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## Ethnobotanical notes about medicinal and useful plants of the Reventino Massif tradition (Calabria region, Southern Italy)

Gina Maruca, · Giovanni Spampinato, · Domenico Turiano, · Gaetano Laghetti, · Carmelo  
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**Abstract** This paper presents an ethnobotanical survey of the traditional uses of plants in the  
Reventino Massif (Calabria Region, Southern Italy). The aim of study was to record local  
knowledge on plants used for food, medical and other purposes based on new information  
provided by inhabitants in the study area. Fifty people, aged between 52 and 91 years,  
were interviewed between January and June 2016, using open and semi-structured  
ethnobotanical interviews. For each described plant species, the Italian common and local  
folk names, the part of the plants used, the uses and the relative use value (UV), were  
recorded. 76 plant species belonging to 43 families have been identified, with *Asteraceae*  
(10 species) and *Lamiaceae* (9 species) being most frequently used. The decoction and  
infusion in water, is the main preparation method for oral administration, while direct  
application of plants is the most important method  
for topical use. Several uses were never reported before. Phytotherapy in the Reventino  
Massif Area is nowadays practiced by a few elderly people that resort to medicinal plants only  
for various mild complaints such as tooth-ache, rheumatic pain, headaches; they also serve  
as first aid, as cicatrizing, lenitive, haemostatic agents. On the contrary, food uses are still  
commonly practiced.

**Keywords** Ethnobotany · Traditional plant use ·  
Wild food plants · Phytotherapy · Phytoalimurgy

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## Introduction

Since antiquity, humans have used a great diversity of wild plants (Prance and Nesbitt; Tardio et al. 2006) for food, medicines, fuel and many other purposes (Harlan 1971; Heywood 1999). The specific plants to be used and the methods of application were passed down through a long oral history (Balunas and Kinghorn 2005) and this heritage is presently of a great interest. Of particular importance, are the plants used in popular medicine, for some of which ethnobotanical studies constitute sources of information useful for science (Lentini 2000) in the development of novel drugs against cancer, malaria, Alzheimer disease, HIV/AIDS, pulmonary

pathologies and other diseases (Butler 2004; Newman et al. 2003). Currently, more than 50% of all approved drugs are natural products and their derivatives (Marrelli et al. 2015; Ovadje et al. 2015). In recent years, there has been growing interest in finding the health functions of phenolics, including flavonoids from wild fruits and (Chen et al. 2006; Saleem et al. 2002; Leonti et al. 2006; Pieroni et al. 2002). In fact, more advanced scientific research suggested the reevaluating of the consumption of wild plants of the traditional Mediterranean cuisine in order to prevent numerous illnesses (Cervato et al. 2000; Lentini and Venza 2007; De Feo et al. 1992; Indolo et al. 2010). The market constantly addresses its attention to new and underutilized plants to check their properties and to evaluate their use in the industry (Conforti et al. 2008).

With the aim to collect the popular local knowledge on traditional plants, an ethnobotanical study in the area of the Reventino Massif (Calabria region, Southern Italy) has been carried out. The research covers the towns of Serrastretta, Decollatura, Soveria Mannelli, Miglierina and San Pietro Apostolo. From the beginning of the 20<sup>th</sup> century, people living in this district were engaged in agricultural activities. Gathered and traded wild plants played a really important role in the local economy (Guarrera and Leporatti 2007). Over the time, they started to leave the countryside so that today, only a part of the rich

cultural heritage survives among elderly people (Leporatti and Impieri 2007). This study aims to report the traditional botanical knowledge of this relatively isolated area.

## Materials and Methods

### Study area

Reventino Massif is located in central Calabria region (Southern Italy) (Fig. 1), in the Isthmus of Marcellinara (the narrowest land strip of Italy which separates the Ionian from the Tyrrhenian Seas), and was an important meeting place for several human populations settled in this region, in the past (Maruca et al. 2013).

It is bordered, on the south by the Sant'Eufemia plain, on the west by Tyrrhenian sea, on north-west by the valley of Savuto river. On east and north-east, it is the south-west offshoot of Sila plateau (Fig. 1).

This Massif includes the Reventino mount (1417 m a.s.l.), the Serralta mount (1246 m a.s.l.), the Faggio mount (1329 m a.s.l.) and the Mancuso mount (1327 m a.s.l.).

### Geology

From a geological point of view, this territory is part of the Calabrian-Peloritan Arc, a fragment of Alps consisting of tectonic metamorphic or crystalline units; it includes rocks dating back to the Paleozoic Era, overthrust on the Apennines Meghrebide Chain during the tectonic evolution that affected the central Mediterranean sea in the Eocene period (Amodio-Morelli et al. 1976; Alvarez 1980; Alvarez et al. 1974).

