



Traditional use of Polypores in Georgia (the Caucasus)

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Review

Abstract

Background: This paper describes traditional uses of polypore fungi in Georgia (the South Caucasus).

Methods: We used ethnomycological interviews collected in 2014–2017 in various regions of the country and available literature data.

Results: The research revealed eight polypore species traditionally used Georgia: *Cerioporus squamosus*, *Daedalea quercina*, *Fistulina hepatica*, *Fomes fomentarius*, *Fomitopsis betulina*, *Laetiporus sulphureus*, *Panus rudis*, *Sparassis crispa*.

Conclusions: Knowledge on medicinal uses of the species is lost in the population at present and can only be found in ethnographic/linguistic literature. The paper presents vernacular names of the polypore species with their Latin identifications and various uses (for food, medicine, decorations and tinder) with respective sources cited.

Keywords: Ethnomycology, Polypores, Traditional knowledge, Georgia, the Caucasus

Background

Polypores are morphological group of basidiomycetes. The majority are lignin-decomposing saprotrophs. Some polypores are used as human food, conventional and alternative medicine, tinder material, decorations (e.g., Kirk, 2008; Papp *et al.*, 2015).

In Georgia the earliest mycological materials were collected in 1770-1772 by J. A. Gldenstdt (Voronov, 1923). The earliest inventories contain Hymenomycetes with a few species of polypores mentioned by Gulmagarashvili, (1976) who thoroughly investigated Polyporales of East Georgia, further early data on Georgia's polypores can be found in the works by Voronov (1915, 1923), Voronikhkin (1927), Singer (1931), Bondartsev (1953). The latest data on Georgia's polypores are included in the works by Ghobad-Nezhad (2009) and Ghobad-Nezhad *et al.* (2011).

The aim of the present research is to summarize available data on traditional uses of polypores in Georgia.

Materials and Methods

Study area

Georgia is a part of the Caucasus, the region connecting Europe and Asia. The Great Caucasus lies to the north and the Lesser Caucasus to the south of the country and the Likhi range connects these mountain chains. The Black Sea is located to the west. Elevations range from values below sea level to more than 5000 m.a.s.l., which accounts for diverse natural conditions and plant cover: humid thermophilous Colchis, a refugium of Arcto-Tertiary temperate rainforests with evergreen shrub understory in the western part, xerothermic semi-deserts and uplands in the eastern and southern parts, and alpine-subnival communities at higher elevations (e.g., Nakhutsrishvili, 2013).

Administratively the country is divided into 12 larger and 76 smaller units. Tbilisi, the capital, is considered an independent administrative unit.

Methods used

Field research was conducted in 2014-2017 throughout Georgia within the framework of the project Ethnobiology of Georgia's Fungi and Lichens supported by Shota Rustaveli National Science Foundation, Georgia, and is based on extensive literature and field survey. After obtaining prior informed consent for interviews, semi-structured interviews were conducted with participants in local villages. The total number of interviewees was about 800.

Vernacular names provided by the respondents were analyzed in parallel to the names given in the various dictionaries (Beridze, 1912; Chincharauli, 2006; Dondua, 2001; Dzotsenidze, 1979; etc.).

Fungal species mentioned in the present paper are documented by collections stored at TBI (Jorjadze *et al.* 2022).

Species nomenclature follows the Index Fungorum (www.indexfungorum.org).

Results and Discussion

Georgians traditionally used the following polypore species: *Cerioporus squamosus* (Huds.) Quél., *Daedalea quercina* (L.) Pers., *Fistulina hepatica* (Schaeff.) With., *Fomes fomentarius* (L.) Fr., *Fomitopsis betulina* (Bull.) B.K. Cui, M.L. Han & Y.C. Dai, *Ganoderma lucidum* (Curtis) P. Karst., *Laetiporus sulphureus* (Bull.) Murrill, *Panus rudis* Fr., *Sparassis crispa* (Wulfen) Fr. At present the knowledge on medicinal uses of the species is lost and data are only found in literature, which in some cases provides not only vernacular names but also description of the mushroom morphology and uses (Bagrationi, 1989; Gachechiladze, 2021; Javakhishvili, 1924; Khornauli, 2001; Liparteliani, 1994; Mindadze, 2013; Nozadze, 1900; Putkaradze, 1993, 2021; Tsutsunava, 2001). Mostly the morphological descriptions are through enough to identify the mushroom to the species level. In case of *Ganoderma lucidum* only vernacular name (Table 1) remains in the memory the population as well as literature (Amirejibi *et al.*, 2006) but knowledge on its use is lost.

Mushroom names

Many species of polypores growing on both living and dead trees and producing shelf-, fan- or hook-like carpophores are called tinder mushrooms ("abeda") but not all such mushrooms gave tinder of good quality. Good tinder mushroom was *Fomes fomentarius* called "abed", "abedi", abedis sok", "bebera soko", "vanesa", "kvežo", "obedishi soko", "saabede", hobediac", hobediac' tqubul" (Table 1). Polypores inapplicable for making tinder were called "miabedol" in Svaneti (Kupradze *et al.*, 2015). Certain names of mushrooms found in literature, e.g. "bžolistelpá", "dedabera-soko", "ože", "tqemlis soko", are no more used by local population; these names were not identified in this study (Table 1). In some cases the local names are preserved but knowledge about the mushroom usage is lost, e.g. "kovza" is the local name for *Ganoderma lucidum* but no data are available on local uses.

