Acta Botanica Brasilica - 33(2): 198-211. April-June 2019.
doi: 10.1590/0102-33062018abb0323

Wild vegetables do not lie: Comparative gastronomic ethnobotany and ethnolinguistics on the Greek traces of the Mediterranean Diet of southeastern Italy

Andrea Pieroni[1*] and Valentina Cattero[1,2]

Received: September 24, 2018
Accepted: December 18, 2018

ABSTRACT

Bio-cultural and historical aspects of the "wild plant" portion of the Mediterranean Diet are still very much understudied despite the large number of bio-medical studies on the topic. The current gastronomic ethnobotanical and ethnolinguistic field study focused on the wild leafy vegetables used among Greek populations in SE Italy and NE Greece. A total of 52 folk taxa, corresponding to 58 wild botanical species, were recorded. The frequency of consumption of these wild ingredients was higher in NE Greece than in SE Italy, although approximately one-third of the recorded wild taxa overlapped in the two study sites. Most of these common species were designated by cognates, having in most cases a clear Greek origin, while one-third of the recorded wild vegetables in SE Italy were also used by another Greek diaspora living in SW Italy. The majority of the original Greek wild vegetables are synanthropic weeds. It is likely that the culinary uses of these species originated in the Near East during the post-Neolithic period before they migrated west to Italy and the Mediterranean Basin via Greece and Greek diasporas.

Keywords: ethnobotany, Greece, Italy, Mediterranean Diet, wild vegetables

Introduction

Naska & Trichopoulou (2014) defined the Mediterranean Diet as a dietary system abundant in plant foods, fresh fruits, olive oil as the principal source of fat, dairy products as well as fish and poultry consumed in low to moderate amounts, zero to four eggs consumed weekly, red meat consumed in low amounts, and wine consumed in low to moderate amounts, normally with meals.

While a remarkable spectrum of bio-scientific literature has stressed the health benefits of this diet (Menotti & Puddu 2015, and references therein), the cultural and historical dynamics of the long journey through which this dietary system developed as a *bio-cultural complex* are often neglected (Ferrari & Rapezzi 2011). This is somewhat surprising given that food is primarily a cultural issue (Montanari 2006). In addition, the Mediterranean Diet has been recognized by UNESCO in *cultural* terms as a part of the Intangible Cultural Heritage of Humanity (UNESCO 2013).

Only a few studies have analysed in detail the nutraceutical properties of neglected, non-cultivated ingredients of the Mediterranean Diet (Trichopoulou *et al.* 2000; Local Food-Nutraceuticals Consortium 2005; Conforti *et al.* 2011; 2012; Vasilopoulou & Trichopoulou 2011; Romojaro *et al.* 2013; Marrelli *et al.* 2014) and very little research has been done on the historical and cultural (anthropological and/or ethnolinguistic) aspects of the

1 University of Gastronomic Sciences, I-12060, Pollenzo, Cuneo, Italy
2 Institut sur la Nutrition et les Aliments Fonctionnels, Université Laval, G1V 0A6, Québec, Québec, Canada

* Corresponding author: a.pieroni@unisg.it

'hidden part' of this dietary system (Pieroni *et al.* 2002; 2005; Nebel *et al.* 2006; di Tizio *et al.* 2012; Marouf *et al.* 2015; Cucinotta & Pieroni 2018).

Moreover, some ethnobotanical studies have assessed the wild food vegetables in the local daily diets of *coastal* and/or rural Mediterranean areas of Spain, Southern Italy, Turkey, Croatia and Herzegovina (Tardío *et al.* 2005; Della *et al*. 2006; Dogan 2012; Łuczaj *et al*. 2013; Biscotti & Pieroni 2015; Łuczaj & Dolina 2015; Licata *et al.* 2016; Rigat *et al.* 2016; Geraci *et al.* 2018). However, such research in the Near East and Northern Africa is still extremely rare (Abdalla 2004; Marouf *et al.* 2015). Very few methodologically rigorous food ethnobotanical field studies on Greece have been published in international journals even though this country has been the core area for many studies concerning the Mediterranean Diet. In addition, the diversity of the wild vegetables that are gathered and sold in local farmers' markets in a few Greek regions, most notably Crete, is extraordinary (A Pieroni unpubl. res.).

Cross-cultural studies comparing the wild food plant ingredients of different ethnic or linguistic groups in the Mediterranean and the Near East have been even more scarce (Leonti *et al.* 2006; Ghirardini *et al.* 2007; Santayana *et al*. 2007; Hadjichambis *et al.* 2008; Pieroni *et al.* 2018). Such studies are needed for assessing differences in the ancient practice of gathering plant foods from the wild and the socio-cultural variables that might have influenced the use of specific wild ingredients in the Mediterranean Diet. Unfortunately, the number of people in Southern Europe with this kind of traditional knowledge has been decreasing since the 1960s. Recently, the wild plants gathered by younger generations have reflected a combination of some 'traditional' customs and new trends managed by urban 'foodies' (Łuczaj *et al.* 2012), which are often reinforced by social media.

The goal of the present ethnobotanical study was to perform an ethnolinguistic and ethnobotanical analysis of the wild vegetables gathered and consumed by a little-known Greek diaspora in Southern Italy: the Griko people of *Grecìa Salentina*, the Salento area, Southern Apulia, SE Italy. In order to research the "roots" of this South Italian Greek diaspora, and given the lack of recent reliable Greek ethnobotanical data, a comparative sample was drawn from rural NE Greece.

The objectives of the current study were therefore the following: to analyse the wild vegetables still gathered and consumed by the Griko people of SE Italy during the spring, which included recording their local names, frequency of use and quotation, gathering periods, traditional culinary preparations and the health benefits attributed to them by local residents; to evaluate the presence of the above-mentioned phenomena among Greeks living in rural areas of NE Greece; to compare the data from the two study sites and that arising from previous ethnobotanical studies on South Italian and Greek wild food plants, with special attention to a spring 2002–2003 study on the Graecanic people, the other Greek diaspora living in SW Italy (Nebel *et al*. 2006); and to analyse the linguistic aspects of the data (folk names of the plants) to uncover the Greek origins of the Griko folk phytonyms and, where possible, ancient uses of wild food ingredients.

Materials and methods

The Italian study site

Apulia is one of the southern Italian regions colonised by Greeks in ancient times as a result of the growth of the Greek population and the emergent interest in trade. Beginning in the 8th century B.C., the immigrants founded colonies in Apulia, Basilicata, Calabria, Campania and Sicily, and the newly settled area was called Magna Graecia (Μεγάλη Ἑλλάς) to proclaim the greatness of the colonies compared to that of the motherland. Despite its significant number of colonies, Sicily was not considered part of Magna Graecia until Roman historians included it in their definition. In Southern Apulia, in the areas of the former Greek colonies (e.g. Tarentum, present-day Taranto; or Callipolis, present-day Gallipoli) one can find the linguistic island of *Grecìa Salentina*, a community of nine municipalities in the province of Lecce. The language in these municipalities is Griko, a neo-Greek dialect peculiar to this area of Salento. It represents one of the communities recognised by the Italian government as a linguistic minority. The origin of this long-lasting language is controversial. According to the German philologist Gerhard Rohlfs, Griko may represent continuity from the ancient colonies of Magna Graecia (Rohlfs 1967). In contrast, Italian research groups have concluded that these communities more likely derive from a later immigration, during the medieval period, of people who had previously emigrated from the Byzantine Empire during the 6th century A.D. The rationale for this assertion is based on the similarities between the Griko dialect and Modern Greek (Parlangeli 1989).