### Naturalistic traits

The landscape of Reventino Massif is very diversified in relation to the altimetry belt that varies from sea level up to 1400 m a.s.l. and the anthropic transformations over the centuries (Maiorca et al. 2006; Maiorca and Spampinato 2003). The basal belt extending up to 500-600 m, has a typical Mediterranean bioclimate with a period of summer drought of 3–4 months. It is characterized by Mediterranean shrubs (*Myrtus communis*, *Pistacia lentiscus*), thermo-xerophile oak forests with *Quercus suber* or *Quercus ilex*, semi-natural plant communities as steppe grasslands which are dominated by *Ampelodesmos mauritanicus* and cultivated land (mostly olive-grove). The sub-mountain belt extending from 500 to 600 m up to 800–900 m, has a sub-mediterranean bioclimate with a shorter period of summer drought and it is characterized by deciduous oak forests with *Quercus cerris* or *Quercus pubescens*; semi-natural secondary bushes and woods of *Castanea sativa*. The overhanging mountain belt has a temperate climate with maximum precipitation, exceeding 1000 mm per year, without summer dryness; it is dominated by mesophilous

woods of *Fagus sylvatica* which cover also the summits, alternating with pastures, bushes of *Cytisus scoparius* and artificial coniferous plantations. In the Reventino Massif, there is one of the most beautiful Italian beech forest, called “Condrò forest”; it is an SCI (Site of Community Importance-IT9330124) characterized by a high number old-growth trees and rare animal species protected by the ‘Habitats’ Directive (Council Directive 92/43/EEC).

#### Human history

The Reventino territory was already inhabited in the Prehistory (Dito 1934; Topa 1927) and later, in the period of Roman domination. After the conquest of Calabria by Normans, it became more populated and during the XVI century there was an important immigration from surrounding areas. Nowadays, the human settlements consist of small cities whose economic resources come mostly, from agriculture and forestry.

Although Calabria has not a regional flora, there has been an increasing interest in such studies recently (Bernardo et al. 2011; Cano et al. 2017; Crisafulli et al. 2010; Musarella and Tripodi 2004; Musarella et al. 2018; Panuccio et al. 2018; Signorino et al. 2011; Spampinato et al. 2018, 2019).

#### Ethnobotanical methodology

During January–June 2016, through the open and semi-structured interviews (Martin 1995), informants still holding traditional local botanical knowledge, were asked for local plant names, folk use (medicinal, food and other possible use), used parts and possible association with other plants. The “use value”, a quantitative method to evaluate the relative importance of species was calculated according to the following formula:  $UV = U/N$  where UV refers to the use value of a species; U to the number of citations per species; and N to the number of informants (Cakilcioglu and Turkoglu 2010). Fifty people were interviewed: 35 women and 15 men, ranging in between 52 and 91 years; they all, had been living, for many years in the area under study. The purpose and nature of the research were explained to them before interviews took place so that informed content was obtained from all interviewed (Trotter and Logan 1986). Plants were identified through gathering in the area or through examination of the freshly collected plants.

The information was imparted in the local dialect and plants were identified by vernacular names. Plant classification follows Pignatti (1982) and nomenclature is in agreement especially with Bartolucci et al. (2018). For each plant species is mentioned the family according APG III (2009) and Peruzzi (2010). Herbarium specimens are kept in the Herbarium of the Mediterranean University of Reggio Calabria (REGGIO).

#### Results and Discussion

The following information is provided for each plant: family, botanical name and specimens number, vernacular name, status, use value, used part, use and prescription. Seventy-six species belonging to 43 families, are reported among which the most cited are *Asteraceae* (10 species), *Lamiaceae* (9 species). One hundred and nine different uses of the plants have been counted (Fig. 2) among which the most common is the medicinal use (51%). Most of the recorded species, are commonly used in southern Italy and other Mediterranean areas, both for food and medicinal purposes (Leonti et al. 2009; Quave and Pieroni 2007). The list of plants surveyed is shown in Table 1.

### Medicinal uses

Thirty-eight species, belonging to 33 families, are reported as medicinal plant for human uses. The claimed uses, are often common to those of the other areas of Calabria (ARSSA 2002; Barone 1963; Guarrera and Leporatti 2007; Leporatti and Impieri 2007; Leporatti and Pavesi 1989; Musarella et al. 2019; Passalacqua et al. 2007). The most cited families are *Lamiaceae* (6 species), *Asteraceae* (5 species). Many recipes are based on singular plants or in association. The decoction and infusion almost always in water, mostly of leaves, flowers and seeds, represent the main method of preparation for oral administration, while the direct application of plants is the most important method for topical use. The main medicinal remedies, are the decoction of the root of *Malva sylvestris* as antitussive, the infusion of the inflorescences of *Sambucus nigra* L. as ocular decongestant, the decoction of *Plantago lanceolata* as lenitive for stomach ache, the infusion of *Centaurium erythraea* as febrifuge and the decoction of the flowers of *Borago officinalis* L. as diuretic. A similar ophthalmological use of elderberry was reported by Leporatti and Impieri (2007). Pieroni et al. (2003) reported the anti-fever use of the fruit decoction of this plant, confirmed also in other Mediterranean countries (Karosou and Deirmentzogiou 2011; Menkavic et al. 2011). *Borago officinalis* is widely used in Sicily and in Sardinia to cure cough and bronchitis (Barone 1963); its use is also reported in traditional medicine of other Mediterranean countries with different effect. In particular, in Algeria the plant was used for musculoskeletal disorders while in Cyprus island it was used for respiratory disease (Gonzalez-Tejero et al. 2008). Di Sanzo et al. (2013), report the use of the aerial parts of centaury (*Centaurium erythraea*) as febrifuge also in Basilicata. Moreover, the same plant is known as an hypotensive and antimalarial agent (Guarrera and Leporatti 2007). Few of the recorded species are used both for food and medicinal purposes; for example, Sansanelli et al. (2017) report that the young twigs of *Clematis vitalba* are eaten cooked as a diuretic in omelettes. In Latium, the buds of this plant, at the spring equinox, are collected with those of *Ruscus aculeatus*, *Asparagus* sp. and *Tamus communis* and preserved in vinegar for food (Guarrera and Leporatti 2007). Moreover, the leaves of the plant were cited by Menkavic et al. (2011) for rheumatism. Guarrera and Leporatti (2007) report an alimentary use of *Cynodon dactylon*: the toasted rhizomes of the plant were used

