ISSN 1479-2621

Plant Genetic Resources 3(3); 322–325
DOI: 10.1079/PGR200598

Wild plants of organoleptic or nutritional interest and food traditions in central Italy: some interesting cases

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Received 4 February 2005; Accepted 22 August 2005

Abstract

Thirteen wild plants and their food uses in the folk traditions of some regions of central Italy are described. These uses that can be exploited for human nourishment were collected during field research (1977–2003). Some wild food plants quoted are not very well known. The herbs have been selected for their peculiar organoleptic characteristics (*Taraxacum apenninum*, *T. glaciale*, *Crepis leontodontoides*), for their nutritional interest (*Bunium bulbocastanum*, *Sinapis alba*, *Sonchus oleraceus*, *Taraxacum apenninum*, *T. glaciale*) and the possibility of their cultivation in marginal areas (see *Chenopodium bonus-henricus*, *Podospermum canum*, *P. laciniatum* and some of the quoted species).

Keywords: Abruzzo; Latium; Marche (central Italy); wild food plants

Experimental

We have studied the food traditions of the wild plants of some regions of central Italy (Abruzzo, Latium, Marche) over the last 25 years in the course of extensive field research (Guarrera, 1981, 1987, 1990, 1994, 2003; Manzi, 1987, 1999, 2001; De Simoni and Guarrera, 1994). Some of the most promising food plants were selected from amongst hundreds, the choice being based on organoleptic characteristics, nutritional properties and the possibility of cultivating the plants in their native place as a supplement to the economy of marginal areas. The research was carried out by means of interviews with farmers and shepherds. The voucher specimens of the quoted plants (with one exception) are conserved either in the Museo Nazionale Arti e Tradizioni Popolari in Rome (National Museum of Popular Arts and Traditions of Rome; indicated by *) or in the Centro di Ricerche Floristiche dell'Appennino in Barisciano (L'Aquila) (Apennine Flora Research Centre in Barisciano, under the direction of Dr Fabio Conti; indicated by +) in collaboration with Ente Parco Nazionale Gran Sasso e Monti della Laga. Classification and nomenclature of the plants are according to Pignatti (1982).

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Discussion

*Bunium bulbocastanum L.** (Umbelliferae)

The bulbs (Fig. 1) were once actively gathered by mountain people (in spring) to be eaten alone boiled or roasted. Their taste recalls that of chestnuts. In times of famine, the bulbs were also used as flour for baking. In the first half of the 19th century the Economic Society in Teramo (Abruzzo) undertook the selection of *Bunium* plants with larger bulbs to cultivate in marginal areas for human and cattle consumption (Manzi, 1999). The plant grows in calcareous soils in the mountain area.

Another species of *Bunium*, *B. petraeum* Ten., grows in the central-southern Apennine: this is a rare and localized species, endemic to mountain pastures.

Fig. 1. *Bunium bulbocastanum* L.

Fig. 2. *Chenopodium bonus-henricus* L.

Chenopodium bonus-henricus L. (Chenopodiaceae)*

The leaves of this mountain spinach (Fig. 2) are used with beans, in soups and omelettes, and mixed with other boiled vegetables (Tammaro, 1984; Guarrera, 1990, 1994; De Simoni and Guarrera, 1994; Manzi, 1999; Pieroni, 1999). This herb, once common near sheepfolds, is now dwindling owing to the decrease in flocks and the consequent reduction of pastures. It could however be cultivated in mountainous areas. The plant nowadays is sold in some mountain markets (Avezzano and L'Aquila, in Abruzzo). Some test cultivations of this species have been conducted in this region. Seeds germinate easily in fresh soil rich in organic substances.

Crepis leontodontoides All. (Compositae)

The basal leaves are eaten cooked in the Marche region, where they are greatly appreciated (Guarrera, 1990: information received from the well-known florist A. Brilli Cattarini, who collaborated in the production of the *Flora d'Italia* (Pignatti, 1982)). The leaves do not have the bitter taste typical of many plants of the Compositae family and can be eaten on their own. In Tuscany they are used in salads (Corsi and Pagni, 1979).

Podospermum canum C.A. Meyer (Fig. 3), P. laciniatum (L.) DC (Compositae)+*

These pioneer species of clay soils could have a great potentiality as vegetables, thanks also to the characteristic sweetish flavour of their basal rosettes and florets (cooked or raw). They could be used to exploit and re-colonize badlands and uncultivated areas, together with *Beta vulgaris* subsp. *maritima* and *Cynara cardunculus* L. subsp. *cardunculus* (Pignatti, 1982; Manzi, 1999).