Food Uses

In Georgia polypores (*Cerioporus squamosus*, *Fistulina hepatica*, *Sparassis crispa*) have been used for food (Table 1). *C. squamosus* is recognized and collected in every region of the country. Young soft carpophores are collected for food. In Racha and Kakheti dry carpophores are used as well: In Racha "we mostly use young mushrooms but also soak dry carpophores in water, pass them through grinder and make cutlets", in Kakheti "we also eat k'oris soko dry but fry it for a long time" (Sikharulidze *et al.*, 2020). Imeretians think that *C. squamosus* growing on elm tree (*Ulmus* sp.) is particularly delicious (Dzotsenidze, 1979). *Fistulina hepatica* is considered one of the most delicious mushrooms by the Rachvelians and Immeretians, its taste is compared with veal and liver. (Sikharulidze, 2020) Traditionally, in Adjara and Tusheti *Sparassis crispa*

is thought to be one of the best edible mushrooms. Tushetians even call it the king of mushrooms (Tsotsanidze, 2012). In the recent eight-ten years in various regions of the country *Laetiporus sulphureus* is collected for food; the mushroom is called “*tqis katami*”, which means “forest chicken”; the name seems to be translated from the English “Chicken of the woods”. The mushroom was not formerly eaten in Georgia.

Making cheese

In Telavi Municipality, Kakheti, and Tianeti Municipality, Mtskheta-Mtianeti, East Georgia, *Panus rudis* was used in cheese making. The mushroom was called “*qvelis sokos*”, which means “cheese mushroom”. At present no one uses the species for cheese making, the knowledge is only preserved in memories of elderly. Middle-aged respondents have only heard about cheese-making with mushrooms, while younger population have no knowledge on it. *Panus rudis* was not mentioned as a species used for food or any household activities in other regions; respondents outside Telavi and Tianeti have not heard of the cheese mushroom.

According to recent interviews and literature data, *Panus rudis* was processed using similar techniques: “Pour cheese mushroom in a jar, add water to cover the mushroom and a pinch of salt. Pour mushroom juice into fresh or boiled milk (one small glass of juice per one liter of milk) and place the milk in a warm place. If the juice is poured into boiling milk, you will get cottage cheese. Pour the whey left aside from cheese onto the mushroom juice and store the juice; you will get better cheese base in this way”; “the cheese base was collected, put into a jar, water poured on it and stored; when needed, [the cheese material] was drained through gauze and added to milk”, “I mashed the mushroom in small amount of milk, and the mixture thickened quickly, then I drained the mixture, poured the whey into a jar and put the mushroom into it; cheese base preparation of cattle or pig stomach takes the same time as making 12 heads of cheese with the mushroom base. The cheese was so good looking like yellow gold. Everyone whom I sold it, said they never tasted better cheese” (Sikharulidze *et al.*, 2020).

Informants were not able to connect this information for any specific mushroom, therefore, we identified cheese mushroom [*qvelis sokos*] as *Panus rudis* based on literature data (Nakhutsrishvili, 2007; Khidasheli, Panchulidze, 1990). In 1936 in the village Vardisubani, Telavi district, an informant describes the cheese mushroom in the following way: „There is a kind of a mushroom, a hornbeam mushroom. The mushroom is hairy, and I have often used it to make cheese” (Javakhishvili, 2021).

Medicinal Uses

Knowledge about medicinal uses of polypores is completely lost in the modern-day population. None of the informants throughout the country mentioned this use category for polypore mushrooms. The data are only found in dictionaries and ethnographic records. Morphological descriptions of some mushrooms were detailed enough to enable specialists identify species with high degree of certainty. But there are records without morphological descriptions, with only vernacular names, substrate and uses mentioned (Table 1), e.g., in Adjara *Prunus divaricata* mushroom [*tqemlis soko*] was used for burn treatment (Putkaradze, 2021), in Imereti „*bžolistelpá*” growing on *Morus* sp. („*bžola*” means mulberry in Imeretian dialect of the Georgian language and „*telpá*” means bark of a tree branch, which is used at incantations) is used for treatment of mastitis in cows (Dzotsenidze, 1979; Gachechiladze, 2021).

In Imereti a medicinal “*mukhis soko*” oak mushroom was also used: “*Mukhis soko*” was used for “*becvela*” treatment. This is a disease, of which educated people are yet unaware. As people think, *becvela* is a kind of a worm in rotten hollows, swamps and so on. The worm is thin and long as a hair (“*becvela*” means a single hair of an animal), very difficult to see. In a place of its poisonous bite, tiny worms appear in a week on the body, the flesh swells like a blue pimple, itching and disturbing. The disease is treated in the following way: first, the top of a pimple is cut so as to let the blood and pus flow, then the oak mushroom is put on the cut with its hollow pith by one hand, and boiled water is poured between the cut and the mushroom by the other one while saying spells loudly. Spells are pronounced for one or two hours. Then the mushroom is removed and observed to check if the worms have gone over the hollow pith of the mushroom! I have not seen it but people say thin and difficult-to-see worms go from the cut to the mushroom. I asked, how the incantations can make the worm go out and they answered: “When we say the spells loudly the worm hears them and follows the voice. In any case, the disease it cure only by this means and not another” (Nozadze, 1900). “*Becvela* is a kind of a water worm. It looks like a hair and occurs in water; some are black with white head. It does not look like a worm and can eat fingers away” (Berozashvili, 1981). “*Becvela* is a disease mostly affecting sheep as hairy *bečvelia nidus* appearing between and make then lame” (Zedginidze, 2014).

