# The sustainability of wild harvesting of Thymus spp. in the High Atlas Mountains, Morocco

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## Overview

A Rufford grant was used to carry out fieldwork in Morocco as part of my Masters in Ethnobotany at the University of Kent at Canterbury.

The aim of the research was to investigate the factors which may affect the sustainability of the harvesting of *Thymus spp*. (Thyme) from the wild in the High Atlas Mountains, Morocco, at the domestic and small-scale commercial levels. In contrast to the usual narrow focus on ecological factors in sustainability research, I aimed to take into consideration a range of socio-cultural, economic, and institutional factors.

The importance of wild harvested species to rural subsistence communities worldwide is underestimated and undervalued. Studies tend to concentrate on economically valuable plant and animal species, that is, those species that are gathered for trade in the monetary market. In the case of medicinal plants, studies have tended to focus on international trade. Collection and use within households and for non-monetary exchange is often "hidden", as it is extremely difficult to quantify and valuate. Wild resources are often vital to a community's survival, both physically, by providing food security and nutritional value, and culturally.

Thyme (*Thymus spp.*) has been used traditionally across and beyond its natural geographical range for culinary, medicinal, aromatic, and magical purposes, so therefore presents many opportunities for ethnobotanical study. Morocco is ecologically diverse, with over 4500 species of plant and a 20% rate of endemism. This diversity is reflected in the variety of thyme, with 21 species. Thyme is estimated as being one of the top five herbs and spices sold in Marrakech. Locally known as *Azoukni* in Tachelhait Berber, and *Z'itra* in Arabic, thyme has twenty-two recorded uses in Morocco, including medicinal, culinary, and magical.

#### Fieldwork

Research was carried out between April and July, 2002 in rural Tachelhait speaking Chleuh Berber communities in the High Atlas Mountains, Morocco. For the first part of the fieldwork I was based in Marrakech from where I made excursions to the Ourika Valley and other nearby towns and villages. For the second part I was based in the small town Amezmiz and nearby villages. There were therefore two aspects of my research, which required two different approaches.

The first aspect involved the assessment of the importance of thyme at the small-scale commercial level. I carried out market surveys at weekly souqs, including interviews with traders and harvesters. I also accompanied harvesters on plant collecting excursions when I was also able to assess the ecological impact of harvesting.

The second part of my research looked at the domestic utilisation of thyme. I spent several weeks in rural Tachelhit villages where I carried out household surveys and interviews of thuyme utilisation. I also accompanied women on plant collecting excursions and assessed the ecological impact of harvesting.

### **Summary of Results**

The harvest and use of thyme is important to the understanding of the socioecological system of the Atlas Mountains. Thyme is harvested throughout the High Atlas Mountains yet remains widespread, implying that harvesters have developed sustainable systems of management of wild populations. Harvesting for regional trade did appear to be sustainable in general due to good harvesting practices, traditional ecological knowledge, and informal organisation of harvesters. However, evidence suggested that current domestic harvesting methods in the study area appear to be currently unsustainable due to high harvesting levels near villages, and destructive harvesting methods.

Thyme was found to be an extremely important plant to both small-scale harvesters and domestic users. Seventeen uses of thyme were documented, indicating the importance of thyme to rural communities. One of these uses was as a medicinal applicable to the treatment of seven illnesses. Many of the practices associated with the harvest and use of thyme have social and cultural value, for example tea drinking and communal harvesting. The main economic value of thyme lies in its displacement of the cost of the medications, disinfectants and preservatives and flavourings. In addition, thyme is very important for its food preservation properties. The best example of this is in the long-term storage of nutritionally valuable butter in the form of *smen*. For small-scale harvesters, thyme represented a vital economic income in an area where there are very low education levels and few livelihood alternatives.

## **Publications**

Kaleta, R. 2002. *The sustainability of wild harvesting of Thymus spp. In the High Atlas Mountains, Morocco.* MSc. Thesis. University of Kent at Canterbury.

Kaleta, R. 2004. *The importance of wild harvested <u>Thymus spp</u>. (Thyme) in the High Atlas Mountains, Morocco.* Food and Food Ingredients Journal of Japan. Vol.209, No.2.

Kaleta, R. 2005. *The Domestic Use of Wild Harvested <u>Thymus spp</u>. (Thyme) in the High Atlas Mountains, Morocco. Poster presented at the CONFERENCE in Istanbul, 2005.*