Sinapis alba L. (Cruciferae)*

Herbaceous sinanthropical species, the tender tops of which are actively gathered in winter and spring to be eaten in soups, both in Marche and Abruzzo. This plant

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Fig. 3. *Podospermum canum* C.A. Meyer.

has a delicate sweet flavour. It was once cultivated in some areas of these regions and was used as fodder.

*Reichardia picroides (L.) Roth (Compositae)**

In many regions the bitter basal leaves of young plants are eaten raw, in mixed salads, or boiled (Guarrera, 2003). It is a common plant, in high demand in some town markets. The species grows in dry pastures and on rocks. In central Italy, this species shows three different varieties: var. *integrifolia* (Moench) Kuntze, var. *cupaniana* (Nicotra) Fiori and var. *maritima* (Boiss.) Fiori (Conti, 1998).

*Sonchus oleraceus L. (Compositae)**

The basal rosettes are eaten cooked, with other boiled vegetables. They are also used in soups and 'pizze rustiche' (vegetable-filled pizzas). Their sweet flavour mitigates the bitter taste of other species (Corsi and Pagni, 1979). The food uses are practised everywhere in Italy. The plant possesses cholagogue, laxative and emollient properties (Guarrera, 2003) and a marked quantity of provitamin A (De Almeida-Muradian *et al*., 1998) and vitamin C (Cambie and Ferguson, 2003). *S. oleraceus* is a sinanthropical plant, abundant in the basal and hilly belt. Also *S. tenerrimus* L. and *S. asper* (L.) Hill are used.

Taraxacum apenninum (Ten). Ten. and T. glaciale Hand.-Mazz. (Compositae)+

These are endemic species of the Central Apennine, with growth limited to mountain or high-mountain areas. Until a few decades ago they were used in salads in Abruzzo (Majella, Scanno, Altopiani, Maggiori) and even now are gathered and marketed in the area of Latium included in the Parco Nazionale d'Abruzzo (Picinisco). These plants were once sent to various markets, to aristocratic families and to landowners. Even the well-known botanist Michele Tenore mentions the softness of *T. apenninum*. *T. glaciale* (Fig. 4) is a rare endemic species in Abruzzo and Latium (Laga Mountains), its area restricted to the highest summits. This is an ancestral diploid species, while the other Italian species of *Taraxacum* are polyploids (Pignatti, 1982; Conti *et al*., 1992). Owing to the restricted areas in which they grow, the cultivation of these species could also be beneficial for their preservation (Manzi, 1999, 2001), although they would have to be grown at high altitudes, at least 1300–1400 m asl. *T. apenninum*, transplanted to lower altitudes, shows an abnormal growth of the basal rosette.

There are no known nutritional studies on these species, but papers are available on *Taraxacum officinale* Weber. The basal leaves of *T. officinale*, wild and cultivated species, possess cholagogue, digestive, diuretic, laxative and anti-diabetic properties and are rich above all in carotinoids, but also in vitamins, mineral salts, protein, inulin, cholin and pectin (Murray, 1991; Guarrera, 2003). In order to mitigate the bitter taste, the leaves are scalded in boiling water or left to soak in water and lemon juice.

There is an increasing demand for wild vegetables in Italy today; these greens are eaten fresh in salads ('mesticanze') or boiled in soups. In Abruzzo still today more than 150 wild species of plants are gathered, about 5% of the regional flora (Manzi, 1999). Some species are also marketed in the local markets or in specialized fruit and vegetable shops. Gathering such species can help integrate people's incomes, especially the elderly and women. Amongst the plants most frequently gathered for commercial purposes we cite *Asparagus acutifolius*, *Borago officinalis*, *Chenopodium bonus-henricus*, *Humulus lupulus*, *Reichardia picroides* and *Sonchus oleraceus*.

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Fig. 4. *Taraxacum glaciale* Hand.-Mazz.

Until the Second World War in some internal areas of central Italy, wild vegetables were the daily dish of the poorest social classes. These greens assumed a relevant role in the month of May, when the new harvests were not yet ripe and food supplies were exhausted.

At present there is nothing to suggest that these plants could not be used for nutritional purposes, with the sole exception of *C. bonus-henricus* (renal disturbances, gout, arthritis, rheumatism) (Palma, 1964). The therapeutic activities of other, more commonly known wild food plants could be listed. Among these, for example, *Urtica dioica* L.* (nettle) and *Campanula rapunculus* L.*. Nettle tops, eaten blanched, are rich in proteins, mineral salts and vitamins, and possess anti-inflammatory properties. *C. rapunculus* is a wild herb once cultivated in kitchen gardens; its leaves and especially the roots, used in salad, have a hypoglycaemic effect due to their inulin content.

All the species mentioned—and others yet to be researched—could play a role in soil preservation and in the development of sustainable agriculture in marginal areas (Polignano *et al*., 2004).

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