



Review

Fungi on postal stamps: Where are we?

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Abstract

A study of fungal biology and postage stamps may appear unrelated at first glance; however, when brought together, philatelic mycology and mycotechnology offer a unique lens through which multiple facets of fungal life can be appreciated. Fungi constitute the second largest group of organisms on Earth after insects. Beyond their visual appeal—particularly in the case of mushrooms—fungi exhibit remarkable physiological traits, including bioluminescence and the production of diverse bioactive metabolites, making them highly significant in mycotechnology. One of the earliest postage stamps featuring fungi depicted an ethanol-producing yeast and was issued by the Japanese government. Since then, various countries worldwide have released thousands of stamps with fungal themes. Despite India's vast and rich fungal diversity, not a single postage stamp featuring fungi has been issued to date. This study highlights the scientific, cultural, and aesthetic significance of fungi that have strong potential for representation on future postal stamps.

Keywords: First day cover, fungi, morphology, mycophilately, photogenic appeal, postal stamps

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1. Introduction

The study collection, appreciation of postal stamps, and other related items is known as philately. Philately involves more than just a stamp collection. The philately was reported to be useful as a teaching aid in a Greek primary school (Zagkotas & Niaoustas, 2019). Furthermore, as a teaching aid, it is useful for classifying flora and fauna, and as a basis for understanding evolution, history, physiology, discoveries, applications, and more. In 1997, Senanayake described philately promoting paediatrics. Bandopadhyay (2017) employed philately to promote food and nutrition education. However, mycophilately, which deals with the fungi, is somehow neglected. Marasas and coworkers (2014) published a book entitled “Philatelic Mycology: Families of Fungi,” being used by both stamp collectors and mycologists. Luther (2012) extensively studied old postcards and other postage materials that depict fungi, along with postal stamps. The first five stamps of fungi are as follows: In 1894, China released a postage stamp presenting *Ganoderma lucidum*, which is used in traditional Chinese medicine. First, the stamp colour was cornelian red, which was reprinted in mars yellow colour in 1897. In 1924, Hungary released a stamp in which the main illustration was of an archer teaching his son with a mushroom in the lower right-hand corner. Japan’s first postage stamp, released in 1948, was of ethanol fermentation, showing a line of budding yeast. The fifth one was from Yugoslavia, released in 1954. A male red deer was featured mainly with a tree that had a polypore conk on it. A number of countries released postage stamps with drawings of mushrooms featuring in natural environments.

The philatelic stamps are usually catalogued separately, which are referred to by stamp collectors. In the United Kingdom, the Stanley Gibbons Catalogue of Postage Stamps is used, while the Scott Postage Stamp Catalogue is referred to more widely. Some of the terminologies used in mycophilately parlance are 'M', mushroom or fungi in the main illustration; 'MID', mushroom in the design; 'AF', Alexander Fleming mentioned; and 'FDC', first day cover. Though India refers to both the catalogues, no stamp depicting fungi is published from the country (Ghormade et al., 2021).

The next sections will discuss the attempts that are being made by several countries to promote mycophilately, potential candidate fungi from India, and mycologists which can appear on postal stamps.

2. What are fungi?

Fungi are the organisms that have cell walls with a main structural component, chitin, a polymer of amino sugar, β -1,4-linked *N*-acetylglucosamine, unlike plants, which have cellulose, a polymer of β -1,4-linked glucose, in their cell walls. One more distinguishing feature of fungi from other eukaryotes is a typical nuclear division with a nuclear membrane that remains intact during mitosis, which is not the case in others. On the earth, the largest number of species are insects; the known species are 8 lakhs, and the estimated number is 60 lakhs, while the second largest group is fungi. The estimated number of fungal species on earth based on high-throughput sequencing methods could be 51 lakhs, with 1.5 lakhs known species (Blackwell, 2011). They usually outnumber plants by 6 to 1. It is not only the number but also the physiological and genetic characteristics that have made them model systems in developmental studies. For instance, *Neurospora crassa*, *Aspergillus nidulans*, *Saccharomyces cerevisiae*, *Schizosaccharomyces pombe*, and *Ustilago maydis*, to name a few, are being used