In Adjara „*kos páča*” was used for eczema treatment: „Boiling water was poured onto the „*mukhis [oak] páča*” and the „*páča*” was rubbed on the aching area with simultaneously pronouncing a spell: „... Get out, turn yourself out on the „*mukhis [oak] páča*”...” (Putkaradze, 1993). „*kos páča*” was also used at incantations against evil eye: „... Get out, the heart, get out, the soul,

get out and turn yourself over the „kos ičas“ (Nizharadze, 1971). According to existing morphological descriptions (Table 1), „mukhis soko“ and „kos pacha“ are *Daedalea quercina* (L.) Pers.

In Svaneti *Laetiporus sulphureus* was used for „dasuntkuli“ treatment with magic spells (Kupradze *et al.*, 2015): „Gaki sok“ – „nigvzis soko“ [walnut mushroom], ..., as well as „mamali soko“, drif was used at magic spells against „dasuntkuli“ (Liparteliani, 1994). The Georgian medicine knows a certain kind of rash caused by food passed over or smelled by mouse, snake, etc. (Korchilava, 1993).

In Pshavi *Fomitopsis betulina* was used for veterinary treatment of horses and other domestic animals: „Kotao– it coughs, snot flows from the nose, loses weight, foals even have sore throat. „Arqis zoko“ birch mushroom is smoked in their nose, and it helps“ - recorded in Shuapkho, Dusheti, 1924 (Javakhishvili, 2021). Kotao (glanders, malleus) is a chronic bacterial disease of equids (horse, donkey, mule) affecting respiratory system and skin, caused by *Burkholderia mallei* (Gogichadze *et al.*, 2021).

Fomitopsis officinalis powder was used as laxative (Bagrationi, 1989).

In Georgia polypores were used for wart treatment: „When a wart is cut with a nail, „abedi“ is put on the cut and bandaged, which helps and removed the wart“ (Burduli, 2010). In Svaneti tampons were made of polypores: „In Svaneti tampons are called „patriki / patruki“ and is made of beeswax, birch twig or „abedi“. Polypore and birch twigs were used to make pencil-like sticks thinner from one side. Ointments were applied to wounds with these sticks“ (Kupradze *et al.*, 2015).

Ornamental

Formerly in certain regions of Georgia children used to draw on polypore hymenophores; an inscription says: „Formerly there was no school and there were no teachers in Tvalenji. School only existed in Tolaantsopeli. There was a wooden house, and a priest was the teacher. I was a peasant's son, and no one would teach me at school. I had a Cousin Matia. Arsena, tough thin reading and writing and a kind man from Chekuraantgori who used to teach others, had taught Arsena. Matia and I used to go to shepherds. There we fought, played flute, joked and sometimes he taught me to write. First he wrote for me on this, on a mushroom, with a stick, then on a stone, then on wood and taught me the 33 letters. I had that outspread mushroom in my bag, I used to take it out, read and sometimes write“ – recorded in Tolenji, Tianeti (Gigineishvili *et al.*, 1995).

In Pshavi dry *Fomitopsis betulina* was used to make playing balls (Khornauli, 2001; Nakhutsrishvili, 2007; Shanidze, 1984). None of these balls are known to have remained and none of the informants knew about this use category of the polypore.

Tinder

In every region of Georgia, polypores were used for tinder. At present tinder is not made anywhere in the country but the vast majority of the informant knew the technology of its preparation. The major polypore to make tinder was *Fomes fomentarius* mentioned both in the interviews collected in the present study and the revised literature sources (Archvadze *et al.*, 2011; Bakuradze, 1976; Nozadze, 1900; Oniani, 1917, Sikharulidze *et al.*, 2020). Tinder receipt was also similar everywhere: „Abedi is a tree mushroom, mostly occurring on beech trees. It is whitish, firm and durable. The mushroom is perennial. Tinder is made from it in the following way: first, the mushroom is beaten to make it soft, then it is boiled in ash water for a long time, then dried and beaten again; the mushroom becomes soft and sponge-like. It is used with steel to make fire“ (Nozadze, 1900). In Svaneti and Tusheti informants emphasized that the best tinder was made of birch mushroom (*Fomitopsis betulina*). „We peeled polypores, boiled the pulp with ash, dried it under the sun and beat it until powdered. The powdered polypore was stored to make fire. Especially good is birch polypore, which is shell-shaped. We used to go to the birch forest to collect it in the childhood“ (Jorjadze *et al.*, 2015). „For tinder the birch tree polypore is especially good; we poured its soft parts into ash water, boiled well, then dried under the sun, crushed and the tinder was ready“ (Sikharulidze *et al.*, 2020).

„Arqis zoko“ *Fomitopsis betulina* smoke was blown into beehives in Khevsureti (Chincharauli, 2006).



Cerioporus squamosus



Daedalea quercina



Fistulina hepatica



Fomes fomentarius



Fomes fomentarius



Fomitopsis betulina



Ganoderma lucidum



Laetiporus sulphureus



Panus rudis



Sparassis crispa

Declarations

Ethics approval: This study has been conducted under the provisions of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization of the Convention on Biological Diversity. Oral Prior consent was obtained from each participant.

Consent for publication: Not applicable –this manuscript contains no personal data.

Data availability: The original data is presented in the article. There is no supplementary data. The raw data without the names of informants can be provided by authors.

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Literature cited

Archvadze G, Bedukidze L, Bezarashvili T, Bokuchava M, Gasitashvili G, Gelashvili N, Geladze T, Gogiashvili A, Zandukeli M, Kakabadze T, Kvantidze G, Izteti L, Nadiradze E, Nadiradze T, Kafianidze M, Shilakadze M, Tsintsadze K, Khizanishvili M, Jikia N. 2011. Ethnographic Dictionary of the Georgian Material Culture. The National Museum of Georgia. Meridiani, Tbilisi, Georgia, (in Georgian).

