*., 2014; Hadjichambis *et al*., 2008).

Preserving knowledge about WEPs could present an opportunity to revitalise rural areas (Chen & Qiu, 2012). Thus, developing an instrument to measure consumers' knowledge of WEPs is an important step toward understanding consumer behaviour in relation to WEP consumption. Recent studies indicate a considerable decline in consumers' traditional knowledge regarding WEPs (Hadjichambis *et al*., 2008; Łuczaj *et al*., 2012; Reyes-García *et al*., 2015), highlighting the need for further research. Such studies are particularly relevant given the potential of WEPs to contribute to sustainable agricultural solutions under climate change by serving as genetic resources for crop improvement (del Pozo *et al*., 2019; Ford-Lloyd

et al., 2011). Accordingly, the objectives of this paper are twofold: first, to develop a scale for measuring consumers' knowledge of WEPs, and second, to explore how this knowledge can be leveraged for consumer segmentation purposes.

1. Background

WEPs have traditionally formed part of the Mediterranean diet. Despite their historical importance, however, modern consumers demonstrate limited knowledge of WEPs (Łuczaj & Dolina, 2015; Łuczaj *et al.*, 2012). Consumer knowledge plays a central role in shaping the consumer decision-making process because information influences purchasing decisions (Alba & Hutchinson, 1987).

Consumer knowledge is commonly conceptualised as comprising three dimensions: objective knowledge, subjective knowledge, and familiarity (Cordell, 1997). Objective knowledge is defined as information stored in memory (Blackwell *et al.*, 2001) and is impartially measured by a third party, typically following a standardised procedure (Cordell, 1997). Subjective knowledge refers to an individual's self-assessment of their own expertise (Cordell, 1997). Objective knowledge captures what consumers actually know, whereas subjective knowledge reflects what they believe they know. Although these two types of knowledge are generally correlated, they differ in their antecedents: objective knowledge is primarily based on stored information about a product category, while subjective knowledge is more strongly influenced by personal experience (Park *et al.*, 1994). Meanwhile, familiarity refers to the level of experience a consumer has with a particular product category (Park *et al.*, 1994). Familiarity is considered the foundation of subjective and objective knowledge because it directly influences them (Chocarro *et al.*, 2009).

Knowledge about WEPs is typically framed as traditional knowledge related to the place of residence. It is most often associated with rural areas, which are considered rich sources of knowledge regarding WEP species and their uses (Benítez *et al.*, 2017; Maurer & Schueckler, 1999). This knowledge is generally transmitted orally from generation to generation (Benítez *et al.*, 2017). Traditional knowledge of WEPs is often attributed more to women, who are described as the primary custodians of such knowledge (Łuczaj, 2008), particularly in rural contexts where they have historically been responsible for food preparation and outdoor subsistence activities (Kosmaryandi, 2005). Preserving this traditional knowledge is therefore a critical contemporary task. One approach involves systematically collecting and documenting the knowledge that remains in rural communities to prevent

its disappearance (Aboukhalaf *et al*., 2022; Altundağ Çakır, 2017; Ceccanti *et al*., 2018; Hadjichambis *et al*., 2008).

Due to the loss of traditional knowledge, WEPs can also be regarded as a novel food source. They are a rich source of bioactive compounds, which makes them valuable as functional foods (Pinela *et al*., 2017). Their high phytochemical content has led some authors to classify them as 'new functional foods' (Bacchetta *et al*., 2016; Ceccanti *et al*., 2018), thereby positioning them as promising innovative products for contemporary consumers. The consumption of WEPs is associated with numerous health benefits and many environmental advantages, meaning they have excellent potential for inclusion in a sustainable agroecological system (Bundela *et al*., 2023). However, knowledge remains a key determinant of consumer preferences and acceptance of functional foods (Topolska *et al*., 2021) because increasing consumer knowledge about functional foods leads to a corresponding rise in their acceptance (Baker *et al*., 2022).

