



Ethnobotanical Study of the Sannio Area, Campania, Southern Italy

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Research

Abstract

Ethnobotanical study of the Sannio area, in the province of Benevento (SE-Italy) has been carried out on the basis of both bibliographic sources and interviews in the field. In total 365 species in 59 families were identified. Of these species, 361 are medicinal plants, 82 for anthropic use and 35 for veterinary use.

Riassunto

Uno studio etnobotanico del Sannio, in provincia di Benevento (SE-Italy), è stato effettuato sia sulla base di fonti bibliografiche che di interviste in campo. In totale, 365 specie di 59 famiglie sono state censite. Di queste specie, 265 sono piante medicinali, 82 per uso antropico e 35 per uso veterinario.

Introduction

The study of medicinal plants has always been characterized by its vast complexity. The researcher's work is made even harder by the need to "reduce" such a complex subject without being rough or making apodeictical statements about a deviated concept of "natural" or giving therapeutical principles out of the western culture.

It is important not to forget that in every society drugs have their own cultural intrinsic value, expressed through a validation process. In other words, in order to get validation, a drug has to satisfy two distinct considerations: one related to its scientific effectiveness, the other relative to its therapeutical value for a specific disease or patient. Too often, past phytotherapeutic recipes – from medieval to oriental ones - are indulgently reappraised, influencing modern and scientific interpretations of the role and meanings of medicinal plants.

In the past medicinal plants were the first defence against diseases and they represented the only available therapeutic means until chemistry started using nature as a model for the synthesis of therapeutically active molecules. Nowadays, medicinal plants are still, in part, resolute remedies, but, above all, they represent the first source of active principles for medicaments as well as an essential source of molecular material for hemi-synthesis processes (Calixto 2000, Cragg *et al.* 1997, De Smet 1997, Shu 1998).

Therefore, the interest in medicinal plants has remarkably increased lately. In fact, a lot of works about vegetable chemical structures and pharmaceutical properties have appeared. These works not only aim at discovering new usable essences, but also at testing – by means of modern techniques - the properties and the effects of many plants now fallen into disuse or employed by popular medicine in the past.

It has recently been estimated that there are about 400,000 species of vascular plants globally, with somewhere between a quarter and a third of these plants hav-

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Figure 1. *Atropa belladonna* L. **belladonna**, from Sannio area, Campania Italy.

ing been used for medicinal purposes by indigenous societies (Raven & Crane 2007). The greatest market for medicinal plants, both in terms of manufacturing and consumption, are in Europe and Asia (WHO 2006). In Italy, the past decade has witnessed a tremendous resurgence in the interest and use of medicinal plant products. Surveys of plant medicinal usage by the Italian public have shown an increase from just about 5% of the population in 1991 to over 25% in 2006 (Pomposelli *et al.* 2006). The beneficial medicinal effects of plant materials typically result from the combination of secondary products present in plants. That the medicinal actions of plants are unique to particular plant species is consistent with the concept that the combinations of secondary products in a particular plant are often taxonomically distinct. This is in contrast to primary products, such as carbohydrates, lipids, proteins, chlorophyll and nucleic acids, which are common to all plants involved in the primary metabolic processes. In fact, some medicinal plants, such as the opium poppy, have long been recognized and widely used, while others, such as *Colchicum neapolitanum* Ten., the original source for an anticancer drug, are new arrivals to mainstream medicine. In addition to providing the basis for 30-40% of today's conventional drugs, the medicinal and curative properties of various plants are also employed in herbal supplements, botanicals, nutraceuticals and teas.

For many medicinal plants of current interest, a primary focus of research has been in the areas of phytochemistry, pharmacognosy and horticulture. This last point is very important since medicinal plants are still harvested in the wild, and the conditions for their growth in cultivation have not been optimized. Wild harvesting of medicinal plants can be problematic in terms of biodiversity loss,

potential variation in medicinal plant quality, and occasionally, improper plant identification with potential tragic consequences. Therefore, from this perspective, a basic research on medicinal plants and their phytomedicinal chemical production is fundamental.

Study Site

The area which has been the subject of our investigation is situated in the Campania region, Benevento Sannio, Italy (Figure 2). The province of Benevento, in the northernmost part of Campania, has a conic shape with the point lined up to the NE, and occupies a vast area containing 96 municipalities. The coordinates of the southern most point of the province of Benevento are: 14°41'41" longitude East, 40°58'34" latitude North at 1,550 m a.s.l. The location is "Crocelle" in Pannarano bordering on the territory, a municipality of the province of Avellino. The coordinates for the northernmost point are: 41°29'14.5" latitude North, 15°00'30" longitude East at 572 m. a.s.l. at "Difesa dei Corvi" in the San Bartolomeo in Galdo territory, a municipality on the border with Molise and Apulia. The coordinates for the easternmost point are: 15°8'57" longitude East, 41°16'48" latitude North of 806 m a.s.l. at "Mass. Mèola" in Castelfranco in Miscano, on the border with the provinces of Avellino and Apulia. The coordinates of the western most point are: 14°21'15" long. East, 41°9'9" latitude North at 36 m a.s.l. at P. te Metapaolo in Limatola on the border with the province of Caserta. The datum point of the north-westernmost part corresponds to the easternmost one of the Matese Mountains with the highest peak (Mt. Mutria) in the area, at 1,823 m a.s.l.

Most of the territory is hill-land mainly in the north and this forms a semicircular belt which then curves southward until it reaches other calcareous lands - the Irpinian Apennines, namely the Partenian mountains. The western part of the territory between the Matese mountains to the north and the Partenian mountains to the south is a plain with the Taburno-Camposauro carbonate complex (1,393 m a.s.l.) separating the Telesina Valley and the hills of Montesarchio (Benevento). The southern Apennines are considered to be a segment of a range of fold mountains, with a distinct internal geometry, made up of elements whose relationships have often been affected by alternating geological phenomena (AA. 1820, Sgrosso 1988). Besides, the orographic organization of the Sannio belonging to the province of Benevento is mainly hill country, with few fluvial valleys and a strictly localized distribution of carbonate ranges mainly in two sectors over the whole terri-

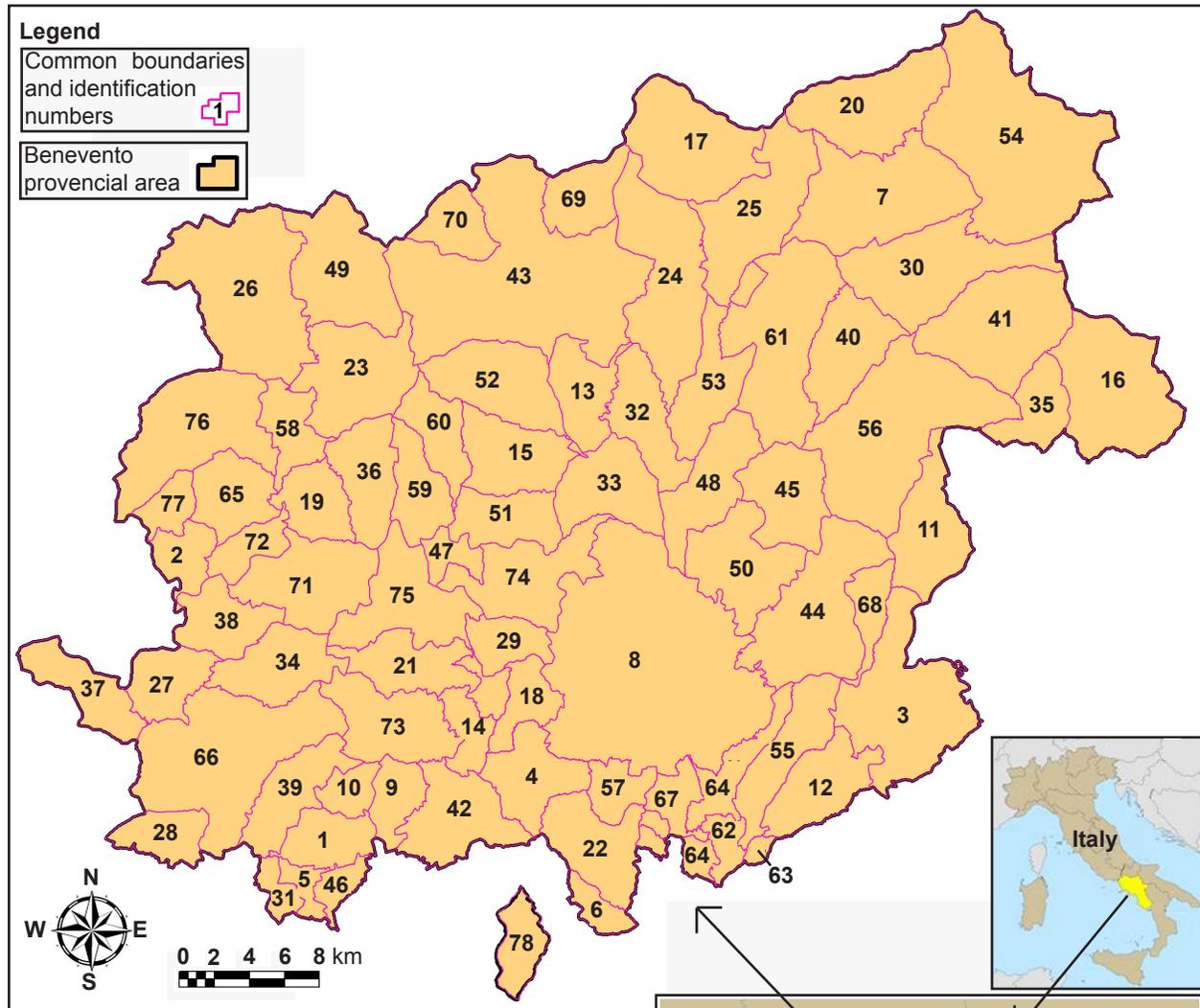


Figure 2. Italy and the study site in the Campania region, Benevento Sannio, Southern Italy. Commons in Benevento province: 1. Airola, 2. Amorosi, 3. Apice, 4. Apollosa, 5. Arpaia, 6. Arpaiese, 7. Baseliice, 8. Benevento, 9. Bonea, 10. Bucciano, 11. Buonalbergo, 12. Calvi, 13. Campolattaro, 14. Campoli Monte Taburno, 15. Casalduni, 16. Castelfranco in Miscano, 17. Castelpagano, 18. Castelpoto, 19. Castelvenere, 20. Castelvetere, 21. Cautano, 22. Ceppaloni, 23. Cerreto Sannita, 24. Circello, 25. Colle Sannita, 26. Cusano Mutri, 27. Dugenta, 28. Durazzano, 29. Faicchio, 30. Foglianise, 31. Foiano di Val Fortore, 32. Forchia, 33. Fragneto l'Abate, 34. Fragneto Monforte, 35. Frasso Telesino, 36. Ginestra degli Schiavoni, 37. Guardia Sanframondi, 38. Limatola, 39. Melizzano, 40. Moiano, 41. Molinara, 42. Montefalcone, 43. Montesarchio, 44. Morcone, 45. Paduli, 46. Pago Veiano, 47. Pannarano, 48. Paolisi, 49. Paupisi, 50. Pesco Sannita, 51. Pietraroia, 52. Pietrelcina, 53. Ponte, 54. Pontelandolfo, 55. Puglianello, 56. Reino, 57. San Bartolomeo in Galdo, 58. San Giorgio del Sannio, 59. San Giorgio la Molarra, 60. San Leucio del Sannio, 61. San Lorenzello, 62. San Lorenzo Maggiore, 63. San Lupo, 64. San Marco dei Cavoti, 65. San Martino Sannita, 66. San Nazzaro, 67. San Nicola Manfredi, 68. San Salvatore Telesino,



69. Santa Croce del Sannio, 70. Sant'Agata dei Goti, 71. Sant'Angelo a Cupolo, 72. Sant'Arcangelo Trimonte, 73. Sassinoro, 74. Solopaca, 75. Telese Terme, 76. Tocco Caudio, 77. Torrecuso, 78. Vitulano.

tory. The geomorphological units which can be identified in the region are:

- The mountainous zone of Matese and Taburno-Campesano;
- The hill zone of the Sannio Appenines and the carbonate mountains;
- The Caudina and Telesina valley zones;
- The Benevento valley area.

Because of its diverse geomorphology, the Sannio has maintained its very distinctive characteristics compared with the rest of Campania. This has permitted the survival of a rich folk phytotherapy involving medicinal plants and also vegetable resources used by locals as food medicine.

The interest of the present study was focused on medicinal plants and vegetable food medicine used in the local folk pharmacopoeia. Attempts have been made to correlate these data with other pharmaco-botanical research works carried out in the Province of Benevento in the last 100 years (Coltro 1983, De Blasio 1900, De Lucia 1965, De Spirito 1975, Jamalio 1918, Negri 1923, Palma 1958, 1964) and more general ethnobotanical work touching all the Italian peninsular areas.

Thanks to the evidence from documentation describing the socio-economic conditions and the particular customs and traditions of this population (AA. 1820, Giordano 1976, Nardi 1978, Perrella 1889, Plensio 1978, Rotili 1958, Zazo 1968, 1976, Zeppa 1959) the importance of the precise and detailed use of plant species to the Sannio communities has become more clear.

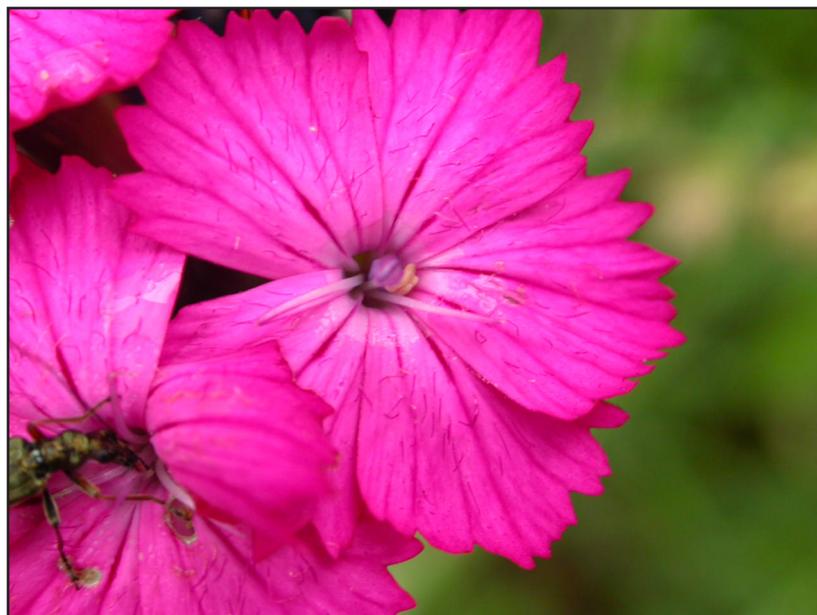


Figure 3. *Dianthus carthusianorum* L. **garofano dei certosini**, from Sannio area, Campania Italy.

A further aim of this research was to develop an ethnobotanical framework to conduct ethnoscientific studies on what remains of south- Italian traditions. This study could support the discovery of new medicinal plants and also stimulate further phytopharmacological and phytotherapeutic investigations of Mediterranean species.

Methods

This study was conducted over a period of 2 years, from September 2000 to October 2002. The field research involved 78 Commons (Figure 2) with populations from 600 to 60,000 inhabitants.

Ethnobotanical information was collected using semi-structured interviews with more than 1200 persons who retain traditional knowledge. Most of the interviewees were more than 60 years old and they were mainly men belonging to families that maintain a strong connection with traditional activities. During the interviews several fresh plant specimens or dried samples stocked in a small transportable field herbarium were shown to the interviewees. The informed consent procedure that was used within the interview process consisted of tape-recorded interviews. This is available at the first author's address. The recorded data are reported in Appendix 1.

The recorded data were also compared with those collected during field ethnobotanical research carried out in peninsular Italy after the 2nd World War (Antonone *et al.* 1988, Bandini 1961, Barone 1963, Bellomaria & Della Mora 1985, Bellomaria & Lattanzi 1982, Bellomaria 1982, Bertagnon 1955, Capasso *et al.* 1982, Cappelletti 1985, Cappelletti *et al.* 1982, Chicchiricco` *et al.* 1980, Chimenti Signorini & Fumagalli 1983, Chioyenda-Bensi 1955, 1957, 1960, Coassini Lokar & Polidini 1988, Corsi *et al.* 1981, D'Andrea 1982, De Feo & Senatore 1993, De Feo *et al.* 1992, Gastaldo *et al.* 1979, Guarrera 1988, Guarrera 1994, Leporatti & Pavesi 1989 1990, Leporatti *et al.* 1985a,b, Lomagno & Lomagno Caramiello 1970, Martini 1981, Martini 1983, Rando & Servettaz 1979, Servettaz *et al.* 1979, Tammaro & Pietrocola 1975, Tammaro 1976, Uncini Manganelli & Tomei 1999) and to the standard treatise of the Italian medicinal flora (Gastaldo 1987).

The plants in Table 1 and Appendix 1 were selected on the basis of their use recorded in the last few hundred years in the Benevento Sannio district.

The herbarium, into which the specimens of the plants cited have been deposited for permanent record, is situated at the Department of Biological and Environmental Science of the University of Sannio, Benevento (Italy).

Plant life-forms are noted for each species in Table 1 according to Raunkiær's (1934) classification as shown in Table 2.

Table 2. Plant life-form schemes according to Raunkiær's (1934) classification.

Abbreviation code	Plant life-form
Ch frut	Camaephytes fruticose
Ch pulv	Camaephytes pulvinate
Ch rept	Camaephytes reptant
Ch scap	Camaephytes scapose
Ch succ	Camaephytes succulent
Ch suffr	Camaephytes suffruticose
Ch thall	Camaephytes thallophyte
G bulb	Geophytes bulbose
G par	Geophytes parasite
G rad	Geophytes root-budding
G rhiz	Geophytes rhizomatose
H bienn	Hemicryptophytes biennial
H caesp	Hemicryptophytes caespitose
H rept	Hemicryptophytes reptant
H ros	Hemicryptophytes rosulate
H scand	Hemicryptophytes scandent
H scap	Hemicryptophytes scapose
He	Helophytes
I nat	Hydrophytes natant
I rad	Hydrophytes rooting
NP	Nanophanerophytes
P caesp	Phanerophytes caespitose
P ep	Phanerophytes epiphyte
P lian	Phanerophytes lianose
P rept	Phanerophytes reptant
P scap	Phanerophytes scapose
P succ	Phanerophytes succulent
T caesp	Therophytes caespitose
T par	Therophytes parasite
T rept	Therophytes reptant
T ros	Therophytes rosulate
T scap	Therophytes scapose



Figure 4. *Lilium bulbiferum* L. **giglio rosso**, from Sannio area, Campania Italy.

The uses are devised as follows:

α = Anthropical use.

Plants of anthropic use are those that are cultivated or harvested in nature, are accustomed to human and brood animal feeding. These plants are also used for clothing, furniture and tools.

ψ = Human medicine.

Use of plants or plant products including crude herbal drugs, phytomedicines, phytopharmaceuticals or essential oils in human medicine. This includes traditional medicine, ethonopharmacological surveys, indigenous knowledge, surveys of current usage, clinical studies; adverse effects and toxicology including allergic reactions and deliberate or accidental poisoning; human pharmacokinetics. All aspects of pharmacology (*in vitro* and *in vivo* studies) are covered with this category. The main sub-topics are:

- ψ1 Antioxidant properties: Free radical scavenging activity; effects on lipids peroxidation; effects on superoxide dismutase and glutathione peroxidase.
- ψ2 Cytotoxicity: Cytostatic/cytocidal effects on cancer cell lines; brine shrimp lethality; induction of apoptosis; ribosome-inactivating proteins.

- ψ3 Anticancer properties: Antimutagenicity, anticarcinogenicity, anticlastogenicity, antineoplastic activity against induced/implanted tumors, antimetastatic activity.
- ψ4 Cardiovascular system and haematology: Effects on platelet activation/aggregation, blood coagulation, the heart and blood vessels.
- ψ5 Respiratory system: Effects on the trachea, bronchi and lungs.
- ψ6 Gastrointestinal system: Effects on the stomach, small and large intestines, liver and gall bladder; hepatoprotective, choleric, antiulcer and antidiarrhoeal properties.
- ψ7 Nervous system: Effects on the central, peripheral and autonomic nervous system; analgesic, anticonvulsant, antidepressant and sedative properties; effect on learning and memory.
- ψ8 Urinary system: Effects on the bladder, kidneys, ureters; antiurolithiatic properties.
- ψ9 Reproductive system: Effects on the reproductive organs and reproductive behavior; abortifacient and contraceptive properties.
- ψ10 Immune system: Immunomodulatory effects, anti-allergic properties; antianaphylactic and radioprotective properties.
- ψ11 Carbohydrate, lipid, protein and mineral metabolism: Includes hypoglycaemic and hypolipaeamic properties; effects on calcium and bone metabolism.
- ψ12 Anti-inflammatory properties: Reduction of inflammation potentially through a wide range of mechanisms of action.



Figure 5. *Viola pseudogracilis* Strol. subsp. *pseudogracilis* *viola gracile*, from Sannio area, Campania Italy.

ü = Veterinary medicine.

Plants or their products used to treat livestock and domestic pets. This includes activity against pets, pathogens, parasites and disease vectors of man and animals, such as bacteria, fungi, viruses, arthropods, molluscs and protozoa.

π = Folklore and traditional uses.

Results

The medicinal plants of Sannio territory consists of 365 species (most wild) belonging to 259 genera of 59 families. Of these species, 361 are medicinal plants, 82 for anthropic use and 35 for veterinary use, while 110 are for multiple use. Asteraceae is the largest plant family employed for human medicine with 33 species followed by the Lamiaceae with 21 species. The most common parts used among 12 schematic subdivisions are leaves being employed 32% of the time. A summary of the results is presented in Table 1. Appendix 1 includes an elaboration of the results.

Discussion

From these data it is clear that plants continue to be a major source for medicines, as they have been throughout human history.

Based on comparison study with the literature on medicinal plant studies, uncommon and interesting uses were recorded briefly for *Ballota*, *Bryonia*, *Crocus*, *Helichrysum*, *Prunus laurocerasus* and *Verbascum*.

The external use of the fresh leaves of black horehound against wounds, and in poultice to treat sprains, should be further analyzed. Phytochemically this species has not been well studied. Only different phenylpropanoids (among them the new compound ballotetriside) were isolated from the aerial parts of the plant and showed antibacterial activity (Didry *et al.* 1999, Seidel *et al.* 1997, 1998). Phenylpropanoids are known to have anti-inflammatory properties (Harborne & Baxter, 1993). Besides, it is interesting that in upper Benevento Sannio an ancient role for *Bryonia dioica* as a diuretic (macerated in cold water) and externally in a poultice against sciatica, as well as the use of its young shoots for food, has been maintained. Recently *Bryonia* extracts, traditionally still used in ethnomedicinal practices in Jordan and Armenia, showed antimicrobial and antidiabetic activities (Karageuzyan *et al.* 1998, Mahasneh & El-Oqlah, 1999). The food use of the young shoots, recorded in the studied area, seems to represent a vestige from archaic times.

Of the external use of a poultice of *C. imperati* flowers as an antiseptic against lice, it is only possible to find a partial ethnobotanical confirmation in a small, mountainous

Table 1. Summary of the Medicinal Plants of the Sannio Area, Campania, Southern Italy.

