

ETHNOMYCOLOGY ETHICAL GUIDELINES

THIS DOCUMENT STATES THE ETHICAL PRINCIPLES THAT GUIDE THE FUNGI FOUNDATION ELDERS PROGRAM, ALONG WITH THE PRACTICAL GUIDELINES FOR ITS DIFFERENT ACTIONS. AS PART OF THE PROGRAM, THIS SET OF ETHICAL GUIDELINES WERE DEVELOPED TO PROVIDE A FRAMEWORK FOR DECISION MAKING AND AS A GUIDE TO CONDUCT OUR ETHNOMYCOLOGICAL RESEARCH. THE DEVELOPMENT OF A MAP OF ANCESTRAL & TRADITIONAL USES OF FUNGI PROMPTED THEIR CREATION, HOWEVER THEY ARE APPLICABLE BEYOND THIS SCOPE AND WE SINCERELY HOPE THEY ARE USED AND ADOPTED BY ORGANIZATIONS AND PEOPLE WORLDWIDE.

AUTHORS:
MARIANA VILLANI
CRISTIAN MORENO
GIULIANA FURCI

MAY, 2023



This work is licensed under Attribution-NonCommercial 4.0 International. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

Acknowledgements

We wish to acknowledge the individuals, many of them members of Indigenous Peoples, traditional and local communities, who gave so much of their time and energy to the research embodied in this project. This project is dedicated to them. We also thank the researchers, universities, institutions and granting agencies that supported the ethnomycological research contained here.

We also acknowledge that the loss of traditional mycological knowledge is inextricably linked to the loss of biological diversity and vice versa. We want to explicitly recognize the continuing destruction of ecosystems throughout the world and its devastating biological and human implications. The knowledge underlying the resource management practices of the world's Indigenous People, traditional societies and local communities is directly tied to the maintenance of biological diversity.

Introduction

The Fungi Foundation's Elders Program Ethical Guidelines provide a framework for decision making and conduct for the ethnomycological research included in the Ancestral & Traditional Uses of Fungi's map, future projects with Indigenous Peoples, traditional societies and local communities, and related activities. It reflects the vision of the Fungi Foundation (FFungi) and the goals to facilitate ethical conduct, equitable relationships, and reciprocal responsibility by all parties and to germinate a commitment to meaningful collaboration. We are aware of singularities in every different culture, so this is intended to be a living document that will adapt over time to meet changing understandings, contributions, and circumstances.

Elders Program

The Fungi Foundation is a global organization that explores fungi to increase knowledge of their diversity and ecological roles, promote innovative solutions to contingent problems, educate people about their importance and their current and ongoing applications, as well as recommending public policy for their conservation.

The Elders Program is framed for the recognition of the ancestral relationship between fungi and other species of the planet.

The importance of the relationship between fungal organisms and humans in evolution is still being unveiled and yet, what we know of this relationship is of inestimable value. It is fundamental to humankind's future generations. Ethnomycology is the study of the

Fungi Foundation Ethnomycology Ethical Guidelines, 2023.



This work is licensed under Attribution-NonCommercial 4.0 International. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

sociological impact and historical uses of, and relationships with, fungi by Peoples of different ethnicities, races, or nationalities. It can be considered a subfield of ethnobiology, which is the study of the interactions between people, organisms, and culture. According to Stamets (2000), the use of mushrooms by humanity extends back to Paleolithic times¹. We also know that many different non-human animals and plants interact with fungi, and the knowledge of these interactions is also a component of ethnomycology.

The ethnomycology of Indigenous Peoples, traditional societies and local communities comes hand in hand with the rich traditional ecological knowledge that they have accumulated over thousands of years. Based on La Duke's (1994) definition of traditional ecological knowledge as how Indigenous People relate to their ecosystems in culturally and spiritually based ways, we wish to respect, preserve, and restore this knowledge, together with the fungal organisms and the ecosystems in which they live².