The potential of WEPs lies in their capacity to contribute to a modern, sustainable agricultural system that must meet the growing demand for healthy food while minimising environmental impact (Borelli *et al*., 2020). It is therefore important to explore creative approaches to increase consumer familiarity, demand, and desirability for these plants (Borelli *et al*., 2020). To do this, it is necessary to not only conserve plant resources but also to preserve the associated bio-cultural knowledge that connects communities to natural resources and values local traditions (McCarter *et al*., 2018). Greater familiarity with WEPs is expected to strengthen both objective and subjective knowledge (Söderlund, 2002), thereby improving consumer acceptance and supporting their reintegration into contemporary diets.

2. Materials and methods

The results presented in this paper form part of a broader body of research linking healthy lifestyles to the consumption of WEPs within the context of climate change. The target population consisted of consumers shopping at farmers' markets. The survey was conducted from March–June 2022 across four local farmers' markets in Istria County, Croatia. A research agency was commissioned to collect the data.

Data collection followed a stationary researcher/mobile respondent approach (Veal, 2006): researchers were positioned at the entrances of the farmers' markets and approached consumers as they entered. Potential respondents were informed about the purpose of the study and assured of anonymity before being asked to provide consent to participate. Upon agreement, participants received a leaflet containing a QR code linking

to the online questionnaire, as data were collected using a digital survey instrument. The questionnaire consisted of 66 questions organised into seven sections: WEP consumption, subjective knowledge, objective knowledge, food neophobia, climate change, wellness-related lifestyles, and respondents' characteristics. For sampling purposes, a minimum of 150 respondents was set to ensure sufficient data for analysis, as consumers shopping at farmers' markets represent only a small proportion of the local population (Hair *et al.*, 2009).

The data were analysed using descriptive, bivariate, and multivariate statistical techniques. Descriptive statistics (means, standard deviations, and percentages) were used to summarise the sample characteristics. Bivariate statistics were used to test the differences among clusters (chi-square and one-way ANOVA) and item-to-total correlation (Point Biserial Correlation) (Kline, 2015). Multivariate statistics were used for segmentation (cluster analysis) and to determine construct dimensionality (exploratory factor analysis) and validity (Cronbach's Alpha). Specifically, EFA was performed on the following constructs: attitude toward nature preservation, attitude toward WEPs, food neophobia, and subjective knowledge. Principal Axis Factoring with Promax rotation was employed, retaining factors with eigenvalues greater than 1.00. Moreover, cluster analysis was used to group farmers' market consumers based on their objective knowledge of WEPs. This was done by first determining the number of clusters through a hierarchical clustering technique, namely, 50 observations were randomly selected, while the Ward method, with squared Euclidean distance, was used to establish the preliminary number of clusters. A three-cluster solution was then selected based on the largest and most plausible proportionate change. Subsequently, a non-hierarchical k-means cluster analysis was performed on the full sample using the predetermined number of clusters. Cluster validity was assessed using one-way ANOVA and subjective knowledge of WEPs (Hair *et al.*, 2009; Težak Damijanić *et al.*, 2024). Subjective knowledge was measured using six items adapted from Flynn and Goldsmith (1999), rated on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). For the purposes of this paper, these items were analysed separately to determine the unidimensionality of the scale. The scale explained 78.15% of the total variance, all factor loadings exceeded 0.60, and the Cronbach's alpha coefficient was 0.955, indicating excellent internal consistency.

Variables used for profiling were sociodemographic characteristics (gender, age, profession, education, number of household members, and income), diet restrictions (no vs. yes), purchase of WEPs in the previous year (no vs. yes), farmers' market purchase frequency (several times a year or less; once