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
PTEROPSIDA					
ADIANTACEAE					
<i>Adiantum capillus-veneris</i> (L.) Hook.	Capelvenere comune	α	ψ	ü	
ASPLENIACEAE					
<i>Asplenium adiantum-nigrum</i> L.subsp. <i>adiantum-nigrum</i>	Asplenio adianto nero	α	ψ	ü	
<i>Asplenium ruta-muraria</i> L.	Asplenio ruta di muro		ψ11 ψ8		
<i>Asplenium trichomanes</i> L.	Asplenio tricomane	α	ψ	ü	
<i>Ceterach officinarum</i> Willd.	Cedracca comune		ψ11 ψ12 ψ5		
DRYOPTERIDACEAE					
<i>Dryopteris filix-mas</i> (L.) Schott.	Felce maschio		ψ	ü	
<i>Dryopteris villarii</i> (Bellardi) Woy. ex Schinz & Thell.	Felce di Willars		ψ	ü	
EQUISETACEAE					
<i>Equisetum arvense</i> L.	Equiseto dei campi		ψ12		
<i>Equisetum telmateia</i> Ehrh.	Equiseto massimo		ψ12		
SPERMATOPHYTA					
PINOPSIDA					
CUPRESSACEAE					
<i>Cupressus sempervirens</i> L.	Cipresso comune		ψ11 ψ4		
MAGNOLIOPHYTA					
LILIOPSIDA					
ARACEAE					
<i>Arum alpinum</i> Schott & Kotschy	Gigaro scuro		ψ5 ψ6 ψ12		
DIOSCOREACEAE					
<i>Tamus communis</i> L.	Tamaro		ψ4 ψ6 ψ8		
LILIACEAE					
<i>Allium cepa</i> L.	Cipolla	α	ψ		
<i>Allium sativum</i> L.	Aglio	α	ψ		
<i>Allium ursinum</i> L.	Aglio orsino		ψ6		
<i>Asparagus acutifolius</i> L.	Asparago pungente	α	ψ		
<i>Asparagus officinalis</i> L.	Asparago comune		ψ6		
<i>Asphodelus macrocarpus</i> Parl. subsp. <i>macrocarpus</i> .	Asfodelo montano		ψ9 ψ12		
<i>Colchicum neapolitanum</i> Ten.	Colchico napoletano		ψ3 ψ6 ψ11		
<i>Crocus imperati</i> Ten.	Zafferano d'Imperato		ψ6		
<i>Leopoldia comosa</i> (L.) Parl.	Cipollaccio	α	ψ		
<i>Lilium bulbiferum</i> L.	Giglio rosso		ψ6		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Paris quadrifolia</i> L.	Uva di volpe		ψ7		
<i>Polygonatum odoratum</i> (Mill.) Druce	Sigillo di Salomone comune		ψ5		
<i>Ruscus aculeatus</i> L.	Ruscolo pungitopo		ψ	ü	
<i>Scilla bifolia</i> L.	Scilla silvestre		ψ5		
<i>Veratrum album</i> L.	Veratro comune		ψ7		
<i>Veratrum nigrum</i> L.	Veratro nero		ψ7		
POACEAE					
<i>Anthoxanthum odoratum</i> L.	Paleo odoroso		ψ1		
<i>Arundo donax</i> L.	Canna domestica		ψ	ü	
<i>Avena barbata</i> Pott. ex Link.	Avena barbata		ψ4 ψ7		
<i>Avena fatua</i> L.	Avena selvatica		ψ4 ψ7		
<i>Avena sativa</i> L.	Avena comune		ψ4 ψ7		
<i>Capriola dactylon</i> (L.) Kuntze	Ramigna		ψ4 ψ6		
<i>Hordeum vulgare</i> L.	Orzo coltivato	α	ψ	ü	π
<i>Lolium perenne</i> L.	Loglio comune		ψ7		
<i>Lolium temulentum</i> L.	Loglio ubriacante	α	ψ	ü	
<i>Panicum miliaceum</i> L.	Miglio	α	ψ		
<i>Phragmites australis</i> (Cav.) Trin. ex Steud.	Cannuccia di palude		ψ		
<i>Secale cereale</i> L.	Segale comune	α			
<i>Triticum aestivum</i> L.	Grano tenero	α	ψ	ü	
<i>Zea mays</i> L.	Granoturco	α	ψ	ü	
SMILACACEAE					
<i>Smilax aspera</i> L.	Salsapariglia nostrana		ψ	ü	
MAGNOLIOPSIDA					
ANACARDIACEAE					
<i>Pistacia lentiscus</i> L.	Lentisco		ψ4 ψ5		
<i>Pistacia terebinthus</i> L.	Terehinto		ψ5		
APIACEAE					
<i>Aegopodium podagraria</i> L.	Girardina silvestre		ψ11		
<i>Ammi majus</i> L.	Visnaga maggiore		ψ6		
<i>Angelica archangelica</i> L.	Angelica arcangelica		ψ		π
<i>Angelica sylvestris</i> L.	Angelica selvatica		ψ4 ψ5		
<i>Anthriscus cerefolium</i> (L.) Hoffm.	Cerfoglio comune		ψ1		
<i>Anthriscus sylvestris</i> (L.) Hoffm.	Cerfoglio meridionale		ψ1		
<i>Apium graveolens</i> L.	Sedano comune	α	ψ		
<i>Apium nodiflorum</i> (L.) Lag.	Sedano d'acqua		ψ6		
<i>Bupleurum rotundifolium</i> L.	Buplero perfogliato		ψ6		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Caucalis platycarpus</i> L.	Lappola carota		ψ6		
<i>Conium maculatum</i> L.	Cicuta maggiore		ψ6 ψ7		
<i>Coriandrum sativum</i> L.	Coriandolo comune		ψ10		
<i>Daucus carota</i> L.	Carota selvatica		ψ1		
<i>Eryngium amethystinum</i> L.	Calcatreppola ametistina		ψ6		
<i>Eryngium campestre</i> L.	Calcatreppola campestre		ψ6		
<i>Ferula communis</i> L.	Ferula comune		ψ11		
<i>Foeniculum vulgare</i> Mill. subsp. <i>vulgare</i>	Finocchio comune	α	ψ		
<i>Genista tinctoria</i> L.	Ginestra minore		ψ6 ψ8		
<i>Laburnum anagyroides</i> Medik.	Maggiociondolo		ψ6		
<i>Lathyrus vernus</i> (L.) Bernh.	Cicerchia comune		ψ6		
<i>Pastinaca sativa</i> L.	Pastinaca comune		ψ11		
<i>Petroselinum sativum</i> Hoffm.	Prezzemolo comune		ψ9		
<i>Peucedanum officinale</i> L.	Imperatoria finocchio		ψ5		
<i>Peucedanum oreoselinum</i> Moench	Imperatoria apio montano		ψ5		
<i>Scandix pecten-veneris</i> L.	Acicula comune		ψ6 ψ8		
<i>Thapsia garganica</i> L.	Firrastrina comune		ψ11		
AQUIFOLIACEAE					
<i>Ilex aquifolium</i> L.	Agrifoglio		ψ6 ψ7		
ARALIACEAE					
<i>Hedera helix</i> L.	Edera		ψ		π
ASTERACEAE					
<i>Achillea ageratum</i> L.	Millefoglio agerato		ψ4 ψ5 ψ6		
<i>Achillea collina</i> Becker ex Reichh.	Millefoglio comune		ψ4 ψ5 ψ6		
<i>Achillea millefolium</i> L.	Erba dei tagli		ψ5 ψ6		
<i>Achillea nobilis</i> L.	Millefoglio nobile		ψ5 ψ6		
<i>Anthemis cotula</i> L.	Camomilla fetida		ψ10		
<i>Anthemis tinctoria</i> L.	Camomilla per tintori		ψ10		
<i>Arctium lappa</i> L.	Bardana maggiore		ψ4		
<i>Arctium minus</i> (Hill) Bernh.	Bardana minore		ψ4 ψ6		
<i>Artemisia absinthium</i> L.	Assenzio vero		ψ7		
<i>Artemisia campestris</i> L. subsp. <i>glutinosa</i> (Ten.) Brig et Cavill.	Tammarice		ψ7		
<i>Artemisia vulgaris</i> L.	Assenzio selvatico		ψ7		
<i>Bellis perennis</i> L.	Pratolina comune		ψ4 ψ6 ψ9		
<i>Calendula officinalis</i> L.	Fiorrancio coltivato		ψ4 ψ7		
<i>Carduus albidus</i> M. Bieb.	Cardo saettone	α	ψ		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Carlina acaulis</i> var. <i>caulescens</i> Schübl. & Martens	Carlina	α	ψ		
<i>Carthamus lanatus</i> L.	Zafferanone selvatico		ψ6 ψ7		
<i>Centaurea calcitrapa</i> L.	Fiordaliso stellato	α	ψ		
<i>Centaurea nigrescens</i> Willd.	Fiordaliso nerasiro		ψ6		
<i>Chamomilla recutita</i> (L.) Rauschert	Camomilla comune		ψ6 ψ7		
<i>Cichorium intybus</i> L.	Cicoria comune	α	ψ		
<i>Cirsium arvense</i> (L.) Scop.	Cardo campestre		ψ5 ψ6		
<i>Conyza canadensis</i> (L.) Cronquist	Saepola canadese		ψ6		
<i>Cynara scolymus</i> L.	Carciofo	α	ψ		π
<i>Dittrichia viscosa</i> Greuter	Enula cepittoni		ψ6		
<i>Eupatorium cannabinum</i> L.	Canapa acquatica		ψ6		
<i>Helianthus annuus</i> L.	Girasole comune	α	ψ		
<i>Helianthus tuberosus</i> L.	Girasole del Canada	α	ψ		
<i>Helichrysum italicum</i> (Roth) G. Don	Perpetuino d'Italia		ψ5		
<i>Hieracium pilosella</i> L.	Sparviere pelosetto		ψ4		
<i>Inula helenium</i> L.	Enula ceppitoni		ψ4		
<i>Lactuca sativa</i> L.	Lattuca	α	ψ		
<i>Lactuca serriola</i> L.	Lattuga selvatica		ψ7		
<i>Lactuca virosa</i> L.	Lattuga velenosa		ψ7		
<i>Lapsana communis</i> L.	Lassana		ψ6 ψ11		
<i>Petasites hybridus</i> (L.) P. Gaertn., B. Mey. & Scherb.	Farfaraccio maggiore		ψ4 ψ6		
<i>Pulicaria dysenterica</i> (L.) Gaertn.	Incensaria comune		ψ6		
<i>Senecio vulgaris</i> L.	Senecione comune		ψ6 ψ9		
<i>Silybum marianum</i> (L.) Gaertn.	Cardo di Santa Maria	α	ψ		
<i>Solidago virgaurea</i> L.	Verga d'oro comune		ψ6		
<i>Sonchus oleraceus</i> L.	Grespino comune	α	ψ	ü	
<i>Tanacetum balsamita</i> L.	Erba amara balsamica		ψ6		
<i>Tanacetum parthenium</i> (L.) Sch. Bip.	Erba amara vera		ψ9		
<i>Taraxacum officinale</i> F.H. Wigg.	Tarassaco comune	α	ψ		
<i>Tussilago farfara</i> L.	Tussilagine comune		ψ7		
<i>Xanthium spinosum</i> L.	Nappola spinosa		ψ7		
BORAGINACEAE					
<i>Borago officinalis</i> L.	Borragine comune	α	ψ		
<i>Buglossoides purpurocaerulea</i> (L.) I.M. Johnst.	Erba perla azzurra		ψ6		
<i>Cerinthe major</i> L.	Erba vajola maggiore		ψ7		
<i>Cynoglossum officinale</i> L.	Lingua di cane vellutina		ψ6 ψ7		
<i>Echium vulgare</i> L.	Viperina azzurra		ψ6		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Lithospermum officinale</i> L.	Erba perla		ψ6		
<i>Myosotis sylvatica</i> Ehrh. ex Hoffm.	Nontiscordardimé dei boschi		ψ6		
<i>Pulmonaria vallarsae</i> A. Kern.	Polmonaria della Vallarsa		ψ5 ψ6		
<i>Symphytum officinale</i> L.	Consolida maggiore		ψ4 ψ6		
BRASSICACEAE					
<i>Alliaria petiolata</i> (M. Bieb.) Cavara & Grande.	Alliara comune		ψ6		
<i>Barbarea vulgaris</i> W.T. Aiton	Erba di S. Barbara comune		ψ10		
<i>Brassica napus</i> L.	Cavolo navone		ψ10		
<i>Brassica nigra</i> (L.) W.D.J. Koch	Cavolo senape	α	ψ		
<i>Brassica oleracea</i> L.	Cavolo comune		ψ	ü	
<i>Brassica oleracea</i> subsp. <i>robertiana</i> (Gay) Bonnier & Layens	Cavolo comune		ψ	ü	
<i>Brassica rapa</i> L.	Rapa		ψ7		
<i>Bunias erucago</i> L.	Cascellore comune		ψ6		
<i>Capsella bursa-pastoris</i> (L.) Medik.	Borsa del pastore		ψ4 ψ8 ψ9		
<i>Capsella rubella</i> Reut.	Borsapastore annuale		ψ4 ψ8 ψ9		
<i>Cardamine enneaphylos</i> (L.) Crantz	Dentaria a nove foglie		ψ5 ψ8 ψ9		
<i>Diplotaxis erucoides</i> (L.) DC.	Ruchetta violacea	α			
<i>Eruca sativa</i> Mill.	Rucola comune	α	ψ		
<i>Erysimum cheiri</i> (L.) Crantz	Leucoio		ψ4 ψ9		
<i>Hesperis matronalis</i> L.	Violaciocca antoniana		ψ5 ψ8		
<i>Isatis tinctoria</i> L.	Glasto comune		ψ		π
<i>Lunaria annua</i> L.	Lunaria mediterranea		ψ8		
<i>Nasturtium officinale</i> R. Br.	Crescione d'acqua	α	ψ		
<i>Raphanus raphanistrum</i> L.	Ravanello selvatico	α	ψ		
<i>Raphanus sativus</i> L.	Ravanello comune	α	ψ		
<i>Sinapis alba</i> L.	Senape bianca		ψ6		
BUXACEAE					
<i>Buxus sempervirens</i> L.	Bosso comune		ψ		π
CAPRIFOLIACEAE					
<i>Lonicera caprifolia</i> L.	Caprifoglio comune		ψ6		
<i>Lonicera implexa</i> Aiton subsp. <i>implexa</i>	Caprifoglio		ψ6		
<i>Sambucus ebulus</i> L.	Sambuco lebbio		ψ6		
<i>Sambucus nigra</i> L.	Sambuco comune	α	ψ		
<i>Viburnum tinus</i> L.	Viburno		ψ6 ψ12		
CARYOPHYLLACEAE					
<i>Agrostemma githago</i> L.	Gittaione comune		ψ5 ψ8		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Dianthus carthusianorum</i> L.	Garofano dei certosini		ψ7 ψ8		
<i>Saponaria officinalis</i> L.	Saponaria comune		ψ5 ψ6 ψ8		
<i>Stellaria media</i> (L.) Vill.	Centocchio comune		ψ11 ψ12		
CELASTRACEAE					
<i>Euonymus europaeus</i> L.	Fusaria comune		ψ6		
CORNACEAE					
<i>Cornus mas</i> L.	Corniolo maschio	α	ψ		
CRASSULACEAE					
<i>Sedum maximum</i> Hoffm.	Borracina maggiore		ψ4		
<i>Sempervivum tectorum</i> L.	Semprevivo maggiore		ψ10		
<i>Umbilicus rupestris</i> (Salisb.) Dandy	Ombelico di Venere comune		ψ10		
<i>Umbilicus horizontalis</i> (Guss.) DC.	Ombelico di Venere minore		ψ10		
CUCURBITACEAE					
<i>Bryonia dioica</i> Jacq.	Brionia comune		ψ5 ψ8		
<i>Cucumis sativus</i> L.	Cetriolo	α	ψ		
<i>Cucurbita pepo</i> L.	Zucchini	α	ψ		
<i>Ecballium elaterium</i> (L.) A. Rich	Cocomero asinino		ψ6		
DIPSACACEAE					
<i>Dipsacus fullonum</i> L.	Scardaccione selvatico		ψ8		
<i>Knautia arvensis</i> (L.) Coult.	Ambretta comune		ψ5 ψ6		
<i>Scabiosa columbaria</i> L.	Vedovina selvatica		ψ5		
EUPHORBIACEAE					
<i>Euphorbia amygdaloides</i> L.	Erba delle faggete		ψ7		
<i>Euphorbia helioscopia</i> L.	Euforbia calenzuola		ψ7		
<i>Euphorbia lathyris</i> L.	Euforbia catapuzia		ψ6		
<i>Euphorbia peplus</i> L.	Euforbia minore		ψ7		
<i>Mercurialis annua</i> L.	Mercorella comune		ψ	ü	
<i>Mercurialis perennis</i> L.	Mercorella bastarda		ψ	ü	
<i>Ricinus communis</i> L.	Ricino		ψ6		
FABACEAE					
<i>Anthyllis vulneraria</i> L.	Vulneraria comune		ψ10		
<i>Astragalus glycyphyllos</i> L.	Astragalo		ψ8		
<i>Astragalus monspessulanus</i> L.	Astragalo rosato		ψ8		
<i>Ceratonia siliqua</i> L.	Carrubo	α	ψ	ü	
<i>Cicer arietinum</i> L.	Cece	α	ψ		
<i>Colutea arborescens</i> L.	Vesicarica		ψ		π
<i>Coronilla emerus</i> L.	Cornetta dondolina		ψ	ü	

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Cytisus scoparius</i> (L.) Link	Citiso scopario		ψ		π
<i>Galega officinalis</i> L.	Capruggine		ψ11		
<i>Genista tinctoria</i> L.	Ginestra minore		ψ6 ψ8		
<i>Laburnum anagyroides</i> Medik.	Maggiociondolo		ψ6		
<i>Lathyrus vernus</i> (L.) Bernh.	Cicerchia comune		ψ6		
<i>Lotus corniculatus</i> L.	Ginestrino		ψ4 ψ6 ψ7		
<i>Lupinus albus</i> L.	Lupino bianco	α	ψ	ü	
<i>Medicago sativa</i> L.	Erba medica		ψ		π
<i>Melilotus altissima</i> Thuill.	Meliloto altissimo		ψ7		
<i>Melilotus officinalis</i> (L.) Lam.	Meliloto comune		ψ7		
<i>Onobrychis alba</i> (Waldst. & Kit.) Desv.	Lupinella bianca		ψ8		
<i>Onobrychis montana</i> DC.	Lupinella montana		ψ8		
<i>Onobrychis viciifolia</i> Scop. subsp. <i>altissima</i> (Grossh.) Ponert	Lupinella comune		ψ8		
<i>Ononis spinosa</i> L.	Ononide spinosa		ψ6 ψ11		
<i>Phaseolus vulgaris</i> L.	Fagiuolo	α	ψ		
<i>Robinia pseudoacacia</i> L.	Robinia		ψ		π
<i>Spartium junceum</i> L.	Ginestra comune		ψ6 ψ7		
<i>Trifolium pallidum</i> Waldst. & Kit.	Trifoglio pallido		ψ6		
<i>Trifolium pratense</i> L.	Trifoglio pratense		ψ6		
<i>Trigonella foenum-graecum</i> L.	Fieno greco	α	ψ		
<i>Vicia faba</i> L.	Fava	α	ψ		
<i>Vicia sativa</i> L.	Vicia dolce	α	ψ		
GENTIANACEAE					
<i>Centaurium erythraea</i> Rafin.	Centaurea maggiore		ψ6 ψ7		
<i>Centaurium pulchellum</i> (Sw.) Druce	Centauro elegante		ψ6 ψ7		
<i>Gentiana lutea</i> L.	Genziana maggiore		ψ6 ψ7		
JUGLANDACEAE					
<i>Juglans regia</i> L.	Noce comune	α	ψ		π
LAMIACEAE					
<i>Ajuga reptans</i> L.	Iva comune		ψ6		
<i>Ajuga iva</i> (L.) Schreb.	Iva moscata		ψ6		
<i>Ballota nigra</i> L.	Cimiciotta comune		ψ6		
<i>Calamintha nepeta</i> (L.) Savi	Mentuccia comune		ψ5 ψ7		
<i>Calamintha sylvatica</i> Bromf.	Mentuccia maggiore		ψ6		
<i>Clinopodium vulgare</i> L.	Clinopodio		ψ6		
<i>Galeopsis angustifolia</i> Ehrh. ex Hoffm.	Canapetta a foglie strette		ψ5		
<i>Galeopsis tetrahit</i> L.	Canapetta comune		ψ5		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Lamium album</i> L.	Ortica morta		ψ4 ψ9		
<i>Lamium maculatum</i> L.	Falsa ortica macchiata		ψ4 ψ9		
<i>Marrubium vulgare</i> L.	Marrubio comune		ψ6 ψ9		
<i>Melissa officinalis</i> L.	Melissa vera		ψ6		
<i>Mentha aquatica</i> L.	Menta d'acqua		ψ6		
<i>Mentha longifolia</i> (L.) Huds.	Menta selvatica			ü	
<i>Mentha pulegium</i> L.	Poleggio		ψ6		
<i>Mentha spicata</i> L.	Menta romana	α	ψ		
<i>Mentha suaveolens</i> Ehrh.	Menta a foglie rotonde		ψ6 ψ8		
<i>Nepeta cataria</i> L.	Gattaia comune		ψ7		
<i>Ocimum basilicum</i> L.	Basilico	α	ψ		
<i>Origanum heracleoticum</i> L.	Origano meridionale	α	ψ		
<i>Origanum majorana</i> L.	Origano majorana	α	ψ		
<i>Origanum vulgare</i> L.	Origano comune	α	ψ		
<i>Prunella laciniata</i> L.	Prunella gialla		ψ5 ψ6		
<i>Prunella vulgaris</i> L.	Prunella comune		ψ5 ψ6		
<i>Rosmarinus officinalis</i> L.	Rosmarino	α	ψ		
<i>Salvia haematodes</i> L.	Salvia comune		ψ		π
<i>Salvia officinalis</i> L.	Salvia domestica	α	ψ		
<i>Stachys officinalis</i> (L.) Trevis.	Betonica comune		ψ6		
<i>Teucrium chamaedrys</i> L.	Camedrio comune		ψ		π
<i>Teucrium montanum</i> L.	Camedrio montano		ψ6		
<i>Thymus serpyllum</i> L.	Timo serpillo		ψ	ü	π
LAURACEAE					
<i>Laurus nobilis</i> L.	Alloro		ψ	ü	
LINACEAE					
<i>Linum catharticum</i> L.	Lino capitato		ψ6		
<i>Linum usitatissimum</i> L.	Lino coltivato		ψ5 ψ6		
LORANTHACEAE					
<i>Loranthus europaeus</i> Jacq.	Vischio quercino		ψ7		
MALVACEAE					
<i>Althaea hirsuta</i> L.	Altea ispida		ψ5		
<i>Malva sylvestris</i> L.	Malva		ψ	ü	
MORACEAE					
<i>Ficus carica</i> L.	Fico comune	α	ψ		π
<i>Morus alba</i> L.	Gelso comune	α	ψ		
<i>Morus nigra</i> L.	Gelso nero	α	ψ		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
MYRTACEAE					
<i>Eucalyptus camaldulensis</i> Dehnh.	Eucalipto		ψ5 ψ8		
<i>Eucalyptus globulus</i> Labill.	Eucalipto		ψ5 ψ8		
<i>Myrtus communis</i> L.	Mirto		ψ5 ψ6		
OLEACEAE					
<i>Fraxinus ornus</i> L.	Frassino da manna		ψ	ü	
<i>Ligustrum vulgare</i> L.	Ligustro		ψ6		
<i>Olea europaea</i> L.	Olivo	α	ψ		
OROBANCHACEAE					
<i>Lathraea squamaria</i> L.	Latrea comune		ψ7		
PAPAVERACEAE					
<i>Chelidonium majus</i> L.	Erba da porri		ψ7		
<i>Corydalis cava</i> (L.) Schweigg. & Körte	Colombina cava		ψ7		
<i>Fumaria capreolata</i> L.	Fumaria bianca		ψ6		
<i>Fumaria officinalis</i> L.	Fumaria comune		ψ6		
<i>Papaver rhoeas</i> L.	Papavero comune	α	ψ		
<i>Papaver somniferum</i> L.	Papavero domestico		ψ7		
PLANTAGINACEAE					
<i>Plantago lanceolata</i> L.	Plantago lanciuola	α	ψ		
<i>Plantago major</i> L.	Plantago maggiore	α	ψ		
POLYGONACEAE					
<i>Polygonum aviculare</i> L.	Poligono centinodia		ψ4 ψ11		
<i>Polygonum hydropiper</i> L.	Poligono		ψ4 ψ9		
<i>Polygonum lapathifolium</i> L.	Poligono nodoso		ψ4 ψ9		
<i>Rumex acetosa</i> L.	Romice acetosa		ψ	ü	
<i>Rumex pulcher</i> L.	Romice		ψ4 ψ6		
<i>Rumex scutatus</i> L.subsp. <i>scutatus</i>	Romice comune		ψ5		
<i>Rumex tuberosus</i> L.subsp. <i>tuberosus</i>	Romice sanguineo		ψ5		
PORTULACACEAE					
<i>Portulaca oleracea</i> L.	Porcellana comune	α	ψ		
PRIMULACEAE					
<i>Anagallis arvensis</i> L.	Centochio dei campi		ψ	ü	
<i>Cyclamen hederifolium</i> Aiton	Ciclamino napoletano		ψ6		
<i>Primula vulgaris</i> Huds.	Primula comune		ψ5 ψ8		
PUNICACEAE					
<i>Punica granatum</i> L.	Pomo granato	α	ψ		
RANUNCULACEAE					
<i>Adonis annua</i> L.	Adonide annua		ψ4 ψ8		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Anemone hortensis</i> L.	Anemone fior-stella		ψ12		
<i>Anemonoides nemorosa</i> (L.) Holub	Anemone bianca		ψ12		
<i>Actaea spicata</i> L.	Barba di capra		ψ6		
<i>Aquilegia vulgaris</i> L.	Aquilegia comune		ψ7 ψ8		
<i>Clematis flammula</i> L.	Clematide fiammola		ψ	ü	
<i>Clematis vitalba</i> L.	Clematide vitalba	α	ψ		
<i>Consolida regalis</i> Gray	Speronella consolida		ψ8ψ11 ψ12		
<i>Ficaria verna</i> Huds.	Ranunculo favagello		ψ4		
<i>Helleborus bocconeii</i> Ten.	Elleboro di Boccone		ψ7		
<i>Helleborus foetidus</i> L.	Elleboro puzzolente		ψ	ü	
<i>Hepatica nobilis</i> Mill.	Erba trinità		ψ7		
<i>Nigella damascena</i> L.	Damigella scapigliata	α			π
<i>Ranunculus bulbosus</i> L.	Ranunculo bulboso		ψ12		
<i>Ranunculus paludosus</i> Poir.	Ranunculo		ψ4		
<i>Thalictrum aquilegifolium</i> L.	Pigamo colombino		ψ7		
<i>Thalictrum flavum</i> L.	Pigamo giallo		ψ6 ψ8		
ROSACEAE					
<i>Agrimonia eupatoria</i> L.	Agrimonia comune		ψ6 ψ12		
<i>Crataegus laevigata</i> (Poir.) DC.	Biancospino selvatico		ψ4 ψ7 ψ8		
<i>Cydonia oblonga</i> Mill.	Mela cotogna	α	ψ		
<i>Filipendula vulgaris</i> Moench	Olmaria peperina		ψ6		
<i>Fragaria vesca</i> L.	Fragola comune	α	ψ		
<i>Geum urbanum</i> L.	Cariofillata comune		ψ10		
<i>Malus domestica</i> Borkh.	Melo comune	α	ψ		
<i>Mespilus germanica</i> L.	Nespolo volgare	α	ψ		
<i>Potentilla detommasii</i> Ten.	Cinquefoglia		ψ4 ψ10		
<i>Potentilla micrantha</i> Ram. ex DC.	Cinquefoglia fragola secca		ψ4 ψ10		
<i>Potentilla reptans</i> L.	Cinquefoglia comune		ψ	ü	
<i>Prunus cerasus</i> L.	Marena	α	ψ		π
<i>Prunus domestica</i> L.	Pruno	α	ψ		π
<i>Prunus dulcis</i> (Mill.) D.A. Webb	Mandorlo	α	ψ		π
<i>Prunus persica</i> (L.) Batsch	Pesco	α	ψ		π
<i>Prunus spinosa</i> L.	Pruno selvatico	α	ψ		
<i>Rosa canina</i> L.	Rosa selvatica comune		ψ8 ψ12		
<i>Rubus ulmifolius</i> Schott	Rovo comune	α	ψ		
<i>Sanguisorba minor</i> Scop.	Salvastrella minore		ψ6		
<i>Sorbus domestica</i> L.	Sorbo comune	α	ψ		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
RUBIACEAE					
<i>Galium aparine</i> L.	Caglio asprello		ψ6 ψ12		
<i>Galium odoratum</i> (L.) Scop.	Caglio odoroso		ψ6 ψ12		
<i>Galium verum</i> L.subsp. <i>verum</i>	Caglio zolfino		ψ6 ψ12		
RUTACEAE					
<i>Ruta graveolens</i> L.	Ruta comune		ψ7 ψ9		
SALICACEAE					
<i>Populus alba</i> L.	Pioppo bianco		ψ11		
<i>Populus nigra</i> L.	Pioppo nero		ψ11		
<i>Populus tremula</i> L.	Pioppo tremolo		ψ11		
<i>Salix alba</i> L.	Salice comune		ψ9 ψ11		
<i>Salix purpurea</i> L.	Salice rosso		ψ		π
<i>Salix viminalis</i> L.	Salice da vimine	α			
SCROPHULARIACEAE					
<i>Antirrhinum majus</i> L.	Bocca di leone comune		ψ12		
<i>Cymbalaria muralis</i> P. Gaertn., B. Mey. & Scherb.	Cimbolino comune		ψ6		
<i>Digitalis ferruginea</i> L.	Digitale bruna		ψ4		
<i>Linaria vulgaris</i> Mill.subsp. <i>vulgaris</i>	Linajola comune		ψ6 ψ8		
<i>Melampyrum arvense</i> L.	Spigarola campestre		ψ1		
<i>Scrophularia canina</i> L.	Scrofularia comune		ψ4 ψ6		
<i>Scrophularia nodosa</i> L.	Scrofularia nodosa		ψ4 ψ6		
<i>Verbascum macrurum</i> Ten.	Verbasco coda rossa		ψ5 ψ12		
<i>Verbascum sinuatum</i> L.	Verbasco sinuoso		ψ5 ψ12		
<i>Verbascum thapsus</i> L.	Verbasco		ψ5 ψ12		
<i>Veronica beccabunga</i> L.	Veronica	α	ψ		
<i>Veronica officinalis</i> L.	Veronica medicinale		ψ5 ψ12		
SOLANACEAE					
<i>Atropa belladonna</i> L.	Belladonna		ψ5 ψ6 ψ7		
<i>Capsicum annuum</i> L.	Peperone	α	ψ		
<i>Cestrum parqui</i> L'Hèr.	Cestro		ψ7		
<i>Datura stramonium</i> L.subsp. <i>stramonium</i>	Indormia		ψ7		
<i>Hyoscyamus niger</i> L.	Giusquiamo nero		ψ7		
<i>Lycopersicon esculentum</i> Mill.	Pomodoro	α	ψ	ü	
<i>Nicotiana tabacum</i> L.	Tabacco		ψ	ü	
<i>Solanum dulcamara</i> L.	Morella rampicante		ψ	ü	
<i>Solanum nigrum</i> L.	Morella comune		ψ6 ψ7		

Plant Taxa	Common Names	Anthropical Use	Human Medicine	Veterinary Medicine	Folklore Uses
		α	ψ	ü	π
<i>Solanum tuberosum</i> L.	Patata	α	ψ		
TILIACEAE					
<i>Tilia platyphyllos</i> Scop.	Tiglio		ψ5		
ULMACEAE					
<i>Celtis australis</i> L.	Bagolaro	α	ψ		
<i>Ulmus minor</i> Mill. subsp. <i>minor</i>	Olmo comune		ψ	ü	π
URTICACEAE					
<i>Parietaria judaica</i> L.	Vetriola comune		ψ8 ψ6 ψ12		
<i>Urtica dioica</i> L.	Ortica comune	α	ψ		π
VALERIANACEAE					
<i>Centranthus ruber</i> (L.) DC.	Camarezza comune		ψ7		
<i>Valeriana officinalis</i> L.	Valeriana comune		ψ7		
<i>Valeriana tripteris</i> L.	Valeriana trifogliata		ψ7		
<i>Valerianella locusta</i> (L.) Betcke	Gallinella comune	α	ψ		
VERBENACEAE					
<i>Verbena officinalis</i> L.	Verbena comune		ψ6 ψ7		
<i>Vitex agnus-castus</i> L.	Legano		ψ6		
VIOLACEAE					
<i>Viola alba</i> Besser subsp. <i>dehnhardtii</i> (Ten.) W. Becker	Viola bianca		ψ5		
<i>Viola arvensis</i> Murray	Viola dei campi		ψ5		
<i>Viola odorata</i> L.	Violetta mammola		ψ5		
<i>Viola pseudogracilis</i> Strobl subsp. <i>pseudogracilis</i>	Viola gracile		ψ5		
<i>Viola reichenbachiana</i> Jord. ex Boreau	Viola selvatica		ψ5		
VISCACEAE					
<i>Viscum album</i> L.	Vichio comune		ψ7		
VITACEAE					
<i>Vitis vinifera</i> L. subsp. <i>vinifera</i>	Vite	α	ψ	ü	

area in northeastern Italy (Cappelletti 1985), where the entire flowering plant would have been used for the purpose but for *Crocus neapolitanus*. Moreover, in Benevento, flower buds were also used and consumed as snacks. The presence of carotenoid derivatives of crocetin-type and of picrocrocine and safranal (which have shown anti-cancer action, Escribano *et al.* 1996) are not able, alone, to explain the properties ascribed to the flowers of *Crocus* spp.

The flowers of *Helichrysum italicum* contain a characteristic active principle (helichrysene) and were used as a home drug, either as an infusion or decoction, for their

diaphoretic and expectorant action. Antimicrobial properties of the genus *Helichrysum* have been widely reported in the literature. Recently, Guarino and Sciarrillo (2003) have showed that *Helichrysum litoreum* Guss has significant antiviral activity on herpes simplex virus type 1 in human lung fibroblasts as demonstrated by the absence of a cytopathic effect.

