



Ethnobotany for Beginners - a review

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Book review

Ethnobotany for Beginners. Ulysses Paulino Albuquerque, Marcelo Alves Ramos, Washington Soares Ferreira Júnior, Patrícia Muniz de Medeiros. Springer, Cham, Switzerland 2017. xii + 71 pp. (paperback). Price: € 57.19, ISBN 978-3-319-52871-7. doi: 10.1007/978-3-319-52872-4

Are you a beginner of Ethnobotany Research? If 'YES', I want to recommend to you a very useful, reliable, and a valuable guide for the research in this discipline and that is a booklet "Ethnobotany for Beginners" by Albuquerque et al (2017).

This booklet is a part of book series, Springer Briefs in Plant Science (Volume 16). Twenty-five volumes of this book series have been published since 2012 till now (September 2020). The book under review (Ethnobotany for Beginners) is the translation from the Portuguese language edition: Introdução a Etnobotânica (Introduction to Ethnobotany) by Ulysses Paulino de Albuquerque that was published in 2005.

With just 71 pages, written by the authors well recognized in the field of ethnobotany and forwarded by Prof. Julio Alberto Hurrell of National University of La Plata (UNLP) Argentina, the booklet is especially designed for the beginners that features a quick and easy-to-read discussion of ethnobotany along with its major developments. In the foreword, Prof. Hurrell says, "the accessible language of this book brings ethnobotany closer to a broad and diverse audience consisting of academics as well as the layman and acts as an effective incentive for students who see in this science an interesting opportunity for their future professional development".

As the title (*Ethnobotany for Beginners*) suggests, the book has been prepared especially for the those who are learners, beginners and/or new to the field of *ethnobotany* and interested in a quick and

pleasant read containing an overview of ethnobotany and its major developments. The booklet fills the gap of an introductory text that aims to prepare the reader for denser and complex readings of the topic.

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The book has six chapters dealing with diverse aspects of ethnobotany.

The first chapter of this book deals with the '**History and Concepts**' of ethnobotany. John William Harshberger coined the term "ethnobotany" in 1895 who held the view that ethnobotany could explain the cultural position of the tribes that use plants for food, shelter, or clothing, and that such explanation, in turn, could clarify the problem of distribution of plants. Today we understand that the use and knowledge of plants as a part of complex social-ecological systems can help us understand how we relate to nature and how this relationship evolves in time and space. For a long time, ethnobotany was understood as encompassing the use of plants by aborigines. But, nowadays, due to collaboration with cultural anthropology and other sciences (phytochemistry, ecology, economics, linguistics, history, and agronomy), ethnobotany has become a multidisciplinary field and its definition has been expanded. In this chapter, the relationship of ethnobotany with other sciences like botany, archeology, anthropology and integrative/synthesis

science is nicely discussed. Plant collection rites for medicinal or magical applications are discussed for which 'use of medicinal plants in healing rituals in Northern Peru and Southern Ecuador' is presented as an example. The problems frequently found in ethnobotanical studies are also discussed. According to the authors "ethnobotanical studies often fail to strictly follow the standard procedures to identify botanical material, which includes an adequate collection protocol, herborization, identification with the help of experts and reference material, and incorporation into an herbarium". A few examples from published research are presented in support of this argument. At the end of the chapter, the authors have presented the definition of Wade Davis about what constitutes an ethnobotanist: *something between an anthropologist and a biologist. We seek to discover new drugs from plants*. But theoretically, ethnobotanical research does not necessarily need anthropology, since it can make use of theoretical references from other sciences, such as ecology and evolution.

Chapter two deals with "**approaches and interests of ethnobotanical research**" wherein the importance of hypothesis testing is stressed rather than just recording observations. A few important issues of ethnobotanical research including "intercultural variation on the traditional botanical knowledge" and "quantification in ethnobotany and hypothesis testing" have been discussed in detail. At the end of this chapter, the authors have summarized, in general terms, the characteristic approach of some current lines of research in ethnobotany, according to its thematic interest. The authors insisted on saying that quantitative approaches brought a considerable advance to ethnobotany but without the guiding force of extremism, research is primarily directed by the goals and limitations of researcher. In order to recognize the relationships between people and plants (which is not an easy task), ethnobotany uses a variety of methods from different scientific disciplines.

Chapter three deals with the '**Investigation Methods**'. The beginners of ethnobotany research are advised that prior to choosing the methods, they should first clarify what they want to investigate and accordingly prepare appropriate, relevant, and meaningful questions, so that their research comes up with scientific knowledge, and not just more data on the same thing. The authors have stressed two key points that according to them are essential for the success of research irrespective of the methodology followed: the researcher must (i) develop a trustworthy relation with the informants/collaborators in field and (ii) analyze the

relation between people and nature from the viewpoint of those being investigated.