a month or more often; once a week or more often), concern about climate change and its consequences (five-point Likert scale: 1 = not concerned at all; 5 = extremely concerned), and perceived climate change impact on WEPs (five-point Likert scale: 1 = strongly disagree; 5 = strongly agree). Psychological factors included three variables: attitude toward nature preservation, attitude toward WEPs, and food neophobia (Težak Damijanić *et al.*, 2024). Attitude toward nature preservation (Yadav & Pathak, 2016), attitude toward WEPs (Schunko & Vogl, 2020), and food neophobia (Piha *et al.*, 2018) were separately factor analysed to determine whether the constructs were unidimensional. Attitude toward nature preservation accounted for 73.38% of the accumulated variance, with all factor loadings exceeding .60 and a Cronbach's alpha coefficient of 0.914. Attitude toward WEPs accounted for 62.50% of the accumulated variance, with all factor loadings exceeding .60 and a Cronbach's alpha coefficient of 0.863. Food neophobia accounted for 66.15% of the accumulated variance, with all factor loadings exceeding .60, and a Cronbach's alpha coefficient of 0.881. To determine differences among the groups, standardised residuals (chi-square test) (Schwab, 2004) and post hoc comparisons (Tukey's HSD and Games-Howell tests following one-way ANOVA) (Field, 2005) were employed.

To measure objective knowledge of WEPs, the recommendations of Park *et al.* (1994) and Parmenter and Wardle (1999) were followed. First, five WEPs were selected based on two criteria: (1) traditional use in the coastal region of Croatia and (2) resilience to extreme climate-related stress (Dolina *et al.*, 2016; Ninčević Runjić *et al.*, 2024; Vitasović-Kosić, 2018). The selected species were wild asparagus (*Asparagus acutifolius* L.), wild fennel (*Foeniculum vulgare* Mill.), wild garlic (*Allium ursinum* L.), purslane (*Portulaca oleracea* L.), and sea fennel (*Crithmum maritimum* L.). These plants were identified by five agricultural experts as those best meeting the defined criteria. Then, based on a review of materials describing different WEPs, five main knowledge domains were identified (Grlić, 1990): recognition, plant distribution, nutrition and health benefits, morphology, and usage. Accordingly, five questions, one per section, were proposed to measure the objective knowledge of each WEP (see Appendix). The proposed structure and items were evaluated by five subject-matter experts, who recommended no modifications. Respondents were first asked if they recognised a WEP based on a photograph, selecting the correct plant name from the five species included in the study. Respondents who selected appropriate answers were given four statements about an individual WEP and then had to select between two options: 'true' or 'not true'. To avoid excluding respondents who were familiar with a plant but unable to recognise it from the photograph, participants were subsequently shown the plant name

and asked whether they had previously heard of it. However, this item was excluded from the final scale due to its potential high correlation with the recognition question. All items measuring objective knowledge of specific WEPs were retained because they tested important aspects of objective knowledge (Parmenter & Wardle, 1999). Scoring was conducted as follows: correct identification of the plant yielded one point. For the four subsequent statements, each correct response was awarded one point, while incorrect and 'don't know' responses were scored as zero. Objective knowledge for each WEP was calculated as the sum of correct answers, resulting in a possible score ranging from 0 to 5 per species.

3. Results

In total, 166 responses were collected. The sample consisted predominantly of female respondents (76%) while males accounted for a much smaller portion (24%). Most respondents were between 36 and 54 (48%) and had completed higher education (55%). In terms of employment status, 57% were employed, 25% were self-employed, and approximately 8% were retired. The most frequently reported monthly net income was between €800 and €1,070 (32%). Around 56% of respondents lived in a household comprising three or four members.

Respondents were generally able to recognise specific WEPs from the provided photographs (Table 1). Most participants were also familiar with the typical habitats and morphological characteristics of these plants. This pattern may reflect the fact that knowledge of plant distribution and morphology is traditionally transmitted across generations (Benítez *et al.*, 2017). However, respondents struggled to identify the nutritional and health benefits of WEPs, as well as their culinary uses. This lack of knowledge may be explained by modern lifestyles and the abandonment of traditional dishes prepared with WEPs (Łuczaj & Dolina, 2015; Łuczaj *et al.*, 2012).

Respondents were generally unfamiliar with WEPs, except for wild asparagus (Table 2). All respondents were able to either recognise wild asparagus or to indicate that they had previously heard about it (with scores ranging from 1 to 5). Furthermore, most respondents had some knowledge of the five WEPs. In contrast, knowledge levels for the remaining species were comparatively lower. Respondents were least familiar with purslane, followed by sea fennel and wild garlic. The correlation between the item-to-total score was acceptable for all five measures (Kline, 2015).

