

**Enciclopédia dos Alimentos Yanomami (Sanöma): Cogumelos. Edited by Resende Maxiba Apiamö, Joana Autuori, Noemia Kazue Ishikawa, Moreno Saraiva Martins, Nelson Menolli Jr., Carlos Sanuma, Lukas Raimundo Sanuma, Marinaldo Sanuma, Oscar Ipoko Sanuma, and Keisuke Tokimoto. 2016. Instituto Socioambiental, São Paulo. 108 pp.**

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This is the second book in a series published by the Instituto Socioambiental that aims to be a comprehensive encyclopedia of Sanöma Yanomami foods. Organized into five chapters, it focuses on the description, dietary uses, and agricultural contexts of wild edible fungi collected by the Sanöma, a Yanomami subgroup of approximately 3,000 people residing in 19 villages in a federal Indigenous reserve in the Awaris region, close to the Brazilian border with Venezuela. The volume's uniqueness derives from its seamless integration of emic and botanical taxonomic information through rich description and numerous colorful photographs and illustrations exploring the role of mushrooms in Yanomami food culture.

It was produced by Sanöma schoolteachers through a collaboration between the Hutukara Yanomami Association, the Instituto Socioambiental, and the Universidade Federal de Minas Gerais. Additional support and partnership were also provided by four Brazilian scientific institutions, the Tottori Mycological Institute in Japan, and the Royal Botanical Gardens, Kew. A preface written by world famous Yanomae shaman David Kopenawa Yanomami also contributed to the publication of this beautifully edited, hardbound, and illustrated volume that appeals to a broad audience. The book is entirely bilingual, with all texts fully reproduced in Sanöma (a Yanomami language) and Portuguese.

Readers interested in ethnomycology and ethnobiology and with proficiency in written Sanöma or Portuguese will be introduced to 11 named Sanöma edible mushroom ethnotaxa, corresponding to 15 scientific taxa, the majority of which were identified to species level following current mycological nomenclatural conventions. Sanöma cultural knowledge is accompanied by careful review of previously published Yanomami ethnomycological studies (Fidalgo and Prance 1976; Prance 1973), presented in footnotes throughout the book and a dedicated table comparing different versions of native and scientific names.

The book presents 15 botanically recognized taxa pertaining to seven genera. Seven of these had not been reported previously in the Yanomami literature: *Lentinula raphanica*, *Lentinus bertieri*, *Panus strigellus*, *Pleurotus albideus*, *Pleurotus djamor*, *Polyporus phillipinensis*, and *Polyporus* aff. *thailandensis*. Four species were published by botanists Fidalgo and Prance between 1976 and 1984: *Favolus brasiliensis*, *Polyporus aquosus*, *Polyporus tricholoma*, and *Lentinus crinitus*. Another four species reported by Fidalgo and Prance (1976) have had their scientific names updated following contemporary nomenclature: *Hydnopolyporus fimbriatus* (= *H. palmatus*), *Panus neostrigosus* (= *P. rudis*), *Panus velutinus* (*Lentinus velutinus*), and *Lentinus concavus* (= *Pleurotus concavus*). These Sanöma fungi were identified with such taxonomic precision through the efforts of

knowledgeable Yanomami field researchers, precise morphological analyses of voucher specimens by professional mycologists and botanists, and state-of-the-art biomolecular taxonomic analyses carried out in Brazilian and Japanese mycology laboratories.

In addition to edible fungi, the authors also present detailed information about their garden ecologies and substrate trees (standing, fallen, and stumps). Emphasis is placed on the appearance of specific mushroom taxa at different stages of the garden cycle, including after initial felling of trees, after burning, and at different stages of garden management and regrowth. Most of the host trees were identified to species or genus level and are presented in a table with native Sanöma names and associated mushrooms.