to prepare coffee. *Cynodon* was used also for kidney and digestive disorders (Gonzalez-Tejero et al. 2008; Leonti et al. 2009); the decoction of roots is reported as antihemorrhoidal (Mustafa et al. 2012) while the decoction of rhizome is diuretic (Montesano et al. 2012).

Some traditional uses in Reventino area which result new or unknown to the Italian scientific literature are those of the *Alnus cordata* leaves and *Pinus nigra* subsp. *laricio* resin to remove warts and corns, that of the *Castanea sativa* rotten wood as haemostatic. Among the veterinary remedies, the use of the *Lupinus albus* seeds as food to stimulate the production of eggs is uncommon (Corsi et al. 1981). In the Marches (Bellomaria and Della Mora 1985) and in Abruzzo (Chantraine et al. 1968), the decoction of the entire plant is used to treat the dermatitis in cattle, while the use of the *Viscum album* plants as winter food for sheep and goats, is reported for the first time in Italy.

#### Alimentary uses

Twenty-two species mentioned by the informants as food plants belong to 12 different botanical families, with *Asteraceae* (5 species) and *Lamiaceae* (4 species) being the most representative. Mostly used as vegetables, they were collected from spring to summer. Plants used for seasoning were usually gathered in spring when they were at their period of peak growth. Species used for making herbal liqueurs or teas were collected at the flowering stage, usually in spring and summer. The parts of plants mostly used are leaves, fruit and stems. Plants are often consumed raw, mixed with other vegetables in salad, or boiled, in mixed vegetable soups. The more utilized plants in the local cuisine are *Asparagus acutifolius*, *Cichorium intybus*, *Hypochaeris radicata*, *Taraxacum officinale*, *Sonchus oleraceus*, *Portulaca oleracea*, *Clematis vitalba*, *Plantago lanceolata*, *Polygonum aviculare*, *Foeniculum vulgare* subsp. *piperitum*. Most of these plants are also used in other parts of Southern Italy and they have been continuously used, since the time of Magna Graecia. For example, the wild fennel was

found in a list of condiments in Ancient Greek literature (Chantraine et al. 1968). It is interesting to note that *Portulaca oleracea* seems to have been a food plant since antiquity as Hippocrates, Theophrastus and Dioscorides refer to it (Bois 1927; Gunthert 1934; Hort 1916). Also, today, in Greece, purslane is eaten as salad, as well as cooked or baked in pies (Brussel 2004). Moreover, Dioscorides used purslane to treat headaches, stomach discomfort, respiratory complaints and also for eyes (Baumann 1993; Megaloudi 2005).

*Thymbra capitata*, *Melissa officinalis*, *Myrtus communis*, *Mentha x piperita*, *Origanum vulgare* subsp. *heracleoticum*, *Salvia officinalis*, *Pimpinella anisoides* are used as seasoning. *P. anisoides*, the wild anise, is an endemic plant widespread in Sicily, Calabria, Basilicata, Campania and Lazio, mainly in the mountain belt up to 1300 m. The aromatic fruits which are collected from wild plants, are used for flavouring food and liqueurs, they have been intensively collected for traditional bakery, the natural habitat became

exhausted (Hammer et al. 2000). A strong genetic and cultural erosion has been recorded in the area; in fact, much traditional habitat for *P. anisoides* has been altered by anthropization and according to local plant collectors, only in very few areas, it is still possible to find it. So, the wild anise is becoming a rare and very expensive spice. Typical products are the big ring-shape soak biscuits, the “ananzu”, a dainty liquor produced from the distillation of the fruits and the “cuzzupa”, an Easter cake with encrusted eggs.