as model organisms in genetics. While to understand human pathogenesis, *Candida albicans* and other non-albicans *Candida*, *Mucor circinelloides* and other *Mucor* species, and *Benjaminiella poitrasii* and other dimorphic species, to understand the morphogenesis, screening of antifungal drugs, and morphology-based biotechnological applications are being studied (Ghormade *et al.*, 2021). Despite this, fungi are neglected for various reasons. If one goes back to history, in 2000 BC, the then leading countries, Egypt, China, and Sumeria, in Biotechnology, used yeast, possibly unknowingly, for bread leavening and beer and wine fermentation. The fungi have a wide range of applications, from bioremediation, biofuel, single-cell protein production, biosensors, and cancer therapy to microbial cells for electricity generation. For instance, in all the subdivisions of Biotechnology, such as Red (e.g. antibiotic production), White/Grey (e.g., organic acid fermentation), Green (mushroom cultivation, mycoproteins and mycoinsecticides), and Blue (e.g. bioremediation of oil pollution in the marine environment), fungal organisms play a significant role.

3. Which fungi have appeared on postal stamps?

The mushrooms have easily visible sexual reproductive structures (e.g., fruiting body), which is useful to identify the species. The edible parasol mushroom (*Macrolepiota procera* or *Lepiota procera*), bearing umbrella like structure to the fruiting body, appears on postal stamps. Sometimes, not only artistic and design criteria but also their biology make fungi as candidates for postal stamps. For instance, the Irish post released four stamps of fungi in 2008 featuring the Parasol mushroom for its photogenic appearance, the orange birch bolete (*Leccinum versipelle*), which signifies fungus-plant relationship, Pink wax cap (pink ballerina, *Hygrocybe calyptriformis*) as an indicator species for habitat loss and Scarlet elf cup (*Sarcoscypha austriaca*) which ejects puff of spores with ‘puffing’ sound (O’Connell, 2008).

Interestingly, one of the first stamps was an indirect depiction of yeast, which produces ethanol (Ing, 1976). To celebrate the 10th anniversary of the alcohol industry, the Japanese government issued a stamp with a line of budding yeast at the bottom (Moore, 2016).

4. Photogenic appeal

The first fungus to appear on a Romanian stamp in 1958 was the parasol mushroom. Several countries have released mushroom stamps, as they are easily visible, extremely photogenic, and omnipresent. Eventually, several countries issued stamps using mushrooms as their theme. Czechoslovakia also released sets of mushroom stamps (Ing 1976). Interestingly, Czechoslovakian stamps were graphically perfect, accurately depicting the morphological features of mushrooms. In 1973, Bhutan issued a commemorative 3-D set of colourful mushrooms and mushroom-like fungi, though some of the mushroom stamps are unfamiliar and without legends, still remain world-renowned in the philately community. Nevertheless, stamps are a major revenue generator for Bhutan (Moore 2016).

In 1974, the then East Germany dedicated stamps to poisonous mushrooms not only for their photogenic beauty but also for the awareness in the mushroom-collecting community. Cuba released fungal stamps in 1988, 1989, 2002, and 2005 of both edible and poisonous mushrooms (Moore 2016). The 1988 set consists of seven poisonous mushrooms, while there is a 1989 set of six edible mushroom stamps and a 2002 set of five stamps of both edible and poisonous mushrooms. All the stamps in the 2005 set are titled “Hongos y Polimitas” (mushrooms and