The use in the studied area of the fruits of *P. laurocerasus* (established in Italy from Turkey in the 16th century); their consumption as snacks or their preparation in the form of home-made jams and liqueurs against head-ache and as a hypotensive, should prompt a re-evaluation of the role



Figure 6. *Spartium junceum* L. **ginestra comune**, from Sannio area, Campania Italy.



Figure 7. *Nicotiana tabacum* L. **tabacco**, from Sannio area, Campania Italy.



Figure 8. *Juglans regia* L. **noce comune**, from Sannio area, Campania Italy.



Figure 9. *Salix viminalis* L. **salice da vimine**, from Sannio area, Campania Italy.

of the cyanogenic glycosides, which are contained in the leaves and seeds, especially of the species (Roth *et al.* 1994).

Guarino (2002) has shown that the extracts of leaves of *Verbascum macrurum* Ten. have an antibacterial action.

The uncommon uses of the green aerial parts (leaves and stems) of *Lycopersicon esculentum* (tomatoes), of *Mercurialis annua* (mercury) as purgatives represent new records of veterinary plant in the scientific literature. However, their clinical veterinary use should be considered carefully because of the difficulty of defining a safe dosage *per se*. All of these plants are in fact toxic: *Lycopersicon* leaves contain the steroid alkaloid tomatine (Hansel *et al.* 1999), while *Mercurialis* ssp. are well known in the toxicological veterinary data (Furler 1999). At high doses this last botanical taxa is capable of producing hemolysis and irreversible liver and neurological damage, especially in cattle, due to mercurialine or methylamine.

The bark of *Fraxinus ornus* (manna ash tree) is still used for various poultry maladies. *Fraxinus* bark contains compounds belonging to the classes of hydroxycoumarins, secoiridoid glucosides, phenylethanoids and flavonoids and biological studies have revealed significant antimicrobial, antioxidative, prevention of photodynamic damage, wound healing, anti-inflammatory, immunomodulatory and antiviral activities in humans (Kostova 2001).

Conclusion

The medicinal plant heritage of the Benevento area includes more than 365 species but thus far little is known about them. More systematic ethnobotanical field work is needed here and in other Italian areas, especially in the field of food medicine. Phytochemical and phytopharmacological studies need to be undertaken to investigate unknown resources of Mediterranean popular pharmacopoeias.

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Appendix 1. Plants used for anthropical, human medicinal, and veterinary medicine in the Sannio area, Campania, Southern, Italy. The abbreviation codes of the plant life-forms follow Raunkjær's (1934) classification as shown in Table 2.

PTEROPSIDA
ADIANTACEAE

Adiantum capillus-veneris (L.) Hook.

Common names: **Capelvenere comune**, common maidenhair fern.

Habit and habitat/range: G. rhiz - Submountainous zone: cool, humid places in the crevices of wells and limestone rocks; V del Sabato, R. Calore, T. Teunza.

Uses: $\psi \alpha \bar{u}$: The emmenagogue properties of this plant, in decoction with other sedative and detoxifying species, meant that it was used by women who had just given birth in order to restore menstrual blood. The presence of bitter principles explains the use, albeit infrequent, of the decoction of maidenhair leaves as a vermifuge. It is an emollient, and adjuvant in bronchial diseases. The concentrated decoction was also used as an anthelmintic for young cattle.

ASPLENIACEAE

Asplenium adiantum-nigrum L. subsp. *adiantum-nigrum*

Common names: **Asplenio adianto nero**, black spleenwort.

Habit and habitat/range: H ros - Siliceous, damp earth, mixed woodland in the mountain foothills and on rocks.

Uses: $\psi \alpha \bar{u}$: See *Adiantum capillus-veneris* (L.) Hook.

Asplenium ruta-muraria L.

Common names: **Asplenio ruta di muro**, wall rue.

Habit and habitat/range: H ros - Fractured cliffs in the mountainous zone of the Sannio Matese.

Uses: $\psi 11 \psi 8$: The fronds contain mucilage and were used for their astringent, diuretic and ophthalmic properties. Used in infusion.

Asplenium trichomanes L.

Common names: **Asplenio tricomane**, maidenhair spleenwort.

Habit and habitat/range: H ros - Beech and mixed shady woods in all the Sannio area.

Uses: $\psi \alpha \bar{u}$: See *Adiantum capillus-veneris* (L.) Hook.

Ceterach officinarum Willd.

Common names: **Cedracca comune**, **Cresta di gallo**, common ceterach.

Habit and habitat/range: H ros - Damp, calcareous earth in woodlands all along the river Fortore, walls and cliffs.

Uses: $\psi 11 \psi 12 \psi 5$: Where it occurs, the ceterach was used only as an astringent and anti-inflammatory on reddened or pustulating skin, applied using poultices of crushed, fresh leaves. It is also known as an expectorant.

DRYOPTERIDACEAE

Dryopteris filix-mas (L.) Schott.

Common names: **Felce maschio**, male fern.

Habit and habitat/range: G rhiz - Shady woods all along the River Fortore and in the beech woods of the province.

Uses: $\psi \bar{u}$: The plant was used as a vermifuge thanks to the principles contained in the rhizome. This made the male fern an excellent remedy against tapeworm and scaroids. Since it was not suitable for children under four years of age, anaemics, or people with heart or renal problems, other less dangerous herbs, even though less efficient, were usually preferred. Nevertheless, the use of the rhizome decoction was not entirely unheard of, because of its vermifuge qualities. Furthermore the leaves, crushed and applied to the parts of the body suffering from arthritic or rheumatic pain, released active ingredients. More well known was the use of this plant on animals with intestinal worms. The drug paralyzes them and causes the scolices to detach from the intestine wall, but doesn't kill the parasite. A strong purgative would then be taken, for example decoction of mercury or soapy water, in order to combine the strong laxative and paralysis. This procedure, carried out several times, was extremely efficient. When used as a purgative in the presence of fats, filicic acid would be absorbed and would become poisonous.

Dryopteris villarii (Bellardi) Woyn. ex Schinz & Thell.

Common names: **Felce di Willars**

Habit and habitat/range: C rhiz - Grows on calcareous stones in the Sabato Valley.

Uses: $\psi \bar{u}$: The rhizome was used as it contains small quantities of the principles found in the male fern.

EQUISETACEAE

Equisetum arvense L.

Common names: **Equiseto dei campi**, **coda di cavallo**, horsetail.

Habit and habitat/range: G rhiz - Bushes in damp, gravelly zones by the Rivers Calore, Sabato, Tammaro, Tammarocchia and Marfiello.

Use: $\psi 12$: The aerial part of the plant was used in infusions for its antiphlogistic and vulnerary properties. It was used to clean wounds and especially to soothe hemorrhoidal inflammation by washing and applying compresses soaked in the preparation to the affected parts.

Equisetum telmateia Ehrh.

Common names: **Equiseto massimo**, giant Horsetail.

Habit and habitat/range: G rhiz - Damp and shady soil and marshland.

Use: $\psi 12$: See *Equisetum arvense*.

SPERMATOPHYTA
PINOPSIDA
CUPRESSACEAE

Cupressus sempervirens L.

Common names: **Cipresso comune**, common cypress tree.

Habit and habitat/range: P scap - Ornamental, mainly in cemeteries throughout the Sannio area.

Uses: ψ 11 ψ 4: The astringent and vasoconstrictor properties, due to tannins, were locally exploited. Little branches were boiled with other aromatic herbs and the vapors were directed towards the swollen areas. The resin taken from the trunk was burned and the smoke inhaled. The cones were used to prepare an extract used as an astringent and vasoconstrictor.

MAGNOLIOPHYTA
LILIOPSIDA

ARACEAE

Arum alpinum Schott & Kotschy

Common names: **Gigaro scuro, jalo**, Cuckoo pint, lords and ladies, jack-in-the-pulpit.

Habit and habitat/range: G rhiz - Shady hedgerows and anywhere in humid soils rich in humus, valley of the river Tammaro.

Uses: ψ 5 ψ 6 ψ 12: Of this plant with red poisonous berries, only the rhizome was used, crushed. In local popular medicine, the rhizome decoction was used as a treatment for intestinal worms. If drunk daily, it also had diuretic effects. The leaves were used in a tincture to be used in inflammation of the respiratory tract and the gastrointestinal system as well as to treat rheumatism- and gout-associated disorders.

DIOSCOREACEAE

Tamus communis L.

Common names: **Tamaro, cerasiola, uva tamina, vite nera, vitucella**, black bryony

Habit and habitat/range: G rad - Thickets and scrubs in the foothills of Sannio uplands.

Uses: ψ 4 ψ 6 ψ 8: Used in decoction or tincture, the root has diuretic, hemocathartic, hemolytic and vulnerary actions and acts as an antiphlogistic on the urinary system. Black bryony was used as a rubefacient and resolving stimulant for contusions, strains and torn muscles. It was used mainly for rheumatism, gout and chilblains; in fact, when applied to the skin corresponding to the aching parts, it facilitates the analgesia. The rubefacient and activating action on the peripheral blood circulation is due to a substance similar to histamine which is concentrated in the roots, although in Sannio it is the fruits of the plant that are used mostly. However, this plant can have irritating effects on sensitive or chapped skin. In cooking, young sprouts were used to prepare omelettes or boiled with oil.

Berries were sometimes cooked into a thick cream, so as to be easily spread on painful joints due to arthrosis or rheumatism.

LILIACEAE

Allium cepa L.

Common names: **Cipolla**, onion.

Habit and habitat/range: G bulb - Grown mainly in the fertile plain areas skirting the rivers Sabato and Calore.

Uses: α ψ : The properties and applications of onion are rather well known, even though its characteristic taste and smell have always been a reason for reducing its use. In case of need, consumption of the bulb - either raw or cooked - can be increased. Raw onion is an excellent diuretic in the treatment of dropsy, gravel, kidney and bladder disorders. It helps lower blood pressure and glucose concentrations in the blood. Cooked onion is an excellent intestinal regulator; boiled in milk, it releases active principles with an anti catarrhal effect which, administered in low doses during the day, help treat bronchitis. A good onion soup, taken with plentiful white wine, was the sure remedy for milk deficiency in young mothers. The same galactagogue effect was reached with onion decoction, which was, however, less tasty. Onion tunics, instead, were a good remedy for wounds, ulcers and burns; alongside the anti-inflammatory action, these remedies have a physical action, since they prevent the bandage from sticking onto the ill part. Cooked onion has a resolving effect on abscesses, phlegmons and all external inflammatory processes.

Allium sativum L.

Common names: **Aglio**, garlic.

Habit and habitat/range: G bulb - Grown in fertile plains and areas skirting rivers.

Uses: α ψ : Garlic is the most widely used plant with anthelmintic properties. There are numberless recipes based on garlic, differing in preparation and the other ingredients used. The infusion of garlic cloves crushed with mint or with onion (in San Nazario), was given to children suffering from helminthiasis; in the most serious cases, instead of being drunk, a concentrated decoction was given as an enema. In Montecalvo, poultices of crushed garlic, rue and wormwood were applied around the navel. Crushed with oil, garlic can be put on calluses, where it has a caustic action; heated up and applied to chilblains it has the same effect. Garlic can be considered an excellent remedy for toothache: reduced to pulp and placed inside the decayed tooth cavity, it soothed the pain. The hypotensive effect of garlic is exploited by swallowing crushed cloves wrapped in bread crumbs or in water, or by introducing large quantities of this plant product into the diet. The essence contained in the bulb strengthens the cardiac rhythm, causes vasodilation of the arteries and regulates the pulse; it is, therefore, a precious remedy for the treatment of hypertension and arteriosclerosis.

Allium ursinum L.

Common names: **Aglio orsino**, ramsons, wild garlic.
 Habit and habitat/range: G bulb - Broad leaf woods, humid narrow valleys, fertile soils throughout Sannio.
 Use: $\psi 6$: The bulbs and the top of the epigaeal parts are used. The preparations have anthelmintic, antibacterial, antiputrid, purifying, diuretic, hypotensive, laxative, rube-facient action, and stimulate gastric mucosa.

Asparagus acutifolius L.

Common names: **Asparago pungente**, sharp-leaved asparagus.

Habit and habitat/range: G rhiz/NP- Scrubs and thickets of the high hills of Sannio, mainly in the areas of the municipalities of Limatola and Telesse.

Uses: $\alpha \psi$: The decoction of the root and the hard part of the turion (overwintering bud) stimulate the kidneys directly, thus improving diuresis. To this end it is used for patients with hypotension or and dropsy. Thanks to its purifying action it was an excellent food for people suffering from jaundice, since it eliminates biliary pigments from the blood. The young sprouts are a very tasty food, both as principal and secondary ingredients of pasta and side dishes.

Asparagus officinalis L.

Common names: **Asparago comune**, asparagus.

Habit and habitat/range: G rhiz - Humid grasslands; grown in vegetable gardens and sub-spontaneous.

Use: $\psi 6$: The rhizome and the roots are the parts used. It has essentially diuretic properties.

Asphodelus macrocarpus Parl. subsp. *macrocarpus*.

Common names: **Asfodelo montano**, cipollino, mountain asphodel.

Habit and habitat/range: G rhiz - Taburno.

Uses: $\psi 9 \psi 12$: Due to the presence of alkaloids in the tubers, this plant is believed to be dangerous and, consequently, its use is not widespread. Incidentally, since only few recent studies have analyzed the substances contained in this plant, internal medicinal use is not recommended. Traditionally, however, asphodel has had a cosmetic and topical application, especially as an emollient on calluses and verrucae. Useful in the treatment of alopecia and in the inflammation of the sexual organs.

Colchicum neapolitanum Ten.

Common names: **Colchico napoletano**, Neapolitan colchicum.

Habit and habitat/range: G bulb- Arid grasslands in the area of Mt. Matese in Sannio.

Uses: $\psi 3 \psi 6 \psi 11$: Both the seeds and the bulb have medicinal properties as an antiarthritic, antirheumatic, diuretic, and anti-gout treatment. In addition, colchicine has long been experimented on in the treatment of tumors.

Crocus imperati Ten.

Common names: **Zafferano d'Imperato**, saffron of Imperato.

Habit and habitat/range: G bulb - Woods and pastures in the uplands of Mt. Taburno.

Use: $\psi 6$: Its stems are expressed to extract saffron, which was once used for its digestive and carminative properties.

Leopoldia comosa (L.) Parl.

Common names: **Cipollaccio**, **lampascione**, plume hyacinth.

Habit and habitat/range: G bulb - Cool cultivated soils, mainly on the border with Apulia.

Uses: $\alpha \psi$: Plume hyacinth is a very common plant which, for its characteristics and in particular for its diuretic action, is rather similar to onion. The bulb of the plume hyacinth, called **lampascione** by the Sannio population living on the border with Apulia, can be used in cooking as a substitute for onion and, like the latter, it has cathartic and laxative effects.

Lilium bulbiferum L.

Common names: **Giglio rosso**, **giglio di San Giovanni**, orange lily.

Habit and habitat/range: G bulb - Grasslands, high-grass vegetation, deciduous woods of Mt. Matese in Sannio.

Use: $\psi 6$: In popular medicine, the fresh bulbs were used as poultices to treat sores, burns and several other skin diseases. The petals, steeped in oil or in decoction, have diuretic and antiarthritic properties.

Paris quadrifolia L.

Common names: **Uva di volpe**, **erba crogiola**, herb of Paris.

Habit and habitat/range: G rhiz - Humid broad leaf and conifer woods of Mt. Matese in Sannio.

Use: $\psi 7$: Poisonous plant with emetic, drastic, narcotic and antispasmodic actions.

Polygonatum odoratum (Mill.) Druce

Common names: **Sigillo di Salomone comune**, **ginocchio**, Solomon's seal.

Habit and habitat/range: G rhiz - Mountain arid broad leaf woods, mainly on the edges, bushes, deciduous woods.

Use: $\psi 5$: The rhizome infusion was used as an expectorant and, externally, the fresh rhizome was used to treat contusions, ecchymoses and arthritic and rheumatic tumefactions.

Ruscus aculeatus L.

Common names: **Ruscolo pungitopo**, **Fruscara**, butcher's broom.

Habit and habitat/range: G rhiz - Mountain thickets and hedgerows in the valley of the river Tammaro.

Uses: $\psi \ddot{u}$: This plant is more effective for calculi than asparagus. Its preferred use was the root decoction or, as an alternative, the steeped root poured into wine. This is used for its diuretic effect combined with the lithontripic action and pain relief. In cooking, young sprouts were used to prepare omelettes or boiled and seasoned with

oil. The concentrated rhizome decoction, together with an asparagus decoction, was used as a remedy for digestive problems in ruminants.

Scilla bifolia L.

Common names: **Scilla silvestre**

Habit and habitat/range: G bulb - Broad leaf woods, mainly beech-woods at high altitudes.

Use: $\psi 5$: The part used is the bulb. The preparation raises arterial blood pressure, stimulates diuresis and modifies bronchopulmonary fluidity.

Veratrum album L.

Common names: **Veratro comune, elabro, elleboro bianco**, false hellebore, false helleborine.

Habit and habitat/range: G rhiz - Grasslands, pastures, clearings, ruins.

Use: $\psi 7$: The part used is the rhizome, which has a strong toxic action. For external use, it was used in the form of an analgesic ointment for rheumatic and gout pain.

Veratrum nigrum L.

Common names: **Veratro nero**, black false helleborine.

Habit and habitat/range: G rhiz - Deciduous woods and clearings on Mt. Matese in Sannio.

Use: $\psi 7$: See *Veratrum album*.

POACEAE

Anthoxanthum odoratum L.

Common names: **Paleo odoroso**, vernal grass, sweet vernal grass.

Habit and habitat/range: H caesp - Perennial grasslands and thin broad leaf woods in the province.

Use: $\psi 1$: Its leaves, flowers and roots contain coumarin, a substance which gives the plant a very pleasant smell and makes it aromatic, corrective and deodorizing. It was for external use only.

Arundo donax L.

Common names: **Canna domestica, canna gentile**, common reed.

Habit and habitat/range: G rhiz - spontaneous along watercourses, in marshy clayey areas skirting rivers Sabato, Fortore and Calore.

Uses: $\psi \ddot{u}$: Its active principles, causing its diuretic action, are found in a decoction prepared with its shoots and rhizome; it was given to people suffering from water retention due to kidney deficiency. A decoction of reed sprouts was drunk to soothe persistent cough. As a mechanical remedy, the scurf of the plant stalk internode is used on wounds as a protection against infections. In addition, the decoction of the plant rhizome stimulates perspiration as well as diuresis. Herbivorous animals were given a decoction made of reed shoots, cane shoots and couch roots to stimulate rumination.

Avena barbata Pott. ex Link.

Common names: **Avena barbata**, sleuder oat

Habit and habitat/range: T scap - Wasteland, grasslands and hedge grows of the submontane area throughout Sannio.

Uses: $\psi 4 \psi 7$: See *Avena sativa*.

Avena fatua L.

Common names: **Avena selvatica**, wild oat.

Habit and habitat/range: T scap - Grasslands, cornfields and hedgerows throughout Sannio

Uses: $\psi 4 \psi 7$: See *Avena sativa*.

Avena sativa L.

Common names: **Avena comune, biada**, common oat, forage.

Habit and habitat/range: T scap - Cultivated in the low hills of the river Fortore.

Uses: $\psi 4 \psi 7$: Oat seeds were the only parts of the plant used both for their nutritive virtues and their medicinal properties. Obtained through threshing, ground into flour, they were used as poultices for external use with expectorant effects and solvent properties in lumbago. The same effect was obtained by applying warm toasted seeds, put into small cloth bags, on the affected parts. The decoction of caryopses was used against bronchial inflammations. These preparations have also diuretic and sedative effects on the urinary system.

Capriola dactylon (L.) Kuntze

Common names: **Ramigna, dente di cane, capriola, gramigna rampicante**, Bermuda grass.

Habit and habitat/range: G rhiz/ H rept - Wasteland throughout Sannio.

Uses: $\psi 4 \psi 6$: A decoction of Bermuda grass roots, colts foot and mallow and a few grains of maize, was used for all respiratory system ailments. The decoction prepared with Bermuda grass, mallow roots and male inflorescences was known as a purifier and diuretic, but also as a lithotripter. Stomach ache was treated with a decoction of Bermuda grass and maize boiled together with pellitory. The decoction is also useful against gastritis. For colitis, however, a decoction was prepared using Bermuda grass stems, chicory roots, medlar leaves and oak roots. The decoction of Bermuda grass and nettle has an anti-inflammatory action in the urinary duct and is therefore used in the treatment of cystitis. Poultices prepared with Bermuda grass root, applied on boils, have an antiphlogistic effect.

Hordeum vulgare L.

Common names: **Orzo coltivato**, barley.

Habit and habitat/range: T scap - Mainly grown on the hills skirting the river Fortore.

Uses: $\psi \alpha \ddot{u} \pi$: The resolving properties of this essence are described in a sort of manual dating from 1820, the "Giornale Economico e Rustico del Sannio" (The Sannio Journal of Economy and Farming); against the different types of "anthrax" common in autumn, this text recom-

mended a **tisane** with hulled barley, **nitre**, honey and vinegar. Its diuretic action justified its use as one of the ingredients of the decoction of *Zea mays* L. male inflorescences, having anti-lithiasic effects. The seed decoction was used for bronchitis. Barley seeds, mixed with oat seeds, were toasted, put in a cloth and placed on the chest of subjects suffering from bronchitis. The most widespread use of barley concerned its nutritional properties, which made it an excellent restorative when added to the diet of convalescents and elderly people. The decoction of hulled seeds plays a fundamental role in the nourishment of children throughout childhood. The ashes obtained by burning the dry plant were mixed with lard and applied on animals' skin to treat scabies and excoriations.

Lolium perenne L.

Common names: **Loglio comune**, perennial rye grass.
Habit and habitat/range: H caesp - Trodden grassy places and perennial grasslands throughout Sannio.
Use: ψ 7: Ripe caryopses contain a bitter principle which gives the plant preparations antineuralgic, astringent and sedative actions.

Lolium temulentum L.

Common names: **Loglio ubriacante**, darnel.
Habit and habitat/range: T scap - infests cereal crops.
Uses: ψ α \ddot{u} : Ripe fruits contain a poison, temuline, which can cause severe intoxication. The seed preparations can be used as antiphlogistics, analgesics, and antispasmodics; the presence of the above-mentioned poison casts doubts upon the plant's applications. In Sannio, this plant has always been known for the seeds' sedative effect. It was used to induce reluctant animals to work obediently. Mixed with corn - the most common food for horses, donkeys and cows - it causes them to fall into a mild torpor. It was inadvertently used as food during corn harvests. The flour produced from such mixture caused several problems of toxicity in its consumers.

Panicum miliaceum L.

Common names: **Miglio, panico coltivato**, millet.
Habit and habitat/range: T scap - Seldom cultivated, and subspontaneous in ruins.
Uses: α ψ : The decoction of caryopses has antithermal, astringent, tussive, diuretic, emollient and expectorant actions.

Phragmites australis (Cav.) Trin. ex Steud.

Common names: **Cannuccia di palude**, common reed, Norfolk reed.
Habit and habitat/range: He/G rhiz - Marshes, river banks, embankments, and humid environments near the river Calore.
Use: ψ : The decoctions of the plant rhizome are used in home medicine as diaphoretics.

Secale cereale L.

Common names: **Segale comune, grano germano**, rye.

Habit and habitat/range: T scap/H bienn - Grown mainly on the dry soils of the mountains skirting the river Tammaro.

Use: α : Used to make bread during famine.

Triticum aestivum L.

Common names: **Grano tenero, civitella**, bread wheat.
Habit and habitat/range: T scap - Grown mainly in the areas skirting the river Fortore on the border with Apulia and on the hills surrounding the town of Benevento.
Uses: α ψ \ddot{u} : In Sannio the medicinal use of wheat is limited to the caryopsis which, ground into flour and mixed with eggs, was used to prepare biscuits with astringent properties, useful in stopping diarrhoea. At a time when only maize bread was used, white fiberless flour had a mild astringent action. In order to facilitate suppuration, flour (**romanella** and **colombina** varieties) and vinegar poultices were applied. A rather original remedy was obtained by stirring **carosella** wheat, eggs, sugar and cinnamon. This poultice was placed on pregnant women's lower backs to prevent miscarriages; its therapeutic action, however, is not clear. Bran, a by-product of milling, half toasted and put in small fabric bags on the aching parts - especially in the lumbar region - would heat and relieve pain. If placed on the chest, it helped reduce bronchial inflammations. Finally, it was useful to fight off sore throats, since by releasing heat, it improved the throat condition. In Roccabascerana wheat straw smoke was inhaled as a remedy for colds.

Zea mays L.

Common names: **Granoturco, mais, melga, sorgoturco, granone**, maize.
Habit and habitat/range: T scap - Grown in irrigable clayey soils throughout Sannio.
Uses: α ψ \ddot{u} : The male inflorescence of *Zea mays* L. was used in decoction together with Bermuda grass root, sage leaves and barley grains, with anti-lithiasic effect on the kidneys. The infusion of the stems has emollient and diuretic properties, and was mainly used for its hypotensive effect. Maize was used in herd and poultry feeding to stimulate egg laying and to give a more intense color to the yolk. It was also fed to very young pigs. In the past large quantities of maize flour were produced to prepare flat loaves flavored with lard and wild fennel seeds cooked on the fireplace stones. In addition, maize was used to prepare a cake typical to Sannio, made with maize flour and dried fruit and "cooked" in the sun. Finally, in the town of Baselice, on the day of St. Lucia (December 13) maize grains were cooked with chickpeas and given to the children going from home to home to "claim" them.

SMILACACEAE

Smilax aspera L.

Common names: **Salsapariglia nostrana, salsa siciliana, stracciabrache, stracciajatti**, smilax.

Habit and habitat/range: NP (G rhiz) - widespread in hedgerows and scrubs throughout Sannio.

Uses: ψ ù: The root decoction stimulates perspiration. The concentrated decoction of the whole plant - including the root - was used to disinfect excoriations of draught animals.

MAGNOLIOPSIDA
ANACARDIACEAE

Pistacia lentiscus L.

Common names: **Lentisco, sondo, stinco**, lentisk, mastic tree.

Habit and habitat/range: P caesp (P scap) - Dry slopes and calcareous cliffs in the Buonalbergo area and in some areas by the Lenta.

Uses: ψ5 ψ4: The plant is rich in resin which, when the cortex of the trunk and branches is cut, pours out and solidifies in light yellow, slightly balsamic smelling balls which solidify. The part used is the resin itself which, when made into pills, was used as an expectorant and astringent tonic. It has stomachic and hemostatic properties and was used in numerous preparations to treat inflammation of the mouth and to make gum which can be chewed.

Pistacia terebinthus L.

Common names: **Terehinto, spaccasasso, scomabeco**, cornucopia, turpentine tree, terebinth.

Habit and habitat/range: P caesp (P scap) -Arid slopes and limestone cliffs at Buonalbergo.

Use: ψ5: From incisions made in the cortex a yellow or green-brown sticky latex containing essential oils, bitter substances and resins was collected. Presented in various ways, it was used as an expectorant and as a balsamic. It was also used as a preparation for unguents and vesical poultices.

APIACEAE

Aegopodium podagraria L.

Common names: **Girardina silvestre**, ground elder, gout weed.

Habit and habitat/range: G rhiz - Hardwood, gorges and brook banks throughout Sannio.

Use: ψ11: The leaves, green parts and fruit constitute the parts used from this plant. It was used in the treatment of rheumatism and gout, and to restore the proper functioning of the intestine.

Ammi majus L.

Common names: **Visnaga maggiore**, Bishop's weed.

Habit and habitat/range: T scap - Wasteland, ruins, weed-crops.

Use: ψ6: The fruit, in several preparations, has a carminative, bitter-tonic and diuretic action.

Angelica archangelica L.

Common names: **Angelica arcangelica**, angelica

Habit and habitat/range: H scap - Grown in vegetable

gardens.

Uses: ψ π: The dried root produces inflammations and blisters. Angelica essence acts as a stimulant and digestive; preparations were often in the form of digestive liquors. The extract of the root used to be one of the constituents of some sedatives and its leaves are vulnerary.

Angelica sylvestris L.

Common names: **Angelica selvatica**, wild angelica.

Habit and habitat/range: H scap - Damp woods, watersheds and gorges in the area of Sannio; V.ne Castello, Mt. Mafariello.

Uses: ψ5 ψ4: The infusion of leaves, roots and fruits was believed to be an antiscarrhal remedy and blood purifier. The plants gathered in dry mountainous places seem to have greater effect.

Anthriscus cerefolium (L.) Hoffm.

Common names: **Cerfoglio comune**, common chervil.

Habit and habitat/range: T scap - low hills of the river For-tore.

Use: ψ1: It can be distinguished from the other Apiaceae of the *Anthriscus* genus by its pleasant smell; it is no longer known for any medical use. It was used as a topical remedy to relieve pain caused by wasp and hornet bites.