The recognition of this deep ancestral relationship between fungi and other organisms, whether the details are known or not, is fundamental for the preservation and/or conservation of Earth's ecosystems.

We, at Fungi Foundation are aware that vast expanses of wild ecosystems of the world have already been irreversibly altered or destroyed, or are in danger of being so, and with these losses, all the accumulated knowledge of Indigenous People, traditional societies and local communities that has been learnt and transferred through generations of living in a land and having to survive from it also fades. With that, the Elders Program is committed to preserve and revitalize the ancestral knowledge of the use of fungi all around the world, and to recognize this critically important knowledge and wisdom through the *Ancestral & Traditional Uses of Fungi* map.

We at Fungi Foundation are aware that in the past some research has been undertaken without the sanction or prior informed consent of Indigenous Peoples, traditional societies and local communities and that such research may have caused harm and adversely impacted their rights, so we are committed to working in genuine partnership and collaboration with these communities to avoid perpetuating past injustices and build towards developing positive, beneficial and harmonious relationships in the field of ethnomycology.

¹ See: Stamets, P. (2000) Growing Gourmet and Medicinal Mushrooms. 3rd Edition, Ten Speed Press, Berkeley.

² See: LaDuke, W. (1994). Traditional Ecological Knowledge and Environmental Futures. Journal of International Environment and Policy, 5, 127-135.



1. Principles

This document is based on the ethical principles of ethnobiology (see International Society of Ethnobiology Code of Ethics [<https://www.takiwasi.com/pdf/declaraciones/isece-eng.pdf>]), on *The Declaration of Belém*, and other legal environmental documents, such as the Rights of Nature Law adopted in Ecuador; with principles that are based on sustaining life on Sacred Earth, respect for our Ancestors and for the traditional ecological knowledge of Indigenous Peoples, traditional societies, and local communities. These principles also facilitate compliance with standards set by international law, policies, and customary practice, such as those set out in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2018).

The following Principles are the fundamental assumptions that form the Elders Program and the work of the Fungi Foundation.

Principle of Self-Determination, Prior Rights and Responsibilities

Indigenous Peoples, traditional societies, and local communities have a right to self-determination, prior resource rights over, interests in and cultural responsibilities for all air, land, and waterways, fungal and the natural resources within where these peoples have traditionally inhabited or used, together with all knowledge, intellectual property and traditional resource rights associated with such resources and their uses.

Principle of Respect to Pachamama³ and her Rights

Nature in all its life forms has the right to exist, persist, maintain, and regenerate its vital cycles.

Principle of Reciprocity, Mutual Benefit and Equitable Sharing

Indigenous Peoples, traditional societies and local communities have the right to be compensated for the utilization of their knowledge and their biological resources. Mutual benefit and equitable sharing may occur in ways that are culturally appropriate and consistent with the wishes of the community involved.

³ In recognition of the Pachamama in the current Ecuadorian Constitution Art. 71: “La naturaleza o Pacha Mama, donde se reproduce y realiza la vida, tiene derecho a que se respete integralmente su existencia y el mantenimiento y regeneración de sus ciclos vitales, estructura, funciones y procesos evolutivos. Toda persona, comunidad, pueblo o nacionalidad podrá exigir a la autoridad pública el cumplimiento de los derechos de la naturaleza. Para aplicar e interpretar estos derechos se observarán los principios establecidos en la Constitución, en lo que proceda. El Estado incentivará a las personas naturales y jurídicas, y a los colectivos, para que protejan la naturaleza, y promoverá el respeto a todos los elementos que forman un ecosistema.”



Principle of Conservation of Flora, Fauna and Funga

The international acceptance of the recognition of the macroscopic organisms of Sacred Earth as Fauna, Flora and Funga⁴ paves the way for substantial changes in educational and agricultural policies, amongst others. The insertion of the term Funga in legal environmental laws and other documents is essential to the awareness of the threatened fungal organisms that, just like all the Flora and Fauna, are also suffering with the world's loss of environments and changing climate.