snails), in fact, an unusual combination. The complete set has three stamps depicting snails only. The New Zealand post office in 2002 released a first-day cover and a miniature sheet entitled 'Nature's Creativity'. They selected six indigenous species of diverse bracket, cup and jelly fungi and puffball fungi like *Aseroe rubra*, *Entoloma hochstetteri*, *Hericium coralloides*, *Hygrocybe rubrocarnosa*, *Ramaria aureorhiza* and *Thaxterogaster porphyreus* (*Cortinarius porphyroideus*). The description of fungi is so perfect that it not only educates people but also raises awareness of their phenotypic specialities, origin, and unique features. For instance, in the case of *T. porphyreus*, dispersion of spores is done by insects and birds, which feed on caps, consume spores, and distribute them through droppings, and not by opening the mushroom cap like others. While *A. rubra* resembles a sea anemone. *E. hochstetteri* has a striking blue colour; the most vivid and impressive is *H. rubrocarnosa*; the coral fungus *R. aureorhiza* and the spiny, much-branched icicle fungus *H. coralloides* all have unique photogenic appeal (<https://sporesmoldsandfungi.wordpress.com>, 2016). Furthermore, blue *E. hochstetteri* appears on the \$50 note. Interestingly, it was retained in 2014 because of the perseverance of a mycologist, Peter Buchanan (<https://sporesmouldsandfungi.wordpress.com/2014/07/12/hochstetters-blue-pinkgill/>, 2014).

To commemorate the 100th year of the Netherlands Mycological Society in 2008, the postal service department released attractive stamps of *Amanita muscaria*, *Clathrus archerii*, *Coprinus comatus*, *Cyathus striatus*, and *Geastrum triplex*. In 2018, a sheetlet entitled "Experience nature – mushrooms" was released. The 10 mushrooms were selected out of 5000 species housed in Dutch soils using criteria such as the unique biology of the fungus, photogenic appeal and significance in the biodiversity studies (<https://www.wopaplus.com/en/stamps/product/&pid=49258>, 2018). The interesting example is of Bonnet mold, *Spinellus fusiger*, a sporangiospore-forming fungus, a parasite on several mushrooms, including *Mycena hematopus*.

In the US, a post office department was created in 1792. The US post took more than 200 years to bring out a stamp on fungi – a great perseverance of US researchers. The US Post released stamps of bioluminescent life in 2018, and *Mycena lucentipes* a mushroom capable of producing yellow-green bioluminescence, got the position along with bioluminescent ocean realm stamps (Widder, 2019). Earlier, mushrooms were represented on stamps of forest scenes, but not individually. More than 80 species of mushrooms can emit light. Earlier, countries like Romania, Solomon Islands, Vietnam, Indonesia, and Malaysia released postal stamps on bioluminescent fungi (Luther, 2014d). Interestingly, *Armillaria mellea*, a bioluminescent mushroom, appeared on a Romanian postage stamp in 1958 as an edible mushroom. In 2007 and 2010, Peru issued two sets of mushroom stamps. The 2007 set was intended on mushroom shaped souvenir sheet (Luther, 2015).

5. Edible and poisonous mushrooms

5.1. Edible mushrooms

Several edible mushrooms with information about their physiological activities and side effects, if any, have appeared on postal stamps released from different countries (Table 1). For example, *Cantharellus cinereus* and other species rich in antioxidant carotenoids such as β -carotene, canthaxanthin, and vitamin D appeared on postal stamps of Belarus in 1999 and 2013; *Boletus mirabilis*, *C. cinnabarinus*, *Clavulinopsis fusiformis*, and *Morchella esculenta* were



depicted on Canadian postal stamps in 1989. The *M. esculenta*, though edible, is a gastrointestinal irritant if consumed uncooked. Cuba published mushroom stamps in 1989, 2002, and 2005, including *Pleurotus ostreatus*, first grown in Germany during World War I. Luther,2016).

Table 1. Edible mushrooms, truffles, and poisonous mushrooms on the postal stamps.

