

Ethnobotanical studies in the High River Ter Valley (Pyrenees, Catalonia, Iberian Peninsula)

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We present the preliminary results of an ethnobotanical study centred in the Camprodon valley (Pyrenees, North Eastern Iberian Peninsula), with an extension of 294 km² and a population of 4,526 inhabitants. The main goal of the present study is the knowledge of the traditional uses of plants in the studied area with a special focus on medicinal and, secondarily, food plants. We performed 42 interviews to 60 people, 37% of which are men and the remaining 63% are women. The mean age of the interviewees is 71. As a general result, 302 out of the 312 plant species reported in this ethnobotanical research have at least one use; for the remaining 10 taxa the informants only knew the folk names. Outlining that several of them have more than one application, 220 have been used as medicinal (both in human and veterinarian medicine), 100 as food or forage and 71 display other traditional uses. As it is not rare in other areas studied, some of the food plants are also used as medicinal. The present survey shows a rather high degree of conservation of the traditional knowledge on plant use and management in the mountain zone considered.

Key words: ethnobotany, traditional plant use, High River Ter Valley, Iberian Peninsula

The study is centred in the High River Ter, Camprodon valley, an area located in the eastern slope of the Pyrenees. It is composed by the headboard of rivers Ter and Ritort, with their two small valleys forming a single, Y-shaped geographic entity. The surveyed region embraces 294 km² and a population of 4,526 inhabitants, distributed in six municipal units, which include 18 population centres. The Camprodon valley, included in the Pyrenees complex, was formed during the alpine orogeny. It is mainly silicic, excepting the lowest part. The weather is the typical of mountain areas but with Mediterranean influence. Eurosiberian and boreoalpine vegetation regions are largely represented.

Aims of the study and methodology

The main goal of the present study is the knowledge of the traditional uses of plants in the studied area with a special focus on medicinal and, secondarily, food plants. We present in this paper an overview with the general results of the study. Larger descriptions of the territory and the

methods used, the transcription of the interviews, the complete catalogue of the ethnoflora of the region studied and more detailed comparisons and discussions are provided in Rigat (2005).

The field work, carried out in almost all population centres (the excluded ones do not fit in the geographical region above commented, although they are politically included in it), consists, on the one hand, in 42 interviews to 60 people, 37% of which are men and the remaining 63% are women, and on the other hand, in the collection of herbarium vouchers of all the reported taxa (deposited at the BCN and BC herbaria). The mean age of the informants was 71 years. The ethnobotanical interviews performed consisted of open conversations with the informants without a direct, strict questionnaire, in order not to affect the spontaneity of the interviewees.

Results and discussion

Of the 312 botanical species mentioned by the informants, 220 are used in human and veterinarian medicine, 20 have been quoted as noxious, 100

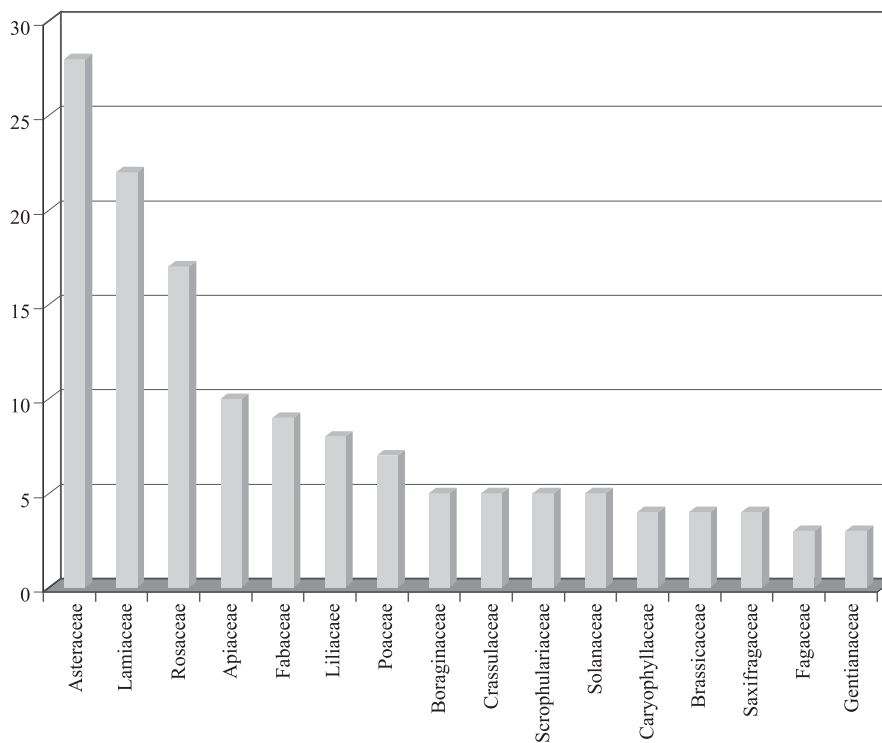


Fig. 1
Botanical families with more medicinal plant species in the High River Ter Valley.

are consumed as food or forage, 71 show some kind of traditional use, and for 10 species only the popular name has been detected.