More recently, the common theory has been that these communities have been developing through consecutive waves of migration, with the medieval communities strengthening the pre-existing ancient ones. Indeed, the introduction of Greek Orthodox Christian practices by the Byzantines contributed to the establishment of Greek customs. After invasion by the Normans and subsequent invasions by the Swabians, the Capetian House of Anjou and the Crown of Aragon, the eastern culture continued to survive despite the beliefs of these various conquerors. In the 16th century A.D., the Council of Trent's declaration of an end to practices, including those of Greek origin, other than the official Latin ones led to the first significant contraction of the area. Whereas during the 15th century the entire area between Gallipoli and Otranto, which consisted of 24 villages, was Grìka, only 13 villages had survived by the end of the 18th century. Today, no more than 11 are

left, and only nine municipalities retain the language. Griko is not a written language; it is transmitted orally through the generations. Ultimately, with the unification of Italy in 1861, standard (Tuscan) Italian became the official language of the nation; and later, after World War II, social changes induced by industrialization and urbanization cast Griko, as well as other minority languages throughout Italy, as a 'language of shame' (*mas èkanne vergògna*, Pellegrino 2016). For the same people living in *Grecìa*, the language came to connote a lack of sophistication unlike Italian, which was considered the language of progress and modernity. When Griko was discovered by scholars during the 19th century, it was already regarded as a dying language (Pellegrino 2016). Nowadays only elderly community members in *Grecìa Salentina* can speak Griko, and Griko is considered by UNESCO as a severely endangered language (Moseley 2010).

The local economy is still based on agriculture, with significant legume production; and the harvest and consumption of wild greens are quite common throughout Salento, especially in *Grecìa*.

The Greek study site

The history of the Thrace (Θράκη/Thráke in Greek) region predates the Greek and Roman periods. Several of the tribes that were living in the territory without any organised or centralised power were called Thracians by the Greeks. Later, the area began to be Hellenised, even before the Peloponnesian war (431–404 B.C.), when the Athenians established some colonies along the shore. In 168 B.C., after the surrender of Macedonia to the Romans, Thrace also fell under Roman control, becoming a tributary to the empire until 46 A.D. when it became Romana Provincia Thracia, a province of the Roman Empire (Samsaris 1988). During Roman domination the area became more urbanised. This process actually favoured Hellenisation, rather than Latinisation, of the area. After the collapse of the Western Roman Empire, the eastern empire governed by Byzantium (at that time Constantinople) enjoyed a period of prosperity until the 8th Century, when a conflict with the Bulgarians began over the control of Thrace. With the conquest of the area by the Ottomans and the fall of the Eastern Roman Empire in 1352, five centuries of Muslim control thus began. The territory was circumscribed in the north by the Balkans, in the south by the Rhodope Mountains and the Aegean Sea, and in the east by the Black Sea. Thrace therefore has three distinct areas: Bulgarian, the biggest, in the north; Turkish in the east; and Greek in the west.

In Greek Thrace, the field study focused on the former district of Evros, named for the river that separates it from European Turkey, namely Eastern Thrace. This is likely the area from which the emigrants who settled in the Greek part of Salento, Italy, left during the height of the Byzantine Empire. Western Thrace is also home to a large number of the Muslim minorities of Greece. This can be traced back to the 1923 Greek–Turkish population exchange established by the Treaty of Lausanne. The small Muslim population subsequently gained status as an officially recognized minority and today accounts for one-third of the population of Western Thrace. About half of these Muslims are of Turkish origin, and about half are Bulgarian-speaking Pomaks.

The economy of Western Thrace is based mainly on agriculture, although recently there has been some industrial development. Wine and olive oil are still the leading products. Tobacco, once very important, has been partly replaced by sunflower, corn, rice and wheat. The historical cultivation and processing of silk, which dates back to the Byzantine era, still survives in Soufli. Tourism has started to develop in this region, which had always been one of the more neglected parts of the nation. Summer beaches as well as the Rhodope Mountains have recently been attracting a consistent number of tourists during winter. Nevertheless, the rural area remains almost untouched by this phenomenon, and thus the countryside has been preserved.

Fieldwork and data collection

The study was conducted during spring 2016 through interviews with 60 participants from villages in SE Italy and NE Greece (see Fig. 1). Thirty (30) interviewees (17 women and 13 men) were from SE Italy, and 30 (23 women and 7 men) were from NE Greece. The average age was 64 years. The participants were community members who still had strong ties to rural life and worked, at least part-time, as farmers or shepherds.

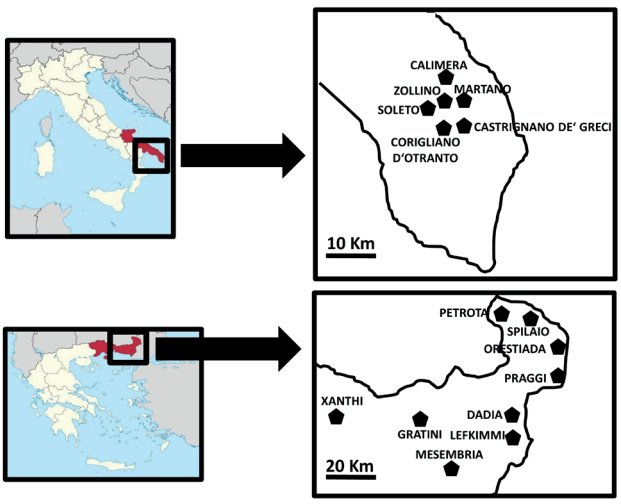

Figure 1. Study sites and visited villages.

Semi-structured interviews were administered in Italian and Greek with the help of a translator. Specifically, the participants were asked about: (a) the local name(s) of each

wild plant used in the community, (b) the gatherers and the periods during which the plants were collected, (c) the plant parts used in the kitchen, (d) specific types of culinary preparation, (e) the frequency of use during the spring months, and (f) the perceived nutraceutical properties of each wild vegetable.

Before and during the field study, the International Society of Ethnobiology Code of Ethics was followed (ISE 2008). Voucher specimens were collected during a previous field study (Biscotti & Pieroni 2015) and identified on the basis of Pignatti's *Flora d'Italia* (Pignatti 1982), Flora Europaea (Tutin *et al*. 2001), the most recent checklist of Greek vascular plants (Dimopoulos *et al*. 2016), and two local (food) floristic guides (Stavridakis 2006; Accogli & Medagli 2014).

The plant nomenclature was standardized to The Plant List database (2018), while the family assignments followed the Angiosperm Phylogeny Group IV (Stevens 2017). The fungal nomenclature was based on the Index Fungorum Partnership (2018). The folk names were transcribed in accordance with the rules of standard Italian for Griko plant names and standard Greek for Greek plant names. The Greek phytonyms were later transliterated into the Latin alphabet.

Data analysis

The data collected in SE Italy were compared with: (a) the most extensive reviews conducted in the previous two decades in the same region of Apulia (Biscotti 2012; Ditonno & Lamusta 2015; Biscotti *et al.* 2018); (b) other Southern Italian reviews or recent food ethnobotanical field studies (Lentini & Venza 2007; Biscotti & Pieroni 2015; Licata *et al.* 2016; Quave & Saitta, 2016; Geraci *et al.* 2018); and (c) a previous study that was conducted in spring 2002–2003 among the Greek diaspora in Italy, i.e. the Graecanic people of Calabria, SW Italy (Nebel *et al.* 2006).

The Greek records were compared with the most extensive ethnobotanical field studies previously conducted in Greek speaking areas (Cyprus; Della *et al* 2006). The comparisons included the recorded wild plant species locally gathered and consumed as leafy vegetables (excluding mushrooms), and the findings were then illustrated in Venn diagrams in order to highlight commonalities and differences.