Anthriscus sylvestris (L.) Hoffm.

Common names: **Cerfoglio meridionale**, southern chervil

Habit and habitat/range: H scap - Woods, gorges, shady places.

Use: ψ1: See *Anthriscus cerefolium*.

Apium graveolens L.

Common names: **Sedano comune, accio**, celery.

Habit and habitat/range: H scap - Grown in the fertile irrigated plains throughout Sannio.

Uses: α ψ: The various properties of celery are well known in Sannio. As a secondary effect, it is known to stimulate diuresis. The decoction of its leaves is useful against pharyngeal and bronchial catarrh. The juice of its leaves was believed to act as an antiscorbutic, and both the juice and the fruits are diuretic. Furthermore, if ingested in large quantities, it is useful in uricaemia, gravel, rheumatism and obesity. The wild plant should be considered as suspect, if not definitely poisonous. The small plants were grown in the vegetable garden, instead of, or alongside vegetables, and were often used in preparing typical local dishes.

Apium nodiflorum (L.) Lag.

Common names: **Sedano d'acqua, erba cannella, crescione, accio selvatico**, wild celery.

Habit and habitat/range: H scap/l rad -Along ditches and watercourses

Use: ψ6: See *Apium graveolens*.

Bupleurum rotundifolium L.

Common names: **Buplero perfogliato**, thoroughwax.
 Habit and habitat/range: T scap - Infesting cereal crops on the sub-mediterranean limestone, clayey hills.
 Use: $\psi 6$: The leaves gathered in spring contain a bitter principle having astringent and vulnerary action.

Caucalis platycarpus L.

Common names: **Lappola carota**, bur-parsley.
 Habit and habitat/range: T scap - Infesting cereal crops on calcareous soil.
 Use: $\psi 6$: The whole plant contains a bitter principle which can be processed in different ways and, accordingly, has diuretic, dechlorinating, azoturic or uricolytic action.

Conium maculatum L.

Common names: **Cicuta maggiore**, poison hemlock.
 Habit and habitat/range: H scap - Widespread in wasteland, ruins, canals and hedges throughout Sannio.
 Uses: $\psi 7$ $\psi 6$: Hemlock contains a poisonous principle affecting all the nerve centers of digestion, muscular and vasomotor activity, and paralyzing the brain centers. Therefore, it has never been a popular herbal remedy. Poultices of leaves, having analgesic, antineuralgic, antispasmodic, tussive, and revulsive properties, were used externally.

Coriandrum sativum L.

Common names: **Coriandolo comune, coriandro, erba cimicina**, coriander.
 Habit and habitat/range: T scap - Cultivated and wild as infesting weed of cereal crops.
 Use: $\psi 10$: Fruits gathered in October and then dried in the sun, so as to lose the unpleasant smell and acquire a peculiar scent, have a carminative and stomachic action which is typical of many Apiaceae. Also the essential oil in the green parts of the plant contains principles, but it has been shown to bring about harmful secondary effects.

Daucus carota L.

Common names: **Carota selvatica**, wild carrot.
 Habit and habitat/range: H bienn (T scap) - Wasteland, ruins and along the roads and dry meadows in the hilly area of the region.
 Use: $\psi 1$: The carrot root was used in the treatment of vitamin deficiency. The essential oil contained in its root has carminative properties while resins, which can be found in its leaves in small quantities, have diuretic action.

Eryngium amethystinum L.

Common names: **Calcatreppola ametistina**, amethyst eryngo.
 Habit and habitat/range: H scap - Arid razing lands and thin bushes around Mount Matese in Sannio.
 Use: $\psi 6$: See *Eryngium campestre*.

Eryngium campestre L.

Common names: **Calcatreppola campestre, bocca di ciuco, cardo**, field eryngo.

Habit and habitat/range: H scap - Everywhere on uncultivated clayey soils.

Use: $\psi 6$: The root was mainly used for its diuretic action in the treatment of kidney stones or vesiculae; it can also be used as an aperient, cholagogue and emmenagogue.

Ferula communis L.

Common names: **Ferula comune, Finocchiaccio**, common ferula, wild fennel.
 Habit and habitat/range: H scap - Garrigues, wasteland, arid soils and pastures throughout Sannio.
 Use: $\psi 11$: The fruits and roots and used for antirheumatic purposes.

Foeniculum vulgare Mill. subsp. *vulgare*

Common names: **Finocchio comune, finocchio di vigna**, common fennel, vineyard fennel.
 Habit and habitat/range: H scap - field and path edges throughout the region.
 Uses: α ψ : The root decoction was used for its digestion-stimulating action while, when combined with lettuce leaves, it was used as an antispasmodic in stomachache. It is an emmenagogue regulating menstrual flow and is also exploited as a galactagogue. The root decoction was used as an expectorant. It also has slight antiseptic and cicatrizing action when it is used as a mouthwash. Its seeds still play a major role in the preparation of some typical Mediterranean dishes to which they add a special flavor and taste. The fruits have aperient, carminative, diaphoretic and diuretic properties. The leaves are also cooked and mixed with other kinds of vegetables.

Genista tinctoria L.

Common names: **Ginestra minore, finestrella, baccellina**, dyer's greenweed.
 Habit and habitat/range: Ch suffr - SubMediterranean woodland, oak woods, chestnut woods.
 Use: $\psi 6$ $\psi 8$: Many parts of the plant were used in decoctions as a purgative and diuretic, but even when the seeds were not used, the plant could bring about a violent hemocathartic reaction.

Laburnum anagyroides Medik.

Common names: **Maggiociondolo, avorniello, cantamaggio**, laburnum.
 Habit and habitat/range: P caesp/P scap - Mixed broad leaved woods, especially beech, cultivated for ornamental purposes all around Sannio.
 Use: $\psi 6$: All parts of the plant can be used pharmacologically, but only the leaves were actually used, because they are the least toxic. They are cholagogue, choloretic and laxative.

Lathyrus vernus (L.) Bernh.

Common names: **Cicerchia comune, cece nero, chichierca**, spring vetch.
 Habit and habitat/range: T scap - Woods of Sannio.
 Use: $\psi 6$: The rhizome has an astringent action, calming the hypercrinia of the intestine and it works as a vulnerary.

Pastinaca sativa L.

Common names: **Pastinaca comune**, common parsnip.
Habit and habitat/range: H bienn - Uncultivated land, in the valleys of the rivers Sabato and Calore.
Use: $\psi 11$: When distilled in water vapor, the fruits and roots produce a yellow essence which was once used as an antirheumatic.

Petroselinum sativum Hoffm.

Common names: **Prezzemolo comune**, **petrosino**, common parsley.
Habit and habitat/range: H bienn - Grown everywhere in the gardens throughout Sannio.
Use: $\psi 9$: Concentrated preparations of this plant were traditionally used as abortifacients. In fact the apiole, mostly contained in its seeds, excite uterine fibers. Consequently, its therapeutic use was limited to a sort of light infusion used to regularize menstrual flow. As to external use, its crushed leaves were used against bee and wasp bites. When crushed together with pellitory and thistle, these turn out to be an excellent remedy against burns. The plant leaves, reduced to pulp and mixed with oil and salt can immediately relieve toothache if applied straight to the tooth cavity. A poultice of its crushed leaves applied to wet nurses' breasts, made their milk flow regress. A decoction containing the leaves and roots of parsley, couch and chicory - drunk on a full stomach the day after its preparation - helped recovery from physical decline due to malaria, by detoxifying and mainly providing further vital mineral salts and vitamins.

Peucedanum officinale L.

Common names: **Imperatoria finocchio**, **porcino**, masterwort, hog's fennel, brimstonewort.
Habit and habitat/range: H scap - Arid wasteland surrounding Mount Matese in the Sannio region.
Use: $\psi 5$: The latex of its roots was useful in the treatment of chronic catarrh as well as intermittent fevers.

Peucedanum oreoselinum Moench

Common names: **Imperatoria apio montano**, mountain masterwort.
Habit and habitat/range: H scap - Arid grassland and open thickets.
Use: $\psi 5$: See *Peucedanum officinale*.

Scandix pecten-veneris L.

Common names: **Acicula comune**, **spillettonni**, **pettine di Venere**, lady's comb, shepherd's needle.
Habit and habitat/range: T scap - Infesting cereal crops on clayey soils.
Uses: $\psi 6$ $\psi 8$: The root contains a bitter principle giving the plant an antiphlogistic, astringent and eupeptic action, therefore its decoction was used in dyspepsia, gastroenteritis, cystitis, nephritis and pyelitis.

Thapsia garganica L.

Common names: **Firrastrina comune**, thapsia.

Habit and habitat/range: H scap - Arid pastures near the border with the Apulia region.

Use: $\psi 11$: The root is the part used. It contains highly irritant substances and can cause serious cutaneous erythema. It is absolutely unsuitable for internal use, while its external application, for a vesicant purpose, was useful in cases of lumbago, ischialgia and, more generally, against rheumatic or neuralgic diseases.

AQUIFOLIACEAE

Ilex aquifolium L.

Common names: **Agrifoglio**, holly.
Habit and habitat/range: P caesp/P scap - Very common in the woods of Baselice, Castelvetere and Montefalcone, Sabato Valley, Montenero.
Uses: $\psi 7$ $\psi 6$: The plants contain a substance called ilicine which give the plant its febrifuge and tonic properties. It has similar characteristics to coffee. The decoction of the leaves was used as a febrifuge, antirheumatic and antiarthritic. It was used in preference to the bark which has the same properties. The fruit is a purgative.

ARALIACEAE

Hedera helix L.

Common names: **Edera**, ivy
Habit and habitat/range: P lian. Thickets, hedges and shady cliffs at all altitudes throughout the province.
Uses: $\psi \pi$: The young leaves, on account of the saponins present when used in decoctions, can soothe bad coughs, dilate bronchi and help eliminate bronchial catarrh. The various parts of the plant - and above all its fruits, which were seldom used - contain several glycosides, including hederin which, even in small doses, acts as a powerful and hemolytic vasoconstrictor. There are limits to the use of this plant. Its fruit is toxic and, if ingested in a certain quantity, may cause serious poisoning. The infusion of ivy leaves is used in cosmetics to rinse hair after shampooing: this treatment makes the hair shinier and darker.

ASTERACEAE

Achillea ageratum L.

Common names: **Millefoglio agerato**, sweet milfoil.
Habit and habitat/range: H scap - Benevento
Uses: $\psi 4$ $\psi 5$ $\psi 6$: The flowers were used to prepare infusions with hemostatic, antiputrid, carminative, diuretic, digestive, stimulating, tonic, anthelmintic and vulnerary actions.

Achillea collina Becker ex Reichh.

Common names: **Millefoglio comune**, common yarrow.
Habit and habitat/range: H scap - Dry grassland, road edges and bushes in the area of S. Giorgio del Sannio, Apice.
Uses: $\psi 4$ $\psi 5$ $\psi 6$: See *Achillea millefolium*.

Achillea millefolium L.

Common names: **Erba dei tagli**, **stagnasangue**, **sanguinella**, **millefoglio**, yarrow, milfoil.

Habit and habitat/range: H scap - Escarpments, country paths and uncultivated humid areas in the valley of the river Tammaro.

Uses: ψ 5 ψ 6: A yarrow infusion was used for its antispasmodic and sedative action in the gastroenteric duct and for its fluidifying action in bile secretion. Its sedative properties are a useful remedy for toothache and especially for painful menses. Thanks to its emmenagogue properties, it is excellent for regularizing menses and menstrual flow. Its flowers, used in infusion, have beneficial effects on the elasticity and tonicity of blood vessels. The external use of this plant as a poultice on contusions and bruises, derives from the Sepino tradition, where it was preferred to pellitory for its antiseptic and wound healing properties. Preparations of this plant were often used alongside other herbs, which have the same properties to improve the general condition of blood circulation and to affect digestive and hepatic functions.

Achillea nobilis L.

Common names: **Millefoglio nobile**, creamy yarrow.

Habit and habitat/range: H scap- Arid places, cliffs and thickets of the area of Mt. Matese.

Uses: ψ 5 ψ 6: See *Achillea millefolium*.

Anthemis cotula L.

Common names: **Camomilla fetida**, stinking mayweed.

Habit and habitat/range: T scap - Cultivated fields and rubble, Pietrelcina, S. Martino V. C.

Use: ψ 10: In popular medicine, the capitula of this species were used to prepare balsamic, diaphoretic and stimulanting potions.

Anthemis tinctoria L.

Common names: **Camomilla per tintori**, dyer's camomile.

Habit and habitat/range: H bienn/Ch suffr - Cultivated and uncultivated areas, also on arid marly slopes of foothills throughout most of Sannio.

Use: ψ 10: See *Anthemis cotula*.

Arctium lappa L.

Common names: **Bardana maggiore**, **lappa bardana**, **lappola**, great burdock.

Habit and habitat/range: H bienn - Gravelly soils close to watercourses.

Use: ψ 4: The plant roots have remarkable properties for skin treatment, both in decoction and in other preparations. Despite having numberless important properties, in Sannio this plant was only used in cosmetics. The leaf juice has astringent and wound healing effects, besides being an anti-seborrhoeic, used daily to rub oily hair. The application of crushed leaves proved beneficial to skins

affected by furunculosis and acne. The seeds have mainly diuretic properties.

Arctium minus (Hill) Bernh.

Common names: **Bardana minore**, lesser burdock.

Habit and habitat/range: H bienn - Uncultivated fields and along hedge grows and road edges, valley of the river Sabato.

Uses: ψ 4 ψ 6: The root constitutes the part used. The fresh extract has blood-purifying, diuretic and laxative actions. In addition, the fresh plant material is also used externally in the treatment of several skin diseases. Burdock leaves were steeped and applied to relieve rheumatism pain.

Artemisia absinthium L.

Common names: **Assenzio vero**, wormwood.

Habit and habitat/range: Ch suffr (H scap) - Uncultivated arid soils along the river Sabato

Use: ψ 7: The parts used are the flowers and leaves. Externally, the decoction and infusion are reported to be antiseptic and vulnerary. Due to its strong scent and bitter taste, it was mostly used as an anthelmintic. Wormwood juice, mixed with rue and mint juice or with wormwood, bay laurel, mint and camomile was used to soothe abdominal pains caused by helminthiasis. Anthelmintic action is also obtained using poultices of wormwood, mint and rue, cooked in vinegar and applied around the navel. Finally, to fight off intermittent, tertian and quartan fevers, poultices prepared from wormwood, garlic, rue and mint are applied to the wrists.

Artemisia campestris L. subsp. *glutinosa* (Ten.) Brig et Cavill.

Common names: **Tammarice**, field wormwood.

Habit and habitat/range: Ch suffr - Grows on gravelly soils near the rivers Tammaro and Calore.

Use: ψ 7: The plant contains an ethereal oil and resinous bitter substances. It was used for its febrifugal properties. In Sannio it is used to eliminate warts.

Artemisia vulgaris L.

Common names: **Assenzio selvatico**, **amarella**, mugwort.

Habit and habitat/range: H scap - Uncultivated sunny fields and rubble.

Use: ψ 7: The leaves and root were commonly used. The bitter preparations have tonic, aromatic, anthelmintic, antispasmodic, emmenagogue and sedative action.

Bellis perennis L.

Common names: **Pratolina comune**, daisy.

Habit and habitat/range: H ros - Grasslands and wasteland throughout Sannio.

Uses: ψ 4 ψ 6 ψ 9: The flower infusion was used to treat pleurisy as well as bronchial and throat diseases intestine inflammations and uterine hemorrhage. Daisy leaf poultices were used to treat contusions, strains, sores and boils.

Calendula officinalis L.

Common names: **Fiorrancio coltivato**, pot marigold.
Habit and habitat/range: T scap/H bienn - Cultivated, at times naturalized in cultivated fields, wasteland and on road edges.

Uses: ψ 4 ψ 7: The whole plant has medicinal properties and contains vitamin C. The different preparations have sedative, diaphoretic, vulnerary and dermopathic action.

Carduus albidus M. Bieb.

Common names: **Cardo saettone**, slender-flowered thistle.

Habit and habitat/range: H bienn - Wasteland and road edges, Mt. Matese in Sannio.

Uses: α ψ : The leaves are used to prepare decoctions, extracts, tinctures and syrups with antihydrotic, diuretic, and de-chlorinating properties. At Christmas time, in Benevento the stems of this plant are used to flavor meat balls cooked in tomato sauce.

Carlina acaulis var. *caulescens* Schübl. & Martens

Common names: **Carlina**, **carline**, cartine thistle

Habit and habitat/range: H ros - Grasslands or woods in the foothills and mountains of Sannio; found also on pebbly abandoned.

Uses: α ψ : The part used is the root, and in popular medicine it was used as a gastric tonic and as a diaphoretic and diuretic. In Sannio, this plant is still used to prepare a cake called **rinciada** (from "rinci", a vernacular term for roots), typical at Christmas. The cake is prepared by crushing the plant until it becomes a jelly dough, which is then flavored with several spices. Young plants were deprived of the spiny parts, and the lower leaves were cooked like the above mentioned mush thistle.

Carthamus lanatus L.

Common names: **Zafferanone selvatico**, wild safflower.

Habit and habitat/range: T scap - Arid gravelly places, olive-groves, vineyards, valley of the river Calore.

Uses: ψ 6 ψ 7: The leaves and flowers were used to prepare potions with anthelmintic, antiseptic, diuretic and febrifugal action.

Centaurea calcitrapa L.

Common names: **Fiordaliso stellato**, **calcatreppola**, **calcetroppola**, **ippofesto**, **cardo riccio**, **occhi lucenti**, common star thistle.

Habit and habitat/range: H bienn - Sunny, arid soils along the river Fortore.

Uses: α ψ : The root, whose decoction has diuretic properties is used. The plant is also eaten before flowering. Also, around October, when the plant roots decompose, the much sought after **cardarelli** (a kind of oyster mushroom) grows on them.

Centaurea nigrescens Willd.

Common names: **Fiordaliso nerasiro**, Tyrol knapweed.

Habit and habitat/range: H scap - Grasslands and pastures.

Use: ψ 6: The plant contains centaurina and was useful for the preparation of stomachic infusions.

Chamomilla recutita (L.) Rauschert

Common names: **Camomilla comune**, camomile.

Habit and habitat/range: T scap - Spontaneous in clearings and along country paths throughout Sannio.

Uses: ψ 6 ψ 7: Camomile is best-known for its sedative and antispasmodic properties, which is due to the presence of azulene among its active principles. In fact, it was used in infusion to treat insomnia, or to relieve pre- and post-menses pain and soothe spasms in the digestive duct. The decoction of camomile, lettuce and elder was given to patients for its antispasmodic, intestine-cooling (action of the lettuce) and antineuralgic action. In the popular tradition of Mt. Calvo, soon after childbirth women were given a decoction of asparagus root mixed with camomile and maidenhair fern, in order to relieve the pains of uterine contractions. An excellent remedy for respiratory system diseases were camomile and mallow decoctions.

Cichorium intybus L.

Common names: **Cicoria comune**, radicchio, chicory.

Habit and habitat/range: H scap - Country paths and escarpments, in wasteland; very widespread in the valley of the river Tammaro.

Uses: α ψ : Chicory flowers which were crushed and applied on the front part of aching joints (carpus and metacarpus) or were used for intermittent fevers. Chicory root was a component of a decoction for spastic colitis, in which case its root was used with a slight laxative effect. People suffering from anemia or liver disorders widely used preparations of chicory and/or its cooking water, because of its high content in iron and its choleric and cholagogue properties. A generic complaint leading to weakening and death, locally called **marcatura**, was treated using magical practices, but also a decoction (diluted to 1/4) prepared with chicory and couch roots and parsley leaves to be drunk in the morning. It is widely used to prepare green salads; the dried root was used as a surrogate of coffee. The juice and syrup were common laxatives for children. Leaf poultices were used to treat skin ulcers.

Cirsium arvense (L.) Scop.

Common names: **Cardo campestre**, **stoppione**, **scardaccione**, **scorpione**, **cardogna**, creeping thistle.

Habit and habitat/range: G rad - Cultivated fields along the river Tammaro.

Uses: ψ 5 ψ 6: The root decoction is diuretic and helps digestion and the elimination of waste matter. The leaves were used as an alternative to roots, as they had the same action. In popular tradition, the thistle and mallow decoction was used for bronchitis. The preparations also have bitter, choleric, diaphoretic, diuretic, digestive, gastrotonic and stimulating action. Finally, it was used to elimi-

nate edemas also occurring in draught animals because of the yoke during work in the fields.

Conyza canadensis (L.) Cronquist

Common names: **Saepolla canadese**, **erba the**, Canadian fleabane.

Habit and habitat/range: T scap - Escarpments and wasteland.

Use: ψ_6 : Essential oil gives the decoction a typical smell (cumin scent) and a bitterish aromatic taste; because of this characteristic it has become generally known as "tea", having diuretic and purifying properties. It was specially appreciated by those suffering from rheumatism, arthrosis and gout to eliminate nitrous waste matter by expelling a greater quantity of urine.

Cynara scolymus L.

Common names: **Carciofo**, globe artichoke.

Habit and habitat/range: H scap - Well-known production in the area of Pietrelcina.

Uses: $\alpha \psi \pi$: Official and herbal medicine did not use the tasty flower of the plant, having the same hypoglycemia inducing and intestine-regulating properties as the leaves and root, which - on the contrary - were widely used. Artichoke is known for stimulating diuresis and helping bile secretion. The decoction of leaves was used for its liver-protecting and detoxifying effect, as well as regulating the circulatory system and reducing cholesterol in the blood. It was also for choleric, cholagogue and slightly laxative action. In addition to the widespread culinary use of the capitula, it is worthwhile mentioning the use of ripe seeds: put in infusion and then milk, which cause curdling.

Dittrichia viscosa Greuter

Common names: **Enula cepittoni**, **ceppica**, **prucara**, **pruteca**, Sticky fleabane.

Habit and habitat/range: H scap - round about Benevento

Use: ψ_6 : The use of this plant was rather unusual. River fishermen used to gather it and place it in baskets, alternating layers of freshly-caught fish with fleabane, in order to preserve the fresh smell of the fish. It was probably used for its astringent action due to its tannin content, in order to slow down deterioration of the fish caught.

Eupatorium cannabinum L.

Common names: **Canapa acquatica**, hemp agrimony.

Habit and habitat/range: H scap - Widespread in humid places, along river banks and in ruinous areas in the region.

Use: ψ_6 : The whole plant contains a bitter principle. The infusion was used as a cholagogue and diuretic; the decoction was also used as a laxative.

Helianthus annuus L.

Common names: **Girasole comune**, sunflower.

Habit and habitat/range: T scap - Grown in valleys.

Uses: $\alpha \psi$: Traditionally the outer flowers of the capitulum were used. The preparations had a remarkable action in feverish states caused by both the accumulation of pus due to tuberculosis or gangrene, and attacks of malaria.

Helianthus tuberosus L.

Common names: **Girasole del Canada**, **topinambur**, **tartufo di canna**, Jerusalem artichoke.

Habit and habitat/range: G bulb - Along river banks and in uncultivated, humid areas on the border with Irpinia.

Uses: $\alpha \psi$: The tubers contain fatty substances. They are largely used in cooking; in the past, though they proved particularly useful to patients suffering from diabetes, uricaemia, and dyspepsia.

Helichrysum italicum (Roth) G. Don

Common names: **Perpetuino d'Italia**, helichrysum.

Habit and habitat/range: Ch suffr - Stony places and arid grasslands of the Southern slopes of Sannio uplands; motorway Avellino-Benevento.

Use: ψ_5 : The flowers contain a characteristic active principle (helichrysene) and were used as a home remedy, either in infusion or decoction, for their diaphoretic and expectorant action.

Hieracium pilosella L.

Common names: **Sparviere pelosetto**, **pelosella**, mouse-ear hawkweed.

Habit and habitat/range: H ros - Grassy, arid and stony places in the mountains throughout the region.

Use: ψ_4 : The part used is the whole blooming plant. Its diuretic properties have long been known and prove very effective in causing resorption of ascitic effusions of cardiac origin.

Inula helenium L.

Common names: **Enula ceppittoni**, **ceppica**, **prutara**, **pruteca**, sticky fleabane.

Habit and habitat/range: H scap - Deciduous and humid grasslands in Northern Sannio.

Use: ψ_4 : The roots, dried in the open air, were used to prepare infusions for catarrhal bronchitis, bad coughs, bronchial asthma and, in general, for any diseases of the respiratory system. The preparation's bitter-tonic properties also explain its choleric and diuretic properties. Finally, the decoction and tincture are used against itching exanthema.

Lactuca sativa L.

Common names: **Lattuca**, **insalata**, **amarulla**, **lattuga coltivata**, lettuce.

Habit and habitat/range: H bienn - Grown especially in the plains of the Telesina and Caudina valleys and in the areas skirting rivers Sabato and Calore.

Uses: $\alpha \psi$: Lettuce has mild but definite beneficial properties. Its cellulose content has a cooling and regulating effect on the intestines. The leaves are dried and stored to prepare cooling decoctions with elder and camomile

flowers, specially indicated for women in labor. Lettuce leaves, mint and wild fennel, boiled together, produce a sedative potion, useful for soothing abdominal spasms. Fresh leaves were used for boils and abscesses because of their decongesting effect. Fresh juice was used in impetigo as a skin topical remedy. Poultices prepared with either fresh or dried leaves have resolvent effects on tooth abscesses. Largely used as food due to the high content in salts and vitamins.

Lactuca serriola L.

Common names: **Lattuga selvatica, lattona, erba bus-sola**, prickly lettuce.

Habit and habitat/range: H bienn/T scap - Wasteland, fields and road edges, valley of the never Sabato and along the border with Molise.

Use: ψ 7: The latex has anaphrodisiac, analgesic, tussive and mild hypnotic action.

Lactuca virosa L.

Common names: **Lattuga velenosa**, wild lettuce, stinking lettuce.

Habit and habitat/range: T scap/H bienn - Stony places and rubble in the area of S. Agata dei Goti, on the border with "Terra di Lavoro" (an area stretching mostly in the province of Caserta).

Use: ψ 7: The latex has sedative and hypnotic properties. It could be used as a substitute for opium in the treatment of nervous disorders and as an analgesic. In high doses the plant is toxic.

Lapsana communis L.

Common names: **Lassana, grespignolo**, nipplewort.

Habit and habitat/range: T scap - Deciduous broad leaf woods, vegetable gardens and ruins throughout Sannio.

Uses: ψ 6 ψ 11: The extract or juice of the whole plant has choleric, diuretic, emollient and hypoglycemia inducing properties.

Petasites hybridus (L.) P. Gaertn., B. Mey. & Scherb.

Common names: **Farfaraccio maggiore**, butterbur.

Habit and habitat/range: G rhiz - Humid soils along water-courses and wood edges throughout Sannio.

Uses: ψ 4 ψ 6: The parts used are the rhizome and the leaves. The medicinal action of the preparations is anti-putrid, aperient, astringent, diuretic, emmenagogue, stomachic and tonic. In addition to this, the flowers - which contain mucilage and tannins - were used to prepare an infusion with astringent, bronchial, tussive and expectorant properties. In external use, the fresh plant was useful in the treatment of ulcers and abscesses.

Pulicaria dysenterica (L.) Gaertn.

Common names: **Incensaria comune, menta selvatica**, common fleabane.

Habit and habitat/range: H scap - Humid, muddy places and grasslands near the river Calore.

Use: ψ 6: The plant is used as an antidiarrhoeal.

Senecio vulgaris L.

Common names: **Senecione comune, calderina, cardillo, solleciola, verzellina**, common groundsel.

Habit and habitat/range: T scap - Uncultivated land and near houses; infesting crops; throughout Sannio.

Uses: ψ 6 ψ 9: The whole plant is used for amenorrhoea, dysmenorrhoea, gastralgia and digestive disorders related to uterine diseases. The decoction was also used as an astringent and diuretic.

Silybum marianum (L.) Gaertn.

Common names: **Cardo di Santa Maria, cardo lattario, cardo mariano**.

Habit and habitat/range: H bienn - Escarpments and wasteland.

Uses: α ψ : The root has diuretic and liver-detoxifying activity. The latter property is mainly due to silebina, present in large quantities in the seeds. The plant can also raise blood pressure and increase bile flow. The seeds were also dried and steeped in boiling water; the resulting liquid, added to milk, caused curdling. In addition, the tender sprouts were picked up long before blooming - when they were edible - and eaten like artichokes, either cooked or raw.

Solidago virgaurea L.

Common names: **Verga d'oro comune**, golden-rod.

Habit and habitat/range: H scap - woods and pastures, mostly in foothills, valley of the river Sabato.

Use: ψ 6: Either the whole plant or the root was used, since both contain a bitter resin, tannins and mucilaginous substances. The different preparations were used for their digestive, carminative, intestinal astringent, diaphoretic and diuretic properties.

Sonchus oleraceus L.

Common names: **Grespino comune, cardillo**, annual sow-thistle, hare's lettuce.