The 220 medicinal species reported in this study belong to 71 botanical families. The best represented are the Asteraceae, the Lamiaceae, the Rosaceae and the Apiaceae (Fig. 1). The most diversely used species are *Sambucus nigra* (23 uses), *Thymus vulgaris* (13), and *Arnica montana* and *Achillea ptarmica* (11). Fig. 2 shows the species most reported as medicinal by the informants with the number of citations. The 92.4% of all the 1,787 compiled medicinal use reports concern human medicine, a 6% regard veterinarian medicine and the remaining 1.6% is not clearly attributed. It must be outlined that many of the remedies used in human medicine are also applied to veterinarian medicine. With regard to the pathologies treated, medicinal uses referred to digestive diseases are the most important (14.49%), followed by anti-inflammatory remedies (14.05%), cures to heal traumatism (13.8%) and against infections (10.13%). Treatments for the respiratory (8.84%), circulatory (6.94%) and genital-urinary apparatuses (6.66%) are also fairly relevant. The parts of the plants most used to prepare the remedies are shown in Fig. 3, and the forms of preparation (for external and internal use) in Figs. 4 and 5, respectively.

We have recorded 87 plant blends, whose main uses are anti-catarrhal (11.49% of all the blends), after-childbirth co-adjutant (10.34%) and those addressed to the treatment of inflammations of the muscle-skeletal system (5.75%). A total amount of 117 medicinal uses, which correspond to 88 species, have not been found in any of the studies taken as reference. It is particularly remarkable that five species had not been previously documented as medicinal. Eleven out of the 20 noxious species cited have application in human or veterinarian medicine and the remaining nine have only been mentioned for their toxicity.

The total number of food plants listed is 100, 79 of which are addressed to human nourishment, 16 to animal feeding and five species to both. Many food plants have also medicinal uses. We have also collected data of 71 plants which have other uses different from therapeutic and alimentary, and they have been grouped in seven categories: ornamental, domestic, ludic, magical-religious, carpenter, crafty and plants cited in oral folklore.

From the linguistic point of view, 454 popular names have been compiled for the 312 referenced species, and 66 of these names had not been previously documented. This gives a degree of novelty in the popular phytonymy of 26, according to the NND/P index (not documented names/

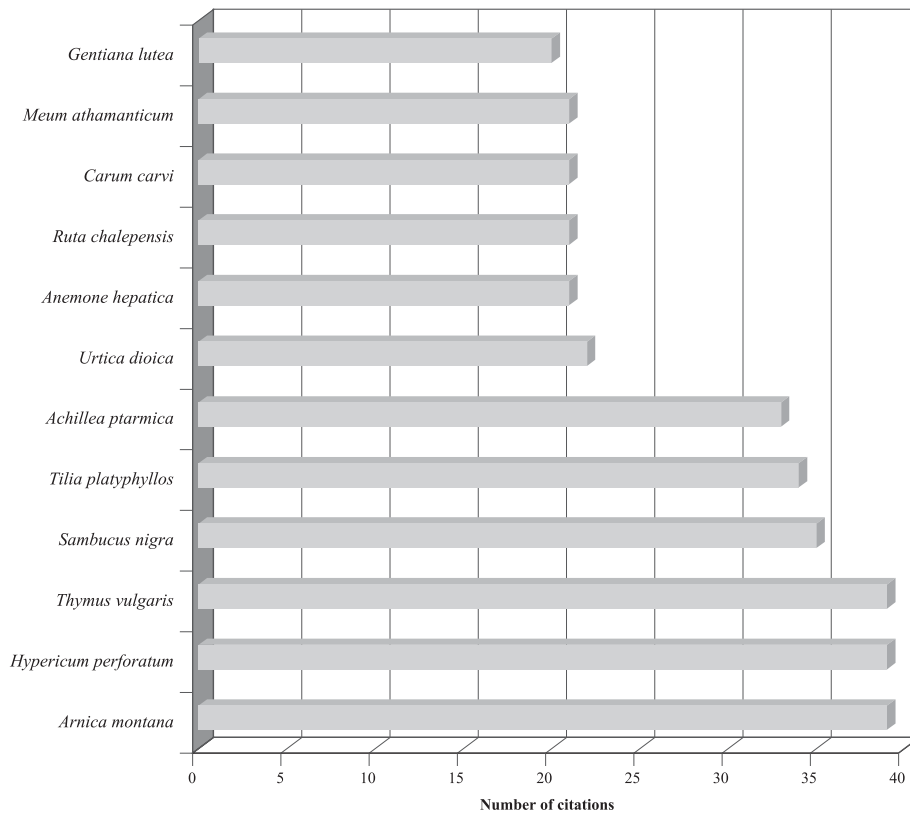


Fig. 2
Most cited species in the interviews.

plants reported), which was proposed by Muntané (1991).