Bagrationi I. 1989. Dictionary of Nature Sciences. Metsniereba, Tbilisi, Georgia, (in Georgian).

Bakuradze L., Kizikian (Kakhetian) Dialect, Informant: Razhdena Mangoshvili, Zemo Bodbe, Signnaghi, Kakheti, Georgia, 1976, Recorder: Shalvashvili N. <http://corpora.co/#/corpus#3362> (Accessed 10/12/2021), (in Georgian).

Beridze V. 1912. Collection of Imeretian and Rachian Idiomatic Expressions. Petersburg, Russia, (in Georgian).

Berozashvili T. Meskhishvili M. Nozadze L. 1981. Dictionary of Georgian Dialects. Mecniereba, Tbilisi, Georgia, (in Georgian).

Bondarzew A. 1953. Polyporaceae of the European part of the USSR and of the Caucasus. Leningrad, (in Russian).

- Burduli M. 2010. Folk medicine in West Georgia (according to Svanetian ethnographic materials): Akhaltsikhe University, Akhaltsikhe, Georgia, (in Georgian).
- Chincharauli A. 2006. Khevsurian Dictionary. Tbilisi, Georgia, (in Georgian).
- Dondua K. 2001. Svanian-Georgian-Russian Dictionary (Lashkian dialect). Tbilisi, Georgia, (in Georgian).
- Dzotsenidze K. 1979. Zemoimeretian Dictionary. Ganatleba, Tbilisi, Georgia, (in Georgian).
- Gachechiladze P. Dictionary materials for the Imeretian dialect, <http://corpora.co/#/dictionaries> (Accessed 10/12/2021), (in Georgian).
- Ghlonti A. 1976. Collection of Idiomatic Expressions of the Georgian dialects. Ganatleba, Tbilisi, Georgia, (in Georgian).
- Ghobad-Nejhad M. 2011. Updated checklist of corticioid and poroid basidiomycetes of the Caucasus region. *Mycotaxon* 117: 1-70. doi: 10.5248/117.508
- Ghobad-Nejhad M, Hallenberg N, Parmasto E, Kotiranta H. 2009. A first annotated checklist of corticioid and polypore basidiomycetes of the Caucasus region. *Mycologia Balcanica* 6: 123-168.
- Gigineishvili I, Topuria V, Kavtaradze I. 1955. Georgian Dialectology, a written record of an oral narrative: stories of everyday life, the 19th century. <http://www.corpora.co/#/corpus#339> (Accessed 10/12/2021), (in Georgian).
- Gogichadze G, Gedenidze A, Chumburidze J. 2021. Georgian-English-Russian-Latin Dictionary of Medicinal Terms. <https://www.ice.ge/liv/liv/samedicino.php> (Accessed 20/11/2021), (in Georgian).
- Gulmagarashvili V Kh. 1976. Aphyllophorales of East Georgia. Candidate dissertation, a manuscript. Institute of Botany of the Georgian SSR Academy of Sciences, Tbilisi, Georgia, (in Russian).
- Javakhishvili I. 2021. Materials on housekeeping (original copies). Author of corpus publication: R. Landia <http://corpora.co/#/corpus#3543> (Accessed 10/12/2021), (in Georgian).
- Jorjadze A, Batsatsashvili K, Kupradze I, Tigishvili K. 2022. Herbarium catalogue of Georgian fungi – Macromycetes. Ilia State University. Tbilisi
- Khidasheli Sh, Panchulidze A. 1990. Mushrooms. Publishing House Saqartvelo, Tbilisi, Georgia, (in Georgian).
- Khornauli G. 2001. Pshavian Dictionary. Chronograph, Tbilisi, Georgia, (in Georgian).
- Kirk PM, Cannon PF, Minter DW, Stalpers JA. 2008. Dictionary of the Fungi (10th Ed.). Wallingford: CABI, London, U.K.
- Korchilava J. 1993. Gurian Karabadini – A Medical Book. Pergamenti, Tbilisi, Georgia, (in Georgian).
- Kupradze I, Jorjadze A, Batsatsashvili K, Paniagua Zambrana NY, Bussmann RW. 2015. Ethnobiological study of Svaneti fungi and lichens: history of research, diversity, local names and traditional use. *American Journal of Environmental Protection*; 4 (3-1): 101-10.
- Liparteliani A. 1994. Svanian-Georgian Dictionary (Cholurian dialect). Tbilisi, Georgia, (in Georgian).
- Makashvili A. 1961. Botanical Dictionary: Plant Names. Sabchota Sakartvelo, Tbilisi, Georgia, (in Georgian).
- Mindadze N. 2013. Traditional Medicinal Culture of the Georgian People. Tbilisi, Georgia, (in Georgian).
- Nakhutsrishvili G. 2013. Vegetation of Georgia. Springer, Cham, Switzerland.
- Nakhutsrishvili I. 2007. Mushrooms of Georgia. Buneba Printi, Tbilisi, Georgia, (in Georgian).
- Nizharadze Sh. 1971. Adjarian Dialect of the Georgian Language. Sabchota Adjara, Batumi, Georgia, (in Georgian).
- Nozadze S. 1900. A mushroom, edible and poisonous (Material to study Georgia's mushrooms). *Iveria*, 2 Aug, N166:1-2, (in Georgian).
- Oniani A. 1917. Svanian Names of Trees and Plants (Leshkian dialect). Petrograd, Russia, in Svanian).
- Papp N, Rudolf K, Bencsik T, Czégényi D. 2017. Ethnomycological use of *Fomes fomentarius* (L.) Fr. and *Piptoporus betulinus* (Bull.) P. Karst. in Transylvania, Romania. *Genetic Resources and Crop Evolution* 64(1): 101-111
- Putkaradze Sh. 1993. Georgian language of the Georgians abroad. Batumi, Georgia, (in Georgian).
- Putkaradze Sh. 2021. Georgian language of the Georgians abroad, language of the Muhajirs – Upper Adjarian. Informant: Muntaha, Baikozoghli-Tavdgiridze, Tupekchi Konaki, Inegoli district, Turkey, 1989. Author of corpus publication: N. Surmava <http://corpora.co/#/corpus#1655> (Accessed 10/12/2021), (in Georgian).
- Rayfield D, Amirejibi R, Apridonidze Sh, Broers L, Chkhaidze L, Chanturia A, Margalitadze T, 2006. Big Georgian-English Dictionary. Garnet, London, U.K.
- Shanidze A. 1984. Georgian dialects in montane regions. vol. 1. The Georgian SSR Academy of Sciences, Tbilisi State University, Georgia, (in Georgian).