Results

Table 1 lists the vegetables that were recorded as still being gathered and consumed in the two study areas. In total, 52 folk taxa corresponding to 61 species were recorded, of which 58 referred to wild plants, one to a mushroom and two to cultivated vegetables whose uses diverged from the known "usual" culinary customs. The taxa designated by linguistic cognates in the two study areas are presented in bold type.

Figure 2 presents a comparison of the frequency of consumption in the South Italian and the Greek study sites. As indicated, the frequency of consumption of wild vegetables was higher in Greece than in Southern Italy.

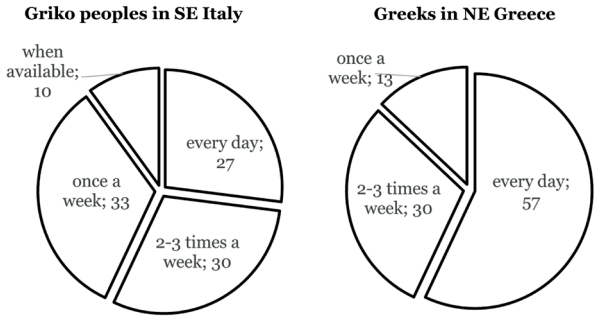

Figure 2. Frequency of consumption of recorded wild vegetables in the study sites.

Figure 3 illustrates the overlap between the *folk taxa* of the wild vegetables only (excluding the one mushroom and two cultivated plants) of the Italian and Greek study sites. One-third (n = 17) of the recorded taxa were common to both study sites, and the majority of these common folk taxa (n = 12) were designated by the same or similar (cognate) Greek folk names.

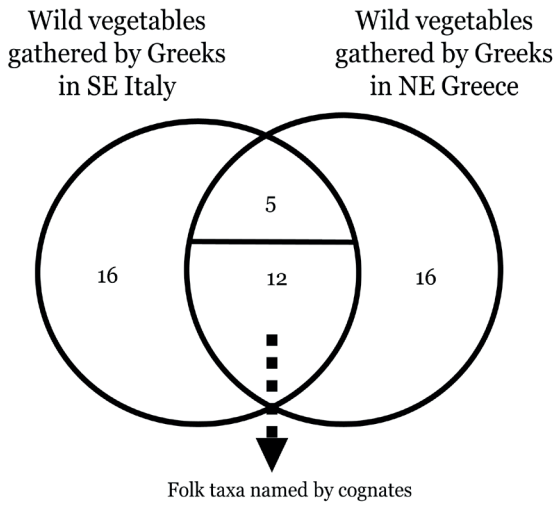

Figure 3. Comparison of the wild vegetables (folk taxa) gathered in SE Italy and NE Greece.

Figure 4 presents a comparison of the South Italian data collected from the Griko people and those collected in 2002–2003 in the Greek diaspora in SW Italy (Nebel *et al.* 2006). Approximately one-third (n = 15) of the recorded wild vegetables (*botanical species*) were the same in the two studies, and one-half of the commonly gathered species (n = 8) were designated by cognates.

A Greek origin of the folk plant names is especially clear for the following botanical genera (Dioscorides 1959; Rohlfs

Table 1. Wild vegetables gathered and collected in the study areas. The taxa designated by linguistic cognates in the two study areas are presented in bold type.

Botanical taxon (-taxa) and family	Local name(s)	Used plant parts	Gathering time	Traditional culinary use(s)	Frequency of quotation	Perceived nutraceutical property (-ies)
Allium schoenoprasum L. (Amaryllidaceae)	Schinopraso (GR)	Leaves	All year long	Raw	R	None
Amaranthus viridis L. Amaranthaceae)	Vlita (GR)	Young leaves	March-May	Boiled; boiled and then in salty pies	VC	None
Ammi majus L. (Apiaceae)	Mùrlu, Mùruddhu (IT)	Basal rosettes	March-May	Boiled in mixtures; boiled and fried, also as a dressing on home-made pasta	VC	Against skin problems
Anthriscus cerefolium (L.) Hoffm (Apiaceae)	Myroni (GR)	Leaves	March-May	Seasoning (esp. soup made with lamb meat and lettuce)	R	None
***Asparagus acutifolius* L. (Asparagaceae)**	Agria sparaggia, Sparaggi, Zaparoynes (GR); Spàraci, Spàrasciu (IT)	Turions	March-April	Omelettes and roasted (GR); boiled, omelettes, and risotto (IT)	VC	Diuretic and strengthening (GR & IT); against diabetes (IT)
Beta vulgaris L. (Amaranthaceae)	Agrioseskoylo (GR)	Young tender leaves	March-June	Boiled and in salty pies	C	None
Borago officinalis L. (Boraginaceae)	Burraccia, Burracciu (IT)	Aerial parts	January-April	Boiled in mixtures; omelettes, shortly boiled and then fried, filling for deep fried dough pieces ("pittule ripiene", consumed esp. during Christmas, the feast of Immaculate Conception/8th December, and during Carnival)	C	None
Capparis spinosa L. (Capparacaceae)	Chàpparu, Chiappru (IT)	Leaves, young shoots, and flower buds	March-July	Leaves and young shoots: boiled in mixtures. Buds: pickled	C	None
Capsella bursa-pastoris (L.) Medik.	Agriokardamoyda (GR); Erba raparina (IT)	Basal rosettes	February-April	Boiled (GR); boiled in mixtures and omelettes (IT)	R	Anti-haemorrhagic (IT)
Calystegia sepium (L.) R. Br., *Convolvulus arvensis* L., and C. *prostrates* Forssk (Convulvolaceae)	Ntefeses, Sarmasikia, Sovleka, Voyrlida (GR)	Leaves	May-June	Raw (as a digestive "medicinal food"); soups (with corn flour); filling for salty pies (in combination with *Lactuca* and *Papaver* spp.)	VC	Digestive
Carduus nutans L., *C. pycnocephalus* L., and *Galactities tomentosa* Moench (Asteraceae)	Agrio gaidoyragkatho (GR); Cardu, Carduni (IT)	Basal rosettes, leaves, and stems (after removing thorns)	October-April	Raw and boiled (GR); soups; boiled and then stir-fried and eventually cooked in the oven (IT)	R (GR); VC (I)	Strengthening (IT)

Table 1. Cont.