Principle of Respect to the Elders

To show respect to the Elders includes attentive listening. Many want their voices to be heard. This knowledge needs to be preserved and used the best way possible, so the next generations will have an opportunity to live in a better world. The value of their words is inestimable and means the continuation of humanity, it is about the symbiotic relationship between people and their ecosystems.

Principle of Acknowledgement and Due Credit

All the research conducted and included in the program must be given due credit and be referenced in accordance with the preference of the Indigenous Peoples, traditional societies and local communities, researchers, and authors. Acknowledgement and due credit extend equally to secondary or downstream uses and applications.

Principle of Educated Prior Informed Consent

Indigenous Peoples, traditional societies and local communities have the right to make decisions on any program, project, study, or activities that directly affect them. Educated prior informed consent must be established before any research or program is undertaken, at individual and collective levels, as determined by community governance structures. In cases where the intentions of proposed research or related activities are not consistent with the interests of these peoples, societies, or communities, they have a right to say no.

Principle of Supporting Indigenous Projects

To recognize and support the efforts of Indigenous Peoples, traditional societies, and local communities in undertaking their own research – based on their own epistemologies and methodologies – in creating their own projects, programs, knowledge sharing mechanisms and

⁴ Kuhar, F., Furci, G., Drechsler-Santos, E. R., & Pfister, D. H. (2018). Delimitation of Funga as a valid term for the diversity of fungal communities: The Fauna, Flora & Funga proposal (FF&F). *IMA Fungus*, 9(2), Article 2. <https://doi.org/10.1007/BF03449441>



related activities, and in utilizing their own collections and databases in accordance with their self-defined needs.

2. Practical Guidelines:

We, members of the Fungi Foundation, strongly urge actions as follows:

- a) To act in good faith to ensure that the connections to original sources of knowledge and resources, maintained in the public record, are given due credit, and are referenced in accordance with the preference of the traditional and Indigenous Peoples, local communities, researchers, and authors.
- b) In the situation where research has been done without proper prior consent, has caused harm and/or adversely impacted a community's rights, and if the community requests, we require members to remove the project work with which the information has been related, and to commit to working in genuine partnership and collaboration with these communities to avoid perpetuating past injustices and build towards developing positive, beneficial and harmonious relationships in the ethnomycology field.
- c) Take active measures to protect and to enhance the relationships of Indigenous Peoples, traditional societies and local communities with their environment and fungal organisms and thereby promote the maintenance of cultural and biological diversity.
- d) To support projects that are led by Indigenous Peoples, traditional societies, and local communities, especially those related to the recovery of ecosystems, traditional ways of living and ethnomycological knowledge.
- e) To support programs that are developed to guarantee the preservation and strengthening of Indigenous and traditional communities and their traditional knowledge.
- f) Try to establish mechanisms by which Indigenous specialists and knowledge holders are recognized as proper authorities and are consulted in all programs affecting them, their resources, and their environment.
- g) To give opportunities for the voices of Indigenous Peoples, traditional societies, and local communities to be heard directly. The full spectrum of their stories, not only the beautiful side of them (e.g., ceremonies and sacred traditions) but also the everyday struggles and what threats they are suffering with the current political situations and endangered ecosystems.

Fungi Foundation Ethnomycology Ethical Guidelines, 2023.



This work is licensed under Attribution-NonCommercial 4.0 International. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