- Sikharulidze Sh, Kikodze D, Khutsishvili M, Chelidze D., Maisaia I, Jorjadze A, Batsatsashvili K. 2020. Wild plants used for "Mkhali" and edible mushrooms of Georgia. *Akademiuri Tsigni*, Tbilisi, Georgia, (in Georgian).
- Singer R. 1931. Pilze aus dem Kaukasus 2. Ein Beitrag zur Flora Swanetzens und einiger angrenzender Taler, *Botanischer Centralblatt Beihefte* 48(2): 513-542
- Tandilava A. 2013. *Lazian Dictionary*. Arnold Chikobava Institute of Linguistics, Saari, Tbilisi, Georgia, (in Georgian).
- Topuria V. Kaldani M. 2000. *Svanian Dictionary*. Tbilisi, Georgia, (in Georgian).
- Tsotsanidze G. 2012. *Tushetian Dictionary*. Bakur Sulakauri Publishing House, Tbilisi, Georgia, (in Georgian).
- Tsutsunava N. 2001. *Medicinal Plants of Georgia*. Ganatleba, Tbilisi, Georgia, (in Georgian).
- Voronikhin N. 1927. Materials for the flora of fungi of the Caucasus, *Trudy Botaniches Kogo Muzeja AN SSSR* 21: 87-252 (in Russian).
- Voronov Ju. 1915. Summary of data on the mycoflora of the Caucasus. Part I. *Trudy Tiflisskogo Botaniches Kogo Sada* 13(2): 1-200 (in Russian).
- Voronov Ju. 1923. Summary of data on the mycoflora of the Caucasus. Part II. *Trudy Tiflisskogo Botaniches Kogo Sada* 2(3): 97-186 (in Russian).
- Zedginidze G. 2014. *Javakhian Dictionary*. Saunje, Tbilisi, Georgia, (in Georgian).

Table 1. Vernacular names and traditional uses of Georgia's polypores.

Georgian name	Georgian name (transliterated)	Latin name (identified by the authors)	Fungi description in the references cited
აბედ (ლაშხ.)	Abed (Lashkh.)	<i>Fomes fomentarius</i> (L.) Fr.	A solid mushroom grows on fallen trees, timber is produced of it after it the mushroom boiled in ash and kneaded (Oniani, 1917).
აბედ (ჩოლ.)	Abed (Chol.)		Boiled down mushroom. 'Abed' is the mushroom of good quality, and 'tsiiva' of bad (Liparteliani, 1994).
აბედი	Abedi	<i>Fomes fomentarius</i> (L.) Fr.	Tree mushroom, mostly growing on beech. It is whitish, solid and perennial. Tinder is made of it in the following way: it is beaten out to make it soft, then boiled it well in ash-water, dried, beaten out again and softened to a sponge-like state. It is used with flint to start fire. - Mt. Likhi (Kochora side) (Nozadze, 1900).
აბედი	Abedi	<i>Fomes fomentarius</i> (L.) Fr.	In Svaneti tampons are called 'patruqi' and is made of beewax, birch twig or polypore. Polypore and birch twigs were used to make pencil-like sticks thinner from one side. Ointments were applied to wounds with these sticks (Mindadze, 2013).
აბედი	Abedi	<i>Fomes fomentarius</i> (L.) Fr.	A mushroom attached to the beech trunk, grows to quite a large size. Tinder mushroom is well boiled out, dried under the sun and chopped to small pieces. When starting fire, the tinder mushroom piece is firmly stuck to a steel piece, which is then hit to flint, a piece of firm rock. Fire sparks from a few hits start flameless fire on tinder, which is sufficient to start big fire. Starting fire with steel and flint is one of the most ancient invention of the humanity. The principle was then efficiently used in construction of firearms (Archvadze <i>et al.</i> , 2011)
აბედი	Abedi	<i>Fomes fomentarius</i> (L.) Fr.	" -- Tinder mushroom? -- This is a mushroom growing on a tree, it is boiled in ash-water - first kept in ash-water for a day, then boiled, then beaten well, softened, boiled out again, dried and a small piece, like a small piece of cotton, stuck with a thumb, hit [with steel and flint] and used to start fire; then we blew, and the fire started (Kakheti) (Bakuradze, 1976)
აბედი	Abedi		Tinder mushroom was used against warts. "Whoever cuts a wart with a fingernail, puts a mushroom with bandage on it and ties it, will make the wart go away" (Tsutsunava, 2001)
აბედის სოკ	Abedis sok	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., 'Abedi sok' in Svaneti (Makashvili, 1961)
არყის ზოკო	Arqis zoko	<i>Fomitopsis betulina</i> (Bull.) B.K. Cui, M.L. Han & Y.C. Dai	In Khevsureti, Tusheti, Pshavi. A mushroom growing on birch trees. "Birch trees produce the mushroom, of which children make balls". Tinder is also made of it (in Khevsureti), not edible (Shanidze, 1984)
არყის ზოკო	Arqis zoko	<i>Fomitopsis betulina</i> (Bull.) B.K. Cui, M.L. Han & Y.C. Dai	Birch mushroom smoke is blown into beehive (in Khevsureti) (Chincharauli, 2006)
არყის ზოკო	Arqis zoko	<i>Fomitopsis betulina</i> (Bull.) B.K. Cui, M.L. Han & Y.C. Dai	Kotao – it coughs, snot flows from the nose, loses weight, foals even have sore throat. Birch mushroom is smoked in their noses, and it helps (in Pshavi) (Javakhishvili, 2021)