The ethnobotanicity index (Portères 1970) in the studied region is 16.1, indicating that around 16.1% of the flora of the territory has some popular use. This index is situated in the central part of the range when compared with those in close areas (Rigat 2005 and references therein). The informant consensus factor (Trotter and Logan 1986) is 0.88. It is among the highest in the Iberian territories

studied, indicating a high degree of reliability of the data reported by the informants, who appear to have a good knowledge of medicinal plant uses. The Used/Reported index (Bonet et al. 19990; Muntané 1991) is 68%, meaning the percentage of plants reported by the informants that are currently used. This index is quite high in comparison with other neighbouring territories, indicating a relatively low degree of erosion of folk plant knowledge.

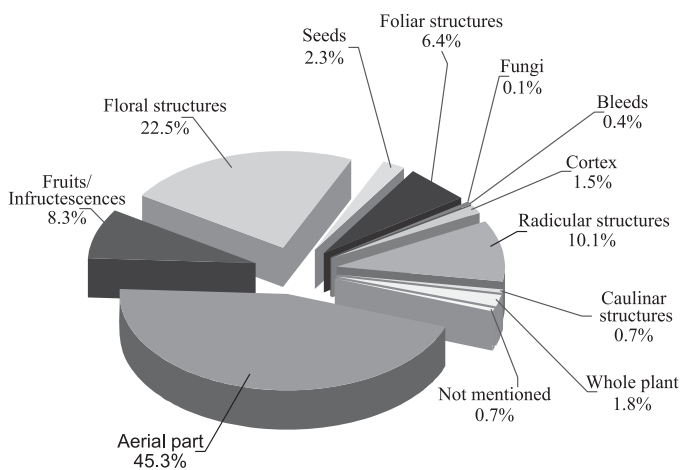


Fig. 3 Parts of plants used.

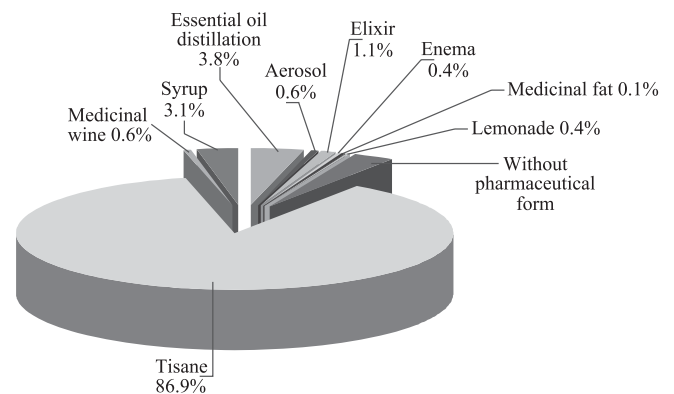


Fig. 4 Internal use preparations.

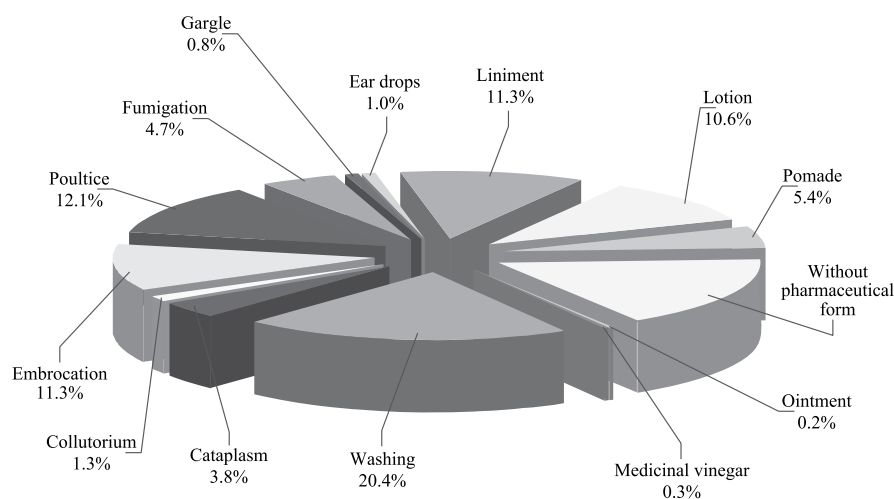


Fig. 5 External use preparations.

As a general conclusion, we have found a high degree of conservation of the popular knowledge about plants and plant management in the territory studied. In other works performed in neighbouring areas (Rigat 2005 and references therein) we noticed that mountain areas are convenient places for the conservation of this at the same time biological and cultural heritage in the frame of a rapid loss of traditional plant management common to western European countries. The particular Pyrenean region here considered is among the zones where this popular knowledge is, to date, best kept.

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