- h) To be aware of historical traumas and specify the level of threats to the ecosystems and populations included in each project to be developed.
- i) To preserve the knowledge that has been collected and make it available for humanity, especially vulnerable populations, and future generations.
- j) Create educational programs to alert the global community to the value of ethnomycological knowledge for human well-being that can be readily accessible to the world, especially to the Indigenous Peoples, traditional societies and local communities that have contributed to the ethnomycological knowledge gathered.
- k) To be aware that some Indigenous, traditional, or local peoples may have their own cultural protocols and practices for conducting research and projects within their own communities; in the event of inconsistency between such local requirements and the Fungi Ethical Guidelines, all parties involved are encouraged to work collaboratively to develop appropriate practices.
- l) To refrain or minimize as much as possible the adverse effects of activities of research that can disrupt or disenfranchise Indigenous Peoples, traditional societies, and local communities from their customary and chosen lifestyles; and optimize the positive outcomes.
- m) To work with ethnomycologists to make results of their research available to the Indigenous Peoples, traditional societies, and local communities with whom they have worked, and whenever possible include dissemination in the native language.
- n) To work for restoring ethnomycological practices that have disappeared from the traditional ecological knowledge of a cultural group. In the case that the Indigenous, traditional, or local peoples no longer exist as a distinct cultural group, to try to restore the knowledge by having it available as part of the outcomes of the projects to be developed.

Note: This document has been revised and endorsed by our Board of Directors, Advisory Board, and our team members. These Ethnomycology Ethical Guidelines show the fundamental assumptions for internal use of the Fungi Foundation and whomever may desire to adopt them in partial or in full. Though it is based on the main global and individual commitments of some nations and organizations, it has not been reviewed by any Indigenous Peoples, traditional societies, and local communities.

Cite as: Villani M., C. Moreno, G. Furci. (2023). Ethnomycology Ethical Guidelines, Fungi Foundation.
<http://assets.ffungi.org/ethicalguidelines.pdf>

Fungi Foundation Ethnomycology Ethical Guidelines, 2023.



This work is licensed under Attribution-NonCommercial 4.0 International. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

Bibliography

Anderson, E. N., Pearsall, D., Hunn, E., & Turner, N. (2011). *Ethnobiology*. John Wiley & Sons.

Asamblea Constituyente. (2008). *Constitución de la República del Ecuador*. En A. Constituyente, *Constitución de la República del Ecuador*. Montecristi.

da Cruz Pinto Yanomami, F., Paixão, B., Pereira, B., Assis, C., Arcanjo, C., Moura, D., Lacerda, E., Macedo, E., Dias, E., Peixoto, F., Moura, F., Pena, F., de Lima, I., Lopes, J., de Lima, K., de Lima, L., de Souza, M., Góes, M., Auxiliadora, M., ... Kazue, N. (2019). *Përisi: Përisiyoma pë wãha oni = Marasmius yanomami: O fungo que as mulheres yanomami usamna cestaria*.

FAO and UNEP. (2020). *The State of the World's Forests 2020. Forests, biodiversity and people*. Rome.

Garibay-Orijel, R., Ramírez-Terrazo, A., & Ordaz-Velázquez, M. (2012). Women care about local knowledge, experiences from ethnomycology. *Journal of Ethnobiology and Ethnomedicine*, 8(1), 25. <https://doi.org/10.1186/1746-4269-8-25>

General Assembly resolution 61/295. United Nations Declaration on the Rights of Indigenous Peoples. A/RES/61/295 (13 September 2007). Available online: <https://social.desa.un.org/issues/indigenous-peoples/united-nations-declaration-on-the-rights-of-indigenous-peoples>

Guzmán, G. (2003). Fungi in the Maya Culture: Past, Present and Future. In *The Lowland Maya Area: Three Millennia at the Human-Wildland Interface* (pp. 315–325). Taylor & Francis.

International Labour Organization (ILO), Indigenous and Tribal Peoples Convention, C169, 27 June 1989, C169. Available online: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_ILO_CODE:C169

International Labour Office, Indigenous and Tribal Peoples' Rights in Practice: A Guide to ILO Convention no. 169 (Geneva: ILO, 2009) at 179.