Various methods (individual interview, participant observation, free listing and participatory methods) developed for obtaining ethnobotanical knowledge are described in a nice manner. The basic difference between the three types of interviews *i.e.* structured, semi-structured, and unstructured (that is essential for the beginners to know) is described in simple words. To describe the use of the participatory method in ethnobotanical research, an example of research with rural communities in North-eastern Brazil is discussed.

'*The importance of formulating questions and hypotheses in ethnobotanical research*' is described in the concluding pages of this chapter. The thing I like the most under this heading is the description of '*basic strategy of research*' that is essential for the researchers of any discipline. The authors mention that both the question and the hypothesis should be connected with the existing scientific knowledge *i.e.* first it is necessary to have knowledge of existing theoretical scenarios in the scientific literature, then to identify possible gaps in these scenarios (*i.e.* problems that science has not answered yet or that need more information). Thus, from the identification of these gaps, it is possible to identify by means of research questions which of the gaps the research aims to fill and that is the way, the research contributes to the advancement of scientific knowledge.

Chapter four deals with the "**classic approaches**" of ethnobotany. The authors claim that the approaches presented in this chapter are classic, but they are not temporally delimited and in fact present the perceptive outline of folk taxonomies. The folk classifications in ethnobotanical studies and the principles of folk taxonomic systems are described in detail. At the end of this chapter, some alternative views to the idea of the universality of folk taxonomy are presented. More than a century has passed since the term 'ethnobotany' was coined in 1895. It is quite possible that many things must have changed in this discipline since then.

Chapter five (**Reflecting on Research in Ethnobotany**) address some of the current thinking about the path that ethnobotany has taken. In the last few decades, ethnobotany research has gained popularity that can be justified by the recognition of the social, ethical, and biological implications that this kind of work can generate, taking ethnobotany to a privileged position in the search for solutions to many problems of social and environmental concern. But still there is a concern that this research couldn't give accurate and novel answers to scientific

questions. Because this field of knowledge is relatively new in the theoretical aspects and hence has not been systematized and formalized as other established sciences. In this chapter, the authors have presented some interesting reflections and suggestions that seek to improve the theory and practice of ethnobotany. Certain issues like 'lack of novelty in ethnobotanical research', 'lack of existing literature knowledge' and 'need to meet all the ethical aspects' have been discussed in detail. At the end of this chapter a few theoretical and epistemological assumptions of ethnobotanical research are summed up briefly.

In the last chapter (**Ethnobotany, Science and Society**) the authors state that the results of an ethnobotanical research should return, elaborately and systematically, to the social environment from which the information is collected. Ethnobotany acts as a mediator between different cultures, bringing them closer socially, and is guided by the "understanding and mutual respect among peoples". Ethnobotanical studies can provide valuable contributions to bioprospecting, that is, the search for plants and animals that may contain compounds for the treatment of diseases. This statement has been described in detail. The pharmacological activity of many plant species as observed in laboratory are presented in a section of this chapter. These phytochemical and pharmacological investigations were carried out after the perception that some of them had shown greater efficacy (during ethnobotanical studies) in the treatment of diseases. A few criteria developed over time for selecting potential plants for pharmacological studies (including the consensus method and therapeutic versatility of plants) have been briefly described. But still little progress has been made in discovering new pharmaceutical drugs mainly because of many challenges ahead in order to develop new strategies and improve the existing ones to search for new possibilities for discovering new drugs. Besides bioprospecting, ethnobotanical studies consist of biodiversity conservation strategies and can also contribute to public policies that promote the health of local communities.

Out of the six chapters of this book, I think chapter 3 (Investigation Methods) is very important for all the ethnobotany researchers in general and beginners in particular. But this chapter is somewhat incomplete because all methods (for ethnobotany research) are not described in detail. Some of the methods are explained superficially while others are mentioned just by name (P 27) without giving any further details or description/explanation. Some of the most important methods of ethnobotany research are not even mentioned by name. The authors have made

this clear (P 28) that 'we will not consider the methodological diversity used in ethnobotany or extend the definitions of these methods, because there are already several published books that compile such methods.

I think authors should have described all the methods in detail so that the readers don't have to wander here and there in search of these methods. This booklet is small with just 71 pages and if all the basic methods of ethnobotany research were described, it would have gone up to a maximum of 100 or 120 pages and that would have justified its high price also (57.19 €).

In that case the title '*Ethnobotany-The Best Book for Beginners*' would have been more suitable. The photographs in the book are good but lack informative legends. But still this booklet is a very useful, reliable, and a valuable guide to the beginners of ethnobotanical research. The book presents a rapid and comprehensible discussion of ethnobotany and its important developments for those who are new to the field of ethnobotany. The language is clear and concise. This book prepares the reader for more advanced study of ethnobotany. Although I have already carried out some studies on the ethnobotany of Western Himalaya (India), but there were a few doubts and confusions in my mind that got cleared after reading this book. That is why I'm recommending this booklet to the concerned readers. It is worth reading and deserves to be read at least once.