#### Domestic and ritual uses

In the Reventino Massif few plants are employed for domestic and ritual uses. Among those reported, totally new, in the ethnobotanical literature is the use of the roots of *Aristolochia rotunda* to perfume drawers. The leaves of the same plant, in the Pollino National Park (Basilicata), are used as a soap substitute in clothes cleaning (Di Sanzo et al. 2013). Moreover, the domestic use of the flower calyx of *Ballota pseudodictamnus* is still present in some isolated districts, as a wick for oil-lamp. The same is reported in Basilicata, in Apulia and Latium (Guarrera and Leporatti 2007). Among these uses, the very ancient one is that of the fibers of *Spartium junceum* which dates back to the Phoenicians, Romans and Greeks who used Spanish broom fibers to make sails (Salerno et al. 2005). The Spanish broom is a perennial shrub floriferous that grows spontaneously, in uncultivated areas all over the Italian territory. Its weaving is one of very old textile art practice of the Calabrian tradition; as a proof of this, some fragments of fiber had been found in remains of a Neolithic village dating back to 5000 years ago, in Sila, as well as the terracotta counterweight for hand loom (Schirripa 2000), unearthed in archaeological finds of Locri, a Greek colony in the southern Ionian coast of Calabria. This use has flourished notably in 1930s, during the fascist period when an autocratic economy existing in Italy, produced food and clothes without foreign imports (Salerno et al. 2005). The whole extraction process of yarn for weaving is long and complex; it begins with collecting, in the summer, the “vermene”, the young and large stems from plants 1 year old, after the fall of flowers, and ends with the fiber spinning. The fibre was extracted by beating and then, washing small bunches of the previously boiled flexible stems (Musacchio and Barone Lumaga 2003). The yarn thus obtained is woven at loom for textile articles and the trousseau. The fabrics were embellished with very beautiful drawings and ornaments and dyed with natural pigments as the peel of pomegranate, the berries of elder, the flowers of broom (Menghini 1997; Salice 1979). In the past, the weaving of Spanish broom represented a primary important activity in the Calabria region; today, it survives only in a few centres of excellence of Calabrian tradition. In Latium, Spanish broom branches were gathered as fuel for wood ovens (Guarrera 1994).

Finally, it is interesting to note the unusual ritual use of the flowering branches of *Sedum stellatum*, gathered in the Ascension day, as lucky charm.



## Conclusions

The study shows that in the Reventino Massif area, the traditional knowledge on the wild plants is still alive and is being reevaluated, today. The relative isolation of the territory has permitted traditions to be firmly well preserved instead of being lost. Only, few local people still use the wild medicinal plants, in the primary health care of the family, normally dispensed by the oldest women who resort above all, for mild illnesses. So, the phytotherapy is practiced by the

elderly who rarely and with great difficulty, manage to transmit to the younger generations due to their lack of interest. The habit of using wild edible plants has progressively decreased over generations even if today, is growing a new interest towards the neglected food plants which are perceived as healthier, more genuine and tastier than the related cultivated species. In fact, the local restaurants suggest in addition to the traditional dishes, new recipes mostly prepared with the so-called “spontaneous vegetables” (as the home-made pasta with nettles or with chestnut flour), which play a central role in the local diet, according predominantly, to the Mediterranean model. Such local food plants are treasure trove for developing leads for new nutraceuticals and pharmaceuticals, especially for inflammatory conditions (Colica et al. 2018; Conforti et al. 2011). The renewed interest in these species would improve studies for the protection of the local biodiversity, thus encouraging the conservation of customs and traditions of this area. In fact, collected data in this ethnobotanical analysis, give the opportunity to document the history of plant use in Calabria through the development of diverse and complex relationships between humans and their environments, in southern Italy, as evidenced by the presence of many phytotoponyms in this region (Spampinato et al. 2017).

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**Compliance with ethical standards**

**Conflict of interest** The authors declare that they have no conflict of interest.

**Human and animal rights** This Research involved Human Participants who gave a verbal informed consent prior to the interview.

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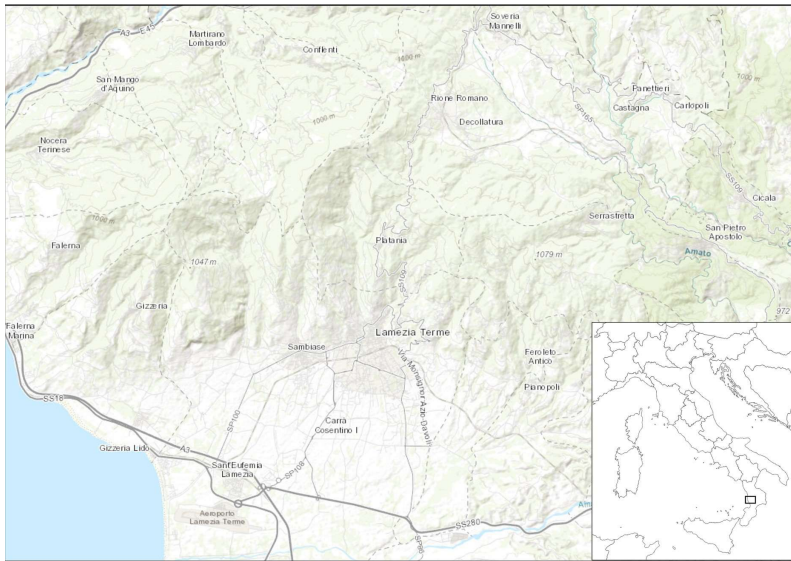