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არყის ზოკო	Arqis zoko		A mushroom produced by birch trees. Birch trees produce the mushroom, of which children make balls. Tinder is also made of it, not edible (Shanidze, 1984). 'Abedi' is a mushroom, very rare. Medicinal. When a horse is sick with 'Kotao', the mushroom smoke is applied. Also used to treat tumors - I have brought it to Tbilisi on physicians request (Pshavi) (Khornaui, 2021)
არყის სოკო	Arqis zoko	<i>Fomitopsis betulina</i> (Bull.) B.K. Cui, M.L. Han & Y.C. Dai	<i>Piptoporus betulinus</i> (Fr.) Kaust. Not edible. Formerly people carved playing balls from dried birch mushrooms (Nakhutsrishvili, 2007)
არყის სოკო	Arqis zoko		<i>Boletus igniarius</i> . A kind of a solid, horse's hoof-like stalkless mushroom growing on birch and other trees (Bagrationi, 1989)
ბებერა სოკო	Bebera soko	<i>Fomes fomentarius</i> (L.) Fr.	A kind of a tree-growing mushroom. Older specimens were used to make tinder (Javakheti) (Zedginidze, 2014)
ბჟოლისტელვა	Bžolistelpá		A mushroom growing on mulberry tree. Is thought to cure mastitis (Imereti) (Gachechiladze, 2021)
გაკა სოკ	Gaka sok (Lshkh.)	<i>Laetiporus sulphureus</i> (Bull.) Murrill	Walnut mushroom, yellowish in color (Svaneti) (Topuria, Kaldani, 2000)
გაკა სოკ (ლაშხ.)	Gaka sok (Lshkh.)	<i>Laetiporus sulphureus</i> (Bull.) Murrill	Walnut mushroom, yellow, unusable [for food] (Svaneti) (Oniani, 1917)
გაკა სოკ (ლაშხ.)	Gaka sok (Lshkh.)	<i>Laetiporus sulphureus</i> (Bull.) Murrill	Walnut mushroom, yellowish, unedible (Svaneti) (Dondua, 2001)
გაკი სოკ (ჩოლ.)	Gaki sok (Chol.)	<i>Laetiporus sulphureus</i> (Bull.) Murrill	Walnut mushroom, useful for tinder after boiling, also 'male' mushroom, dried is used at 'dasuntkuli' treatment with magic spells (Svaneti) (Liparteliani, 1994)
დედაბერა-სოკო	Dedabera-soko		"Dedabera-soko' is like 'abedi', brownish-black (Ghoresha, Imereti) (Dzotsenidze, 1979)
ვანესა	Vanesa	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., Vanesa in Imeretian dialect (Makashvili, 1961)
კვეჟო	Kvežo	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., 'Kvezho' in Imeretian dialect (Makashvili, 1961)
კვეჟო	Kvežo	<i>Fomes fomentarius</i> (L.) Fr.	Tree-growing mushroom, of which tinder is made (Imereti, Racha) (Beridze, 1912)
კოვზა	Kovza	<i>Ganoderma lucidum</i> Karst	Kovza-soko' (<i>Ganoderma lucidum</i>) (Amirejibi et al., 2006)
კოს იჭა	Kos iča	<i>Daedalea quercina</i> (L.) Pers.	Tree (oak) mushroom: „... Get out, the heart, get out, the soul, get out and turn yourself over the „ Kos iča “ (Nizharadze, 1971)
კოს ფაჭა	Kos páča	<i>Daedalea quercina</i> (L.) Pers.	Oak mushroom, used to treat eczema: „Boiling water was poured onto the „mukhis [oak] páča “ and the „ páča“ was rubbed on the aching area with simultaneously pronouncing a spell" (Istanbul) (Putkaradze, 1993)