Name	Country (year)
Edible mushrooms (Some of the genera, species or strains can be poisonous): <i>Agaricus silvaticus</i> , <i>Agrocybe brodwayi</i> , <i>Amanita caesarea</i> , <i>Amanita panterina</i> , <i>A. muscaria</i> , <i>Amanita rubescens</i> , <i>Armillariella mellea</i> , <i>B. edulis</i> , <i>B. regius</i> , <i>Calvatia cretacea</i> <i>Cantharellus cineris</i> , <i>C. cibarius</i> , <i>Clitocybe infundibuliformis</i> , <i>Chlorophyllum molybdites</i> , <i>Coprinus comatus</i> , <i>Coprinus micacius</i> <i>Flammulina velutipes</i> , <i>Hydnum repandum</i> <i>Kuehneromyces mutabilis</i> , <i>Lactarius deliciosus</i> , <i>L.torminosus</i> , <i>Leccinum aurantiacum</i> , <i>Leucocoprinus africanus</i> <i>Lyophyllum connatum</i> , <i>Lyophyllum decastes</i> , <i>Macrolepiota rhacodes</i> , <i>M. procera</i> , <i>Marasmius arborescens</i> , <i>Marasmiellus subcinereus</i> <i>Morchella esculenta</i> , <i>Naematelia aurantialba</i> , <i>Phlebopus sudanicus</i> , <i>Psalliota sebedulis</i> , <i>Pleurotus floridanus</i> <i>Pleurotus ostreatus</i> <i>Rozites caperatus</i> <i>Russula virescens</i> , <i>Russula palomet</i> (<i>Agaricus palomet</i>) (First day cover with cancellation stamp), <i>Russula virescens</i> , <i>Sparassis crispa</i> , <i>Suillus grevillei</i> (Imperforated stamps), <i>Synpodia arborescens</i> <i>Trametes versicolor</i> , <i>Termitomyces schimperi</i> <i>Termitomyces entolomoides</i> , <i>Termitomyces microcarpus</i> , <i>Termitomyces aurantiacus</i> , <i>Termitomyces mammiformis</i> , <i>Thelephora ganbajun</i> , <i>Tremella fuciformis</i> , <i>Tricholoma matsutake</i> , <i>Volvaria esculenta</i> .	Afganistan (1996), Armenia (2013), Belarus (1999), Bulgaria (1987), Cambodia (1985), Cameroon (1975), Canada (1989, 2025), Central African Republic (1967), China (2025), Congo (1970), Cuba (1989,2002, 2005), Cyprus (1999), Czech Republic (2018), Finland (1980), France (1987), Germany (1980, 2018), Ghana (2015), Greenland (2005, 2006), Hungary, (1986), Great Britain (2025), Iceland (2012), Ivory Coast (1995,1998), Japan (1974), Kenya (1989), Kyrgyzstan (2017), Lietuva (2016), Malawi (1985), Malawi (2008), New Caledonia (1998), North Korea (1985), Norway (1988), Poland (1959), Phillipines (1988), Principality of Andorra (1993), Republique du Burundi (2012), Romania (1994), San Marino (1967), Senegal (1999) Sweden (1978, 2004), Switzerland (1994), Uganda (1991, 2001,2002), Yugoslavia (Jugoslavija) (1983), Zimbabwe (1992), Zambia (1981 reissued in 1989 and 1991)
Truffles: <i>Choeromyces meandriformis</i> , <i>Melanogaster ambiguous</i> , <i>Terfezia arenaria</i> , <i>Terfezia leonis</i> , <i>Tuber melanosporum</i> , <i>Tuber aestivum</i> , <i>T. melanosporum</i> , <i>T. magnatum</i> , <i>Terfezia boudieri</i> , White truffles and blacks, against the background of a forest	Algeria (1983), Andorra (1996) Chad (1998). Congo Rep (2011) Croatia (2013), Djibouti (1987) Italy (2015), Ivory Coast (2009) Kuwait (1983), Papua New Guinea (2005)
Poisonous mushrooms:	Canada (2011), Cuba (1988,2002, 2005), East Germany, (1974), Isle