Fig. 1 Map of the Reventino Massif and its location in Calabria

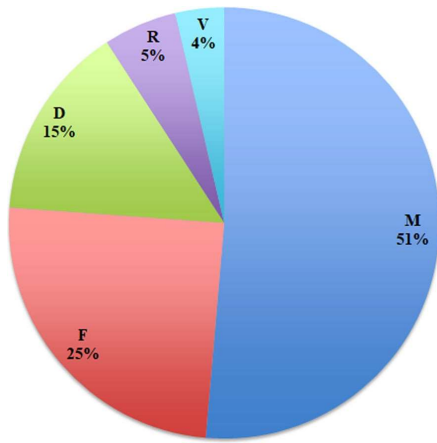


Fig. 2 Ethnobotanical use of wild plants in Reventino Massif (%) (*M* medicinal, *F* food, *D* domestic and handicraft, *R* ritual, *V* veterinary)



**Tab. 1. Species traditionally used in the district of Serrastretta.**

Status: W: wild, C: cultivated; Use(s): M: medicinal uses, E: ethnoveterinary uses F: food uses, D: domestic and handicraft uses, R: ritual, V: veterinary

| Family   | Vernacular name      | Status | Use value | Plant part used                               | Use         | Claimed use(s)   |
|--|----------------------|--------|-----------|---|-------------|--|
| <b>Adoxaceae</b>   |                      |        |           |   |             |  |
| <i>Sambucus nigra</i> L.<br>(REGGIO 4382)  | Maju                 | W      | 0,6       | Dried inflorescens<br>Flowers                 | M<br>F      | The infusion as ocular congestant<br>Eaten as omelettes  |
| <b>Apiaceae</b>  |                      |        |           |   |             |  |
| <i>Foeniculum vulgare</i> Miller Miller subsp.<br><i>piperitum</i> (Ucria) Coutinho<br>(REGGIO 4383) | Fhinuacchiu          | W      | 0,2       | Seeds   | M           | The decoction as digestive   |
| <i>Pimpinella anisum</i> L.<br>(REGGIO 4451)   | Ananzu               | W      | 0,96      | Seeds<br>Seeds                                | F<br>F      | The macerate in alcohol to make liqueurs<br>As flavouring agent for typically snack "laralli"<br>The alcoholic macerate to make liqueurs |
| <b>Aquifoliaceae</b>   |                      |        |           |   |             |  |
| <i>Ilex aquifolium</i> L.<br>(REGGIO 4384)   | Acrifuogliu          | W      | 0,6       | Branches with<br>leaves and fruits            | R           | As lucky charm at Christmas Time   |
| <b>Araceae</b>   |                      |        |           |   |             |  |
| <i>Arum italicum</i> Miller<br>(REGGIO 4385)   | Pane do cursune      |        | 0,2       | Berries                                       | M           | The berries juice is used topically to cauterize the warts   |
| <b>Araliaceae</b>  |                      |        |           |   |             |  |
| <i>Hedera helix</i> L.<br>(REGGIO 4386)  | Edera                | W      | 0,14      | Leaves  |             | Hot leaves are applied topically as painkiller   |
| <b>Aristolochiaceae</b>  |                      |        |           |   |             |  |
| <i>Aristolochia rotunda</i> L.<br>(REGGIO 4383)  | Aristolochia         | W      | 0,04      | Roots   | D           | They are used to perfume the drawers   |
| <b>Asparagaceae</b>  |                      |        |           |   |             |  |
| <i>Asparagus acutifolius</i> L.<br>(REGGIO 4388)   | Sparago              | W      | 0,2       | Fresh shoots<br>Fresh shoots                  | M<br>F      | The decoction as depurative for liver and kidneys<br>The turion are eaten as omelettes or soup   |
| <i>Muscari comosum</i> (L.) Mill.<br>(REGGIO 4424)   | Cipullazza           | W      | 0,4       | Fresh bulbs<br>Bulbs                          | M<br>F      | Used topically to pass the headache<br>Eaten raw in salad or cooked in appetizers  |
| <i>Ruscus aculeatus</i> L.<br>(REGGIO 4389)  | Sparacogna           | W      | 0,3       | Turion  | D           | Used in equipped to ward off mice  |
| <b>Asteraceae</b>  |                      |        |           |   |             |  |
| <i>Achillea millefolium</i> L.<br>(REGGIO 4390)  | Millefuogliu         | W      | 0,16      | Fresh   | M           | The infusion as a diuretic to expel kidney stones  |
| <i>Arctium lappa</i> L.<br>(REGGIO 4391)   | Cudizza              | W      | 0,02      | Dry leaves and<br>roots                       | M           | The decoction is used as diuretic and detergent for oily skin  |
| <i>Cichorium intybus</i> L.<br>(REGGIO 4392)   | Cicuare              | W      | 0,8       | Fresh leaves                                  | M           | The decoction as diuretic  |
| <i>Helichrysum italicum</i> (Roth) G. Don<br>(REGGIO 4393)   | Elicriso             | W      | 0,08      | Flowers                                       | R           | Are put in coffins   |
| <i>Hypochaeris radicata</i> L.<br>(REGGIO 4394)  | Crustullille         | W      | 0,9       | Leaves  | F           | Eaten in vegetable soup  |
| <i>Silybum marianum</i> (L.) Gaertn.<br>(REGGIO 4395)  | Cardune              | W      | 0,1       | Tender stems                                  | F           | Eaten raw in salad   |
| <i>Sonchus oleraceus</i> L.<br>(REGGIO 4396)   | Cardella             | W      | 0,94      | Young shoots and<br>leaves                    |             | eaten in the local cabbage soup  |
| <i>Tanacetum vulgare</i> L.<br>(REGGIO 4394)   | Tanacetu             | C      | 0,12      | Whole plant                                   |             | Cultivated as deterrent for pests of vegetables  |
| <i>Taraxacum officinalis</i> Weber & F.H. Wigg.<br>(REGGIO 4397)                                     | Tarassacu            |        | 0,2       | Fresh flowers<br>Leaves<br>Leaves             | F<br>F<br>M | Eaten in omelettes<br>Eaten in salad or soups<br>The infusion as diuretic  |
| <i>Tussilago farfara</i> L.<br>(REGGIO 4398)   | Ciampa e cavallu     | W      | 0,18      | Dry flowers                                   | M           | The infusion as anti-inflammatory to treat bronchitis  |
| <b>Betulaceae</b>  |                      |        |           |   |             |  |