Botanical taxon (-taxa) and family	Local name(s)	Used plant parts	Gathering time	Traditional culinary use(s)	Frequency of quotation	Perceived nutraceutical property (-ies)
Celtis australis L. (Cannabaceae)	Spaccasassi, Erva rustica (IT)	Leaves	March-May	Boiled in mixtures	R	Against kidney stones and gallstones
Celosia argentea L. (Amaranthaceae)*	Leiri toy peteinoy (GR)	Tender leaves	March-May	Boiled and in salty pies	R	None
Chenopodium album L. (Amaranthaceae)	Louvoydia, Limpoydia (GR)	Young leaves	March-May	Boiled, salty pies (sometimes with dough made from lard and flour)	VC	None
Chenopodium bonus- henricus L. (Amaranthaceae)	Agrio spanáki (GR)	Basal rosettes	March-May	Boiled and salty pies	VC	None
***Cichorium intybus* L. (Asteraceae)**	Agratsida, Kichorio, Pikroradiko, Radiko (GR); Cicureddha (IT)	Basal rosettes	October-April	Consumed raw on bread, boiled, boiled and stir-fried (with lamb and tomatoes); cooked with rice or baked with cheese (GR); boiled in mixtures; boiled alone and consumed with fava bean purée or pork rinds (IT)	VC	Depurative, "good for the liver", against constipation, strengthening (IT); diuretic, anti-obesity (GR)
Cynara cardunculus L. (Asteraceae)	Agria agkinára (GR)	Flower receptacles	March-May	Boiled or cooked in different ways such as with cultivated artichokes	C	Cleaning properties
Melissa officinalis L. (Lamiaceae)	Lemonochorto (GR)	Leaves	All year long	Seasoning in many dishes	C	None
Crepis apula (Fiori) Babc., *C. sancta* (L.) Bornm., *C. vesicaria* L. and possibly other *C.* spp. (Asteraceae)	Cannazzicule, Fogghia duce, Zicumaci (IT)	Basal rosettes	February-May	Boiled in mixtures; boiled and then fried	VC	None
Crepis setosa Haller f. (Asteraceae)	Fogghia ndurante, Miristichella, Miristichiedda, Mistichiedda (IT)	Basal rosettes	February-April	Boiled in mixtures; boiled and then fried	VC	None
Diplotaxis tenuifolia (L.) DC. (Brassicaceae)	Agria róka (GR); Rugghietta, Rugula (IT)	Young tender leaves	May-September	Raw and salty pies (GR); salads, boiled, boiled and then fried (sometimes on home-made *orecchiette* noodles) (IT)	C (GR); VC (IT)	None
Erodium cicutarium (L.) L'Hér. (Geraniaceae)	Chtenáki (GR)	Tender leaves, young shoots	March-May	Raw, boiled, and stir-fried with other wild greens (sometimes with rice or bulgur)	R	Anti-haemorrhagic

Table 1. Cont.

Botanical taxon (-taxa) and family	Local name(s)	Used plant parts	Gathering time	Traditional culinary use(s)	Frequency of quotation	Perceived nutraceutical property (-ies)
***Foeniculum vulgare* L. (Apiaceae)**	Fanocchiu restu, Finucchiastru, Màlaffro (IT); Agrio máratho, Málathro (GR)	Young aerial parts (GR & IT); inflorescences and fruits (IT)	March-May (aerial parts); September (fruits)	Aerial parts: raw and boiled (GR); filling for home-made potato pie ("pitta di patate") and for *focaccia* bread (IT). Inflorescences: pickled in vinegar, then eaten in salads (IT). Fruits: seasoning for many dishes, esp. *Muscari*-based dishes and home-made liquors (IT)	VC	Digestive (GR & IT); diuretic (IT)
Humulus lupulus L. (Cannabaceae)	Chortaromagià (GR)	Female inflorescences	May	Added as a yeasting agent in sourdough bread and in milk as a yogurt starter	VC	None
***Lactuca serriola* L. (Asteraceae)**	Agriomàroylo, Galatsída (GR); Marie, Marìule (IT)	Basel rosettes	February-April (GR); March-May (IT)	Boiled (GR); boiled in mixtures; boiled and then fried (IT)	C	None
Laurus nobilis L. (Lauraceae)	Dafni (GR); Lauru (IT)	Leaves	July	Seasoning for many dishes	C (GR); R (IT)	Cleansing, anti-obesity (GR); digestive (IT)
***Malva sylvestris* L. (Malvaceae)**	Meloca, Marva, Panettieddhu (only the fruits) (IT); Molocha (GR)	Tender leaves and fruits	March-May (GR); February-March (IT) (leaves); July-September (fruits)	Leaves: boiled, salty pies, and soups (GR); boiled in mixtures and omelettes (IT). Fruits: eaten raw as a snack, esp. by kids (fruits) (GR & IT)	C	None
Mentha spp. (Lamiaceae)	Agria menta (GR)	Leaves	March-September	Seasoning for many dishes and liquors	VC	Digestive, liver cleansing and anti-obesity
Muscari comosum (L.) Mill. (Hyacinthaceae)	Lampascione, Lampone, Pampasciune (IT)	Bulbs	January-April	Boiled, left to rest one day in water, then fried and possibly coupled with pork meat, eggs, cherry tomatoes, and wild fennel (typically with a side dish of beans with black olives); roasted, fried in batter, and filling for focaccia bread	VC	Anti-mouth ulcers
Ocimum basilicum L. (Lamiaceae)*	Vasilikós (GR)	Leaves	All year long	Yeast for sourdough bread	C	"Good for the brain", appetite stimulant, and digestive
***Origanum vulgare* L. (Lamiaceae)**	Agria rígani (GR); Rigani (IT)	Flowering aerial parts	June-September	Seasoning for many dishes	VC	Digestive (IT)
Orobanche crenata Forssk. (Orobanchaceae)	Spurchia (IT)	Young shoots	February-April	Boiled, boiled and then fried, and roasted	C	None

Table 1. Cont.

Botanical taxon (-taxa) and family	Local name(s)	Used plant parts	Gathering time	Traditional culinary use(s)	Frequency of quotation	Perceived nutraceutical property (-ies)
***Papaver rhoeas* L. (Papaveraceae)**	Koytsoynada, Paparoyna (GR); Paparina (IT)	Basal rosettes	January-March	Boiled, stir-fried with onions, lamb and tomatoes, and soups (GR); boiled and/or fried and as focaccia-bread filling (IT)	VC	Laxative (IT)
Picris hieracioides Sibth. & Sm. (Asteraceae)	Spruscinu (IT)	Basal rosettes	January-April	Boiled in mixtures, then possibly fried; soups	VC	None
Pisum sativum ssp. *elatius* (M.Bieb.) Asch. & Graebn. (Fabaceae)	Piseddhu restu (IT)	Seeds	April-May	Boiled/cooked as the cultivated relative	R	None
Pleurotus eryngii (DC.) Quél. (Pleurotaceae)	Cardunceddhu (IT)	Fruiting body	March-May and October-December	Fried with tomatoes, garlic and chili	C	None
***Portulaca oleracea* L. (Portulacaceae)**	Glistrida, Antracla (GR); Andracla, Brucacchia (IT)	Aerial parts	June-September	Salads, boiled, and pickled (GR & IT)	VC	Anti-ulcers, strengthening, and appetite stimulant (GR); laxative, diuretic, and good "for health" (IT)
Rapistrum rugosum (L.) All. (Brassicaceae)	Rapeste, Rapiste, Sanapi (IT)	Young aerial parts	March-April	Boiled in mixtures; boiled and then fried	C	None
Reichardia picroides (L.) Roth. (Asteraceae)	Galatsída (GR); Caccialepri, Cacciareculi, Cazzareculi (IT)	Basal rosettes	November-March	Boiled (GR); raw on bread and in boiled mixtures (IT)	R (GR); C (IT)	None
Rhagadiolus stellatus (L.) Gaertn. (Asteraceae)	Lattucheddra, Latturia, Lattusedda (IT)	Basal rosettes	March-April	Boiled in mixtures; boiled and then fried	R	None
***Rumex crispus* L. and other *Rumex* spp. (Polygonaceae)**	Agrioseskló, Lapata, Lapato, Lapatoydia, Xinitra (GR); Lapazzu, Rapazzu (IT)	Leaves	September-March	Boiled, salty pies, soups, rolled and baked with cheese inside, and pickled (GR); boiled, boiled and fried (IT)	VC	Anti-obesity, liver cleansing, and digestive (GR)
Scandix pecten-veneris L. (Apiaceae)	Myroni (GR)	Young leaves	March-May	Seasoning (esp. in soups)	R	None
Silybum marianum L. Gaertn. (Asteraceae)	Agrio gaidoyragkatho (GR); Crattaluri, Lattaruni (IT)	Basal rosettes, leaves, and stems (after removing thorns)	October-April	Salads, boiled, boiled and then filling in salty pies (GR); soups, boiled and then fried, boiled and then fried and baked in the oven (IT)	R (GR); VC (IT)	Strengthening

Table 1. Cont.