Agaricus xanthodermus, *Amanita muscaria* (Fly agaric/Fly Amanita), *Amanita citrina* (False death cap/Citron Amanita), *Amanita junquillea*, *Amanita phalloides*, *Amanita virosa*, *Boletus satanas* (Devil's bolete/Satan's mushroom), *Clathrus cancellatus*, *Clitocybe dealbata*, *Hypholoma fasciculare* (Sulphur tuft/Clustered woodlover), *Inocybe patouillardii* (Deadly fibre-cap/Brick-red tear mushroom/Redstaining inocybe), *Lepiota puellaris*, *L. brunneoincarnata*, *Paxillus involutus* (Brown roll-rim/common roll-rim), *Rhodophyllus sinuatus* (a poisonous livid entoloma or livid agaric mushroom), *Scleroderma aurantium* (Puff ball), *Tylopillus felleus* (Bitter bolete/Bitter Tylopilus)

of Man (2023), Great Britain (2025), Kyrgyzstan (2019), Malawi (2008), Senegal (1999), Uganda (2001)

Note: Compiled from: Dabu, 2025; Ghormade *et al.* (2021); Hartwig (2025); <https://www.mwt.im/news/isle-man-post-office-celebrates-50th-anniversary-manx-wildlife-trust>, 2023, <https://touchstamps.com/Issue/Details/384271/> edible-fungi-2025

5.2. Symbiotic mushrooms

The 30-40 species of the genus *Termitomyces* are solely dependent on termites for survival. *Termitomyces* mushrooms produce various enzymes that can degrade lignocellulosic substrates. This genus appears on postal stamps of a number of countries such as the Ivory Coast, Kenya, Malawi, Uganda, and Zimbabwe (Table 1). The largest edible *T. titanicus* has a cap of 3 feet in diameter, which is found in West Africa and Zambia. In 2007, *T. titanicus* appeared on a souvenir sheet issued by the Guinea Republic postal department. Interestingly, the postage stamp is of Barn Owl and *A. muscaria* together. But the outside portion of the souvenir sheet shows a person holding *T. titanicus* (Luther, 2014a) (Fig.1).



Fig.1. Guinea Republic released a postage stamp of the Barn Owl and *Amanita muscaria* together with *Termitomyces titanicus* appeared on a souvenir sheet.



5.3. Truffles

France produced 1,000 tons of edible truffles before World War I. Truffles cannot be cultivated, but the farmers plant different trees, and the truffles grow near the roots as a round, warty fruiting body symbiotically. The roots of tree species such as beech, birch, hornbeam, hazel, oak, pine, and poplar are the potential sites for truffles to grow. In 1983, Kuwait released a set of 50 desert plants and fungi. For the first time, a truffle, *Terfezia*, appeared on the stamp (Table 1). The Congo Republic issued 3 mushroom stamps in 2011, and a truffle *T. melanosporum* was depicted outside on the sheet. Interestingly and surprisingly too, note that the species on the stamp does not occur in the Congo Republic (Moss & Dunkley, 1988). Indeed, this signifies the appreciation of truffles by that country's people.

5.4. Poisonous mushrooms

The genus *Amanita* consists of approximately 600 species, some of which are extremely toxic, and some are edible. The α -amanitin is the most potent toxin present in these mushrooms. To highlight the significance of edible and poisonous (some are endangered too) mushrooms in the biodiversity, the postal department of Kyrgyzstan, or officially the Kyrgyz Republic, strategically released stamps of edible mushrooms in 2017 and eventually of poisonous mushrooms in 2019 (Kyrgyz Express Post Newsletter, 2017, 2019). The Department was hopeful that these stamps would spread the knowledge and awareness about mushrooms and help in protecting these remarkable representatives of the nature of Kyrgyzstan. It is further appealed that immoderate picking of mushrooms, especially morels, can lead to a sharp decline in their natural reserves, which would have a negative impact on the ecological balance. In 1995, Malaysia released stamps of four mushrooms: *Microporus xanthopus*, *Cookeina tricholoma*, *Dictyophora phalloidea*, and *Ramaria* sp. Luther (2013b) suggested that, according to Professor Ronald H. Petersen, *Ramaria* sp. could be *R. polypus*, thus highlighting the importance of stamps in taxonomy too.