Table 1 - Percentage of correct answers for WEPs

Objective knowledge dimensions	Percentage	
	Incorrect	Correct
WEP photograph recognition		
Purslane	27.7	72.3
Wild garlic	24.1	75.9
Wild fennel	17.5	82.5
Sea fennel	38.0	62.0
Wild asparagus	3.0	97.0
Plant distribution		
Purslane	49.4	50.6
Wild garlic	81.9	18.1
Wild fennel	32.5	67.5
Sea fennel	53.6	46.4
Wild asparagus	13.3	86.7
Nutritive and health benefits		
Purslane	77.1	22.9
Wild garlic	66.3	33.7
Wild fennel	41.6	58.4
Sea fennel	59.6	40.4
Wild asparagus	25.9	74.1
Morphology		
Purslane	83.1	16.9
Wild garlic	36.1	63.9
Wild fennel	38.6	61.4
Sea fennel	50.0	50.0
Wild asparagus	34.9	65.1
Usage		
Purslane	60.8	39.2
Wild garlic	44.6	55.4
Wild fennel	44.6	55.4
Sea fennel	63.3	36.7
Wild asparagus	5.4	94.6

Table 2 - Descriptives for WEP objective knowledge

WEP type	M	SD	Item-to-total-score correlation (min)
Purslane	2.0	1.61	0.537
Wild garlic	2.5	1.46	0.474
Wild fennel	3.3	1.39	0.423
Sea fennel	2.4	1.96	0.737
Wild asparagus	4.2	1.06	0.431

To segment farmers' market consumers based on their objective knowledge of the five WEPs (purslane, wild garlic, wild fennel, sea fennel, and wild asparagus), a cluster analysis was performed. A non-hierarchical cluster analysis procedure (k-means) confirmed the three-cluster solution (Table 3). The first cluster (N = 85) represented 50% of respondents, the second cluster (N = 28) accounted for 16%, and the third cluster (N = 53) comprised 34% of the sample. Statistically significant differences were observed among the clusters across all five WEP knowledge measures. Cluster 1 demonstrated high levels of objective knowledge, Cluster 2 exhibited the lowest levels of objective knowledge, and Cluster 3 showed moderate knowledge across the five WEPs. Based on the cluster centroids, the segments were labelled accordingly as high-knowledge, low-knowledge, and moderate-knowledge WEP consumers. The analysis of variance indicated statistically significant differences among the clusters (F = 10.721; DF = 2, 163; Sig. 0.000), thereby supporting the robustness of the three-cluster solution.

Table 3 - Results of cluster analysis

Measures	Final Cluster Centres			F value
	1	2	3	
Purslane	3.3	0.6	1.0	108.104***
Wild garlic	3.4	0.8	2.1	72.892***
Wild fennel	3.7	1.4	3.7	63.606***
Sea fennel	4.1	0.4	1.0	217.808***
Wild asparagus	4.6	2.8	4.4	51.670***

Note: * significant at 0.05, ** significant at 0.01, *** significant at 0.001.

In order to determine the differences among the groups in terms of socio-demographic characteristics, diet restriction, purchase of WEPs in the

previous year, and farmers' market purchase frequency, chi-square tests were conducted (Table 4). Statistically significant differences between groups were identified for gender, dietary restrictions, and purchase of WEPs in the previous year.

Within the high-knowledge cluster, there were significantly more male respondents and fewer female respondents than expected based on the overall sample distribution. Regarding dietary restrictions, fewer respondents reported food restrictions than expected, while more than expected indicated no dietary restrictions in the high-knowledge segment. In addition, the high-knowledge cluster included significantly more respondents who had purchased WEPs in the previous year and fewer who had not, compared to expected frequencies. Conversely, in the low- and moderate-knowledge clusters, there were fewer respondents than expected who had purchased WEPs and more who had not purchased them in the previous year.