Habit and habitat/range: T scap - Common throughout the region.

Uses: α ψ \ddot{u} : The medicinal actions of this plant, largely widespread in cultivated soils, were mostly unknown to the popular medicine of Sannio. The only use concerned the epigaeal parts which, crushed thoroughly, produced poultices which were used on skin abrasions and ulcers. Sow-thistle, crushed with pellitory and parsley and applied on contusions and edema, helps them being reabsorbed. It was also applied on the contusions of draught animals. In addition, it has cholagogue and cathartic properties. Tender sprouts were eaten raw in salads or cooked in vegetable soups.

Tanacetum balsamita L.

Common names: **Erba amara balsamica, erba di Santa Maria, erba di San Pietro, erba menta**, costmary, ale-cost.

Habit and habitat/range: H scap - Grown for culinary use.

Use: $\psi 6$: Its culinary use is rather well-known as a substitute for mint, whose scent it recalls. The leaves were also used to prepare infusions for bile insufficiency, cholecystitis and dyspepsia of nervous origin. It is considered a substitute for tea, and it is also known as **pianta del the** (tea plant). In infusion, the leaves are also useful as a sedative and antispasmodic for bad coughs and insomnia. The preparation also has carminative and diuretic properties.

Tanacetum parthenium (L.) Sch. Bip.

Common names: **Erba amara vera**, feverfew

Habit and habitat/range: H scap - Cultivated and naturalized plant, growing on cliffs, in rubble, mixed woods and thin beech-woods throughout the area.

Use: $\psi 9$: The plant was considered a succedaneum, specially used for menstrual pain. The flower decoction was also used to treat contusions and skin ulcers.

Taraxacum officinale F.H. Wigg.

Common names: **Tarassaco comune**, **dente di leone**, piscia cane, **piscialletto**, **soffiane**, **ragno**, common dandelion.

Habit and habitat/range: H ros - Widespread in dry wasteland in the valley of the river Fortore.

Uses: $\alpha \psi$: The plant was used as a "remedy for mucosal pulmonary tuberculosis and abdominal obstructions - notably hepatic ones". This plant is diuretic, stimulates bile secretion and has a high vitamin content. In addition, the roots were used to treat hepatic-biliary disorders, dyspepsia, gastritis and kidney disorders. The leaves are still used to prepare green salads.

Tussilago farfara L.

Common names: **Tussilagine comune**, **farfuglio**, **parpacchio**, **stampa di cavallo**, colts foot.

Habit and habitat/range: G rhiz - Cool clayey soils throughout Sannio.

Use: $\psi 7$: The decoction of colts foot root, mallow and Bermuda grass was used for infections of the respiratory system, notably as a cough sedative. The decoction of leaves is an antianemic, antieczematous, antiscrofulous, astringent, purifying and emollient. The flowers are used to prepare an infusion with balsamic, tussive and broncho-sedative properties. Chopped dry leaves were made into cigarettes to treat asthma in smokers who wished to be detoxified. The juice of fresh leaves has emollient properties, and therefore aids the removal of milk scab. The leaves, deprived of the upper side epidermis and spread with oil, were applied on abscesses and boils, which were thus treated.

Xanthium spinosum L.

Common names: **Nappola spinosa**, spiny cocklebur.

Habit and habitat/range: T scap - Widespread in wasteland, along watercourses and on road edges throughout most of Sannio.

Use: $\psi 7$: In the past, this plant enjoyed the undeserved fame of having a specific action against rabies. The decoction is still used in the countryside as a diuretic.

BORAGINACEAE

Borago officinalis L.

Common names: **Borragine comune**, borace.

Habit and habitat/range: T scap - Wasteland, uncultivated fields, etc.

Uses: $\alpha \psi$: When dried, the plant loses all its properties. The most widely used parts were the leaves which, raw in salad or cooked in soups, had purifying, diuretic, and biliary effects and stimulate peristalsis. The seeds, rich in mucilage, have a laxative effect. The preparation was in form of infusion or decoction. Both leaves and flowers are widely used because of their emollient properties and were considered good blood purifiers. The flowers, gathered shortly before blooming were used to prepare the typical omelettes with pumpkin flowers.

Buglossoides purpureocaerulea (L.) I.M. Johnst.

Common names: **Erba perla azzurra**

Habit and habitat/range: H scap - Dry woods and bushes of San Giorgio del Sannio

Use: $\psi 6$: See *Lithospermum officinale*.

Cerintho major L.

Common names: **Erba vajola maggiore**

Habit and habitat/range: T scap - Wasteland along the borders of vineyards and olive groves.

Use: $\psi 7$: The leaves and flowers were used in infusion, having antiphlogistic, astringent, ophthalmic and cooling properties.

Cynoglossum officinale L.

Common names: **Lingua di cane vellutina**, hound's tongue.

Habit and habitat/range: H bienn - Sunny wasteland in the hills of Southern Sannio.

Uses: $\psi 7 \psi 6$: Formerly used for its sedative effect. Today it is only used for its emollient, astringent and soothing properties. Crushed leaves are placed between two pieces of gauze on sores and burns. Since its root contains large quantities of tannins, it was used in decoction or in powder as an intestine astringent and, less often, in the tannin treatment of intestine and lung tuberculosis.

Echium vulgare L.

Common names: **Viperina azzurra**, viper's bugloss.

Habit and habitat/range: H bienn - In waste grassland and dry pastures throughout Sannio.

Use: $\psi 6$: All the parts of the plant have pharmacologic properties. Traditionally, the decoction of its leaves was known for having astringent, diaphoretic, diuretic and emollient properties.

Lithospermum officinale L.

Common names: **Erba perla, miglio selvatico**, gromwell.

Habit and habitat/range: H scap- A rare plant growing in wet, cool woods and in riverbeds; Apex.

Use: $\psi 6$: The active principles of this plant are not well known yet. The decoction of leaves was used in popular medicine as a light diuretic; its seeds were useful in the treatment of kidney stones.

Myosotis sylvatica Ehrh. ex Hoffm.

Common names: **Nontiscordardimé dei boschi**, forget-me-not of the woods.

Habit and habitat/range: H scap (H bienn.) - Hardwood forests, especially beech-woods, in the uplands of Sannio; Mt. Mafariello.

Use: $\psi 6$: The part used is the rhizome, which is rich in mucilage and tannins, and also contains a dying substance. The pharmacological action of the root decoction is mainly astringent, ophthalmic and wound healing.

Pulmonaria vallisarsae A. Kern.

Common names: **Polmonaria della Vallarsa**, lungwort of Vallarsa.

Habit and habitat/range: H scap - sunny slopes of the hills and mountains of S. Giorgio la Molara, Valley of the river Sabato.

Uses: $\psi 5 \psi 6$: The infusion of the leaves is used for its emollient and expectorant properties and a cough-soother. It has also diuretic effects.

Symphytum officinale L.

Common names: **Consolida maggiore, orecchia d'asino, sintito, erba di S. Lorenzo**, comfrey.

Habit and habitat/range: H scap - Wetland, ditch edges and deciduous woods throughout Sannio.

Uses: $\psi 6 \psi 4$: The fresh root was used for poultices; it had an activating action on contusions with ecchymosis, on septic wounds, on ulcers and varices, rhagades, aching scars. The usefulness of the preparation is due to the increased blood flow in the affected parts. It was also used internally for gastric and duodenal ulcers. In addition, due to the presence of tannins and mucilage, it was administered to patients ill with chronic catarrh and infections of the respiratory tract.

BRASSICACEAE

Alliaria petiolata (M. Bieb.) Cavara & Grande.

Common names: **Alliaria comune**, garlic mustard, Jack-by-the-hedge.

Habit and habitat/range: H bienn - soil rich in nitrates and organic substances, mesophilous beech woods.

Use: $\psi 6$: The whole plant has an antiseptic, purifying, vulnerary action and was taken as a stimulant for gastroenteric secretions and as a spasmolytic.

Barbarea vulgaris W.T. Aiton

Common names: **Erba di S. Barbara comune**, common wintercress, wintercress.

Habit and habitat/range: H scap. - mixed thickets and damp beech woods in Sannio.

Use: $\psi 10$: The plant has antiscorbutic and purifying properties.

Brassica napus L.

Common names: **Cavolo navone**, rape.

Habit and habitat/range: T scap/H scap - uncultivated land.

Use: $\psi 10$: The seeds, rich in oils, are a bland stimulant and revulsive.

Brassica nigra (L.) W.D.J. Koch

Common names: **Cavolo senape**, near, black mustard.

Habit and habitat/range: T scap - rare, uncultivated cereal fields and barnyard areas.

Uses: $\alpha \psi$: The seeds were used as a strong revulsive and as condiments.

Brassica oleracea L.

Common names: **Cavolo comune**, cabbage.

Habit and habitat/range: Ch suffr - naturalized on calcareous rocks around S. Giorgio la Molara.

Uses: $\bar{u} \psi$: See *Brassica oleracea* subsp. *robertiana*.

Brassica oleracea subsp. *robertiana*

(Gay) Bonnier & Layens

Common names: **Cavolo comune, cavolo di mandria**, cabbage.

Habit and habitat/range: Ch suffr - a few individuals occur in arid cliffs of Mt. San Giorgio la Molara and of Montefalcone.

Uses: $\psi \bar{u}$: Although the galactogenic properties of the genus *Brassica* are well known in the Italian tradition, only the subsp. *robertiana* is still used. Since ancient times, its properties were renowned as far as the borders with Apulia, and people came from all around to the cliffs of Mt. San Giorgio la Molara, to the "Castello", where it still occurs. The local name **cavolo di mandria** or "herd cabbage", shows the past use for farm animals, especially cows.

Brassica rapa L.

Common names: **Rapa**, field mustard,

Habit and habitat/range: T scap/H scap - grown around Benevento.

Use: $\psi 7$: The emollient virtues of field mustard calm convulsive coughs. The tubers, if crushed and blended with honey were given to patients. An emollient made from the bark boiled in vinegar and water was used to heal chilblains. Rich in oils, it can have a bland stimulating and revulsive action. Eaten as a vegetable.

Bunias erucago L.

Common names: **Cascellore comune**, southern warty cabbage.

Habit and habitat/range: T scap - ruins, uncultivated grassland, weeded fields in the Sabato Valley, and the territory to the east of Benevento.

Use: $\psi 6$: The plant has diuretic properties. It was appreciated also for its ability to eliminate ascitic liquid from the body.

Capsella bursa-pastoris (L.) Medik.

Common names: **Borsa del pastore**, shepherd's purse.

Habit and habitat/range: H bienn - Roadsides, paths, and uncultivated land.

Uses: $\psi 4$ $\psi 9$ $\psi 8$: The plant's anti-hemorrhaging qualities are the basis of its use. An infusion of the dried plant was given to women after childbirth to prevent uterine bleeding and also to block excessive menstrual flow. It is also used as an astringent and diuretic.

Capsella rubella Reut.

Common names: **Borsapastore annuale**, pink shepherd's-purse.

Habit and habitat/range: H scap - arid cultivated land and by the roadside in the south of Sannio.

Uses: $\psi 4$ $\psi 9$ $\psi 8$: See *Capsella bursa-pastoris*.

Cardamine enneaphyllos (L.) Crantz

Common names: **Dentaria a nove foglie**, drooping bittercress.

Habit and habitat/range: G rhiz - broad leaved and coniferous woods, especially beech woods.

Uses: $\psi 5$ $\psi 9$ $\psi 8$: Both the aerial parts and root provide the parts which were used in popular medicine to treat catarrhal ailments, the respiratory tract, the gastrointestinal tract and the urogenital system. The infusion was used as a mouthwash for mouth and larynx inflammation.

Diplotaxis eruroides (L.) DC.

Common names: **Ruchetta violacea**, **rapesta**, white rocket, **ripesta**.

Habit and habitat/range: T scap - both wild in grassland and cultivated fields.

Use: α : Often used in cooking to substitute or supplement vegetables and prepare typical recipes.

Eruca sativa Mill.

Common names: **Rucola comune**, garden rocket.

Habit and habitat/range: T scap - ruins and vegetable gardens.

Uses: α ψ : The leaves and flowers were much used as stimulants and antiscorbutics. The seeds, rich in mucilage and oils, were used as antiphlogistics and emollients. Much used in cooking.

Erysimum cheiri (L.) Crantz

Common names: **Leucoio**, **violacciocca gialla**, wall flower.

Habit and habitat/range: Ch suffr- grows on ruins, on rocks and in dry calcareous soils along the R. Sabato.

Uses: $\psi 4$ $\psi 9$: The leaves contain cheirantine, a glucoside affecting the heart, and have cardioregulatory and cardiotonic uses. The seeds, with many toxic active principles, were used in decoctions as abortifacients, putting the mother's life at risk, due to the poisonous effects of the drink.

Hesperis matronalis L.

Common names: **Violacciocca antoniana**, **esperide**, dame's violet, dame's rocket.

Habit and habitat/range: H scap - common in damp woods in the Matese, sometimes cultivated.

Uses: $\psi 8$ $\psi 5$: The infusion of the leaves has stimulating, antiscorbutic, diuretic, diaphoretic and expectorant qualities. When fresh, the leaves are rubefacient, resolutive, and detergent.

Isatis tinctoria L.

Common names: **Glasto comune**, **guado**, dyer's woad.

Habit and habitat/range: H bienn - dry, uncultivated area and mountain pastures, abandoned fields around Benevento.

Uses: ψ π : The leaves have anabolic, antiscorbutic and astringent properties. It is also used in dyeing.

Lunaria annua L.

Common names: **Lunaria mediterranea**, **erba d'argento**, annual honesty.

Habit and habitat/range: H scap - gorges, damp and shady cliffs, on the Mediterranean and sub-Mediterranean plains of the whole Sannio.

Use: $\psi 8$: This plant is much used in popular medicine as a diuretic and antiscorbutic.

Nasturtium officinale R. Br.

Common names: **Crescione d'acqua**, watercress.

Habit and habitat/range: H scap - watercourses of the Teleso Valley and along the River Tammaro.

Uses: α ψ : The plant is tonic and dietetic. It is pleasant in salads and has antiscorbutic properties and positive effects on the liver, much needed in the past. Eaten in cold salads with remarkable purifying qualities. Rich in vitamins.

Raphanus raphanistrum L.

Common names: **Ravanello selvatico**, wild radish.

Habit and habitat/range: T scap - a weed spread in ruins, vegetable plots and other cultivated fields.

Uses: α ψ : The upper parts of the plant were used in popular medicine as a gastric stimulant. The roots substituted mustard in the kitchen. The oily seeds mixed with wheat produce a particular kind of food poisoning called **raffina** in local dialect.

Raphanus sativus L.

Common names: **Ravanello comune**, common radish.

Habit and habitat/range: T scap/H scap
 Uses: α ψ: The expressed juices of the roots were used to treat bilious lithiasis, helping diuresis and for liver complaints. It is eaten raw in salad.

Sinapis alba L.

Common names: **Senape bianca**, yellow mustard.
 Habit and habitat/range: T scap - cereal fields, uncultivated ground and ruins, cultivated and subspontaneous, on the border between Irpinia and Apulia.
 Use: ψ6: The seeds were used as a strong stimulant of the gastric secretions in cases of atony. It is also an anti-scorbutic.

BUXACEAE

Buxus sempervirens L.

Common names: **Bosso comune, bossolo, mortella, box, common boxwood.**
 Habit and habitat/range: P caesp - grown in gardens on the plains of the lower hill country all across the Sannio area.
 Uses: ψ π: The only use made of this plant in the region regards the leaves. They were boiled with peppercorns in white wine until the liquid reduced to a third. A powerful mouthwash with sedative qualities for toothache was thus obtained. Those who have tried it first hand claim that the tooth becomes devitalized, and is expelled from its setting. This property is made use of in the pharmaceutical sector. From the distillation obtained from the box wood, a pyro-oleose liquid with odontalgic properties is produced. One drop in the cavity of a decayed tooth will ease the pain. Buxine is a tetanising poison, and over-use of the leaves, bark or fruit of the plant can cause gastroenteritis with vomiting, diarrhoea, vertigo, pulmonary congestion and respiratory paralysis. The antineuralgic effect of the alkaloids present in the leaves is harmless if preparations are used externally. Therapeutic doses are laxative, cholagogue and febrifuge. Box leaves were used improperly as flavoring for beer as they have a bitter flavor.

CAPRIFOLIACEAE

Lonicera caprifolia L.

Common names: **Caprifoglio comune, abbracciabosco, uva di S. Giovanni, manicciola**, honeysuckle.
 Habit and habitat/range: P lian - Deciduous woods, hedge grows and vineyards in the northern part of the Sannio uplands.
 Use: ψ6: The bark decoction was a popular diuretic and diaphoretic; the leaf decoction, however, was considered a mouthwash, eyewash and vulnerary.

Lonicera implexa Aiton subsp. *implexa*

Common names: **Caprifoglio**
 Habit and habitat/range: P caesp - Woods and hedges of Telesse, Taburno
 Use: ψ6: See *Lonicera caprifolium*.

Sambucus ebulus L.

Common names: **Sambuco lebbio, ehio, sambuchella, jevolo**, danewort.
 Habit and habitat/range: G rhiz - Uncultivated humid and clayey soils, road edges and hedge grows in Eastern Sannio.
 Use: ψ6: The leaf decoction was used to wash the extremities with rashes and blisters. The infusion of tender branches was used as a foot wash with anti-gout effect. The steeped root has diuretic properties.

Sambucus nigra L.

Common names: **Sambuco comune, sambuco nero**, common elder.
 Habit and habitat/range: P caesp - Spontaneous; it is used to border country paths and roads throughout Sannio.
 Uses: α ψ: The elder umbels were often seen hanging on walls in shady places, where they were dried. Actually, this is the most used part of the plant in Sannio. During the winter, a flower decoction is a good remedy for bronchitis; mixed with camomile and lime tree flowers it is a good cough sedative. In the first weeks after childbirth, mother were given a decoction of elder flowers, lettuce and camomile, because it had a cooling effect on the digestive system. The elder flower infusion was used for wasp, hornet and bee stings. The inner bark was crushed and applied on body parts with painful gout. When steeped and put in alcohol, the resulting tincture was drunk for its diuretic action eliminating urates. The flower infusion was also used for douching. The sprouts, heated and placed on the forehead, relieved migraine. Cirelli (1853) reported the use of elder leaves to reabsorb edemas in Ginestra degli Schiavoni. Elder fruits, moreover, were used to prepare deep red preserves, which were administered during the winter to treat respiratory diseases. The branch bark was sometimes dried and used as a laxative and diuretic as well as for diseases of the urinary tract. Interestingly, elder preparations – especially those with fresh bark and unripe fruits - can cause poisoning.

Viburnum tinus L.

Common names: **Viburno, viorna, vavorna, lentiggine, laurustinus.**
 Habit and habitat/range: P caesp - Thermophylous woods in Eastern Sannio; Colle Sannita.
 Uses: ψ12 ψ6: The leaves and fruits were used by mountain dwellers to prepare astringent potions, which were used against diseases of the mouth and throat, as well as to soothe intestinal inflammations.

CARYOPHYLLACEAE

Agrostemma githago L.

Common names: **Gittaione comune**, corn cockle.
 Habit and habitat/range: T scap - wheat fields in the mountains of the upper Sannio Calore.
 Uses: ψ5 ψ8: The root was used to prepare poultices for inflamed skin or rashes. The seeds, once used in popular

medicine as expectorants and diuretics, are no longer recommended because of their toxicity.

Dianthus carthusianorum L.

Common names: **Garofano dei certosini**, clusterhead pink.

Habit and habitat/range: H scap – Mt. Taburno.

Uses: ψ 8 ψ 7: Infusions, syrups or the fluid extract of petals, were used as antitussives, diuretics, diaphoretics, stimulants for the nervous system in cases of feebleness or nervous exhaustion.

Saponaria officinalis L.

Common names: **Saponaria comune**, soapwort.

Habit and habitat/range: H scap - roadsides and damp grassy areas all over Sannio.

Uses: ψ 6 ψ 5 ψ 8: The root was used mainly to increase mucus production in the inflamed upper respiratory tracts, or the gastrointestinal, hepatic and urinary ducts. In large doses, the plant is toxic, and must be used with care.

Stellaria media (L.) Vill.

Common names: **Centocchio comune, paperina, budelina, mervogliana**, chickweed.

Habit and habitat/range: T rept/H bienn. - Shady loose earth, thickets and field borders in the Sabato Valley.

Uses: ψ 11 ψ 12: Poultices were used for sores and bruises as this plant is astringent and anti-inflammatory. The chickweed juice is galactofuge too and is used in poultices with parsley applied to mammary glands affected by the so called **pelo di menna**.

CELASTRACEAE

Euonymus europaeus L.

Common names: **Fusaria comune, berretto da prete, corallina**, spindle.

Habit and habitat/range: P caesp (P scap) - Hedgerows and cool woods in the hill country of the River Fortore.

Use: ψ 6: The only use of this plant, whose whole parts are toxic, concerns the orange, ovoid seeds used as a vermifuge as an external insecticide.

CORNACEAE

Cornus mas L.

Common names: **Corniolo maschio**, Cornelian cherry dogwood, Cornelian-cherry.

Habit and habitat/range: P caesp/P scap - Rare, in sub-Mediterranean broad leaved forests, Sabato Valley, Calore Valley.

Uses: α ψ : A slightly astringent, pleasant tasting preserve was prepared from the mature fruits. The bark also contains a bitter substance (comina) which gives it an essentially tonic-astringent quality.

CRASSULACEAE

Sedum maximum Hoffm.

Common names: **Borracina maggiore, erba di S. Giovanni**, orphine.

Habit and habitat/range: H scap - sunny, rocky places, grown for ornamental purposes.

Use: ψ 4: The fresh, crushed leaves were used, or rather, the detached cuticle, for repeated application on corns, which were gradually eliminated in this way. Juice from crushed leaves can be used to heal scars.

Sempervivum tectorum L.

Common names: **Semprevivo maggiore**, house leek.

Habit and habitat/range: Ch succ - Sun-exposed rocks along the River Fortore.

Use: ψ 10: The pulp and juice, if applied to corns and hard skin, softens them and help elimination of the problem. The juice also calms burns and irritation.

Umbilicus rupestris (Salisb.) Dandy

Common names: **Ombelico di Venere comune**, navelwort.

Habit and habitat/range: G bulb. - On the cliffs crevices and ruins all over the region.

Use: ψ 10: The peeled leaves are applied to corns and hard skin which they can soften. Cirelli (1853), describes the use of the leaves on small abscesses.

Umbilicus horizontalis (Guss.) DC.

Common names: **Ombelico di Venere minore**, narrow navelwort.

Habit and habitat/range: G bulb - damp cliffs and walls.

Use: ψ 10: See *Umbilicus rupestris*.

CUCURBITACEAE

Bryonia dioica Jacq.

Common names: **Brionia comune**, white bryony.

Habit and habitat/range: G rhiz/H scand - often found in hedges, damp thickets and ruins.

Uses: ψ 5 ψ 8: The part used is the root. It is a strong poisonous purgative and irritates the mucus of the digestive tract. For this reason, its use as an emetic or purgative was generally supplanted by more gentle products. Externally, it was used as a revulsive against rheumatism and sciatica, and has been recommended as a diuretic and against whooping cough and pulmonary inflammation.

Cucumis sativus L.

Common names: **Cetriolo**, cucumber.

Habit and habitat/range: T scap - cultivated.

Uses: α ψ : The fruit has good diuretic, refreshing and purifying properties. Cosmetically, it had many external uses, as a lightening decongestant and hydrator for the skin. The pulp worked as a decongestant balm. Grown for alimentary use, the smaller fruit are also used in preserves.

Cucurbita pepo L.

Common names: Zucchini, **zucchette**, **zucca**, courgettes.

Habit and habitat/range: T scap - cultivated.

Uses: α ψ: The pulp is a laxative. The seeds have a specific medicinal use as vermifuges for tapeworms and roundworm. This is due to the amino-acid cucurbitine, which paralyzes the worm and causes it to come away from the intestine wall. The use of courgette seeds as a vermifuge is well tolerated, without side effects, though the result is not as reliable as is with the male fern. It is generally grown for culinary purposes.

Ecballium elaterium (L.) A. Rich

Common names: **Cocomero asinino**, **schizzetti**, **sputaveleno**, squirting cucumber.

Habit and habitat/range: G bulb - A weed spread in uncultivated fields and ruins.

Use: ψ6: From ancient times, *Ecballium elaterium* together with other elements, was known as the **electuario** a violent purgative. In 1488, the doctor Carlo di Leo, from Benevento, holding the chair at Naples university in medicine and surgery, experimented with this plant on one of his patients, the future king, Alphonse II of Aragon. The patient suffering from **indispositio corporis** recovered from a long and debilitating illness after taking this treatment. The juice of the plant is poisonous, but the juice of not yet ripe fruit is not and was used as if it were poison on grapes, to keep thieves away.

DIPSACACEAE

Dipsacus fullonum L.

Common names: **Scardaccione selvatico**, **cardo dei lanaioli**, common teasel.

Habit and habitat/range: H bienn - Uncultivated clayey soils throughout Sannio.

Use: ψ8: The bitter-tasting root was used to stimulate perspiration and diuresis, and consequently favor the elimination of waste matter. Such purifying action was also evident in the improved conditions of skin affected by acne and dermatoses. The plant decoction is rich in silica, and therefore it was used - though quite rarely - for the treatment of tuberculosis.

Knautia arvensis (L.) Coult.

Common names: **Ambretta comune**, field scabious coult.

Habit and habitat/range: H scap/ H bienn- Arid pastures, wasteland and scrubs; valley of the river Sabato.

Uses: ψ5 ψ6: The whole plant has medicinal properties. Its action is mainly astringent, and the various preparations can be used in disorders of the bronchi as well as in many forms of dermatitis, in the treatment of sores, ulcers, chilblains and fungus-borne skin diseases.

Scabiosa columbaria L.

Common names: **Vedovina selvatica**, butterfly blue.

Habit and habitat/range: H scap - Grasslands, arid pastures, hedge grows, wood edges in the Mt. Matese zone.

Use: ψ5: The rhizome was used in several preparations, all of them having mainly a broncho-sedative, broncho-flu-idizing, purifying and sialagogue action. The preparations were also used externally to treat acariosis, follicular acne and some forms of eczema, dermatitis, chilblains and fungus-borne skin diseases.

EUPHORBIACEAE

Euphorbia amygdaloides L.

Common names: **Erba delle faggete**, almond spurge.

Habit and habitat/range: Ch suffr - Large leaf forests, especially beech woods; on the River Taburno.

Use: ψ7: The root is used; see *Euphorbia helioscopia* L.

Euphorbia helioscopia L.

Common names: **Euforbia calenzuola**, **erba verdone**, **erba dei porri**, sunspurge.

Habit and habitat/range: T scap - Uncultivated, arid pastures.

Use: ψ7: The product extracted from the roots is similar to the other species of the genus. The white latex which is very poisonous when placed on warts eliminates them by caustic action. It seems to be a sedative if placed in the cavity of a decayed tooth.

Euphorbia lathyris L.

Common names: **Euforbia catapuzia**, caper spurge.

Habit and habitat/range: H bienn - Rare, vegetable plots, ruins, banks of the Volturno.

Use: ψ6: The whole plant and especially the latex, is very poisonous. The latex and seeds have been used since ancient times as medicine. The plant has been used as a drastic purgative and to remove skin warts.

Euphorbia peplus L.

Common names: **Euforbia minore**, petty spurge, milkweed.

Habit and habitat/range: T scap - Fertilized, nitrate-rich soil, weeded crops, vegetable plots, ruins.

Use: ψ7: The leaves and flowers are the parts used. They were used as an antispasmodic and sedative besides the normal uses of this genus.

Mercurialis annua L.

Common names: **Mercorella comune**, annual mercury.

Habit and habitat/range: T scap - Nitrophilous, frequent in both cultivated and uncultivated sites all over Sannio.

Uses: ü ψ: In decoction it is used as a drastic purgative and a galactofuge. The local people used to give this preparation to large livestock suffering from tapeworms and roundworms as a complementary treatment once the parasites had been paralysed.

Mercurialis perennis L.

Common names: **Mercorella bastarda**, dog's mercury.

Habit and habitat/range: G rhiz- Rare, in mesophilous woods, especially beech woods; along the Sabato.
Uses: ü ψ: See *Mercurialis annua* L.

Ricinus communis L.

Common names: **Ricino**, castor bean.

Habit and habitat/range: P scap - grown for oil and in the wild.

Use: ψ6: The seeds are a purgative which allows them to eliminate intestinal parasites especially in children. Ricinine, a toxin contained in the oil, is very powerful and can cause serious poisoning.

FABACEAE

Anthyllis vulneraria L.

Common names: **Vulneraria comune**, kidney vetch.

Habit and habitat/range: H scap (H bienn/T scap) Arid meadows and rocky slopes over all the area.

Use: ψ10: The flowers were gathered to prepare purifying infusions. The flowers were used to heal wounds which received slightly astringent medication.

Astragalus glycyphyllos L.