Botanical taxon (-taxa) and family	Local name(s)	Used plant parts	Gathering time	Traditional culinary use(s)	Frequency of quotation	Perceived nutraceutical property (-ies)
***Sinapis alba* L. and *S. arvensis* L. (Brassicaceae)**	Agrio sinapi, Pirpiroyna, Vroyva (GR); Rapesta, Sanapu, Sinapa (IT)	Young leaves and seeds	March-June	Young leaves: boiled and in salty pies; boiled in mixtures (IT). Seeds: as a natural preservative for wine (GR)	C	None
Smilax aspera L. (Smilaceae)	Scrasciacane, Viticedda (IT)	Young shoots	February-March	Boiled; boiled and then pickled	C	None
Smyrnium olusatrum L. (Apiaceae)	Agrioselino (GR); Lacciu crestu, Svermi, Sverni, Zavirna (IT)	Young shoots and fleshy sprouts	November-April	Boiled, salty pies, and seasoning (GR); boiled in mixtures; boiled and then fried; roasted, on pasta, boiled and then fried in egg-batter at special holidays (St. Martin in November, and during Christmas and Carnival) (IT)	VC in one village only; R elsewhere (IT); R (GR)	None
***Sonchus asper* L. Hill., *S. oleraceus* (L.) L., and *S. tenerrimus* L. (Asteraceae)**	Tsalia, Zochakia, Zochos (GR); Zangune (IT)	Basal rosettes	February-April	Boiled, boiled and fried, salty pies (GR); boiled in mixtures, boiled and then fried (IT)	VC	Anti-anaemia, blood and lever cleansing, strengthening (GR); digestive, strengthening (IT)
Taraxacum spp. (Asteraceae)	Pikralida, Galatsida (GR)	Basal rosettes	October-April	Boiled and in salty pies (GR)	VC	None
***Thymbra capitata* (L.) Cav. (Lamiaceae)**	**Thymari (GR); Tuni, Tunu (IT)**	Aerial parts	All year long	Seasoning for many dishes	VC (GR); C (IT)	None
Tordylium apulum L. (Apiaceae)	Kaykalida, Kaykalithra (GR)	Basal rosettes	February-March	Boiled and in salty pies (GR)	VC	None
Urospermum picroides L. Scop. ex F.W.Schmidt (Asteraceae)	Cicoreddha duce (IT)	Basal rosettes	January-April	Boiled in mixtures and soups	R	None
Urtica dioica L. (Urticaceae)	Tsoykneda (GR); Ardica, Ardicula, Urdicula (IT)	Young aerial parts	January-April	Boiled, salty pies, and soups (with potatoes and onions or just flour) (GR); salads, boiled and then stir-fried, omelettes, and risotto (IT)	VC (GR); R (IT)	Strengthening (GR)

*: cultivated species
GR: NE Greek study site
IT: SE Italian study site

1964; Porphyrius 1982): *Asparagus* (*aspáragoi*), *Foeniculum* (*marathon*), *Lactuca* (*amarullion, marulion*), *Malva* (*malachīs*), *Origanum* (*origanon*), *Portulaca* (*andrachnī*), and *Sonchus* (*sonchos*); and possibly also for *Crepis setosa* (*myrìzō*; see following paragraph). These wild vegetables may represent a portion of an ancient Greek ethnobotanical culinary heritage that migrated to Southern Italy many centuries ago.

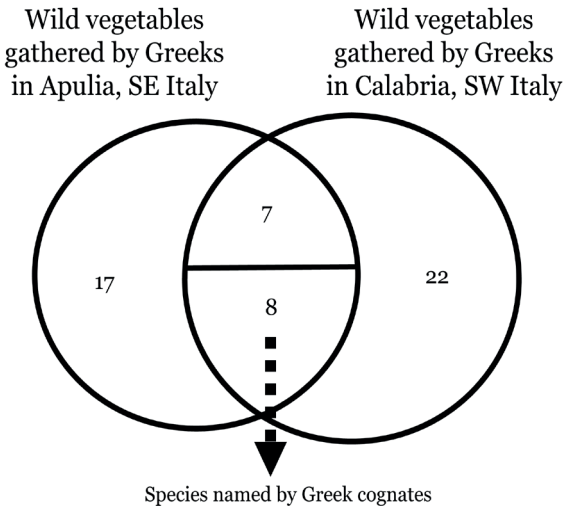

Figure 4. Comparison of the wild vegetables (botanical species) gathered by the Griko people in SE Italy and the Graecanic diaspora in SW Italy (Nebel *et al*. 2006).

Discussion

Griko culinary uses of wild vegetables

All of the interviewees at both sites normally collected wild greens in and around cultivated fields where they were certain that no chemicals had been used on the land. Although both women and men typically collected wild greens, women were responsible for cooking them.

The case of *Muscari comosum* in Apulia is particularly interesting as it is collected by men only. The main reason for this is that its location underground makes extraction very laborious. Some of the men recalled that their mothers and grandmothers used to reward them with a little money for every bulb brought home and that this was their 'initiation' to wild greens.

Culinary 'manipulations' of the gathered wild greens are different between the two study areas. The most frequently recorded SE Italy traditional culinary preparations include two mixtures of wild greens, which are even sometimes sold in 'informal' street markets (see Fig. 5): *misticanza* (boiled mixtures of wild vegetables): multiple species of wild greens are boiled together and then dressed with extra virgin olive oil and salt; lemon and/or cheese are optional; *minestra* (boiled and fried mixtures of wild vegetables): multiple species of wild greens are parboiled. If they are young and very tender, this step is skipped. Next, the greens are stir-fried with extra virgin olive oil and either garlic or onion and sometimes additional ingredients, such as fresh cherry tomatoes, pork, hard cheeses (e.g. Pecorino) and chili peppers. They can be placed in layers in a pot and baked in an oven. This way of cooking was likely born out of the need to make use of leftovers. It also provided a way to preserve the wild greens for a longer time.

Figure 5. Combinations of wild vegetables sold in informal street markets (SE Italy).

In SE Italy we also recorded recipes for some species (six folk taxa) that were specific to the area: *Papaver rhoeas* (*paparina*) is always stir-fried with extra virgin olive oil, garlic, chili peppers and black olives. Moreover, this plant is often cooked in combination with *Rumex* spp. (*lapazzu*). In the South Italian dialect spoken in the study area, there were even folk songs based on this style of preparation: '*Nazzu nazzu nazzu la paparina cu lu lapazzu ca senza lu lapazzu la paparina ci me lu fazzu?*' ('What can I do with *paparina* if I do not have the *lapazzu*?'); *pittule ripiene* is a common dish in Salento, usually prepared for special occasions, such as Christmas or Carnival. It consists of deep-fried leavened rolls, usually made with fillings, such as young shoots of *Smyrnium olusatrum* or *Borago officinalis*; the young inflorescences of wild *Foeniculum vulgare* (also known as *caruselle*) (see Fig. 6) are slightly boiled and then preserved in vinegar for later use in salads or as a filling for potato pies; *cardi racanati* is a dish in which the main ingredients are the leaves, leaf stalks and stems, previously cleaned of thorns, of wild *Carduus* and *Galactites* ssp. (see Fig. 7). First, the aforementioned ingredients are quickly parboiled and stir-fried with extra virgin olive oil, spring onions and cherry tomatoes; they are then layered with cheese and breadcrumbs in a pot and baked in an oven; *Cichorium intybus* (*Cicureddha*) is perfectly suited for the fava bean purée that distinguishes the popular '*fave e cicorie*' dish.