| <i>Alnus cordata</i> (Loisel.) Duby<br>(REGGIO 4399)   | Azimu                | W      | 0,06      | Leaves  |             | They are used locally rubbed to remove warts and corns   |
| <b>Boraginaceae</b>  |                      |        |           |   |             |  |
| <i>Borago officinalis</i> L.<br>(REGGIO 4400)  | Vurrajina            | W      | 0,96      | Fresh flowers<br>Fresh flowers<br>Whole plant | M<br>D<br>F | The decoction is used as diuretic<br>To colour the artigianal vinegar.<br>Eaten in soup and omelettes                                    |
| <i>Heliotropium europaeum</i> L.<br>(REGGIO 4401)  |                      |        | 0,7       | Fresh leaves                                  | M           | Used topically as caustic to eliminate the leeks   |
| <b>Brassicaceae</b>  |                      |        |           |   |             |  |
| <i>Brassica oleracea</i> L. var. capitata<br>(REGGIO 4402)   | Caulu                | C      | 0,98      | Fresh leaves                                  |             | The cataplasms "spuccatine" as anti-inflammatory for muscle tears and as lenitive on swollen feet  |
| <b>Cactaceae</b>   |                      |        |           |   |             |  |
| <i>Opuntia ficus-indica</i> Mill.<br>(REGGIO 4425)   | Ficundiana           | C      | 0,68      | Cladodes                                      | M           | The epidermis of the cladodes is removed ed used to heal the wounds and skin excoriation   |
|  |                      |        |           |   | M           | Used topically as antirheumatic for the knees  |
| <b>Caryophyllaceae</b>   |                      |        |           |   |             |  |
| <i>Saponaria officinalis</i> L.<br>(REGGIO 4403)   | Erva sapunetta       | W      | 0,5       | Fresh leaves                                  | D           | Used in water to clean clothes   |
| <b>Chenopodiaceae</b>  |                      |        |           |   |             |  |
| <i>Chenopodium album</i> L.<br>(REGGIO 4404)   | Farinacciu           | W      | 0,12      | Fresh leaves                                  | M           | The decoction as lenitive  |
| <b>Crassulaceae</b>  |                      |        |           |   |             |  |
| <i>Sedum stellatum</i> L.<br>(REGGIO 4405)   | Ascensione           |        | 0,02      | Flowering branches                            | R           | Are gathered in the Ascensione day,at dawn, and used as lucky charm, at the bedside  |
| <i>Umbilicus rupestris</i> (Salisb.) Dandy<br>(REGGIO 4406)  | Cuculinu             | W      | 0,16      | Fresh leaves                                  | M           | Are used topically to remove calluses  |
| <b>Cupressaceae</b>  |                      |        |           |   |             |  |
| <i>Cupressus sempervirens</i> L.<br>(REGGIO 4407)  | Arberu e muorti      | C      |           | Galbulus                                      | M           | The infusion as teeth disinfectant   |
| <b>Ericaceae</b>   |                      |        |           |   |             |  |
| <i>Arbutus unedo</i> L.<br>(REGGIO 4408)   | Cacumbaru            | W      | 0,02      | Fresh fruits                                  | M           | Are eaten as astringent  |
| <b>Equisetaceae</b>  |                      |        |           |   |             |  |
| <i>Equisetum arvense</i> L.<br>(REGGIO 4409)   | Cuda e cavallu       | W      | 0,6       | Fresh whole plant                             | M<br>V      | The infusion as mineralizing<br>The infusion is used to ward off insects   |
| <b>Fabaceae</b>  |                      |        |           |   |             |  |
| <i>Lupinus albus</i> L.<br>(REGGIO 4410)   | Lupinu               | C      | 0,94      | Seeds   | F<br>V      | Are eaten as dried fruit<br>Are administered to chickens to produce eggs   |
| <i>Robinia pseudoacacia</i> L.<br>(REGGIO 4411)  | Gaggia               | C      | 0,36      | Fresh flowers                                 | F           | Are eaten as omelettes   |
| <b>Fagaceae</b>  |                      |        |           |   |             |  |
| <i>Castanea sativa</i> Miller<br>(REGGIO 4412)   | Castagnu             | C      | 0,94      | Fruits<br>Wood                                | F<br>M      | Are eaten boiled ("vallani") or roasted ("rusarelle")<br>Is used putrified ("putrazzo") as hemostatic                                    |
| <i>Quercus virgiliana</i> Ten.<br>(REGGIO 4413)  | Cerza                | W      | 0,84      | Bark<br>Acorns                                | M<br>V      | The decoction as disinfectant<br>Are used as food for pigs   |
| <b>Gentianaceae</b>  |                      |        |           |   |             |  |
| <i>Centaurium erythraea</i> Rafn.<br>(REGGIO 4414)   | Centauro             | W      | 0,76      | Dried whole plant                             | M           | The infusion is used internally as febrifuge   |
| <b>Hypericaceae</b>  |                      |        |           |   |             |  |
| <i>Hypericum perforatum</i> L.<br>(REGGIO 4415)  | Jiure e San Giovanni | W      | 0,48      | Fresh inflorescence                           | M           | Are macerate in oil as lenitive in case of burns or insect bites   |
| <b>Juglandaceae</b>  |                      |        |           |   |             |  |
| <i>Juglans regia</i> L.<br>(REGGIO 4416)   | Nuce                 | C      | 0,42      | Fresh leaves                                  | M           | The decoction is used as emollient for excessive feet perspiration   |