Common names: **Astragalo**, falsa liquirizia, wild liquorice.

Habit and habitat/range: H rept - Mesophilous deciduous woods, especially oak woods all over the Sannio area.

Use: ψ8: The roots and leaves were used for their refreshing, purifying, and diuretic properties. They were also used for kidney ailments, gout and rheumatism.

Astragalus monspessulanus L.

Common names: **Astragalo rosato**, milk vetch.

Habit and habitat/range: H scap - Arid slopes at Montefalcone.

Use: ψ8: The plant is used as a diuretic, but it contains very few known active principles.

Ceratonia siliqua L.

Common names: **Carrubo**, carob, St John's bread.

Habit and habitat/range: P caesp/P scap - Cultivated, rare.

Uses: α ü ψ: This plant is not native to Sannio, so there is little local use. The fruit is sold at fairs and on local feast days. It is helpful for people with intestinal inflammation. Furthermore, the seeds contain a gum and fatty oils which provide mucilage which is useful as an expectorant. It is a foodstuff for human beings and animals, especially the horse family.

Cicer arietinum L.

Common names: **Cece**, chickpea.

Habit and habitat/range: T scap - Grown in arid and sunny hills all over Sannio.

Uses: α ψ: The nutritional value of chickpeas is well known, and from the pharmacological point of view, the seeds are used in decoction for jaundice. At the beginning

of the twentieth century, the decoction of black chickpea was given to jaundice sufferers together with the dust of old bricks. The seeds were widely eaten as a food.

Colutea arborescens L.

Common names: **Vesicarica**, **colutea**, bladder senna.

Habit and habitat/range: P caesp: thin woods and among light bushes along the rivers Fortore, Reinello, Torti and the valleys of Mt. Mafariello.

Uses: ψ π: The infusion of the dry pods was used as a cholagogue, laxative, diuretic and purifier. The leaves were often used to adulterate senna.

Coronilla emerus L.

Common names: **Cornetta dondolina**, scorpion senna.

Habit and habitat/range: NP - Open woods.

Uses: ü ψ: The seeds can have cardiotoxic properties. In Sannio, this plant was used for animal care, to help swine with hyperthermia. The tender plants were crushed to give juice, which was then rubbed on the ears of the pigs. The ears were full of blood because of fever, and so easily absorbed the active principles. The plant is, however, poisonous.

Cytisus scoparius (L.) Link

Common names: **Citiso scopario**, **ginestra dei carbonai**, broom, scotch broom.

Habit and habitat/range: P caesp - moorland, deforested areas on the acid soil of the Sabato Valley, the Tammaro and the Pannarano.

Uses: ψ π: The use of the flower was as a cardiocynetic, cardiotoxic, diuretic, and hypertensive. The ashes of the burned wood were used for their slightly diuretic action.

Galega officinalis L.

Common names: **Caprugine**, goat's rue.

Habit and habitat/range: H scap - Damp uncultivated areas. Imported in the middle ages, it has now become naturalized in the Sabato area.

Use: ψ11: The part used is the flower. It is hypoglycemic. The rue extract was once used in mild diabetes cases as it helped in the integration of sugars. It was also known to help in the formation of mother's milk.

Genista tinctoria L.

Common names: **Ginestra minore**, **finestrella**, **baccellina**, dyer's greenweed.

Habit and habitat/range: Ch suffr - SubMediterranean woodland, oak woods, chestnut woods.

Use: ψ6 ψ8: Many parts of the plant were used in decoctions as a purgative and diuretic, but even when the seeds were not used, the plant could bring about a violent hemo-cathartic reaction.

Laburnum anagyroides Medik.

Common names: **Maggiocindolo**, **avornello**, **cantamaggio**, laburnum.

Habit and habitat/range: P caesp/P scap - Mixed broad leaved woods, especially beech, cultivated for ornamental purposes all around Sannio.

Use: $\psi 6$: All parts of the plant can be used pharmacologically, but only the leaves were actually used, because they are the least toxic. They are cholagogue, choloretic and laxative.

Lathyrus vernus (L.) Bernh.

Common names: **Cicerchia comune, cece nero, chichierca**, spring vetch.

Habit and habitat/range: T scap - Woods of Sannio.

Use: $\psi 6$: The rhizome has an astringent pharmacological action, calming the hypercrinia of the intestine and vulnery.

Lotus corniculatus L.

Common names: **Ginestrino**, common bird's foot-trefoil.

Habit and habitat/range: H scap - Frasso Telesino-Taburino.

Uses: $\psi 7$ $\psi 4$ $\psi 6$: The flowers are used mainly as a sedative and for other aspects of the nervous and cardiac systems. They have an antispasmodic effect on the digestive tract. In the Sannio region, the diluted infusions were used to calm anxiety, insomnia and exhaustion.

Lupinus albus L.

Common names: **Lupino bianco**, white lupin.

Habit and habitat/range: T scap - Cultivated in dry areas in all of Sannio.

Uses: α \bar{u} ψ : The presence of alkaloids, including lupanina, makes this a very dangerous plant if ingested. The seeds, used as a foodstuff, have to be boiled and immersed for a long time underwater to take away the bitter taste and the poison. Despite the danger, the water the seeds were prepared in was used as a vermifuge for children. The extremely bitter seed decoction was most effective in small doses as a hypotensive. Some treated hypertension with dry seeds swallowed as pills. In the absence of quinine, lupin seeds were given which had a bland antipyretic effect, probably due only to its hypotensive properties. Boiled seeds are eaten to this day. The cooking water is used as an antiparasitic and to kill fleas on animals, to kill scab mites and even as a treatment for the fungus responsible for ringworm.

Medicago sativa L.

Common names: **Erba medica, erba Spagna**, Lucerne.

Habit and habitat/range: H scap - Uncultivated fields, dry meadows.

Uses: ψ π : The leaves were used for their analeptic, antirachitic, antiscorbutic eutrophic and vitamin-giving powers. Hay plant.

Melilotus altissima Thuill.

Common names: **Meliloto altissimo**, tall melilot.

Habit and habitat/range: G rhiz - Damp, uncultivated areas, in particular riversides and pond sides. Rivers Sabato and Calore.

Use: $\psi 7$: See *Melilotus officinalis*.

Melilotus officinalis (L.) Lam.

Common names: **Meliloto comune**, common melilot, ribbed melilot.

Habit and habitat/range: H bienn - Rubble, uncultivated fields and grassy areas all over Sannio.

Use: $\psi 7$: The flowers contain principles acting as antispasmodics and indirectly as a hypnotic. The infusion of the plant was used as a collyrium on the nerve centers and an antiphlogistic for conjunctivitis and internal nasal irritation.

Onobrychis alba (Waldst. & Kit.) Desv.

Common names: **Lupinella bianca**, white sainfoin.

Habit and habitat/range: H scap/Ch suffr - Dry pastures, sliding slopes of Sannio uplands.

Use: $\psi 8$: This plant is astringent, diuretic and a sedative for ailments of the urinary tract.

Onobrychis montana DC.

Common names: **Lupinella montana**, mountain sainfoin.

Habit and habitat/range: H scap - dry mountain meadows.

Uses: $\psi 8$: See *Onobrychis alba*.

Onobrychis viciifolia Scop. subsp. *altissima* (Grossh.)

Ponert

Common names: **Lupinella comune, fieno-santo, crocetta**, sainfoin.

Habit and habitat/range: H scap - Fields and meadows.

Use: $\psi 8$: See *Onobrychis alba*.

Ononis spinosa L.

Common names: **Ononide spinosa, bonaga, arrestabue**, cammock, rest-harrow, spiny rest-harrow, wrest-harrow.

Habit and habitat/range: Ch suffr - Dry places, small bushes and grassland.

Uses: $\psi 6$ $\psi 11$: The roots were used for their diuretic and anti-inflammatory properties. They were used to alleviate edemas and ascites, to treat nephritis, cystitis and chronic dermatosis.

Phaseolus vulgaris L.

Common names: **Fagiuolo**, common bean.

Habit and habitat/range: T scap - Grown all over Sannio.

Uses: α ψ : The pod is used in infusion as it can reduce arterial pressure and the amount of sugar and cholesterol in the blood. The pods, gathered when fresh, are dried out and kept over the winter in little paper or canvas bags. Often eaten by humans.

Robinia pseudoacacia L.

Common names: **Robinia**, acacia, **gaggia**, black locust.

Habit and habitat/range: P caesp/P scap - Escarpments, uncultivated round, hedgerows. Native to America, it is now naturalized to Sannio.

Uses: ψ π : The flowers are slightly carminative, antispasmodic, emollient and cholagogue. The bark and root are tonic and laxative in small doses, while in stronger doses they are purgative and toxic. When used on hillsides to block landslides, it is planted in rows, which thanks to their side roots, created a butress-like underground barrier.

Spartium junceum L.

Ginestra comune, ginestra odorosa, Spanish broom.

Habit and habitat/range: P caesp - Small bushes in sunny parts, clearings and abandoned cultivated land all over the area.

Uses: ψ 6 ψ 7: The whole plant, but especially the flower and seeds contain a very poisonous alkaloid. The flowers were used for their diuretic and purgative properties.

Trifolium pallidum Waldst. & Kit.

Common names: **Trifoglio pallido**

Habit and habitat/range: T scap/H bienn - Damp, grassy, uncultivated land in the Telesse area.

Use: ψ 6: See *Trifolium pratense*.

Trifolium pratense L.

Common names: **Trifoglio pratense, trifoglio violetto, trifoglio rosso**, Purple clover.

Habit and habitat/range: H scap -Dry, uncultivated land in the mountainous and sub-mountainous zones of Sannio.

Use: ψ 6: The decoction of the leaves has well-known diuretic and purgative qualities, but they are not much used. The flower was used for an infusion to control glandular secretions and mucosis even if medical evidence is still insufficient.

Trigonella foenum-graecum L.

Common names: **Fieno greco**, classical fenugreek.

Habit and habitat/range: T scap - Grown for forage in the Sannio hill country.

Uses: α ψ : The plant can be used as a convalescent tonic and as a stimulant in anaemic or undernourished patients, or feeble children. The seeds contain mucilage and so they can be used as expectorants and emollients. The only known preparation is a decoction of fenugreek leaves and purple willow used in ancient times as an abortifacient.

Vicia faba L.

Common names: **Fava**, broad bean.

Habit and habitat/range: T scap - Grown in all Sannio to increase nitrogen content in the soil by green manuring.

Uses: α ψ : The broad bean seed is highly nutritious and so, cooked in the pan with a little water, were eaten to combat anemia and above all to check the menstrual flow. The best known use was as an astringent, so a surfeit of broad beans was recommended as a remedy for di-

arrhoea and dysentery, preferably with sorb berries. The fresh shoots were also eaten as food.

Vicia sativa L.

Common names: **Vicia dolce, veccia**, broad bean.

Habit and habitat/range: T scap - Infests grassland along the R. Fortore

Uses: α ψ : See *Vicia faba*.

GENTIANACEAE

Centaurium erythraea Rafin.

Common names: **Centaurea maggiore**, centaury.

Habit and habitat/range: H bienn/T scap - Open dry woods near Mount Matese in the Sannio region.

Uses: ψ 7 ψ 6: The antipyretic property of this plant is the most useful. In fact, in order to prevent malarial fevers, drinking bitter infusions of centaury stems and leaves, may be mixed with sweet marjoram, was recommended. The plant was also used, in infusion or tincture, as an activator in the process of digestion. Finally, for external use, it was used as a cleansing and cicatrizing agent.

Centaurium pulchellum (Sw.) Druce

Common names: **Centauro elegante**, branched centaury.

Habit and habitat/range: T scap - Muds, humid places in the valleys of the rivers Sabato and Calore.

Uses: ψ 7 ψ 6: See *Centaurium erythraea*.

Gentiana lutea L.

Common names: **Genziana maggiore, genziana gialla**, gentian, yellow gentian.

Habit and habitat/range: H scap - grassland and pastures in mountainous areas near Mt. Matese

Uses: ψ 6 ψ 7: The root is the part used as a fluid extract, powder or tincture and also as infusion or syrup. Its action produces a gastric juice increase; therefore each of these preparations is useful in the treatment of digestive disorders. Its febrifugal properties, now clinically proven, have been known for a long time. In the past, as soon as the symptoms of malaria were felt, a gentian and wall germander decoction was used immediately.

JUGLANDACEAE

Juglans regia L.

Common names: **Noce comune**, walnut.

Habit and habitat/range: P scap - widely grown in the Caudina region, naturalized in various localities.

Uses: α ψ π : Walnut leaves have bitter-tonic, purifying and digestive properties, and so they were used to make decoctions. According to Cirelli (1853), hypochondriacs with an obstruction of the liver or the spleen were cured by making them put the sole of the right foot on a piece of bark cut to the same shape. This, acting as a resolvent, caused an immediate burning sensation on the sole of the foot, which indicated, somehow, that the patient had

been cured. A digestive liquor called **nocino**, is prepared from the unripe fruit, gathered, according to tradition, on June 24th, Saint John's day, the time of year when the hull of the fruit is at its most aromatic and best able to favor digestion. A small piece of walnut kernel, heated up and placed in the cavity of a decayed tooth was used as an analgesic. The leaves and the hull of the fruit have laxative and vermifuge properties. The leaves also seem to have antibiotic activity.

LAMIACEAE

Ajuga reptans L.

Common names: **Iva comune, bugula, erba di S. Lorenzo**, common bugle.

Habit and habitat/range: H rept - Rare, broad leaf woods meadows in the Valley of the river Sabato.

Use: ψ 6: In popular tradition, the whole plant, except for the rhizome, was used. The infusion and other preparations had astringent, tonic and vulnerary action.

Ajuga iva (L.) Schreb.

Common name: **Iva moscata**

Habit and habitat/range: Ch suffr - Dry grassland, uncultivated pastures of Mount Matese in Sannio.

Use: ψ 6: The infusion of the leaves had a tonic, diuretic, antispasmodic and aperient action. It is also believed to have vulnerary properties.

Ballota nigra L.

Common names: **Cimiciotta comune**, black horehound. Habit and habitat/range: H scap - Ruins, wasteland, and hedges in the Valley of the river Sabato.

Use: ψ 6: This plant was a widespread anthelmintic as early as the Middle Ages, and still today it is appreciated for its antispasmodic and sedative properties when it is used in infusion, as a tincture or syrup.

Calamintha nepeta (L.) Savi

Common names: **Mentuccia comune**, wild mint.

Habit and habitat/range: H scap (Ch suffr) - Dry grassland, wasteland, road edges and walls.

Uses: ψ 5 ψ 7: The whole plant was used, after being cut during blooming. It was used in many different ways and accordingly had actions as a cholagogue, expectorant, sedative and antibiotic.

Calamintha sylvatica Bromf.

Common names: **Mentuccia maggiore, calamenta**, calamint.

Habit and habitat/range: H scap - Grows in the uplands in the area of Fortore and in fresh wastelands in the Valley of the river Calore.

Use: ψ 6: Like the more common mints, whose use is widespread in the popular medicine of Sannio, calamint is considered a good anthelmintic to be used only externally due to its strong smell. The apex of the plant was crushed and placed on the abdomen of children suffering spasms

due to helminthiasis. In order to improve the application of the poultice, a small amount of unsalted lard was added.

Clinopodium vulgare L.

Common names: **Clinopodio**, wild basil.

Habit and habitat/range: H scap - Typical of the broad leaved woods on the arid mountains surrounding seasonal torrents, the tributary of the upper River Sabato in Sannio.

Use: ψ 6: The parts used are the flowers and leaves. Its preparations have carminative, stimulating or emmenagogue actions.

Galeopsis angustifolia Ehrh. ex Hoffm.

Common names: **Canapetta a foglie strette**, hemp nettle.

Habit and habitat/range: T scap - Grassland, arid wasteland and uncultivated fields of Mount Matese.

Use: ψ 5: The leaves and flowers are treated in infusions, syrups or fluid extracts and have re-mineralizing properties in respiratory system infections. It also has diuretic, hematopoietic and fluidizing effects in the bronchi.

Galeopsis tetrahit L.

Common names: **Canapetta comune**, common hemp nettle.

Habit and habitat/range: T scap - A nitrophilous plant of fields, ruins and debris.

Use: ψ 5: See *Galeopsis angustifolia*.

Lamium album L.

Common names: **Ortica morta, ortica muta, falsa ortica bianca**, white dead-nettle.

Habit and habitat/range: H scap - Along tracks and in the shady places of Sannio in the area of Mount Matese.

Uses: ψ 4 ψ 9: White dead-nettle is known in popular medicine for its hemostatic, anti-leukorrhoeal, and decongesting properties. A decoction prepared with the root, grains of barley, corn and oat, is still used against uterine hemorrhage. In order to reduce excessive menstrual flow, a simple infusion of leaves and dried stems of white dead-nettle can be very useful. The same infusion, is also used externally for douching of the genitals, acting as an astringent and decongestant. Today, the effectiveness of the plant has been confirmed against uterine hemorrhage, irregular menses and leukorrhea.

Lamium maculatum L.

Common names: **Falsa ortica macchiata**, spotted dead-nettle.

Habit and habitat/range: H scap - Coppices, hedges and wasteland in Sannio in the area of Mt. Matese.

Uses: ψ 4 ψ 9: See *Lamium album*.

Marrubium vulgare L.

Common names: **Marrubio comune, robbio, mentastro, erba China**, white horehound.

Habit and habitat/range: H scap - Uncultivated and arid lands in the area of Paduli.

Uses: ψ6 ψ9: The decoction, having a febrifugal action, was preferred to that of common centaury when, due to gastritis, the patient was intolerant to the latter herb. This decoction was used also to regulate poor menstrual flow. The use of this plant as a febrifuge has been widespread up to a few decades ago.

Melissa officinalis L.

Common names: **Melissa vera**, citronella, **erba limoncella**, balm, sweet balm, lemon balm.

Habit and habitat/range: H scap - Hedges and thicket edges, especially along the river Fortore; also cultivated.

Use: ψ6: The parts used are the leaves and flowers. The action is slightly antispasmodic, antihysterical and tonic.

Mentha aquatica L.

Common names: **Menta d'acqua**, water mint.

Habit and habitat/range: H scap - Embankments, river banks, and swamps.

Use: ψ6: The infusion and other preparations of the flowers and leaves have antiemetic, antiseptic, antispasmodic, carminative and tonic action. The product is recommended in gastrointestinal dyspepsia and in the disorders of the digestive system as a whole.

Mentha longifolia (L.) Huds.

Common names: **Menta selvatica**, **mentastra**, wild mint.

Habit and habitat/range: H scap - Spread everywhere in cool areas.

Use: ü: This plant has the same beneficial properties as the better-known peppermint, but the chemical composition of its essential oil is different, and the smell is not as pleasant and fine as in other types of mint. In the Sannio, in fact, its use is exclusively veterinary. Fresh leaves, crushed and applied topically, relieve pain by reducing edemas, and disinfect abrasions which are often caused by draught animals doing work in the fields.

Mentha pulegium L.

Common names: **Poleggio**, pennyroyal.

Habit and habitat/range: H scap - Humid areas flooded in spring and dry in summer.

Use: ψ6: The infusion, the extract or the tincture, or still other preparations of the flowers have tussive, cholagogue, digestive, stimulating and tonic action. They are useful to fight off disorders of both the respiratory and digestive systems.

Mentha spicata L.

Common names: **Menta romana**, **menta**, spearmint, mint.

Habit and habitat/range: H scap - grown everywhere in Sannio as a culinary herb.

Uses: α ψ: Mint has long been used mainly for its anthelmintic action. Children were given either the juice of mint, garlic and onion crushed together, or small balls of crushed

leaves. Also in external use it could fight off worms, so poultices of absinth, mint and rue cooked in vinegar were placed on the abdomen to this purpose. Intestinal spasms due to internal parasites were soothed by mint, rue and absinth juice applied externally. While nursing, wet nurses used to chew garlic and mint, since the substances, chewed and ingested, reached the baby through the milk, and were believed to be effective against worms. Mint was also used for its emmenagogue properties. Also used to flavor omelettes and mushroom dishes.

Mentha suaveolens Ehrh.

Common names: **Menta a foglie rotonde**, **mentastra**, round-leafed mint.

Habit and habitat/range: H scap - Along the river Calore and in humid areas.

Uses: ψ6 ψ8: Its unpleasant smell could explain why it has mainly been used externally as an antispasmodic. The crushed epigeal part was used in relieving pain caused by arthritis and rheumatism. The root prepared in decoction was believed to be a purifier of the urinary tract.

Nepeta cataria L.

Common names: **Gattaia comune**, common catmint, catnip.

Habit and habitat/range: H scap - Petraroja.

Use: ψ7: The flowers can be processed in several ways and, accordingly, can have sedative-spasmolytic, stimulating and emmenagogue action.

Ocimum basilicum L.

Common names: **Basilico**, sweet basil.

Habit and habitat/range: T scap - Grown throughout Sannio.

Uses: α ψ: Widely popular in Mediterranean cooking, in herbal medical practice basil was used to prepare an infusion stimulating digestion and relieving stomach and intestinal cramps.

Origanum heracleoticum L.

Common names: **Origano meridionale**, seedless oregano.

Habit and habitat/range: H scap - Thin thickets, bushes, wood edges throughout Sannio

Uses: ψ: See *Origanum vulgare*.

Origanum majorana L.

Common names: **Origano majorana**, Persia, **maggiorana**, sweet marjoram.

Habit and habitat/range: H scap- Cultivated; found escaped in uncultivated arid and sunny soils.

Uses: α ψ: The properties and uses of marjoram are similar to those of oregano. The infusion of sweet marjoram and common centaury was used in the treatment of malarial fevers.

Origanum vulgare L.

Common names: **Origano comune**, **arigano**, **riganò**, **regano**, **rianu**, **acciugaro**, oregano.

Habit and habitat/range: H scap - Grassland, hedgebanks and scrub throughout the Sannio.

Uses: α ψ: The pulverized small flowers of oregano were used on newborn babies' irritated skin as an alternative to the powder of old worm eaten beams into oil with beaten egg white. It was used as a sedative for toothache when pulverized oregano was placed inside the cavity of the decayed tooth. The same effect was obtained by steeping oregano in oil. In infusion, the flowers stimulate intestinal functions and help eliminate bronchial catarrh. It is widely used to flavor raw and cooked food.

Prunella laciniata L.

Common names: **Prunella gialla**, heal all.

Habit and habitat/range: H scap - Arid, sunny grassland throughout Sannio.

Uses: ψ5 ψ6: See *Prunella vulgaris*.

Prunella vulgaris L.

Common names: **Prunella comune**, self-heal.

Habit and habitat/range: H scap - Grassland, pastures, hedge grows and thickets in the foothills throughout the region.

Uses: ψ5 ψ6: All parts of the plant are used. If used in infusion, decoction or tincture, it is useful as an astringent in the diseases of the respiratory and gastrointestinal systems.

Rosmarinus officinalis L.

Common names: **Rosmarino**, **usmarino**, **smarino**, **ramerino**, **trasmarino**, rosemary.

Habit and habitat/range: NP - Extremely widespread on the sunny slopes of Mt. S. Giorgio la Molara, Mt. Molinara and the valley of the upper and lower Fortore.

Uses: α ψ: The flowered apex, in infusion, stimulates bile secretion and helps digestion. For the same purpose, it is also used for patients with high cholesterol. The essential oil, if applied topically, has also stimulating and rubefacient properties, which prove useful in the treatment of contusions, aching muscles and joints, rheumatism and torticollis. When possible, the vapors released by the decoction of rosemary and other balsamic plants are used to relieve the above discomfort. This is a widespread practice. Rosemary acts as a general and nerve stimulant, as a cholagogue and choloretic, which justifies its widespread use as flavoring, mostly in the case of lack of appetite and debilitation. The physical anti-stress effect is evident in foot-baths and baths or partial poultices made with the rosemary infusion. In large doses, rosemary essence is a strong irritant of the gastroenteric duct and kidneys. Largely used to flavor raw and cooked food.

Salvia haematodes L.

Common names: **Salvia comune**, common sage.

Habit and habitat/range: H scap - Uncommon in arid grassland and wasteland.

Uses: ψ π: The leaves can be used to prepare tinctures, decoctions or fluid extracts and have antihydrotic, anti-spasmodic, astringent and tonic action. The plant is used externally in the treatment of gingivitis or ulcers. In industry, it is used in the production of **eau de cologne**.

Salvia officinalis L.

Common names: **Salvia domestica**, sage.

Habit and habitat/range: Ch suffr - Spontaneous in the sunny escarpments of the mountainous areas along the river Fortore.

Uses: α ψ: Sage has stimulating properties for the gastric and intestinal functions. The infusion of its leaves, sweetened with honey, has a balsamic and expectorant effect. In ancient medicine it was considered a powerful wound healing agent, but domestic use - still largely widespread - consists in a decoction with antiseptic and vulnerary action for the inflammation of oral mucosa and the throat. In infusion, the leaves are indicated for their astringent, slightly antiseptic, hypoglycemia inducing and stomachic action. It is largely used to flavor raw and cooked food.

Stachys officinalis (L.) Trevis.

Common names: **Betonica comune**, common betony.

Habit and habitat/range: H scap - Arid grassland, pastures, thin mixed woods.

Uses: ψ6: The leaves, gathered before blooming, provide the plant product. In ancient times, the plant had a high reputation due to some properties that however, lost credence in time. Today, the leaves are processed in several ways and are used mainly for their anti-jaundice, cholagogue, diuretic and liver-protecting action.

Teucrium chamaedrys L.

Common names: **Camedrio comune**, **calamandrea**, **querciola**, **erba cerzolla**, wall germander.

Habit and habitat/range: Ch suffr - In stony, arid areas, in hedge grows and scrubs.

Uses: ψ π: This plant is known in the Italian pharmacopoeia for its aperient, bitter and digestive properties. The flowers can be used in infusion with antipeptic, astringent and tonic effects. In Sannio it is only known as a febrifuge. Popularly known as **erba cerzolla**, it was used in decoction, alone or in combination with gentian, to fight off intermittent fevers; it is still considered as an effective febrifuge.

Teucrium montanum L.

Common names: **Camedrio montano**, mountain germander.

Habit and habitat/range: Ch suffr - Arid grasslands, rocky areas on the high and medium-high sides of the uplands in Sannio.

Use: ψ6: The flower preparations have astringent, antiscorbutic, antiseptic and tonic-digestive action.

Thymus serpyllum L.

Common names: **Timo serpillio**

Habit and habitat/range: Ch frut - Pietraraja.

Uses: ψ π ù: The properties of thyme are due to high energy-giving substances contained in its essential oil, notably two carbolic acids: thymol - which is an antiseptic, antispasmodic and anthelmintic, and is used also in many drug preparations - and carvarcrol, an antiseptic which is widely used in perfumery. In the pharmacopoeia of Sannio, thyme was considered an excellent antiseptic and vulnerary for wounds and sores. The flower decoction was a good anthelmintic, specific for *Trichocephalus* and *Anchilostumu duodenale* (European hookworm). In veterinary medicine, the population of Sannio administered thyme decoction to cows, in order to help placenta expulsion after a difficult delivery.

LAURACEAE

Laurus nobilis L.

Common names: **Alloro, lauro**, laurel.

Habit and habitat/range: P caesp (P scap) Wild in brush and shrubland or mountainous and submountainous places. It is cultivated everywhere.

Uses: ψ α: The laurel stimulates digestion. The infusion of the leaves was used to this end. If combined with oregano, it proves efficient at curing migraines caused by indigestion. Rue-based vermifuge preparations could have laurel leaves added as a sedative and to improve the flavor. The pain killing factor was a primary purpose in cases of dysmenorrhea. The decoction of the leaves, which also has expectorant qualities, when sweetened with honey was used for colds. The leaves are usually employed in cooking for their aromatic qualities.

LINACEAE

Linum catharticum L.

Common names: **Lino capitato**, fairy flax.

Habit and habitat/range: Ch suffr - Cliffs and screes of the Matese Sannio.

Use: ψ6: The whole plant contains a bitter substance. It was used as a purgative and diuretic at the same time, to reduce local or widespread edemas, or else to eliminate excess ascitic fluid.

Linum usitatissimum L.

Common names: **Lino coltivato**, common flax.

Habit and habitat/range: T scap - Formerly grown in the plains all over the Sannio area.

Uses: ψ5 ψ6: The crushed or round seeds provided linen flour used to make a warm, damp fomentation (poultice) both to ease the maturation of purulence and for phlogosis of the respiratory system and digestive tract. The seeds were crushed thoroughly and cooked in very little water, the poultice applied to the abscesses and carbuncles and the swelling would go down if a leaf of *Tussilago farfara* L. without the epidermis was added. The pain would also

diminish. To treat bronchitis, a poultice of whole, boiled seeds having an expectorant, resolvent effect would be placed on the chest. Linseed oil, mixed 50:50 with lime-water constituted an oleo-calcareous liniment was used on burns.

LORANTHACEAE

Loranthus europaeus Jacq.

Common names: **Vischio quercino**, yellow-berried mistletoe.