NE Greek culinary uses of wild vegetables

In Greece, wild greens are commonly called "τα άγρια χόρτα" (*ta ágria chórta*). Etymologically, ta chórta comes from

χόρτος (Rohlfs 1964), which has two different meanings: 'grassland' and the widely used 'fodder, hay or herb'. In Modern Greek, the same term, τα χόρτα (*ta chórta*), is used to refer to the wild greens collected and eaten by the local people. According to an analysis by Nebel & Heinrich (2009), there has possibly been a fascinating change in meaning from 'animal fodder' in Ancient Greece to today's 'herbs for human consumption'.

Figure 6. A speciality food of the Griko cuisine: inflorescences of wild fennel (*caruselle*) before and after being pickled in vinegar.

Figure 7. A Griko woman removing thorns from *Galactitis tomantosa* leaf stalks.

The most common culinary uses of wild vegetables recorded in NE Greece in this study were the following: σαλάτα (*saláta*): the herbs are parboiled (or boiled if very tough and bitter) and then dressed with extra virgin olive oil, salt and freshly squeezed lemon juice; πίτα (*píta*): common to all former Ottoman territories, this is a typical Greek pie made with phyllo dough and fillings such as cheese, meat, and vegetables with cheese. A particular example is γκολιομπλίνα (*gkoliomplína*), meaning 'naked', which is a pie made without phyllo dough; instead, a dough made of lard and flour is used. This type of pie is usually filled with *Chenopodium album*; fricassée: this is made with lamb or goat meat stewed in a pan with onions, wild greens and, sometimes, a few aromatic herbs. The study participants typically dressed this with a sauce made with eggs, lemon juice and a small amount of the juices from the cooked meat before serving it; soups: these are prepared with water and corn flour, grains, such as rice or bulgur, or potatoes. Lemon juice and egg sauce are normally added at the end. Of the specific soups, two are worth mentioning: μαγειρίτσα (*mageirítsa*) with lamb, onions, lettuce, *Anthriscus* or *Scandix spp.*, lemon and egg sauce; and κιούλ(*kioyl*) with *Rumex* spp., onions, sweet red peppers, flour and water.

Aromatic herbs, such as *Foeniculum* or the *Mentha* spp., are generally added to many NE Greece dishes, especially ντολμαδάκια *(ntolmadákia*), the characteristic rice-filled vine leaf rolls.

Less typical was the use of wild vegetables in *τραχανάς* (*trachanás*) and in σπανακόρυζο (*spanakóryzo*), a dish made with rice boiled together with spinach or, sometimes, the tender shoots of *Urtica dioica*. The former is an ancient dish found throughout the Balkan region. In the NE Greece study site, *τραχανάς* (*trachanás*) is sun-dried. It is made from crushed wheat and fermented milk to which stock or water is added to make a thick soup. It can be either savoury, with the addition of dried vegetables, or sweet, with dried fruits.

Continuity and change in ancient 'Greek' and Near East uses of wild vegetables

The frequency of the consumption of wild vegetables in NE Greece is much higher than that in SE Italy even though the study region in Italy is considered the national 'lynchpin' of traditional plant foraging (Biscotti *et al.* 2018). This suggests that many of the original features associated with the wild vegetable-based folk cuisine of the Griko diaspora might have been lost after the move west.

Within the SE Italy study site, very few vegetables, such as *Diplotaxis*, *Portulaca* and the *Reichardia* spp., were traditionally consumed raw; however, in NE Greece, this was the case for wild *Allium*, *Carduus, Cichorium*, *Erodium*, *Foeniculum* and *Portulaca* spp. Raw consumption is an ancient practice that might have its origin in 'ethnobotanical snacks'. This term refers to the raw wild plant parts consumed singly on the spot and not in domestic settings. In other words, no ingredients were added, and the plant parts were consumed at the location in which they were found. It could be that as time passed, they were gathered and eaten on simple breads in the home. The consumption of raw *Calystegia/ Convolvulus* spp. as a 'medicinal/digestive' snack might have an ancient origin that was likely lost when the use of this folk taxon migrated to Southern Italy, where the same group of species had been ignored by locals.

A similar ancient origin can be ascribed to the raw on-the-spot consumption of *Carduus* spp., a practice still seen in NE Greece but not in the SE Italian site. This might represent one of the elements of the complex raw dietary system of wild thistles and related species of possible pastoralist origin. The same system might also be responsible for the later domestication of the artichoke.

Additionally, a similar use among the Yazidis of Iraqi Kurdistan (Pieroni *et al.* 2018) suggests that the consumption of raw *Erodium* spp. could have an Eastern or a Near East origin; it is possible that the practice might have been lost when Greeks migrated west to SE Italy.

The descendants of the old Mesopotamian Assyrians in Iraq were recently recorded (Pieroni *et al.* 2018) as having a post-Neolithic weedy wild vegetable-centred food system based on wild Asteraceae and, to a lesser extent, Brassicaceae that grow around cultivated fields. This diet seems to be very similar to that recorded at the two study sites. In SE Italy and NE Greece, a remarkable number of bitter and/or pungent taxa were boiled, and in SE Italy, they were sometimes boiled and then fried.

A comparison of the data collected from the two sites and the locations of the other Greek diasporas in Italy showed that a dozen weedy species, frequently mentioned in both SE and NE Greece by cognates (see the taxa in bold type in Fig. 1), emerged as 'the core' of a possible ancient, post-Neolithic 'synanthropic' Mediterranean Diet: *Cichorium*, *Foeniculum*, *Lactuca*, *Malva*, *Papaver*, *Portulaca*, *Sinapis* and *Sonchus* spp.

A review of the Italian food ethnobotanical literature indicates that the consumption of *Malva*, *Papaver* and *Portulaca* aerial parts in Italy, in particular, is very pronounced in the South of the country. *Malva* and *Portulaca* have traditionally been exclusive to former Magna Grecia areas: Apulia, Campania, Calabria and Sicily (Guarrera 2007; Pieroni 2017), while the consumption of pickled wild *Foeniculum vulgare* inflorescences (see Fig. 7) seems to be a specific Griko custom.

Most of these taxa are still very commonly used among Christian Assyrians, who consider themselves descendants of Babylonian Assyrians, in both the Syrian-Turkish borderland (Abdalla 2004) and Iraqi Kurdistan (Pieroni *et al.* 2018). They are the main ingredients in the wild vegetable-centred Greek folk cuisine of Cyprus (Della *et al.* 2006) and other Greek diasporas in Southern Italy (Nebel *et al.* 2006). Moreover, this same group of taxa is also commonly used for food in Apulia (Biscotti *et al.* 2018), Sicily (Licata *et al.* 2016; Geraci *et al.* 2018) and other Mediterranean coastal areas (Dogan 2012; Łuczaj *et al.* 2013; Łuczaj & Dolina 2015). It can therefore be assumed that this system might have migrated during the post-Neolithic period from the Near East to Central and Western Mediterranean regions and that Greece might have represented an important stop along the way.

The differences observed in the data related to the Griko and other Greek diasporas in Calabria, SW Italy (only about one-third of all taxa are common to all areas) could be the result of more complex acculturation processes that the latter ones went through and which hybridised the original Greek wild plant uses with those of the autochthonous (Calabrian) populations. Another possible explanation may be related to the fact that SE Italy and Greece are extremely close geographically; thus, the Griko people in SE Italy might have had more regular contact with their home country than did the Graecanic groups of Calabria.

In SE Italy, a few other wild food herbs (*Asparagus*, *Origanum* and *Thymus* spp.) that have Greek names and were commonly quoted in the study areas in both Italy and Greece were not synanthropic. Instead, they likely represent further retentions of a kind of pre-Neolithic 'gathering from the wild' activity, which, especially in the case of *Origanum* and *Thymus* spp., might have also had a medicinal origin.