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მიაბედოლ (ლაშხ.)	Miabedol (Lashkh.)		Grows like a mushroom on logs, not useful for tinder (Svaneti) (Oniani, 1917)
მუხის სოკო	Mukhis soko	<i>Daedalea quercina</i> (L.) Pers.	Grows on rotten oaks. Like Abedi, it also grows for several years. It is grey and solid, and the heart is like honeycomb. This mushroom is used to treat "betsvela". This is a disease, of which educated people are yet unaware. As people think, betsvela is a kind of a worm in rotten hollows, swamps and so on. The worm is thin and long as a hair ("bets"vi" means a single hair of an animal), very difficult to see. In a place of its poisonous bite, tiny worms appear in a week on the body, the flesh swells like a blue pimple, itching and disturbing. The disease is treated in the following way: first, the top of a pimple is cut so as to let the blood and pus flow, then the oak mushroom is put on the cut with its hollow pith by one hand, and boiled water is poured between the cut and the mushroom by the other one while saying spells loudly. Spells are pronounced for one or two hours. Then the mushroom is removed and observed to check if the worms have gone over the hollow pith of the mushroom! I have not seen it, but people say thin and difficult-to-see worms go from the cut to the mushroom. I asked, how the incantations can make the worm go out and they answered: "When we say the spells loudly the worm hears them and follows the voice. In any case, the disease it cure only by this means and not another". Maybe "Mukhis soko" - oak fungus has medicinal properties! This should be explored (Mt. Likhi, Kochora region) (Nozadze, 1900)
მძერა	Mžera	<i>Cerioporus squamosus</i> (Huds.) Quélet	A yellow mushroom (Lechkhumi) (Ghlonti, 1976)
მძერა	Mžera	<i>Cerioporus squamosus</i> (Huds.) Quélet	<i>Polyporus squamosus</i> Fr., Mdzera in Lechkhumian (Makashvili, 1961)
ობედიში სოკო	Obediši soko	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., Obedishi soki in Megrelian (Makashvili, 1961)
ოძე	Ože		A tree-growing mushroom (Tandilava, 2013)
სააბედე	Saabede	<i>Fomes fomentarius</i> (L.) Fr.	Tinder tree-growing mushroom (mostly on dry beech), big, solid (Pshavi) (Khornauli, 2001)
სააბედე	Saabede	<i>Fomes fomentarius</i> (L.) Fr.	Tinder tree-growing mushroom (Khevsureti) (Chincharauli, 2006)
სააბედე	Saabede	<i>Fomes fomentarius</i> (L.) Fr.	Used for tinder (Amirejibi R., Apridonidze Sh. et al. 2006)
სააბედე სოკო	Saabede soko	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., Saabede soko in Pshavian (Topuria V. Kaldani M. 2000)
ტყემლის სოკო	Tqemlis soko		[Aburning] sliver was given to me. I was burnt and cried. They helped me, but my side was burnt, and sinews got visible. 'Tqemlis soko' was burnt and poured on me and it cured me' (Turkey) (Putkaradze, 2021)
ფაჭა	Páča	<i>Daedalea quercina</i> (L.) Pers.	Tree-growing dry mushroom. "Go out and turn around the 'Mukhis páča' (Istanbul) (Putkaradze,1993)

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ქორა	K'ora	<i>Cerioporus squamosus</i> (Huds.) Quélet	K'ora zoko' growing on 'Kirtskhli' [possibly hornbeam] and beech, where a tree has a defect or is rotten. Edible (Pshavi) (Khornauli, 2001)
ქორა ზოკო	K'ora zoko	<i>Cerioporus squamosus</i> (Huds.) Quélet	A big mushroom, grows on maple [<i>Acer cappadocicum</i> subsp. <i>cappadocicum</i>], it is used for food in Pshavi but the taste is not very good' (Pshavi) (Shanidze, 1984)
ქორის სოკო	K'oris zoko	<i>Cerioporus squamosus</i> (Huds.) Quélet	We eat it dry as well but fry for a long time (Kakheti) (Sikharulidze <i>et al.</i> , 2020)
ქორო ზოკო	K'ora zoko	<i>Cerioporus squamosus</i> (Huds.) Quélet	In Mtiuleti and Pshavi, grows on 'Kirtsxli' [possibly hornbeam] and beech, where a tree has a defect or is rotten. Edible (Pshavians said thed 'Kirtsxli' does not produce it (Shanidze, 1984)
ღაჟაჟო	Ğağağo	<i>Sparassis crispa</i> (Wulfen) Fr.	<i>Sparassis crispa</i> (Fr.) Fr. Fresh is used for food (Nakhutsrishvili, 2007)
ღაჟაჟო	Ğağağo	<i>Sparassis crispa</i> (Wulfen) Fr.	<i>Sparassis crispa</i> (Wulfen) Fr., Ghazhazho' is an edible mushroom, delicious (Khidasheli, Panchulidze, 1990)
ღაჟაჟო	Ğağağo	<i>Sparassis crispa</i> (Wulfen) Fr.	<i>Sparassis crispa</i> (Amirejibi <i>et al.</i> , 2006)
ღვიძლა სოკო	Ğvizla soko	<i>Fistulina hepatica</i> (Schaeff.) With.	<i>Fistulina hepatica</i> (Amirejibi <i>et al.</i> , 2006)
ღვიძლა სოკო	Ğvizla soko	<i>Fistulina hepatica</i> (Schaeff.) With.	<i>Fistulina hepatica</i> (Schaeff.) With. Fresh is used for food (Nakhutsrishvili, 2007)
ყარიყონ	Qariqon	<i>Fomitopsis officinalis</i> (Vill.) Bondartsev & Singer	Agaricus laricis, 'Šavi abedi', a tree-growing mushroom. 'Qariqon ', grows like a ...on the mentioned tree like a horse hoof. In course of time it becomes divided in various parts, smooth, white; it can be crashed between fingers and attaches to them. The mushroom has bitter taste difficult to endure. Is used as a laxative powder (Bagrationi, 1989)
ყველის სოკო	Qvelis soko	<i>Panus rudis</i> Fr.	<i>Panus rudis</i> Fr., cheese mushroom, dried and ground is used to make cheese (Nakhutsrishvili, 2007; Khidasheli, Panchulidze, 1990)
ყველის სოკო	Qvelis soko	<i>Panus rudis</i> Fr.	Formerly we made cheese with the 'Qvelis soko' cheese mushroom: Pour cheese mushroom in a jar, add water to cover the mushroom and a pinch of salt. Pour mushroom juice into fresh or boiled milk (one small glass of juice per one liter of milk) and place the milk in a warm place. If the juice is poured into boiling milk, you will get cottage cheese. Pour the whey left aside from cheese onto the mushroom juice and store the juice; you will get better cheese base in this way" (Tianeti) (Sikharulidze <i>et al.</i> , 2020)

