# Exploring Traditional Wild Edible Plants – Book Review

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## Book Review

A review of Exploring Traditional Wild Edible Plants. CRC Press, Taylor & Francis Group, LLC. Pp 357. £160.00 (eBook), ISBN 978-1-003-39593-5 (eBook).

The book *Exploring Traditional Wild Edible Plants* explains the diverse roles wild edible plants (WEPS) play in nutrition, traditional medicine, and sustainable healthcare. It is divided into 14 interconnected chapters that present a comprehensive perspective, linking ethnobotanical origins with pharmacological benefits. This common theme helps people understand the essential nature of WEPs and prompts discussions about their benefits for nutrition, medicine, and the environment in various contexts.

Chapter 1 presents an interesting overview of the importance of WEPs in ethnobotany and pharmacognosy. The author explains why protecting traditional knowledge about the natural world is essential, especially the health benefits of specific plant chemicals. This chapter is important because it talks about the need for local people to be involved in managing biodiversity. However, it could benefit from a deeper exploration of the policy frameworks that support such engagement.

Chapter 2 provides a detailed list of wild plants that are important in ethnopharmacology, studying how plants are used in different cultures for medical purposes. It clearly explains how these plants are used for medicine in a table. The documentation of therapeutic effects, from antidiabetic to anti-inflammatory, is well organized. However, comparing these traditional applications and pharmacological evidence would benefit the analysis. This is because there's no discussion of comparisons. This causes a gap between traditional knowledge and modern biomedical scientific understanding.

Chapter 3 talks about WEPs' nutrition and food security. It highlights the positive aspects, such as the high micronutrient content, and the negative aspects, especially the antinutritional factors like phytates. The discussion is relevant because of the global food crisis right now. However, it would be even better to discuss how social and economic conditions affect how accessible food is and how people think about it.

Chapter 4 takes the discussion in a new direction by focusing on wild mushrooms. Mushrooms like *Lentinula edodes* are good for health. They have a lot of nutrients and are very effective at fighting illness. The chapter shows that mushrooms can lower cancer risk and improve heart health. However, a more inclusive discussion of potential allergenic reactions and environmental sustainability in mushroom harvesting is necessary to enhance the comprehensive analysis.

Chapter 5 emphasizes wild edible plants (WEPs) as crucial sources of essential vitamins A, B complex, C, D, and E, which enhance well-being, immune response, vision, skin health, and protect against oxidative stress. The plants discussed include *Diplazium esculentum*, *Urtica dioica* (stinging nettle), and *Phyllanthus emblica* (amla). Traditional communities in rural areas use these plants for food and conventional medicine. WEPs effectively combat malnutrition, but more research is needed to ensure their safety and sustainable production.

Chapter 6 definitively explores Solanum species (e.g., tomatoes, eggplants, potatoes) and asparagus oil as sources of omega-3, -6, and -9 fatty acids. These acids benefit heart health, brain function, and immune well-being. Extraction of unsaturated fatty acids, including linoleic and oleic acid, from these plants' seeds and by-products is possible in over 80% of cases. The oil's nutritional value is undeniable, yet its commercial development remains underwhelming. This has led to a resounding call for increased research in the food and pharmaceutical sectors.

Chapter 7 clarifies that WEPs are essential for food security and alternative nutrition resources, especially for Indigenous communities and crisis-prone areas. WEPS are rich in vitamins, minerals, and bioactive compounds, and have been consumed for ages. Their nutritional value, natural availability, and accessibility make them crucial during food shortages. They must be conserved to prevent loss from overuse and climate change, as they hold significant cultural importance.

Chapter 8 definitively explores the potential of wild edibles as cancer treatment herbs. They contain bioactive metabolites, like flavonoids and alkaloids, that inhibit cancer cell growth. However, toxicity and over-harvesting pose challenges. Advanced techniques like omics technology and nano-encapsulation will optimize their therapeutic use. Combining these metabolites with conventional cancer therapies will generate synergistic effects, ensuring a promising future for wild plants in natural cancer treatments.

Chapter 9 thoroughly addresses dandelion (Taraxacum spp.) from an ethnopharmacological, phytochemical, and health perspective. Dandelion, a resilient weed, has a long history of use in treating liver issues, rheumatism, gastrointestinal problems, and infections. Its bioactive compounds, including alkaloids, terpenes, and phenolics, exhibit antioxidant and anti-inflammatory properties and may lower blood sugar and cholesterol. Research indicates that dandelion extract suppresses cancer cell growth and is a natural antimicrobial. The chapter decisively concludes by recognizing dandelion as a valuable source for developing natural medicines and sustainable health therapies.

Chapter 10 revisits mushrooms, focusing on their safety profile and nutritional and bioactive properties. Classifying edible and toxic varieties is essential, and including compounds like phallotoxins provides a critical safety analysis. Nevertheless, this section strongly advises standardizing identification protocols for foragers and small-scale producers to prevent poisoning incidents.

Chapter 11 offers a practical application by showing how to develop a phytopharmaceutical product from *Mimosa caesalpiniifolia*. The use of factorial design and spray-drying technology demonstrates a rigorous scientific approach. The discussion requires a critical reflection on the scalability and regulatory approval processes for herbal tablets within Brazil's public health system.

Chapter 12 shifts geographically to Serbia, providing an ethnobotanical review of over 70 wild edible plants, many from the Asteraceae family. The documentation of traditional uses is detailed, but a more critical comparative analysis with other regions is necessary to highlight knowledge convergence or divergence patterns. The implications for bioprospecting and intellectual property rights are significant and demand further attention.

Chapter 13 focuses on WEPs' dual nutritional and antinutritional properties. While discussing food processing methods to reduce antinutrients like oxalates and tannins is valuable, the chapter's recommendations would be better grounded in real-world contexts if they were more thoroughly analyzed regarding the socio-cultural feasibility of these methods in low-resource settings.

The final chapter thoroughly examines *Parkia speciosa*, a Southeast Asian species abundant in nutrients and bioactive compounds. The pharmacological promise ranges from antidiabetic to antiangiogenic effects. The plant's potential is promising, but the chapter must assess the balance between its medicinal benefits and risks from overconsumption, mainly due to its high tannin content.

*Exploring Traditional Wild Edible Plants* contributes significantly to interdisciplinary discussions concerning wild edible plants. It connects traditional ethnobotanical knowledge with current scientific research, captivating readers from various backgrounds. The book methodically explores the nutritional value, therapeutic uses, phytochemical properties, and conservation needs of wild edible plants (WEPs), emphasizing their untapped potential to address global health and food security challenges. The chapters make it clear that sustainable practices, further pharmacological research, and inclusive policy-making are all of the utmost importance. This volume is an essential resource for academics, practitioners, and policymakers dedicated to ensuring a sustainable food future in medicine.

## Declarations

**Author contributions:** U.N. contributed to drafting and revising the manuscript and will read digital proofs. A.R.M. and O.N.M. assisted in writing and editing the final version. All authors had reviewed and approved the submitted version of the manuscript.

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