|  |                |   |      |   |                  |   |
|--|----------------|---|------|---|------------------|---|
| <b>Juglandaceae</b><br><i>Juglans regia</i> L.<br>(REGGIO 4416)  | Nuce           | C | 0,42 | Fresh leaves                                  | M                | The decoction is used as emollient for excessive feet perspiration  |
| <b>Lamiaceae</b><br><i>Ajuga reptans</i> L.<br>(REGGIO 4417)   | Bugola         | W | 0,54 | Fresh leaves                                  | M                | Are used topically to cicatrize the wounds  |
| <i>Ballota pseudodictamnus</i> (L.) Benth.<br>(REGGIO 4418)  | Luminu         | W | 0,36 | Calyx flower                                  | D                | It is used as a wick for oil night-lamps  |
| <i>Calamintha nepeta</i> L.<br>(REGGIO 4427)   | Nipita         | W | 0,98 | Fresh leaves                                  | M                | They are rubbed topically on insects bites  |
| <i>Lavandula officinalis</i> L.<br>(REGGIO 4450)   | Lavanda        | C | 0,7  | Fresh flowers                                 | M                | The infusion is used as lenitive for female intimate hyg  |
| <i>Melissa officinalis</i> L.<br>(REGGIO 4419)   | Lapristiallu   | W | 0,52 | Leaves<br>Fresh whole plant                   | F<br>D           | They are eaten in salad and omelettes and as flavour<br>It is used to collect the swarms of bees  |
| <i>Mentha x piperita</i> L.<br>(REGGIO 4420)   | Menta          | C | 0,66 | Fresh leaves                                  | M                | They are rubbed on the teeth to turn white  |
| <i>Origanum heracleoticum</i> L.<br>(REGGIO 4421)  | Ariganu        | W | 0,98 | Leaves<br>Dry stems                           | F<br>D           | They are eaten as flavouring agent<br>They are used to disinfect pierced ears   |
| <i>Salvia officinalis</i> L.<br>(REGGIO 4422)  | Sarvia         | C |      | Leaves<br>Fresh leaves                        | F<br>M           | They are used as flavouring agent<br>They are used to whiten teeth  |
| <i>Thymbra capitata</i> (L.) Cav.<br>(REGGIO 4426)   | Riganiellu     | W | 0,44 | Dry stems and leaves<br>Flowering tops        | M<br>F           | They are used to make fumigations in treatment of col<br>with dried figs and chestnuts<br>Are used as a meat-flavouring agent   |
| <b>Linaceae</b><br><i>Linum usitatissimum</i> L.<br>(REGGIO 4423)  | Linu           | C | 0,92 | Seeds   | M                | The cataplasm with hot linseed "a linusa" is used as antirheumatic  |
| <b>Malvaceae</b><br><i>Malva sylvestris</i> L.<br>(REGGIO 4428)  | Marva          | W | 0,96 | Root  | M                | The decoction of mallow with dry figs and chestnuts is an antitussive   |
| <i>Tilia platyphyllos</i> Scop.<br>(REGGIO 4429)   | Tigliu         | W |      | Dried flowers                                 |                  | The infusion flowers is used to treat colds   |
| <b>Moraceae</b><br><i>Ficus carica</i> L.<br>(REGGIO 4430)   | Fhicu          | C | 0,86 | Fruit and young branches                      | M<br>F           | The latex of immature fruits ("scattigne") is used topic<br>lenitive for insects bites<br>The latex mixed with bread and milk is eaten as soup  |
| <b>Myrtaceae</b><br><i>Myrtus communis</i> L.<br>(REGGIO 4431)   | Murtilla       | W | 0,8  | Berries<br>Fresh branches                     | M<br>F<br>R      | The berries juice is used as lenitive for feet perspiratic<br>They are used as a flavouring agent for pork meat<br>They are used to decorate the cribs  |
| <b>Oleaceae</b><br><i>Olea europaea</i> L.<br>(REGGIO 4432)  | Alive          | C | 0,9  | Leaves  |                  | The decoction of fresh leaves as anti-hypertensive  |