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ყველის სოკო	Qvelis soko	<i>Panus rudis</i> Fr.	“There is a kind of mushroom growing on hornbeam. This is a hairy mushroom, which I used many times to make cheese. Once in spring I took my cattle to mountains. I had very much milk and I told to boys: sons, why do you let so much milk spoil? We do not have the cheese base, - they answered. Hey, here is much cheese base. Then I mashed the mushroom in a small amount of milk and the milk fermented quickly. Then I drained the fermented milk, poured the whey into a pot and added mushroom to it. Before taking the cheese base there, I made 12 heads of cheese with it. The cheese was so good looking like yellow gold. Everyone whom I sold it, said they never tasted better cheese' (Javakhishvili, 2021) (Sikharulidze <i>et al.</i> , 2020).
ყვითელი აბედა	Qvit'eli abeda	<i>Laetiporus sulphureus</i> (Bull.) Murrill	<i>Laetiporus sulphureus</i> (Bull. ex Fr.) Bond. Et Sing., edible, used only at earlier stages, as old carpophores are woody (Nakhutsrishvili, 2007)
ძერანა	Žerana	<i>Cerioporus squamosus</i> (Huds.) Quélet	<i>Polyporus squamosus</i> Fr., edible at earlier stages, after dripping in boiling water (Nakhutsrishvili, 2007)
ძერანა	Žerana	<i>Cerioporus squamosus</i> (Huds.) Quélet	<i>Polyporus squamosus</i> Fr., Used for food only at earlier stages, gets corky when matures and is then non-edible. Stewed is delicious (Khidasheli, Panchulidze, 1990)
ძერანა	Žerana	<i>Cerioporus squamosus</i> (Huds.) Quélet	<i>Polyporus squamosus</i> Fr., 'Žerana ' (Makashvili, 1961)
ძერანა	Žerana	<i>Cerioporus squamosus</i> (Huds.) Quélet	<i>Polyporus squamosus</i> (Amirejibi <i>et al.</i> , 2006)
ძერანა	Žerana	<i>Cerioporus squamosus</i> (Huds.) Quélet	'Žerana ' is also used dry, we put it into water for a night, meat grinder and used for cutlets (Racha) (Sikharulidze <i>et al.</i> , 2020)
ძერანა	Žerana	<i>Cerioporus squamosus</i> (Huds.) Quélet	Grows on candlenut, cut fig tree (Guria) (Sikharulidze <i>et al.</i> , 2020)
ძერანა, ძერანო,ძერენა	Žerana Žerano Žerena	<i>Cerioporus squamosus</i> (Huds.) Quélet	Edible mushroom. 'Žerana ' grows as a mushroom on a tree; better if it grows on elm tree. It is fried, drained and spiced with vinegar (Leghvani); 'Žerana' is a tree-growing mushroom, reddish (Chikha). ' Žerano' is a mushroom growing on elm or beech tree (Jalaurta). 'Žerena ' is a mushroom, appearing in April (Perevi) (Imereti) (Dzotsenidze, 1979)
ძერიკა	Dzerika	<i>Cerioporus squamosus</i> (Huds.) Quélet	A kind of an edible mushroom growing on trees (Racha) (42)
ძერო	Dzero	<i>Cerioporus squamosus</i> (Huds.) Quélet	It us edible, when ot is fresh (Svaneti) (Oniani, 1917)
ხბოსხორცა	Khboskhorca	<i>Fistulina hepatica</i> (Schaeff.) With.	Khboskhorca was brought to me by my grandmother in childhood, it is like a sponge, the flesh changes when cut, covered with red drops and really looks like veal, it is rare and most delicious (Racha) (Sikharulidze <i>et al.</i> , 2020)
ჯღიბლაყ	Jǧibla	<i>Sparassis crispa</i> (Wulfen) Fr.	Jǧiblaყ is a very big mushroom, occurring in pine forest. It is a king of mushrooms (Tusheti) (Tsotsanidze, 2012)

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ჯღიბლა	Jǧibla	<i>Sparassis crispa</i> (Wulfen) Fr.	Grows in pine forests like a cauliflower, supposedly called 'Jǧibla'. I was said one sees ' Jǧibla ' mushroom in a forest, he/she must not go closer because if one looks at it, it stops growing, while it can reach six kilograms. The place should be remembered and later visited. The mushroom tastes like a dish spiced with walnut (Tusheti) (Sikharulidze <i>et al.</i> , 2020)
ჰობედიაკ	Hobediak'	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., 'Hobediak' or 'Hobediak tkubul' is Svanetian (Makashvili, 1961)
ჰობედიაკ ტყუბულ	Hobediak' tqubul	<i>Fomes fomentarius</i> (L.) Fr.	<i>Fomes fomentarius</i> (L.) Fr., 'Hobediak tqubul' is Svanetian (Makashvili, 1961)