Moreover, the consumption of *Smilax aspera and Smyrnium olusatrum* shoots, which was recorded as being typical in SE Italy only, could be ascribed to the same pre-Neolithic 'gathering from the wild' phenomenon. The consumption of these shoots is very rare in other parts of Italy; however, the culinary use of this species is still very popular in some parts of the Caucasus (R Sõukand, A Pieroni unpubl. res) and Kurdistan (Pieroni *et al.* 2018).

Of particular interest is the case of *Crepis setosa*, known as *ministichella* or *ministichiedda*, which are both lexemes unrelated to the Apulian (South Italian) dialect. This specific taxon was not used in NE Greece; however, the Griko folk name might have originated from the Greek μυρίζω (*myrìzō*), which in Modern Greek means 'to smell' but in ancient Greek meant 'to scatter with balm' or 'to perfume'. The other vernacular name for this wild plant recorded in the Italian study site might confirm this hypothesis. Indeed, another term that is sometimes used in SE Italy is the South-Italian *erba 'ndurante*, which literally means 'long lasting herb', referring to the aroma that permeates the hands once the leaves have been touched. Thus, the enduring scent left by the plant is the key to understanding its name. The phytonyms for this wild vegetable have a Greek origin, but the folk use in NE Greece has probably been lost.

Finally, for the Greek site, the results show that it is quite common to start the fermentation of sour dough or milk to yogurt with the female inflorescences of the wild hop (*Humulus lupulus*). The use of this ingredient, as well as basil, a commonly utilised plant in Orthodox Christian rites, as yeast could be also related to a ritual meaning ascribed to each of these plants. Similar practices of using hop inflorescences as yeast in the baking of bread, common in Romania until only a few decades ago (Pieroni *et al.* 2012), are still being observed by an ancient, very isolated Molokan (Russian) diaspora in Azerbaijan in the Caucasus Mountains (A Pieroni, R Sõukand unpubl. res.).

Additionally, more than half of the quoted vegetables were perceived in both study sites as "medicinal foods", thus confirming the fact that Mediterranean rural classes were (and still partially are) used to eating wild plant ingredients to improve general health or even to treat specific diseases (Pieroni *et al.* 2002; Pieroni & Quave 2006; Guarrera & Savo 2013; Cucinotta & Pieroni 2018).

Conclusions

In sum, this study confirmed that cross-cultural comparative ethnobotanical and ethnolinguistic data can be used to trace the trajectories of plant use in ancient times. Such holistic bio-cultural analyses in botany are essential for understanding the temporal and spatial dynamics of plant uses. Any list of plants that are used by a community should be supported by in-depth cross-cultural comparisons and linguistic analyses.

It is important that future studies on the spatial continuum between the Near East and the Western Mediterranean, especially along the Near Eastern, Greek and Northern African coasts, address the ethnobotany and ethnolinguistics of wild vegetables to better assess the continuity and change in the post-Neolithic edible weed-based system that is one of the most significant but still little-known aspects of the Mediterranean Diet.

Acknowledgements

Special thanks are due to all the study participants in both sites; and to the University of Gastronomic Sciences for having partially funded the study.

References

Abdalla M. 2004. Wild growing plants in the cuisine of modern Assyrians in the Eastern Syrian-Turkish borderland. Journal of Assyrian Academic Studies 18: 50-58.

Accogli R, Medagli P. 2014. Erbe spontanee salentine. Guida al riconoscimento e all'uso delle piante alimentari tradizionali. Lecce, Edizioni Grifo.

Biscotti N. 2012. Botanica delle erbe eduli. Peregrinazioni fitoalimurgiche dal Gargano alle Puglie. Foggia, Centro Grafico.

Biscotti N, Bonsanto D, Viscio G. 2018. The traditional food use of wild vegetables in Apulia (Italy) in the light of Italian ethnobotanical literature. Italian Botanist 5: 1-24.

Biscotti N, Pieroni A. 2015. The hidden Mediterranean diet: wild vegetables traditionally gathered and consumed in the Gargano area, Apulia, SE Italy. Acta Societatis Botanicorum Poloniae 84: 3.

Conforti F, Marrelli M, Carmela C, *et al.* 2011. Bioactive phytonutrients (omega fatty acids, tocopherols, polyphenols), in vitro inhibition of nitric oxide production and free radical scavenging activity of non-cultivated Mediterranean vegetables. Food Chemistry 129: 1413-1419.

Conforti F, Perri V, Menichini F, *et al.* 2012. Wild Mediterranean dietary plants as inhibitors of pancreatic lipase. Phytotherapy Research 26: 600-604.

Cucinotta F, Pieroni A. 2018. "If you want to get married, you have to collect virdura": the vanishing custom of gathering and cooking wild food plants on Vulcano, Aeolian Islands, Sicily. Food, Culture & Society 21: 539-567.

Della A, Paraskeva-Hadjichambi D, Hadjichambis A. 2006. An ethnobotanical survey of wild edible plants of Paphos and Larnaca countryside of Cyprus. Journal of Ethnobiology and Ethnomedicine 2: 34. doi: 10.1186/1746-4269-2-34

Dimopoulos P, Raus T, Bergmeier E, *et al.* 2016. Vascular plants of Greece: An annotated checklist. Willdenowia 46: 301-347.

Dioscorides P. 1959. The Greek herbal of Dioscorides. New York, Hafner.

di Tizio A, Łuczaj Ł, Quave CL, *et al.* 2012. Traditional food and herbal uses of wild plants in the ancient South-Slavic diaspora of Mundimitar/Montemitro (Southern Italy). Journal of Ethnobiology and Ethnomedicine 8: 21. doi: 10.1186/1746-4269-8-21

Ditonno NM, Lamusta S. 2015. Sapori e aromi di piante e frutti spontanei della Puglia peninsulare. Galatina, Congedo Editore.

Dogan Y. 2012. Traditionally used wild edible greens in the Aegean Region of Turkey. Acta Societatis Botanicorum Poloniae 81: 329-341.

Ferrari R, Rapezzi C. 2011. The Mediterranean diet: a cultural journey. Lancet 377: 1730-1731.

Geraci A, Amato F, Noto G, *et al.* 2018. The wild taxa utilized as vegetables in Sicily (Italy): a traditional component of the Mediterranean diet. Journal of Ethnobiology and Ethnomedicine 14: 14. doi: 10.1186/s13002-018-0215-x

Ghirardini MP, Carli M, Vecchio N, *et al.* 2007. The importance of a taste. A comparative study on wild food plant consumption in twenty-one local communities in Italy. Journal of Ethnobiology and Ethnomedicine 3: 22. doi: 10.1186/1746-4269-3-22

Guarrera PM. 2007. Usi e Tradizioni della Flora Italiana. Medicina Popolare ed Etnobotanica. Roma, Aracne.

Guarrera PM, Savo V. 2013. Perceived health properties of wild and cultivated food plants in local and popular traditions of Italy: a review. Journal of Ethnopharmacology 146: 659-680.

Hadjichambis AC, Paraskeva-Hadjichambi D, Della A, *et al.* 2008. Wild and semi-domesticated food plant consumption in seven circum-Mediterranean areas. International Journal of Food Sciences and Nutrition 59: 383-414.

Index Fungorum Partnership. 2018. Index Fungorum. http://www.indexfungorum.org/names/names.asp. 20 Sep. 2018.

ISE – International Society of Ethnobiology. 2008. The ISE Code of ethics. http://www.ethnobiology.net/what-we-do/core-programs/ise-ethics-program/code-of-ethics/. 20 Sep. 2018.