| <b>Poaceae</b><br><i>Cynodon dactylon</i> (L.) Pers.<br>(REGGIO 4433)                                    | Gramigna       | W | 0,18 | Fresh whole plant                             | M<br>M           | The decoction as painkiller for stomach ache<br>The decoction as inflammatory urinary tract   |
| <b>Papaveraceae</b><br><i>Papaver rhoeas</i> L.<br>(REGGIO 4434)   | Papogna        | W | 0,98 | Fresh petals                                  |                  | The infusion as sedative  |
| <b>Pinaceae</b><br><i>Pinus nigra</i> L. subsp. <i>calabrica</i> (Loud.)<br>A.E. Murray<br>(REGGIO 4435) | Pinu           | W | 0,34 | Resin   | M<br>D           | It is used to remove callus<br>It is used as bait for fireplace   |
| <b>Plantaginaceae</b><br><i>Plantago lanceolata</i> L.<br>(REGGIO 4436)                                  | Cientunirvi    | W | 0,92 | Leaves<br>Fresh whole plant                   | F<br>M           | Are eaten in salad or soup<br>The decoction as lenitive for stomach ache  |
| <b>Polygonaceae</b><br><i>Polygonum aviculare</i> L.<br>(REGGIO 4437)                                    | Cientunudera   | W | 0,96 | Fresh whole plant                             | M                | The infusion it is used as diuretic to remove kidney stc  |
| <i>Rumex sanguineus</i> L.<br>(REGGIO 4438)  | Citosella      | W | 0,06 | Fresh whole plant                             | M                | The infusion is used as diuret  |
| <b>Portulacaceae</b><br><i>Portulaca oleracea</i> L. subsp. <i>oleracea</i><br>(REGGIO 4439)             | Erva grassa    | W | 0,5  | Leaves  | F                | They are eaten in salad   |
| <b>Ranunculaceae</b><br><i>Clematis vitalba</i> L.<br>(REGGIO 4340)                                      | Vitarva        | W | 0,42 | Young twigs                                   | F                | They are eaten in omelettes   |
| <b>Rosaceae</b><br><i>Crataegus monogyna</i> Jacq.<br>(REGGIO 4341)                                      | Jancuspinu     | W | 0,48 | Flowers                                       | M                | The infusion is used as expectorant   |
| <i>Rosa canina</i> L.<br>(REGGIO 4442)   | Rosa servaggia | W | 0,94 | Fruits  | F                | They are used to make marmelade and liqueurs  |
| <i>Rubus ulmifolius</i> Schott<br>(REGGIO 4443)  | Ruviettu       | W | 0,92 | Fresh leaves<br>Root<br>Young twigs<br>Fruits | M<br>M<br>F<br>F | They are used topically to ripen boils and as lenitive o<br>The decoction is used as anti-dolorific for stomach ac<br>They are eaten in omelettes or soup<br>They are eaten fresh or in marmalade |
| <b>Salicaceae</b><br><i>Salix purpurea</i> L.<br>(REGGIO 4444)   | Salacu         | W | 0,88 | Young branches                                |                  | They are used to make baskets   |
| <b>Scrophulariaceae</b><br><i>Verbascum thapsus</i> L.<br>(REGGIO 4445)                                  | Asprune        | W | 0,1  | Stems   | D                | They are used by shepherds to make sticks to lead th  |
| <b>Typhaceae</b><br><i>Typha latifolia</i> L.<br>(REGGIO 4446)   | Vuda           | W | 0,98 | Dry leaves                                    | D                | The dry leaves are used to make chair seats   |
| <b>Urticaceae</b><br><i>Parietaria judaica</i> L.<br>(REGGIO 4347)                                       | Erva e vientu  | W | 0,08 | Fresh leaves<br>Fresh leaves                  | D<br>M           | They are used to clean glass bottles<br>They are used as skin detergent   |
| <i>Urtica dioica</i> L.<br>(REGGIO 4448)   | Ardica         |   | 0,12 | Fresh leaves<br>Fresh whole plant             | M<br>V           | The decoction is used to strengthen hair<br>the poultice with lard is used for bruises  |
| <b>Viscaceae</b><br><i>Viscum album</i> L.<br>(REGGIO 4449)  | Vischera       | W | 0,92 | Whole plant<br>Fresh whole plant              | R<br>V           | It is used as a plant a good omen<br>It is used as a winter food for sheeps and goats   |