International Society of Ethnobiology (2006). *ISE Code of Ethics* (with 2008 additions). Available online: <http://ethnobiology.net/code-of-ethics/>



International Society of Ethnobiology the Declaration of Belem. [(accessed in November 2021)]. Available online: <https://www.ethnobiology.net/what-we-do/core-programs/global-coalition-2/declaration-of-belem/>

Kelley, A., Belcourt-Dittloff, A., Belcourt, C., & Belcourt, G. (2013). Research Ethics and Indigenous Communities. *American Journal of Public Health*, 103(12), 2146–2152. <https://doi.org/10.2105/AJPH.2013.301522>

Kimmerer, R. W. (2012). Searching for synergy: Integrating traditional and scientific ecological knowledge in environmental science education. *Journal of Environmental Studies and Sciences*, 2(4), 317–323. <https://doi.org/10.1007/s13412-012-0091-y>

Kimmerer, R. W. (2015). *Braiding sweetgrass*. Milkweed Editions.

Kuhar, F., Furci, G., Drechsler-Santos, E. R., & Pfister, D. H. (2018). Delimitation of Funga as a valid term for the diversity of fungal communities: The Fauna, Flora & Funga proposal (FF&F). *IMA Fungus*, 9(2), Article 2. <https://doi.org/10.1007/BF03449441>

LaDuke, W. (1994). Traditional Ecological Knowledge and Environmental Futures. *Journal of International Environment and Policy*, 5, 127-135.

Marshall, J. (2002). *The Lakota way : stories and lessons for living*. New York :Penguin Compass.

Milenge Kamalebo, H., Nshimba Seya Wa Malale, H., Masumbuko Ndabaga, C., Degreef, J., & De Kesel, A. (2018). Uses and importance of wild fungi: Traditional knowledge from the Tshopo province in the Democratic Republic of the Congo. *Journal of Ethnobiology and Ethnomedicine*, 14(1), 13. <https://doi.org/10.1186/s13002-017-0203-6>

Natcher, D. C. (2007). M. Kat Anderson: *Tending the Wild: Native American Knowledge and the Management of California's Natural Resources*. *Human Ecology*, 35(3), 381–382. <https://doi.org/10.1007/s10745-006-9075-4>

Nelson, M. K., & Shilling, D. (Eds.). (2018). *Traditional Ecological Knowledge: Learning from Indigenous Practices for Environmental Sustainability*. Cambridge University Press. <https://doi.org/10.1017/9781108552998>

Osagualekhor, D. O., & Okhuoya, J. A. (2005). Sociocultural and Ethnomycological Uses of Mushrooms Among the Esan People of Nigeria. *International Journal of Medicinal Mushrooms*, 7(3). <https://doi.org/10.1615/IntJMedMushrooms.v7.i3.810>

Peschel, K. (1998). *Puhpohwee for the People: A Narrative Account of Some Uses of Fungi Among the Ahnishinaabeg*. LEPS Press.



Ruan-Soto, F., & Ordaz-Velázquez, M. (2015). Aproximaciones a la etnomicología maya. *Revista Pueblos y fronteras digital*, 10(20), 44–69.
<https://doi.org/10.22201/cimsur.18704115e.2015.20.32>

Stamets, P. (2000) *Growing Gourmet and Medicinal Mushrooms*. 3rd Edition, Ten Speed Press, Berkeley.

Tanasescu, M. (2013). The rights of nature in Ecuador: The making of an idea. *International Journal of Environmental Studies*, 70(6), 846–861.
<https://doi.org/10.1080/00207233.2013.845715>

Volpato, G., Rossi, D., & Dentoni, D. (2013). A Reward for Patience and Suffering: Ethnomycology and Commodification of Desert Truffles among Sahrawi Refugees and Nomads of Western Sahara. *Economic Botany*, 67(2), 147–160.
<https://doi.org/10.1007/s12231-013-9234-7>

Zank, S.; Ludwinsky, R.; Dias Blanco, G.; Hanazaki, N. (2021). Considerações éticas e legais para a pesquisa etnobiológica. Universidade Federal de Santa Catarina. In: Albuquerque, U.; Cunha, L.; Lucena, R.; Alves, R. *Métodos de pesquisa qualitativa para etnobiologia*. (pp. 7-44). NUPEA.