Human ecologists, ethnobiologists, and ethnographers interested in food ecology will find in this book detailed explanations about the availability and use of wild mushrooms in a local Amazonian swidden agricultural system. Detailed information is provided for each ethnotaxon about where and when they grow, how they are gathered, and their culinary uses. According to the authors, no cultural dietary prohibition applies to mushrooms, although some are preferred by youth or preferentially collected by women or men, depending whether they grow in gardens, fallows, or forest areas. Younger people prefer the more flavorful varieties, which they “...consider as satisfactory and nutritious as meat” (p. 27, our translation). The Sanöma distinguish two kinds of hunger, translated as “protein hunger” and “carbohydrate hunger.” Mushrooms are classified among foods that satisfy protein hunger, along with fish and game meat. Depending on the variety, they are wrapped in leaves and roasted or boiled and thickened into a soup. To prepare a complete meal, they are combined with *beiju* (manioc) flatbread and cooked plantains.

We are not aware of any other contribution to the ethnobiology of food of Indigenous Amazonian peoples that so effectively communicates the cultural relevance of edible mushrooms. Published descriptions of mushrooms in Indigenous Amazonian diets are sparse, mainly addressing northeastern Amazonian groups in Colombia and Venezuela near the Brazilian border region (Vargas-Isla et al. 2013). For instance, numerous fungi and related ecological relationships are documented for the Tukano, Witoto, Muinane, Andoke, and Yanomami ethnic groups

(Prance 1972; Vasco-Palacios et al. 2008). Of particular note are the Hoti in Venezuela, whose knowledge and use of over 30 folk taxa of fungi made such an impression to ethnomycologists that they came to be described as a “mycophilic society” (Zent et al. 2004). While addressing fewer fungus taxa, *Enciclopédia dos Alimentos Yanomami (Sanöma): Cogumelos* stands out in comparison to these previous publications by foregrounding the emic culinary and ecological perspectives of its predominantly Indigenous team of authors and researchers.

Another highlight of this publication is the exceptional quality of mushroom photography and illustration, including *in loco* images and representations of mushrooms in gardens and forests, agricultural settings, and culinary techniques. These features contribute to the book’s value not only as a unique theoretical contribution to Amazonian ethnobiology and, more specifically, ethnomycology, but also as a useful field resource for ethnobiologists, human ecologists, anthropologists working among Indigenous peoples in the triple frontier zone between Brazil, Colombia, and Venezuela.

It will also be appreciated by gourmet cooks and chefs because the Instituto Socioambiental markets this book in conjunction with the sale of small packets of mixed dry edible fungi collected by the Sanöma Yanomami in their forests and gardens (15g packets of whole mushrooms and 30g packets of powdered mushrooms). Recipes for broths, cream and sauces are printed on the packet labels and published on the Instituto Socioambiental website, complementing the culinary descriptions included in the book.

The book comes out at a particularly sensitive moment in the trajectory of Brazilian public policies aimed at protecting biodiversity and traditional peoples’ intellectual property rights. The country’s unsettled stance of protectionism and paternalism towards Indigenous peoples overlays its implementation of the Convention on Biological Diversity by federal laws that are bureaucratically overzealous but lacking substantive protections for the people they ostensibly aim to protect. As noted by Welch (2015:216), “...the new law may have been enacted through a process marred by major legal oversights, including inadequate previous consultation with Indigenous peoples...” thereby frustrating both Indigenous representatives and researchers. Given this backdrop, the *Enciclopédia dos Alimentos Yanomami (Sanöma)* serves as an example of Indigenous

intellectual autonomy through collaborative research and scientific communication aimed at promoting conservation awareness and cultural respect in the non-Indigenous Brazilian public.

Kopenawa's preface lucidly and eloquently situates the book's Sanõma authors' efforts to publish traditional knowledge about local mycological diversity as a tool to address ethnocentrism and environmental degradation. As he (p. 17–18, our translation) explains,

This book was also written because we Yanomae and Sanõma want to teach to non-Indigenous people, using this non-Indigenous tool, which is writing and paper. ... We Yanomami have great knowledge of the forest. We are the true experts of the forest. We want to demonstrate to non-Indigenous people and make them respect our knowledge. We want to make them listen. This way non-Indigenous people will learn, gain wisdom. ... You non-Indigenous people cut down the trees indiscriminately. You wreck the forest without thinking about the consequences. We Yanomami do not do this. And because of this the mushrooms grow in the forest.

By connecting the book's rich ethnomycological detail to larger social and environmental challenges, Kopenawa's written words highlight that one of its greatest strengths is its viewpoint, which is artfully intercultural, reaching through and beyond disciplinary boundaries.

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