Table 4 - Chi-square results

Variable		Percentage			Chi square (df)
		Cluster 1	Cluster 2	Cluster 3	
Gender	Male	16	3	5	6.410 (2)*
	Female	32	16	28	
Education level	High school or lower	20	11	13	2.307 (2)
	Higher education	27	9	20	
Profession	Sel-employed	15	4	6	4.699 (4)
	Employees and managers	25	13	21	
	Other	7	2	6	
Income	Up to €796.19	17	7	10	1.620 (4)
	€796.20-€1,061.72	17	6	9	
	€1,061.73 or more	20	8	6	
Diet restriction	No	19	3	11	8.140 (2)*
	Yes	28	17	22	
Purchase of WEPs in the previous year	No	8	10	15	16.347 (2)***
	Yes	39	10	18	
Farmers' market purchase frequency	Several times a year or less	11	4	11	3.227 (4)
	Once a month or more often	18	10	13	
	Once a week or more often	18	5	10	

Note: * significant at 0.05, ** significant at 0.01, *** significant at 0.001.

One-way ANOVA was conducted to examine differences among the three clusters with respect to age, household size, concern about climate change and its consequences, perceived climate change impact on WEPs, attitude toward nature preservation, attitude toward WEPs, and food neophobia (Table 5).

Table 5 - Results of one-way ANOVA

Variable	Cluster 1		Cluster 2		Cluster 3		F-test (2, 163)
	M	SD	M	SD	M	SD	
Age	47,0	13,54	41,7	12,99	42,4	14,50	2.584
Number of household members	$2,7_{2,3}$	1,17	$3,7_{1}$	1,02	$3,2_{1}$	1,47	8.779***
Concern about climate change a nd its consequences	4,0	1,11	4,3	0,96	3,9	1,08	1.078
Climate change impact on WEPs	$4,2_{2}$	0,91	$3,5_{1,3}$	1,32	$4,2_{2}$	0,94	5.557**
Attitude toward nature preservation	4,2	0,77	3,9	0,71	4,2	0,46	2.794
Attitude toward WEPs	$4,2_{2,3}$	0,73	$3,6_{1}$	0,74	$3,8_{1}$	0,76	8.083***
Food neophobia	3,6	0,97	3,5	0,81	3,6	0,82	0.177

Note: Mean with subscripts differ at $p < 0.05$, * significant at 0.05, ** significant at 0.01, *** significant at 0.001.

Statistically significant differences were identified between the high-knowledge segment and the other two segments with respect to the number of household members and attitudes regarding WEPs. In addition, significant differences emerged between the low-knowledge segment and the other two segments regarding perceptions of the impact of climate change on WEPs. Respondents in the high-knowledge cluster had fewer household members and more positive attitudes regarding WEPs compared to those in the moderate- and low-knowledge clusters. On the other hand, the low-knowledge cluster expressed less concern about how climate change might influence WEPs compared to the two other clusters.

Conclusions

Modern agriculture faces significant challenges arising from climate change, particularly with respect to food production. To address these challenges, various sustainable solutions and practices are being explored, including the genetic improvement of plants and their adaptation to changing climatic conditions and human needs. WEPs present one of the genetic

solutions to this issue; however, a lack of consumer knowledge may pose a problem in marketing such foods. This study therefore examined consumers' objective knowledge of selected WEPs derived from traditional knowledge sources.

Overall, consumers were not familiar with the nutritional and health benefits of WEPs and their culinary uses, but they were generally able to recognise the plants and were familiar with their distribution and morphological characteristics. Wild asparagus was the best known species, while consumers were the least familiar with purslane, followed by sea fennel and wild garlic. Based on objective knowledge scores, three distinct consumer segments were identified: high-knowledge, moderate-knowledge, and low-knowledge WEP consumers. These segments differed significantly in terms of gender, dietary restrictions, prior purchase of WEPs, household size, attitudes toward WEPs, and perceptions of the impact of climate change on WEPs.