Habit and habitat/range: P ep - Woods; hemiparasite on deciduous oaks and chestnut trees around the Sabato.

Use: ψ7: It was once used as a sedative to treat epilepsy.

MALVACEAE

Althaea hirsuta L.

Common names: **Altea ispida**, hairy marsh-mallow.

Habit and habitat/range: T scap - fields and dry pastures, vines on calcareous substrata.

Use: ψ5: The parts used are the roots, the leaves and the flowers. The root, with its refreshing and emollient properties was used for coughs, bronchitis and even digestive ailments. The decoction is useful for mouth infections, gargling and placing poultices on sores, carbuncles or phlegmons. The leaves and flowers are emollient and can be used for coughs and sore throats.

Malva sylvestris L.

Common names: **Malva**, common mallow.

Habit and habitat/range: H scap (T scap) - anywhere along escarpments and in the cool areas of the Fortore Valley and the Paduli district.

Uses: ψ ù: The mallow was always considered a treasure of the Valforte and Paduli, on account of the vast quantities growing there and the number of medicinal uses it had. It was the most widespread local tussive. There were many emollient decoctions where it was the main ingredient. Mixed with camomile or barley, coughwort root, couch-root and grains of corn, mallow is used against every type of cough, dry or chest cough. In popular decoctions, it is added to spotted thistle for bronchitis. The antiphlogistic effect is best seen on the oral mucus where the juice of fresh leaves is used. Mallow roots are mildly analgesic and anti-irritant. Crushed, they can be used on wounds. The marrow root, boiled with cyclamen tubers, with lettuce and camomile gave a decoction which, on account of its antiphlogistic, refreshing and astringent qualities was excellent in treating hemorrhoids. Paradental ailments were treated by suffumigations of mallow. Poultices of boiled mallow, applied to dental abscesses caused reabsorption. The anti-irritant properties were made use of by placing poultices on purulent areas. The root decoction was used in enemas on account of its laxative and refreshing qualities. The decoction made from marrow roots, lettuce and camomile, was given to cows with abdominal colic.

MORACEAE

Ficus carica L.

Common names: **Fico comune**, common fig.

Habit and habitat/range: P scap - grown in flat and hilly country.

Uses: α ψ π: The decoction of dried figs as an emollient and sedative for coughs is popular. Various lenitive ingredients were added to these decoctions. The cooked fig was eaten because of its action on inflammation of the upper respiratory tract. Although modern, less painful remedies are now employed, use is still made of "the latex of a ripe fruit to remove warts" in the country. Less specifically, the latex is also used as a corn remover. A drop placed on an insect bite has local antihistamine properties.

Morus alba L.

Common names: **Gelso comune, moro bianco**, white mulberry

Habit and habitat/range: P scap - cultivated for the nurturing of silkworms, and rarely spontaneous.

Uses: α ψ: The fruits, immature and mature, and the leaves have astringent and refreshing properties. The bark has stomach easing and vermifuge properties. It is used for preserves and confectionery.

Morus nigra L.

Common names: **Gelso nero, moro nero**, black mulberry.

Habit and habitat/range: P scap - cultivated for its fruit and rarely spontaneous.

Uses: α ψ: The fruit of the black mulberry was used locally to prepare an expectorant syrup with slight laxative properties. The leaves were used as a mild astringent and to reduce blood-sugar levels in diabetics. It is used for preserves and confectionery.

MYRTACEAE

Eucalyptus camaldulensis Dehnh.

Common names: **Eucalipto**, redgum eucalyptus.

Habit and habitat/range: P scap - Grown for ornamental use.

Uses: ψ5 ψ8: See *Eucalyptus globulus*.

Eucalyptus globulus Labill.

Common names: **Eucalipto**, eucalyptus.

Habit and habitat/range: P scap - Grown for ornamental use.

Uses: ψ5 ψ8: The product prepared is extracted from the leaves gathered in summer or autumn and dried in the sun. They contain essential oils with eucalyptol, an antiseptic antitarrhal with benefits to the respiratory and urogenital systems. It is used against miners' anemia as it affects the duodenal anchylostoma. The bitter principles in the leaves make it useful for the preparation of eupeptics.

Myrtus communis L.

Common names: **Mirto, mortella**, myrtle, true myrtle.

Habit and habitat/range: P caesp - Typical of the **maquis** around Buonalbergo.

Uses: ψ5 ψ6: The product prepared comes from the leaves gathered in September. They contain an essential oil and a bitter principle which are balsamic, expectorant for the respiratory system, and diuretic. It was used with care as overdoses are poisonous. The leaves were used as an astringent for running sores.

OLEACEAE

Fraxinus ornus L.

Common names: **Frassino da manna, oriniello, orno**, manna ash.

Habit and habitat/range: P scap - Scrubs.

Uses: ψ ū: The juice, extracted by tapping the base of the tree trunk during bloom, was called ash manna. It was used as a decoction or syrup; it could also be combined with other substances, and used for its laxative and cooling action. In the countryside one may happen to see, in the drinking-troughs of poultry, young ash branches giving the water a green-bluish color. In this way, the water acquires properties for the treatment of diseases of the respiratory tract, especially in chickens, which would otherwise weaken and die. The beneficial properties are probably due to the release of antipyretic and anti-rheumatic active principles into the water.

Ligustrum vulgare L.

Common names: **Ligustro, olivella**, wild privet.

Habit and habitat/range: NP thermophilous deciduous woods, mostly along declining bushes in the upper Tammaro valley; Torrent Isca Recapo.

Use: ψ6: The leaves and fruits were used in decoction as a laxative. The flower infusion is astringent and is used as an eyewash. The bark, either in water or wine infusion, was recommended as a stomachic tonic.

Olea europaea L.

Common names: **Oливо**, common olive.

Habit and habitat/range: P caesp/P scap - Grown largely in the high and low hills of Sannio, especially in the area of the river Fortore.

Uses: α ψ: Olive leaves are a well-known febrifuge; in order to prevent malaria fever attacks, patients were advised to drink an infusion of willow and olive leaves every morning. They also have a hypoglycemia-inducing and hypotensive action which lowers arterial pressure and tends to bring the low peak pressure within physiological limits. To this purpose, the decoction of boiled tender branches is drunk in the morning on an empty stomach. Used externally, the same decoction has astringent and antiseptic action and is used to wash sores. Olive oil has a laxative effect if taken on an empty stomach. Cirelli (1853) in fact, reported that pure olive oil, emulsified with water, was used for colics. As an emollient, it was also quite common to place

a few drops of olive oil into the ear to remove excessive earwax. A sort of farmer's manual dating from last century reports on the use of warm olive oil to relieve pain caused by wasp and hornet bites. The scented resin produced by the plant was used to prepare fumigations. The fruit is largely used as food.

OROBANCHACEAE

Lathraea squamaria L.

Common names: **Latrea comune**, toothwort.

Habit and habitat/range: G rhiz - Parasite of several broad leaved trees and bushes; lives in beech and mixed woods.

Use: ψ 7: The rhizome is active as an antispasmodic and against children's convulsions and epilepsy.

PAPAVERACEAE

Chelidonium majus L.

Common names: **Erba da porri**, **celidonia**, celandine.

Habit and habitat/range: H scap - everywhere in the woods and damp, shady shrubs all over Sannio.

Use: ψ 7: Due to the high alkaloid content, it was little used. It is poisonous when fresh. Only the fresh latex obtained before flowering was used. Because of its caustic properties it is able to remove warts with the same degree of success as liquid nitrogen. The alkaloids are similar to opium and have antispasmodic, narcotic, cathartic, cholagogue and diuretic qualities.

Corydalis cava (L.) Schweigg. & Körte

Common names: **Colombina cava**, bird-in-a-bush.

Habit and habitat/range: G bulb - broad leaved woods, especially oak, hornbeam and beech throughout the Sannio area.

Use: ψ 7: Infusions and decoctions of the tubers were used as sedatives and narcotics. The plant can be extremely poisonous. Because of the presence of bulbocapnine, the plant is currently used in medicine against Parkinson's Disease and similar illnesses.

Fumaria capreolata L.

Common names: **Fumaria bianca**

Habit and habitat/range: T scap - vegetable gardens, vines, abandoned fields; in the Tufara Valley.

Use: ψ 6: See *Fumaria officinalis*.

Fumaria officinalis L.

Common names: **Fumaria comune**, **fumosterno**, **fecia**, common fumitory.

Habit and habitat/range: T scap - weed alongside hedges and escarpments of the rivers Fortore, Tammaro, Tammarocchia.

Use: ψ 6: The presence of the alkaloid fumitory makes preparations from this plant almost unusable for domestic use. In external use, it has an emollient, resolvent action and can be used as a topical dermopathic treatment.

Used as a bitter, diaphoretic purifier, it stimulates the secretions of the digestive system.

Papaver rhoeas L.

Common names: **Papavero comune**, **rosolaccio**, common red poppy.

Habit and habitat/range: T scap - a weed wild among cereal crops, also among ruins and rubble.

Uses: α ψ : In the past, the petals were used for their tussive, diaphoretic, narcotic-sedative, broncho-sedative effects. The young plants substituted or complemented vegetable gardens and often, because of their particular flavor, were used in local recipes.

Papaver somniferum L.

Common names: **Papavero domestico**, **papavero romano**, garden poppy, opium poppy, white poppy.

Habit and habitat/range: T scap - once cultivated, now it grows wild.

Use: ψ 7: The decoction of mature capsules, with their sedative properties, was used (very carefully) as an aid to sleeping, especially in the case of children. The seeds were crushed to extract oil with its lenitive and emollient properties.

PLANTAGINACEAE

Plantago lanceolata L.

Common names: **Plantago lanciuola**, **plantago minore**, **centonervi**, ribwort, ribwort plantain.

Habit and habitat/range: H ros - Grassland and uncultivated areas, along roads and country paths.

Uses: α ψ : Of the plantain species here taken into account, *Plantago lanceolata* was the most commonly used. The leaves were mostly used for their anti-inflammatory and wound healing properties. The poultice of the leaves could be placed on inflamed parts with resolving effect. Crushed leaves, placed between two cloths and applied on insect or animal bites, relieved pain. The infusion of the leaves was used to douche delicate or reddened skin and to wash eyes suffering from conjunctivitis. The infusion of dry leaves was used for bronchitis and colds. The decoction of dried leaves and roots were used for its diuretic and hemocathartic action. The plant is edible, and the leaves - but especially the mucilaginous seeds, stimulate intestinal peristalsis. The decoction, syrup and tincture have been used mainly for their astringent and hemo-coagulative action.

Plantago major L.

Common names: **Plantago maggiore**, **cinquenervia**, **centonervi**, greater plantain.

Habit and habitat/range: H ros - Grassy and uncultivated areas periodically flooded.

Uses: α ψ : See *Plantago lanceolata*.

POLYGONACEAE

Polygonum aviculare L.

Common names: **Poligono centinodia**, knotgrass.
Habit and habitat/range: T rept - trampled, uncultivated round, abandoned fields and ruins.
Uses: ψ 11 ψ 4: The plant was used as an astringent for internal hemorrhaging and, thanks to its silica content, in mineral treatments. It was also known as a mild laxative and blood purifier.

Polygonum hydropiper L.

Common names: **Poligono, pepe d'acqua**, waterpepper.
Habit and habitat/range: T scap - flat stream-rich zones in the Telese Valley and the lower Fortore.
Uses: ψ 9 ψ 4: Waterpepper is an astringent, hemostatic vasoconstrictor occurring near streams. It was used in infusions for controlling excessive menstrual flow, and in higher doses as an abortifacient. The fresh, crushed seeds when applied in a poultice to the chest, seemed to help bronchitis.

Polygonum lapathifolium L.

Common names: **Poligono nodoso**, curlytop knotweed.
Habit and habitat/range: T scap - ruins and damp, cultivated land, with regular rainfall in the Sabato, Calore and Fortore Valleys.
Uses: ψ 9 ψ 4: See *Polygonum hydropiper*.

Rumex acetosa L.

Common names: **Romice acetosa, erba brusca, lampazzo**, common sorrel.
Habit and habitat/range: H scap – Mt. Taburno
Uses: ψ \ddot{u} : Compared with the other two species with similar uses, the taste is a little more acidic so that it was only used externally. The leaves heated and added with oil were placed on carbuncles to bring them out. For veterinary use, the dried seeds were mixed with fodder as an excellent remedy for animals' respiratory ailments.

Rumex pulcher L.

Common names: **Romice**
Habit and habitat/range: H scap – along roads of country.
Uses: ψ 6 ψ 4: The root can be used to treat chlorosis and in tubercular chloroanemia. It is also slightly purgative.

Rumex scutatus L. subsp. *scutatus*

Common names: **Romice comune, lampazzo**, broad leaved dock.
Habit and habitat/range: H scap – rocky countryside of Sannio.
Use: ψ 5: The decoction of the seeds is in fact tussive, emollient and fluidizer. A decoction with the same properties can also be prepared from the leaves and the roots. The use of the decoction from the leaves as an iron-rich tonic is now a thing of the past.

Rumex tuberosus L. subsp. *tuberosus*

Common names: **Romice sanguineo**, bloody dock.
Habit and habitat/range: H scap – mountain grassland.
Use: ψ 5: See *Rumex scutatus*.

PORTULACACEAE

Portulaca oleracea L.

Common names: **Porcellana comune, erba vesciulella**, common purselane.
Habit and habitat/range: T scap - common in the fields all over Sannio.
Uses: α ψ : Its properties are due to the high content in mucilage. Placing the crushed leaves on corns softens them and reduces the inflammation of sores. Medicinal and culinary uses go hand in hand when the leaves are boiled and served with pasta to treat patients with bronchial inflammation. Furthermore, it was used to enrich salads and cooked side dishes.

PRIMULACEAE

Anagallis arvensis L.

Common names: **Centochio dei campi, bellichina, anagallide**, scarlet pimpernel.
Habit and habitat/range: T rept - garrigues, uncultivated and cultivated fields.
Uses: ψ \ddot{u} : The plant contains saponins, thanks to which it is an expectorant, and is used as a fluid extract. It stimulates glands and mucus, including skin cells, the liver and kidneys. For this reason, the plant is used as a diaphoretic, diuretic and cholagogue. The use of fresh juice has also been known, as well as a decoction and an unguent prepared from an extract, to heal sores, ulcers and other skin ailments. It was used to heal animal wounds, as it contains glycoside saponins with strong hemolytic power and high toxicity. It was applied to the wounds of animals after being crushed. In this way, given its antiseptic and toxic effect, the parasite larva of insects were killed, allowing parasitic ulcers to heal.

Cyclamen hederifolium Aiton

Common names: **Ciclamino napoletano, pamporcino**, ivy-leaved speedwell.
Habit and habitat/range: G bulb. - woods and shady hedges of the mountainous and sub mountainous areas, Sabato Valley.
Use: ψ 6: No longer used as a cathartic, or in strong doses as a purgative.

Primula vulgaris Huds.

Common names: **Primula comune, primavera, occhio di civetta**, primrose.
Habit and habitat/range: H ros. - All over the territory, in open broad leaf woods, especially beech and oak forests.

Uses: ψ 8 ψ 5: The part used is the base of the plant which gives off a typical odor in water and has an expectorant, diuretic, diaphoretic and antispasmodic action.

PUNICACEAE

Punica granatum L.

Common names: **Pomo granato, melograno, pomegranate.**

Habit and habitat/range: P scap. - Grown in the lower hill country of the whole Sannio.

Uses: α ψ : Modern analysis has confirmed the presence of vermifuge alkaloids active against tapeworms, but despite widespread infantile helminthiasis, the bark of the pomegranate tree was not much used. A decoction of the fruit peel was used to stop bleeding in labor and as an antidiuretic. It was also used as a mouthwash and sedative for toothache. In addition, the flowers are a strong astringent due to the large quantity of tannins they contain, while the seeds, with their pleasant taste, were sometimes used pharmaceutically as a flavoring. The plant is commonly used for food.

RANUNCULACEAE

Adonis annua L.

Common names: **Adonide annua**, pheasant's eye.

Habit and habitat/range: T scap - Cereal fields, frequently on limestone.

Uses: ψ 4 ψ 8: All parts of the plant contain alkaloids whose activity is cardiotoxic and diuretic. It does not build up in the organism, unlike digitalis. Excessive quantities are poisonous.

Anemone hortensis L.

Common names: **Anemone fior-stella**

Habit and habitat/range: G bulb - dry meadows, copses.

Use: ψ 12: See *Anemone nemorosa*.

Anemonoides nemorosa (L.) Holub

Common names: **Anemone bianca**, wood anemone.

Habit and habitat/range: G rhiz - broad leaved woods of the Matese area.

Use: ψ 12: The whole plant was picked before flowering. The rubefacient and vesicant actions of the plant were used for rashes, rheumatism and sciatica.

Actaea spicata L.

Common names: **Barba di capra**, baneberry.

Habit and habitat/range: G rhiz - mountain woods especially beech woods of the Matese area.

Use: - ψ 6: The rhizomes and leaves containing bitter principles were used. The dried powdered were considered a strong purge also active to kill fleas and scabies mites. The fresh leaves were also used as a revulsive. All parts of the plant give off an unpleasant, acrid odor, and are poisonous. For this reason, internal use was abandoned.

Aquilegia vulgaris L.

Common names: **Aquilegia comune**, colombine.

Habit and habitat/range: H scap - woods, especially beech, shrubs along the River Sabato and on the MOUNTAINS of the Matese Sannio.

Uses: ψ 7 ψ 8: The whole plant or just the mature seeds could be used as a sedative and diuretic. Given the poisonous nature of the plant, its use was abandoned.

Clematis flammula L.

Common names: **Clematide fiammola, vitacchione, brushwood.**

Habit and habitat/range: P lian (H scap) - grows wild in the hedges and thermophilous **maquis** bordering Apulia .

Uses: ψ $\dot{\psi}$: It is mainly used for veterinary purposes. When donkeys and horses suffered from rhinitis, they were forced to inhale from a sack containing ground leaves which caused them to sneeze, thus liberating the respiratory tract of excess mucus. The green parts of the plant are particularly rubefacient and vesicatory and were used for rheumatism and gout. It is very toxic and is for external use only.

Clematis vitalba L.

Common names: **Clematide vitalba, vitacchia, vivacchia**, old man's beard.

Habit and habitat/range: P lian - hedges by roadsides, woodland and any hedges across the territory.

Uses: α ψ : The leaves are revulsive and sedative. Internal use was abandoned because it could cause inflammation of the digestive and urinary tracts. The shoots were boiled and eaten with olive oil.

Consolida regalis Gray

Common names: **Speronella consolida, erba ornetta**, forking larkspur.

Habit and habitat/range: T scap - a weed in the crops and in the abandoned fields in the Tammara Valley.

Uses: ψ 8 ψ 11 ψ 12: The seeds have pharmacological properties but they are not cited. The flowers were used as diuretic, astringent, and antiphlogistic as well as to stimulate the appetite. The whole plant is toxic.

Ficaria verna Huds.

Common names: **Ranunculo favagello**, lesser celandine, pileworth.

Habit and habitat/range: G bulb/H scap – beech-wood.

Use: ψ 4: The root tubers were used as a painkiller, anti-hemorrhoid and hemostatic. The plant is toxic.

Helleborus bocconeii Ten.

Common names: **Elleboro di Boccone**

Habit and habitat/range: G rhiz – Matese on the Sannio.

Use: ψ 7: The rhizome contains poisonous substances and had to be used very carefully even externally. It is antispasmodic and sedative.

Helleborus foetidus L.

Common names: **Elleboro puzzolente, lebbre bianca**, stinking hellebore.

Habit and habitat/range: Ch suffr- woods along the upper and lower Tammaro

Uses: ψ \ddot{u} : The root is a heart stimulant, and a cumulative diuretic, but extremely poisonous. The plant was mainly used for its poisonous qualities. Preparations based on hellebore were poisonous if ingested. They were used to procure illegal abortions at no small risk to the mother. Decoctions were used on parasites and against fleas. A very strong concentrate was used in veterinary medicine against parasites.

Hepatica nobilis Mill.

Common names: **Erba trinità**, liverflower, liverleaf.

Habit and habitat/range: G rhiz - deciduous or coniferous woods on the summits of the Matese Sannio Mountains.

Use: ψ 7: The whole plant could be used, but as it was toxic caused a lot of problems. It could be used as a pain-killer, antispasmodic or diuretic.

Nigella damascena L.

Common names: **Damigella scapigliata, animella, fanciullacce**, love-in-a-mist.

Habit and habitat/range: T scap - dry, uncultivated fields in southern Sannio.

Uses: α π : The seeds of this plant were used in pastry making and the liquor industry on account of the strong perfume.

Ranunculus bulbosus L.

Common names: **Ranunculo bulboso**, bulbous buttercup, crowfoot.

Habit and habitat/range: H scap - Mt. San Michele.

Use: ψ 12: The fresh plant is revulsive and rubefacient, which made it useful for rheumatism, arthritis and sciatica. The plant is toxic and may only be used externally.

Ranunculus paludosus Poir.

Common names: **Ranunculo**

Habit and habitat/range: H scap -grassland in the mountainous zone.

Use: ψ 4: See *Ranunculus bulbosus*.

Thalictrum aquilegifolium L.

Common names: **Pigamo colombino**, French meadow rue, greater meadow rue.

Habit and habitat/range: H scap - Thickets in the Matese region starting from the high hills.

Use: ψ 7: The leaves were used as sedative and local anaesthetic.

Thalictrum flavum L.

Common names: **Pigamo giallo**, common meadow-rue.

Habit and habitat/range: H scap - marshland, damp woods, peaty meadows in the mountainous zone of southern Sannio.

Uses: ψ 6 ψ 8: The root has diuretic and purgative properties.

ROSACEAE

Agrimonia eupatoria L.

Common names: **Agrimonia comune, eupatoria**, agrimony, stickwort.

Habit and habitat/range: H scap - deciduous woods on clayey soil; lower Fortore.

Uses: ψ 6 ψ 12: The use of this plant in the past was limited to decoctions for the stomach and tonics. Some used it for its anti-inflammatory and astringent properties for glossitis, stomatitis, tonsillitis, varicose ulcers and sores.

Crataegus laevigata (Poir.) DC.

Common names: **Biancospino selvatico**, hawthorn, whitethorn.

Habit and habitat/range: P caesp - brush and hedgerows, especially in the sub mountainous areas of Sannio.

Uses: ψ 7 ψ 4 ψ 8: The hawthorn has an antispasmodic effect on the heart and blood vessels working on the sympathetic nervous system. An infusion of flowers was used for palpitations, hypertension and for angina, as well as spastic disorders in the lower extremities and varicose veins, in arteriosclerosis and insomnia. Mature berries are used as an infusion helping also to relieve toothache. The decoction of the fruit calms diarrhoea and urine retention.

Cydonia oblonga Mill.

Common names: **Mela cotogna, cotogna**, quince.

Habit and habitat/range: P scap - wild on hillsides and cultivated to line borders and lanes.

Uses: α ψ : The quince fruit, mainly used as a foodstuff, is also an intestinal astringent and anti-inflammatory. The decoctions were used as emollients and anti-inflammatory for the mouth and throat, and especially for dry coughs. In Ginestra di Schiavoni, fruit juice was used to ease intermittent fever. The seeds are a good emollient for the skin. An unguent made from powdered quince seeds soaked in white wine was used to treat skin fissures of the breast.

Filipendula vulgaris Moench

Common names: **Olmara peperina**, dropwort.

Habit and habitat/range: H scap - dry mountain meadows in the Matese mountains.

Use: ψ 6: The infusion of the inflorescence are used as an astringent, diaphoretic and diuretic. Root tubers have the same properties and were used mainly as intestinal and diuretic astringent.

Fragaria vesca L.

Common names: **Fragola comune**, strawberry.

Habit and habitat/range: H rept - Shady woods in the mountainous zone of Beselice and Foiano.

Uses: α ψ : The strawberry, especially in its cultivated form is considered a stomatic plant. The decoction of the rhizome is usually considered a stimulant for the appetite.

In Sannio, however, an infusion of the leaves, with similar properties, and which give the same results, is preferred. They are considered as cutaneous astringents, with anti-hemorrhaging and wound healing activity and were ground and mixed with other herbs, such as blackberry leaves and navelwort, and then placed on the wounds.

Geum urbanum L.

Common names: **Cariofillata comune**, herb bennet.

Habit and habitat/range: H scap - wasteland or at the edge of hardwood woods, especially beech.

Use: $\psi 10$: The rhizome has tonic pharmacological properties and is aromatic, astringent and febrifuge.

Malus domestica Borkh.

Common names: **Melo comune**, apple.

Habit and habitat/range: P scap - commonly grown on the plains and low hill country of the whole province.

Uses: $\alpha \psi$: The fruit was used to refresh and to stimulate digestion. Cooked in various ways, it is an emollient, and a laxative. Very sweet cooked apples are emollient and active against inflammation of the respiratory tract. It is mainly consumed as a foodstuff.

Mespilus germanica L.

Common names: **Nespolo volgare**, **nespolo d'inverno**, common medlar, open-arse fruit

Habit and habitat/range: P caesp/P scap - Mountainous woods.

Uses: $\alpha \psi$: In the local tradition, only the fruit and the leaves were used. The former, especially when unripe, were considered intestinal astringents. The leaves were used in a decoction, which was drunk on an empty stomach, to treat diarrhoea. A decoction prepared with medlar leaves and couch stela, chicory, and oak bark drunk on an empty stomach was a carminative for the intestine during colic attacks. The fruit is eaten fresh.

Potentilla detommasii Ten.

Common names: **Cinquefoglia**

Habit and habitat/range: H scap - Mt. Frasso.

Uses: $\psi 10 \psi 4$: The rhizome was considered as having astringent, tonic, febrifuge and sometimes antihemorrhaging properties.

Potentilla micrantha Ram. ex DC.

Common names: **Cinquefoglia fragola secca**

Habit and habitat/range: H ros - open woods, coppices, shrubs in the Sabato valley

Uses: $\psi 10 \psi 4$: See *Potentilla detommasii*.

Potentilla reptans L.

Common names: **Cinquefoglia comune**, **erba pecorina**, **erba rumo**, creeping cinquefoil.

Habit and habitat/range: H ros - Cool and marshy area.

Uses: $\psi \bar{u}$: The part used is the rhizome, which, being rich in tannins, has astringent, tonic, stomachic, antiscorbutic and febrifuge properties in decoction. The plant is

also used for animals to free ruminatory blockages. When a cow ingested its omasum, this remedy would infallibly save it from certain death. The plant is left to grow near dwellings so as to have it handy when necessary. It was crushed and mixed with lard to make a ball which was placed into the throat of the animal which then swallowed it. The bitter taste of the preparation stimulated the digestive function and restarted rumination.

Prunus cerasus L.

Common names: **Marena**, **marasco**, **amarena**, sour cherry.

Habit and habitat/range: P scap- grown in the valleys and low hills especially in the Sant' Agata dei Goti area.

Uses: $\alpha \psi \pi$: A popular remedy known since ancient times for nephritis, cystitis, gout, renal and vesical lithiasis was prepared from the decoction of sour cherry peduncles. This diuretic property seems to be due to a group of substances of great therapeutic interest. It is also used for food and in liquor-based preserves.

Prunus domestica L.

Common names: **Pruno**, **susino**, **pruma**, plum.

Habit and habitat/range: P scap (P caesp) - grown and naturalized on the low hills of the Fortore and Caudina Valley.

Uses: $\alpha \psi \pi$: The plum fruit is an excellent foodstuff, rich in sugars, vitamins and mineral salts. When dry, raw or cooked, it is a good food supplement for old people and children. Thanks to the large amount of pectin and vegetable fiber which increase fecal mass, it stimulates intestinal movement and absorb toxins, acting as a laxative and intestinal regulator. The dried fruit, when boiled, releases emollient principles which give the water carminative powers for the respiratory apparatus.

Prunus dulcis (Mill.) D.A. Webb

Common names: **Mandorlo**, **mensola**, almond.

Habit and habitat/range: P scap - grown in the lower Fortore and upper Tammara area.

Uses: $\alpha \psi \pi$: The bark was added to tussive decoctions as it was considered an anti-inflammatory and emollient. The **amara** variety, toxic in large doses, has antispasmodic and carminative qualities. A remedy for convulsive coughing was made from a decoction of bitter almonds. Used for food and in the preserve industry.

Prunus persica (L.) Batsch

Common names: **Pesco**, peach.

Habit and habitat/range: P caesp/P scap - grown in the Teleso and Caudina valleys.

Uses: $\alpha \psi \pi$: The leaves are used medicinally for home treatment of worms. The presence of amygdalin in the leaves and flowers (poisonous) is responsible for the medicinal power. The decoction made from the leaves, which is very bitter, is used to treat intestinal worms. Used in the food industry and in preserves.

Prunus spinosa L.

Common names: **Pruno selvatico, prugnolo, vegro, trigna**, blackthorn, sloe.

Habit and habitat/range: P caesp - grows in hedgerows and is used to mark paths and borders.