Lentini F, Venza F. 2007. Wild food plants of popular use in Sicily. Journal of Ethnobiology and Ethnomedicine 3: 15. doi: 10.1186/1746-4269-3-15

Leonti M, Nebel S, Rivera D, *et al.* 2006. Wild gathered food plants in the European Mediterranean: a comparative analysis. Economic Botany 60: 130-142.

Licata M, Tuttolomondo T, Leto C, *et al.* 2016. A survey of wild plant species for food use in Sicily (Italy) - Results of a 3-year study in four Regional Parks. Journal of Ethnobiology and Ethnomedicine 12: 12. doi: 10.1186/s13002-015-0074-7

Local Food-Nutraceuticals Consortium. 2005. Understanding local Mediterranean diets: a multidisciplinary pharmacological and ethnobotanical approach. Pharmacological Research 52: 353-366.

Łuczaj Ł, Dolina K. 2015. A hundred years of change in wild vegetable use in southern Herzegovina. Journal of Ethnopharmacology 166: 297-304.

Łuczaj Ł, Končić MZ, Miličević T, *et al.* 2013. Wild vegetable mixes sold in the markets of Dalmatia (southern Croatia). Journal of Ethnobiology and Ethnomedicine 9: 2. doi: 10.1186/1746-4269-9-2

Łuczaj Ł, Pieroni A, Tardío J, *et al.* 2012. Wild food plant use in 21st century Europe: the disappearance of old traditions and the search for new cuisines involving wild edibles. Acta Societatis Botanicorum Poloniae 81: 359-370.

Marouf M, Batal M, Moledor S, *et al.* 2015. Exploring the practice of traditional wild plant collection in Lebanon. Food, Culture & Society 18: 355-378.

Marrelli M, Loizzo MR, Nicoletti M, Menichini F, Conforti F. 2014. In vitro investigation of the potential health benefits of wild Mediterranean dietary plants as anti-obesity agents with α-amylase and pancreatic lipase inhibitory activities. Journal of the Science of Food and Agriculture 94: 2217-2224.

Menotti A, Puddu PE. 2015. How the seven countries study contributed to the definition and development of the Mediterranean diet concept: a 50-year journey. Nutrition, Metabolism and Cardiovascular Diseases 25: 245-52.

Montanari M. 2006. Food is culture. Chichester, Columbia University Press.

Moseley C. 2010. Atlas of the world's languages in danger, 3rd edition. Paris, UNESCO Publishing.

Naska A, Trichopoulou A. 2014. Back to the future: the Mediterraenan diet paradigm. Nutrition, Metabolism and Cardiovascular Diseases 24: 216-219.

Nebel S, Heinrich M. 2009. Ta chòrta: A comparative ethnobotanical-linguistic study of wild food plants in a Graecanic area in Calabria, Southern Italy. Economic Botany 63: 78-92.

Nebel S, Pieroni A, Heinrich M. 2006. Ta chòrta: wild edible greens used in the Graecanic area in Calabria, Southern Italy. Appetite 47: 333-342.

Parlangeli O. 1989. Sui dialetti romanzi e romaici del Salento. Galatina, Congedo.

Pellegrino M. 2016. Performing Griko beyond 'death'. Palaver 5: 137-162.

Pieroni A. 2017. Atlante Gastronomico delle Erbe. Bra, Slow Food Editore.

Pieroni A, Quave CL 2006. Functional foods or food medicines? On the consumption of wild plants among Albanians and Southern Italians in Lucania. In: Pieroni A, Price LL. (eds.) Eating and healing: traditional food as medicine. Binghamton, Haworth Press. p. 101-129.

Pieroni A, Quave CL, Giusti ME, *et al.* 2012. "We are Italians!": the hybrid ethnobotany of a Venetian diaspora in Eastern Romania. Human Ecology 40: 435-451.

Pieroni A, Nebel S, Quave C, *et al.* 2002. Ethnopharmacology of *liakra*: traditional weedy vegetables of the Arbëreshë of the Vulture area in southern Italy. Journal of Ethnopharmacology 81: 165-185.

Pieroni A, Nebel S, Santoro R, *et al.* 2005. Food for two seasons: culinary uses of non-cultivated local vegetables and mushrooms in a south Italian village. International Journal of Food Sciences and Nutrition 56: 245-272.

Pieroni A, Sõukand R, Amin HIM, *et al.* 2018. Celebrating multi-religious co-existence in Central Kurdistan: the bio-culturally diverse traditional gathering of wild vegetables among Yazidis, Assyrians, and Muslim Kurds. Human Ecology 46: 217-227.

Pignatti S. 1982. Flora d'Italia. Bologna, Edizioni Edagricole.

Porphyrius. 1982. Vie de Pythagore; Lettre à Marcella. Paris, Les Belles Lettres.

Quave CL, Saitta A. 2016. Forty-five years later: The shifting dynamic of traditional ecological knowledge on Pantelleria Island, Italy. Economic Botany 70: 380-393.

Rigat M, Gras A, D'Ambrosio U, *et al.* 2016. Wild food plants and minor crops in the Ripollès district (Catalonia, Iberian Peninsula): potentialities for developing a local production, consumption and exchange program. Journal of Ethnobiology and Ethnomedicine 12: 49. doi: 10.1186/s13002-016-0122-y

Rohlfs G. 1964. Lexicon Graecanicum Italiae Inferioris. Etymologisches Wörterbuch der unteritalienischen Gräzität. Tübingen, Niemeyer.

Rohlfs G. 1967. Greek remnants in southern Italy. The Classical Journal 62: 164-169.

Romojaro A, Botella MÁ, Obón C, *et al.* 2013. Nutritional and antioxidant properties of wild edible plants and their use as potential ingredients in the modern diet. International Journal of Food Sciences and Nutrition 64: 944-952.

Samsaris DC. 1988. Le royaume client thrace aux temps de Tibere et la tutelle romaine de Trebellenus Rufus. Le stade transitif de la clientele a la provincialisation de la Thrace. Dodona 17: 159-168.

Santayana MP, Tardío J, Blanco E, *et al.* 2007. Traditional knowledge of wild edible plants used in the northwest of the Iberian Peninsula (Spain and Portugal): a comparative study. Journal of Ethnobiology and Ethnomedicine 3: 27. doi: 10.1186/1746-4269-3-27

Stavridakis GK. 2006. Hē agria vrōsimē chlōrida tēs Krētēs - Wild edible plants of Crete. Rethymno, K.G. Stavridakis.

Stevens PF. 2017. Angiosperm Phylogeny Website. Vers. 14. http://www.mobot.org/MOBOT/research/APweb/. 20 Sept. 2018.

Tardío J, Pascual H, Morales R. 2005. Wild food plants traditionally used in the province of Madrid, Central Spain. Economic Botany 59: 122-136.

The Plant List. 2018. The Plant List. http://www.theplantlist.org/. 20 Sep. 2018.

Trichopoulou A, Vasilopoulou E, Hollman P, *et al.* 2000. Nutritional composition and flavonoid content of edible wild greens and green pies: a potential rich source of antioxidant nutrients in the Mediterranean diet. Food Chemistry 70: 319-323.

Tutin TG, Heywood VH, Burges NA, *et al.* 2001. Flora Europaea. Cambridge, Cambridge University Press.

UNESCO. 2013. Mediterranean diet. https://ich.unesco.org/en/RL/mediterranean-diet-00884. 20 Sep. 2018.

Vasilopoulou E, Trichopoulou A. 2011. Green pies: The flavonoid rich Greek snack. Food Chemistry 126: 855-858.