This study makes several contributions to the extant literature. First, it proposes an initial scale for measuring objective knowledge of WEPs, based on five species typical of the Mediterranean region (purslane, wild garlic, wild fennel, sea fennel, wild asparagus). Second, it demonstrates the applicability of objective knowledge as a basis for market segmentation. Third, it identifies meaningful relationships between objective knowledge and consumer characteristics, dietary restrictions, purchasing behaviour, climate change perceptions, and attitudes toward WEPs.

Several practical implications emerge from the findings. Although all three segments expressed concern about climate change and its broader consequences, low-knowledge consumers perceived the specific impact of climate change on WEPs as less significant. This suggests a need for targeted awareness campaigns highlighting the vulnerability of ecosystems and the role of WEPs within sustainable food systems. Furthermore, given respondents' limited knowledge of nutritional benefits and usage, educational and promotional initiatives should focus on communicating these attributes if WEPs are to be positioned as alternative or functional food sources. The strong familiarity with wild asparagus – likely due to sustained promotion by stakeholders – indicates that similar marketing efforts could enhance awareness of less familiar species such as purslane, sea fennel, and wild garlic.

Despite the insights that it offers, it should also be noted that this study has several limitations. The sample consisted of consumers shopping at local farmers' markets in Istria County, Croatia; therefore, the findings cannot be generalised to the overall consumer market. To address this, future research could include consumers purchasing WEPs through alternative distribution channels. Moreover, no distinction was made between customers

with and without specific medical issues; therefore, future research could focus on customers with different health problems and dietary restrictions. Additionally, while this study focused on Mediterranean WEP species, future research could investigate species typical of other geographic regions to enhance cross-cultural applicability.

Objective knowledge served as the segmentation variable in this study, while socio-demographic characteristics, dietary restrictions, purchasing behaviour, climate change perceptions, attitudes toward nature preservation and WEPs, and food neophobia were used for profiling. Future studies could examine the influence of objective knowledge on purchase intentions and actual consumption behaviour. Moreover, although WEPs may serve as alternative food sources in mitigating climate change impacts, climate-related variables played a relatively minor role in this study. Future research should therefore incorporate more comprehensive climate-related constructs when analysing WEP consumption. Finally, as this study introduces a preliminary scale for measuring objective knowledge of WEPs, further research is needed to validate the instrument across larger and cross-national samples.

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Appendix

WEPs photograph recognition: Do you recognise this wild edible plant?
Portulaca oleracea L. (Common purslane, Duckweed, Little hogweed)
Allium ursinum L. (Wild garlic, Wild cowleek, Bear's garlic)
Foeniculum vulgare Mill. (Wild fennel)
Crithmum maritimum Mill. (Sea fennel)
Asparagus acutifolius L. (Wild asparagus)

Plant distribution
Wild asparagus is found in forests, meadows, and among maquis shrubland and dry stone walls in the coastal area of the Republic of Croatia. (**T**)
Wild garlic is found in forests, meadows, and among maquis shrubland and dry stone walls in the coastal area of the Republic of Croatia. (**N**)
Purslane is resistant to high temperatures and drought. (**T**)
Sea fennel is found in deciduous forests. (**N**)
Wild fennel can be harvested throughout the Republic of Croatia. (**N**)

Nutritional properties and healing effects
Wild asparagus boosts immunity. (**T**)
Wild garlic enhances bile secretion. (**T**)
Purslane has no special nutritional value. (**N**)
Sea fennel is beneficial for body detoxing. (**T**)
Wild fennel is a flavouring herb and, as such, has no special nutritional value. (**N**)

Morphology
Wild asparagus is a perennial plant. (**T**)
Wild garlic resembles other plants that are poisonous (Lily of the valley, Autumn crocus, Hellebore). (**T**)
Purslane resembles other plants that are poisonous. (**N**)
Sea fennel is a perennial plant. (**T**)
Wild fennel is a perennial plant. (**T**)

Usage
Wild asparagus is often used as an ingredient in scrambled eggs. (**T**)
Wild garlic pesto is a common processed product. (**T**)
Purslane is often used in salads. (**T**)
Dishes containing sea fennel should not be salted. (**T**)
Wild fennel is expressly used as a herb for cooking. (**N**)
T – true; N – not true