Uses: α ψ: Sloe berries are small green stone fruits which become blue when mature. Their flavor is very bitter, which means children don't like them. Only when they are a little sweeter and dry are they used for their astringent properties. This property is present in both the unripe and the ripe fruit and therefore they are also eaten unripe.

Rosa canina L.

Common names: **Rosa selvatica comune, rosa di siepe**, briar rose, dog rose.

Habit and habitat/range: NP - hedgerows and brush all over the Sannio area.

Uses: ψ12 ψ8: The petals have similar properties to the other roses. The infusion of fresh or dried petals was preferred to that of camomile or elder for conjunctivitis because of their anti-inflammatory properties. The tonic, decongestant, and lightening virtues made infusions popular as a face wash. The boiled fruit release polyphenols with astringent and anti-inflammatory action, helpful in controlling intestinal ailments. Also the galls on the branches are considered useful in an infusion as a diuretic, tonic antihydrotic and probably as a uterine contraction carminative.

Rubus ulmifolius Schott

Common names: **Rovo comune**, common blackberry.

Habit and habitat/range: NP - Common in the scrubland of Sannio and also form hedgerows.

Uses: α ψ: The plant has astringent active principles in all of its parts. The fruit and derivative preparations, when taken internally, are intestinal astringents. When used externally, they are used as rinses and gargles for the treatment of aphthae and mucus membrane inflammation. The leaves, which are especially rich in tannins, are used in decoction to stop diarrhoea and to calm intestinal inflammation, especially in children. The decoction of fresh leaves alleviates sore throat. Leaves coated in oil and cooked can be applied as poultices to carbuncles, burns, abscesses and all skin inflammation. A decoction can be made of the turions, with the addition of couch, and if drunk as a diuretic, helps elderly men with prostate problems. The annals of the Aragonese Court state that a doctor and Chief Medical Examiner from Benevento, Carlo di Leo, professor at the University of Naples and court physician, used "certain black berries" in 1489 to cure the future King of Naples, Alphonse II of Aragon of **indispositio corporis**. The fruit is often gathered to prepare jams or fruit salads, and were eaten in the fields in hot periods to combat thirst.

Sanguisorba minor Scop.

Common names: **Salvastrella minore, bibinella**, salad burnet.

Habit and habitat/range: H scap - Dry meadows, garrigues, uncultivated land in southern Sannio.

Use: ψ6: The whole plant contains tannins and so is astringent and can be used for both acute and chronic intestinal ailment.

Sorbus domestica L.

Common names: **Sorbo comune**, service-tree.

Habit and habitat/range: P scap - Grown on the low hills, S. Martino and the Caudina Valley.

Uses: α ψ: The fruit of the service-tree, to be taken internally, is above all an intestinal astringent and the best results are from the use of still slightly unripe fruit. The fruit, if taken together with broad beans was an excellent remedy for diarrhoea. Externally, it could be applied, when very ripe and squashed, to chilblains as a lenitive astringent. The fruit is consumed ripe.

RUBIACEAE

Galium aparine L.

Common names: **Caglio asprello, sperunia**, goosegrass, cleavers.

Habit and habitat/range: T scap - Widespread everywhere in cool soils, in the hedge grows and scrubs of the hills and plains in the Benevento countryside.

Uses: ψ12 ψ6: The anti-inflammatory effect of goosegrass decoction was only exploited to douche irritated parts, especially hemorrhoids. The flowers are the part used in an infusion with antispasmodic and diuretic action or for diseases of the digestive system. This is also used externally for treatment of skin diseases of various kinds.

Galium odoratum (L.) Scop.

Common names: **Caglio odoroso, stellina odorosa**, woodruff, sweet woodruff.

Habit and habitat/range: G rhiz - Beech-woods and other mesophyllous hardwoods throughout the region.

Uses: ψ12 ψ6: See *Galium aparine*.

Galium verum L. subsp. *verum*

Common names: **Caglio zolfino**, bedstraw

Habit and habitat/range: H scap Arid grasslands and scrubs along the river Sabato.

Uses: ψ12 ψ6: See *Galium aparine*.

RUTACEAE

Ruta graveolens L.

Common names: **Ruta comune**, common rue.

Habit and habitat/range: Ch suffr - arid areas of the highland of S. Giorgio la Molara.

Uses: ψ7 ψ9: Rue was used in many different ways, but in Sannio mostly for its anthelmintic action. The juice of crushed rue, mint and absinth, relieves aches in the abdomen caused by helminthiasis. A decoction of rue, laurel, absinth, camomile and mint leaves was used for the same purpose. Besides the preparations for internal use,

poultices of rue, mint and absinth boiled in vinegar were placed on the abdomen to eliminate worms. Crushed rue mixed with lard, or oil (in which rue and incense had been boiled), or plain fresh juice were placed around the navel as an anthelmintic. Due to the healing properties of this plant, people used to wear a string of leaves round their throats when the pain in the abdomen grew sharper or forms of suffocation occurred. In small doses, rue was used to help bring on menstruation in amenorrhoea and dysmenorrhoea; in large doses, rue causes uterine contractions and was therefore illegally used to induce miscarriage. The dose needed to reach this effect is very close to the lethal dose, and its abortifacient action is due to the serious poisoning it causes all over the body rather than to a specific property. The crushed root, applied to wounds, had an antiseptic action. The juice extracted from crushed rue was a decongestant of styte. For external use, rue leaves have revulsive, insecticidal and cleansing properties. Apart from the actual properties of the plant, the inhabitants of Sannio believed it could heal all illnesses - including jaundice - as an old saying went, "**la ruta tutti i mali strude**" ("Rue heals all illnesses").

SALICACEAE

Populus alba L.

Common names: **Pioppo bianco, gattice**, white poplar.
Habit and habitat/range: P scap - damp or wet areas, riversides, lake sides all across Sannio.
Use: ψ 11: The bark, collected in March-April, contains tannins, which give it antirheumatic properties. It is slightly astringent, tonic-bitter.

Populus nigra L.

Common names: **Pioppo nero**, black poplar.
Habit and habitat/range: P scap - spontaneous along the river in Amorosi.
Use: ψ 11: The gemmae were used before flowering for arthritis and gout, as an antiseptic and to calm coughs.

Populus tremula L.

Common names: **Pioppo tremolo**, aspen.
Habit and habitat/range: P scap - damp mainly mountainous woods, propagated in silviculture and as an ornamental plant.
Use: ψ 11: See *Populus alba*.

Salix alba L.

Common names: **Salice comune**, white willow.
Habit and habitat/range: P scap - Along watercourses all over Sannio, especially the river Tammaro.
Uses: ψ 11 ψ 9: The white willow contains glycosides of salicylic alcohol and analogous derivatives, which are useful for treating fevers, rheumatism, muscular pain, the symptoms of influenza and gout. An infusion of the flowers was used to treat rheumatic pains. To treat prolonged fever there is a tradition of preparing a febrifuge wine from red wine with willow bark and leaves. The bitter infusion of

willow and olive leaves was used against malarial fever. Due to the high level of tannins, the bark, when applied externally, has a strong astringent action on the skin and mucus cells, and is used for wound healing. The willow, boiled with fenugreek was used as an abortifacient.

Salix purpurea L.

Common names: **Salice rosso, salice muzzillo**, purple willow.
Habit and habitat/range: P scap/P caesp - Borders of watercourses.
Uses: ψ π : Its properties are similar to those of the common willow, but in this species, there is more of the active principle. This plant was used ground, and placed on the sciatic nerve for its antineuralgic qualities. It is also an abortifacient when boiled with fenugreek.

Salix viminalis L.

Common names: **Salice da vimine, vetrice, vinco**, basket willow.
Habit and habitat/range: P caesp/P scap - cultivated along the ditches.
Use: α : Since antiquity, the plant has been used to make baskets of various sizes but this custom is dying out.

SCROPHULARIACEAE

Antirrhinum majus L.

Common names: **Bocca di leone comune**, snapdragon.
Habit and habitat/range: Ch frut - Cracks in ruins and arid cliffs and the motorway Avellino Benevento.
Use: ψ 12: The leaves and flowers of this plant were used, in external applications, for skin, mouth and most of all, throat inflammations. It was used mainly as a decoction for douching, gargles, and poultices.

Cymbalaria muralis P. Gaertn., B. Mey. & Scherb.

Common names: **Cimbalino comune, cimabalaria, par-rucca, erba tondella, erba piattella**, toadflax
Habit and habitat/range: H scap/Ch rept - Cliffs, walls and mines.
Use: ψ 6: The whole fresh plant contains substances that, used in infusion, have anti-hemorrhoidal, astringent and vulnerary properties. It was also used in the treatment of eczema, excoriations, chilblains, burns, scabies, and ringworm.

Digitalis ferruginea L.

Common names: **Digitale bruna**, rusty foxglove.
Habit and habitat/range: H scap - Deciduous woods, clearings of Mt. Matese in Sannio.
Use: ψ 4: The lower leaves during the second year of the plant life have a cardiotonic action on the ventricle wall muscles, by regularizing cardiac rhythm. Intolerance has been reported to preparations made from foxglove leaves, both in the form of galenics and actual drugs made up of a mixture of foxglove glycosides in several proportions.

Linaria vulgaris Mill. subsp. *vulgaris*

Common names: **Linajola comune**, common yellow toadflax.

Habit and habitat/range: H scap - Wasteland, ruins, rubble, roadbeds and road edges.

Uses: $\psi 6$ $\psi 8$: The whole plant has medicinal properties. The preparation was formerly used in infusion to treat angiocholitis with jaundice, intestinal atony and diseases of the urinary tract. Toadflax ointments have also been used for conjunctivitis, furunculosis and in the treatment of fistulae and hemorrhoids.

Melampyrum arvense L.

Common names: **Spigarola campestre**, field cow wheat.

Habit and habitat/range: T scap - Cereal crops, wasteland, hedge grows throughout Sannio.

Use: $\psi 1$: The part used is in the seeds, which ripen in August-September. The decoction and the ointment protect the skin and have an emollient and tonic action.

Scrophularia canina L.

Common names: **Scrofularia comune, ruta canina, erba delle ferite**, dog figwort.

Habit and habitat/range: H scap - Grassland and woods.

Uses: $\psi 6$ $\psi 4$: An infusion prepared from flowers and roots was used as an emetic and laxative for the symptoms of Graves-Basedow disease and related cardiac disorders. Poultices soaked in the decoction were useful in treating chronic skin diseases and swellings caused by scrofula. The plant is named after this latter property.

Scrophularia nodosa L.

Common names: **Scrofularia nodosa**, great figwort.

Habit and habitat/range: H scap. - Humid woods, gorges, river banks and shady places near rivers Sabato and Calore.

Uses: $\psi 6$ $\psi 4$: See *Scrophularia canina*.

Verbascum macrurum Ten.

Common names: **Verbascoda rossa**, mullein.

Habit and habitat/range: H bienn - Stoney wastelands and wood edges on clayey soils in Pannarano.

Uses: $\psi 5$ $\psi 12$: See *Verbascum thapsus*.

Verbascum sinuatum L.

Common names: **Verbascosinuoso, tasso**, waveyleaf mullein.

Habit and habitat/range: H bienn - Wasteland and gravelly areas along the river Tammaro.

Uses: $\psi 5$ $\psi 12$: See *Verbascum thapsus*.

Verbascum thapsus L.

Common names: **Verbascos, tasso, barbasso**, common mullein, great mullein.

Habit and habitat/range: H bienn - Wasteland and gravelly areas along the river Tammaro.

Uses: $\psi 5$ $\psi 12$: The anti-catarrhal and anti-inflammatory action in the respiratory tract made this plant very popular among heavy smokers, who would smoke the large leaves rolled like cigars. Fishermen would hit the plant against the torrent rocks, so that liquid would come out of the plant. Such liquid probably contained substances which could stun fish, so that these could then be fished out using broom baskets.

Veronica beccabunga L.

Common names: Veronica, **erba grassa, beccabunga**, brooklime.

Habit and habitat/range: H rept - Plain areas surrounding rivers Tammaro and Sabato, and skirting the torrent Lenta.

Uses: α ψ : Together with *Nasturtium officinale* R.Br., this plant was used in salads with a purifying and antiscrofulous action. Fresh soft leaves were eaten mixed with other herbs and were considered a good treatment for scurvy. Today this plant is still used in a few areas of Sannio, but plays a secondary role as food for humans. The plant juice has diuretic, blood-purifying and antiscorbutic action.

Veronica officinalis L.

Common names: **Veronica medicinale**, speedwell.

Habit and habitat/range: H rept - Woodlands, clearings and acid soils in Sannio near Mt. Matese.

Uses: $\psi 5$ $\psi 12$: The preparation is constituted of the plant's epigeal parts dried in the shade. In infusion, it has anti-catarrhal, tonic and stomachic properties. The plant juice has long been known for its anti-gout action. Together with other aromatic plants, it is one of the components of swiss tea, whose applications, however, are limited to popular medicine.

SOLANACEAE

Atropa belladonna L.

Common names: **Belladonna**, belladonna, deadly nightshade.

Habit and habitat/range: H scap - Shady mountainous and submountainous woods.

Uses: $\psi 7$ $\psi 6$ $\psi 5$: Leaves and roots are the parts used. Before its properties were detected by clinical trials, belladonna had the reputation since the Middle Ages as the "witches' herb" as it was used in the preparation of hallucinogenic compounds for some specific rituals. An ointment derived from this plant together with hemlock, mandragora and henbane, in the past, was used presumably in witchcraft. However, its medical applications are numerous and justified by its relevant pharmacological actions against spasms of the gastrointestinal muscular tracts and of the respiratory system; as an antiperspirants in tubercular patients, in spasmodic constipation and above all in the treatment of parkinsonism. The plant preparation, administered in different ways and appropriate therapeutical doses, can also be used for its antiemetic, antiepileptic,

central nervous system-stimulation and sedative action. The toxicity of its active principles and numerous contraindications are to be taken into consideration.

Capsicum annuum L.

Common names: **Peperone, pipino**, Guinea pepper.

Habit and habitat/range: T scap - Grown in.

Uses: α ψ: This plant was commonly used for food purposes since it gives a pungent taste to dishes. However, its consumption was increased for people suffering from gastric and duodenal ulcers, although, for quite a long time, it has been considered as being even detrimental to patients' health. In popular culture, it was believed to have the property of decreasing the cholesterol level in the blood. Topically, guinea pepper has rubefacient properties, and therefore, rubbing it on those regions of the body affected with rheumatism and anywhere where it is necessary to add heat, is considered to be useful. A wad soaked in a concentrated decoction of this essence, placed in the cavity of the decayed tooth, acts as an odontalgic.

Cestrum parqui L'Hèr.

Common names: **Cestro, Erba cappona, gelsomino del Cile**, Green poison-berry.

Habit and habitat/range: NP - Grown as ornament and along hedges; native to America naturalized in S. Italy

Use: ψ7: The leaves contain substances with anesthetic properties. The leaves were considered to be a febrifuge.

Datura stramonium L. subsp. *stramonium*

Common names: **Indormia, stramonio**, thorn apple, jimsonweed.

Habit and habitat/range: T scap - spontaneous in the valleys of Sannio.

Use: ψ7: In the Sannio its dried leaves were considered to be an excellent antiasthmatic and therefore were rolled and smoked like cigars. A particular use of the plant leaves - adopted by the Sepino municipality is as a treatment for little abscesses when applied topically (Cirelli 1853). The plant active principles may influence the respiratory rhythm and trigger remarkable mental reactions. Preparations of this plant are still used in the treatment of essential and postencephalitic parkinsonism. In fact, drugs from the plant have antiepileptic, antispasmodic, narcotic-sedative and neuro-sedative actions.

Hyoscyamus niger L.

Common names: **Giusquiamo nero, Alterco**, black henbane.

Habit and habitat/range: T scap/H bienn - Wasteland and ruins.

Use: ψ7: The leaves are used in different ways. The administration of henbane preparations prove useful in the treatment of trigeminal neuralgia, shaking palsy, parkinsonism, and more generally in the relief, at least temporary, of senile tremor phenomena; its antispasmodic action is well known too. The plant seeds, containing essential oils, have a sedative and hypnotic action.

Lycopersicon esculentum Mill.

Common names: **Pomodoro, Tomatica**, tomato.

Habit and habitat/range: T scap - Grown in the Caudina Valley.

Uses: α ψ ü: The leaves and stem of the tomato, in its different varieties and grown for food purposes, are toxic since they contain solanin. The popular use of this plant is limited to its ripe fruit which is put on calluses in order to make them soft and easy to extirpate. Slices of tomato strewn with sugar provide a resolution for boils. It is widely grown for food and preserve purposes.

Nicotiana tabacum L.

Common names: **Tabacco**, Virginia tobacco.

Habit and habitat/range: T scap/H scap - Grown everywhere in its numerous varieties.

Uses: ψ ü: Given its noxious properties if used internally, it was employed for external use as a parasiticide in both man and animals. A concentrated decoction of tobacco leaves was in fact very often used to wash animals afflicted with pediculosis, scabies and various forms of eczema.

Solanum dulcamara L.

Common names: **Morella rampicante, Dulcamara, corallini, vite selvatica**, woody nightshade.

Habit and habitat/range: NP - Humid woods, wasteland, usually in a shady environment.

Uses: ψ ü: The young stems picked during the month of April or October are blended in infusions, extracts or decoctions. These are used as depuratives and diaphoretics, as well as hypnotics and anaphrodisiacs. In high doses they are toxic.

Solanum nigrum L.

Common names: **Morella comune, Pomodoriella**, black nightshade.

Habit and habitat/range: T scap - Cultivated fertile and humid soils, in lowland and low-hilly areas.

Uses: ψ7 ψ6: It is a poisonous plant which provided popular pharmacopoeia with an odontalgic: Its ripe berries, squeezed in the cavity of the decayed tooth, produce an immediate sedative effect. The fumes obtained by burning the dead plant and conveyed into the oral cavity are less dangerous but equally effective. All kinds of preparations derived from the plant must be administered with caution because of their toxicity. These were also used for their antiphlogistic, hemocathartic and spasmodic action, and to treat rheumatic or sciatic pain.

Solanum tuberosum L.

Common names: **Patata**, Potato.

Habit and habitat/range: T scap - grown.

Uses: α ψ: Although its leaves are rich in healing properties, especially antispasmodic ones, only the tubers were used. The tubers were sliced up and applied to burns soothing the pain and stimulated wound healing. Another exploited property of the plant is its decongestive action:

slices of potato put on one's eyelids or forehead, could solve the problem of reddened eyes caused by photophobia, gusts of wind or fatigue. It is widely grown for food.

TILIACEAE

Tilia platyphyllos Scop.

Common names: **Tiglio**, Large leaved lime.

Habit and habitat/range: P scap (P caesp) - mixed mountain woods.

Use: ψ5: Lime infusions were the most common and useful remedies for respiratory ailments. Owing to the emollient effect of the mucilage they were associated with a strong diaphoretic, antispasmodic, tussive, diuretic, and were used as a bronchopulmonary antiastringent. In the town of Roccabascenara, a lime infusion used to be prepared with camomile and elder flower to treat coughs.

ULMACEAE

Celtis australis L.

Common names: **Bagolaro**, **Cirasiello**, European hackberry.

Habit and habitat/range: P scap - grown everywhere for ornamental purposes and for its small fruit.

Uses: α ψ: The leaves gathered after flowering were used as an astringent. The drupes are edible and in the past were particularly popular.

Ulmus minor Mill. subsp. *minor*

Common names: **Olmo comune**, Field elm.

Habit and habitat/range: P caesp /P scap - hedgerows and bushes in the hill: Colle Sannita, Croce del Sannio.

Uses: ü ψ π: The most common use of this plant concerned the bark of the tender branches, which were placed over wounds as bandages. The active wound healing principles, were gradually released until the bark dried out and was removed. Liquid found in galls (the coccus, formed by insects biting the young branches and leaves) was also used. The wound healing power of this liquid was preferred to that of the bark. The young leaves were used in poultice for absorbing edemas and also to supplement the nutrition of herbivores, especially goats and rabbits. The plantlets are currently used for naturalistic engineering and for the control of seasonal watercourses in the Tammaro Valley.

URTICACEAE

Parietaria judaica L.

Common names: **Vetriola comune**, **Erba di muro**, common pellitory, pellitory-of-the-wall.

Habit and habitat/range: H scap - in all Sannio, among ruins, in damp, shady areas.

Uses: ψ8 ψ6 ψ12: Pellitory, known for its, real or supposed, medicinal properties, was and still is one of the most used plants. Crushed together with hemlock, it was applied to the painful parts of the body, to treat pleurisy. It would

probably have been better to take the juice of the fresh leaves or a decoction because of their potassium salts content, especially nitrate and flavonoids, responsible for the elimination of water through the renal apparatus, and so, useful for dropsy, nephritis, and the edemas resulting from heart deficiency. Pellitory used externally was used to reduce swelling after blows to the skin and sprains. It was commonly crushed together with thistle and parsley to accelerate absorption. The decoction, drunk on an empty stomach, was a cholagogue against hepatic calculosis. The pure decoction was used for stomach aches, probably because of its anti-inflammatory properties. Couch roots were added for pregnant women. One use to be avoided, as stated not only by Cirelli (1853), was the use to treat small cysts under the eyelids. These cysts used to be treated using a pellitory leaf until the cysts broke. Then oil and crushed parsley were rubbed on to eliminate the inflammation. If the plant is mixed with ox-tongue and the common fleabane, it can be used for rheumatic pains and arthritis. It can also be used for chronic dermatitis.

Urtica dioica L.

Common names: **Ortica comune**, common nettle.

Habit and habitat/range: H scap - wild in uncultivated land all over Sannio.

Uses: α ψ π: The stinging characteristics of the plant were made use of in popular medicine. The leaves, lightly crushed, were applied to the parts of the body suffering from rheumatism, causing an allergic reaction due to the irritant liquid in the hairs of the leaves. This liquid contains acetylcholine and histamine which work as rubefaciants. Boiling for a short period was enough to neutralise the stinging effect, and so the nettle, cooked in a little water and dressed with olive oil, when eaten favored the elimination of uric chloric acid and oxalate, and was used in cases of gravel. A boiled nettle poultice was applied to the painful parts of those suffering from pleurisy. The same holds for the decoction applied to the elbows and knees of those suffering from psoriasis. The nettle and couch decoction, when swallowed, reduced inflammation arising from cystitis. It was also useful when rubbed onto the skin as a treatment for dandruff or greasy hair. Decoctions of alcohol where nettle leaves had been soaking were applied. The roots boiled with olive oil added were eaten in omelets.

VALERIANACEAE

Centranthus ruber (L.) DC.

Common names: **Camarezza comune**, **valeriana rossa**, **saponina**, Mediterranean red valerian.

Habit and habitat/range: Ch suffr - Cliffs and old walls.

Use: ψ7: The root extract has similar properties to *Valeriana officinalis*.

Valeriana officinalis L.

Common names: **Valeriana comune**, **erba gatta**, common valerian.

Habit and habitat/range: H scap - Humid woods and shady slopes throughout the region, in particular in the area of the river Fortore.

Use: ψ 7: The part used is the rhizome, which contains an essential oil made up of conifene, pinene, isovalerianic acid and terpinole. It also contains two characteristic glycosides: catanina and valerina. The medicinal action is not only due to the essential oil or the glycosides, but rather to the synergy of all these factors. Valerian is therefore one of the plants which are best known to both popular and official medicine. The sedative properties useful in hysteria, convulsions, and insomnia, are also known in the area beyond the river Tammaro. The roots, dried and pulverized, were used as a treatment for autumn hair loss. In all preparations, the plant material must be used fresh.

Valeriana tripteris L.

Common names: **Valeriana trifogliata**, three-leaved valerian.

Habit and habitat/range: H scap - Woods, springs, usually on stony grounds in Sannio near Mt. Matese.

Use: ψ 7: See *Valeriana officinalis*.

Valerianella locusta (L.) Betcke

Common names: **Gallinella comune**, **gallinetta**, **lattughetta**, lamb's lettuce, corn salad.

Habit and habitat/range: T scap - infesting crops and grown to be eaten in salads.

Uses: α ψ : The plant, commonly used as a vegetable, also has antiscorbutic properties.

VERBENACEAE

Verbena officinalis L.

Common names: **Verbena comune**, common vervain.

Habit and habitat/range: H scap - Gardens and in wasteland in the foothill and mountains.

Uses: ψ 6 ψ 7: The only medicinal use of vervain in the popular tradition was related to its febrifugal action but today even this use has been forgotten. The flowers and leaves are the part of the plant that was used. The bitter-tonic infusion is useful against liver, spleen and kidney disorders; it also has anti-rheumatic and febrifugal properties. In antiquity, it was also used as an aphrodisiac.

Vitex agnus-castus L.

Common names: **Legano**, **aino**, **agno casto**, **pepe falso**, chaste tree.

Habit and habitat/range: P caesp (P scap) - Riverbeds, rivers dry throughout most of the year, swamps, wet lowlands throughout Sannio.

Use: ψ 6: Since the old times, the leaves and fruits have been renowned for their emmenagogue and anaphrodisiac properties, though such properties have not been confirmed. The infusion or the fluid extract of the leaves and fruits could be used on nervous patients as antispasmodics in the disorders of the digestive system and of abdominal organs in general.

VIOLACEAE

Viola alba Besser subsp. *dehnhardtii* (Ten.) W. Becker

Common names: **Viola bianca**

Habit and habitat/range: H ros - light woods, clearings, hedges, grassy areas in the Sabato Valley.

Use: ψ 5: See *Viola odorata*.

Viola arvensis Murray

Common names: **Viola dei campi**, field pansy.

Habit and habitat/range: T scap - uncultivated fields, vines and olive groves along the Calore.

Use: ψ 5: See *Viola odorata*.

Viola odorata L.

Common names: **Violetta mammola**, blue violet.

Habit and habitat/range: H ros - woods in the mountainous and sub-mountainous area, on shady hillside slopes, San Martino.

Use: ψ 5: The flowers have pharmacological properties. The whole plant in flower is used in the treatment of dermatosis accompanying arthritic diathesis. Large doses have a laxative and emetic effect. A preparation is also used in the treatment of chest coughs, and less commonly as pediatric laxatives. Poultices from the whole plant mixed with millet were used in milk scabs and other skin ailments, as well as for sunburn.

Viola pseudogracilis Strobl subsp. *pseudogracilis*

Common names: **Viola gracile**

Habit and habitat/range: H scap - along rocky grasses.

Use: ψ 5: See *Viola odorata*.

Viola reichenbachiana Jord. ex Boreau

Common names: **Viola selvatica**, early dog violet.

Habit and habitat/range: H scap - broad-leaved violets, beech woods, less commonly among oak woods Sabato Valley.

Use: ψ 5: See *Viola odorata*.

VISCACEAE

Viscum album L.

Common names: **Vichio comune**, common mistletoe.

Habit and habitat/range: P ep - On fruit trees and on oaks.

Use: ψ 4: The therapeutic use of the mistletoe is limited to an infusion of fresh or dried leaves as a hypotensive. The decoction is used on chilblains as a stimulant for the blood system.

VITACEAE

Vitis vinifera L. subsp. *vinifera*

Common names: **Vite**, grape vine.

Habit and habitat/range: P lian - grown mainly at the foot of Mount Camposauro.

Uses: α ù ψ: This plant represents one of the main economic resources of the local people thanks to the D.O.C. wine Aglianico, whose vineyards are at the foot of Mt Camposauro. Mulled wine, a wine in which a red hot iron was thrust, was used to help children with polio take their first steps. The must called **stufa** was used to ease arthritis pain, but also to relieve polio sufferers. Relief came about due to the fermentation of sugars, which caused a rise in temperature and with it an increase in the flow of blood to the painful areas. It was used to combat intermittent fevers, in the form of a glass of wine containing crushed coal dug up from certain areas of the soil on Saint Lawrence's day. The high energy content and the tonic/stimulant effect on the blood, helped women in labor, to whom large doses of strong wine and liquor were given. Very often, the wine was used to extract medicinal substances. The plant has an antidiuretic action. The active principles contained in the leaves were put around **cacio-cavallo** cheese or slices of ham and roasted. Vinegar too

is a strong astringent. It was used to heal contusions, to help reabsorption; the method consisted in soaking toast in vinegar and placing it over the painful parts. The red grape, containing anthocyanins, is astringent and so the use of crushed red grape on temples was a treatment for ophthalmia. The liquid that flows during pruning was collected and used as a collyrium for conjunctivitis, with sap to strengthen hair, by rubbing it into the scalp. Wine is also used to help treat colds. Wine fumes are decongestant for the nasal mucus, and an emollient for the throat if the upper respiratory tract is infected. The plant was used by veterinarians because the vine helps the expulsion of the placenta. There were various methods to do this: Some burned the shoots of the white vine, diluting the ash in water and giving it to cattle to drink. Others used the decoction obtained from boiling the shoots of all kinds of vine. The leaves were used as a tonic, astringent and diuretic. The fruit was recommended for the so-called "grape cures" to purify the digestive tract.