6. Fungal pathogens

6.1. Plant pathogens

Pests and pathogens cause almost 30-50% reduction in agricultural produce. in agriculture. For the control of agricultural pests and pathogens, the farmers should know their life cycle, host range, and so on and so forth. In 1982, Senegal released a set of stamps depicting *Sclerospora graminicola* causative agent of downy mildew disease on pearl millet and foxtail millet, and *Tolyposporium penicillariae*, smut fungus infecting pearl millet (Moss & Dunkley, 1988). The pests infesting pearl millet, *Arnsacta moloneyi* and *Raghewa albipunctella* also appear on stamps (Moss & Dunkley, 1988). In 1989, Tavalu released stamps of *Pestalotiopsis palmarum* (Grey leaf spot), *Pseudoepicoccum cocos* (brown leaf spot), *Rigidoporus microporus* (white root rot disease of cacao, cassava, tea, etc), and *Rigidoporus zonalis* (root rot of forest trees) with their identifiable pathogenic lesions on the plant parts. The Mexican postal department released a stamp depicting a corn smut, causing *Ustilago maydis* (Luther, 2013a).

6.2. Human pathogens

In 1997, Uruguay issued its first official postage stamp of a human fungal pathogen, a dermatophyte, *Microsporum canis* (Luther, 2013c). The species name "*canis*" refers to dogs as the disease is disseminated by the dogs. The stamp depicts a girl hugging dog, along with an



inset showing a microscopic view of an infected human hair with distinctive spores of the pathogen.

7. *Penicillium*, a noble organism

Penicillium chrysogenum came into the limelight because of an accidental discovery of antibacterial activity of *P. rubens* earlier known as *P. notatum*, a member of *P. chrysogenum* complex (Houbraken *et al.*, 2011) by Professor Alexander Fleming. Penicillin was a wonder drug during World War II that saved a number of deaths and amputations. *Penicillium* significantly appeared on postal stamps of different countries except India, and there might be a few others with and without the Nobel laureate Alexander Fleming.

Two other species, *Penicillium roqueforti* and *Penicillium glaucum*, are being used to produce blue cheese, viz., Roquefort, Stilton, Danish blue, Cabrales, and Gorgonzola. Flavoring agents, antifungals, polysaccharides, proteases, and other enzymes also appear on the postal stamps. In 2006, the Canadian postal service published moldy cheese stamps of *P. roqueforti* and *Penicillium camemberti*, designed and shaped like cheese labels (Luther, 2014c).

8. Fungi in ecotourism

Tuvalu is an island country located in the middle between Hawaii and Australia, promoting ecotourism by releasing postage stamps in 1989. This is a set of commemorative stamps of fungi namely *Ganoderma appalantum* (antioxidant, and flavour compounds), *Rigidoporus microporus* (white root rot disease of cacao, cassava, tea, etc) , *Rigidoporus zonalis* (root rot of forest trees), *Pestalotiopsis palmarum* (grey leaf spot), *Pseudoepicoccum cocos* (brown leaf spot) and *Schizophyllum commune* (omnipresence, industrially important, pathogen in AIDS patients and model organism for developmental studies), *Trametes muelleri*, and *Trametes cingulata* (number of species are important in Biotechnology for lignin hydrolysing enzymes, food for caterpillars) (<https://www.ebay.ie/itm/Tuvalu-520-523-MNH-Fungi-1989/4017-41176863> (accessed on 20 September 2019)).

9. Pollution indicator

Lichens are one of the important sulfur dioxide pollution indicators. A rare lichen, *Usnea articulate* Hoffm., an Ascomycetous fungus, a pale greenish-grey, densely branched lichen with a pendent growth form, appeared on a postal stamp of Mann, a self-governing British Crown Dependency. Namibia presented a stamp of lichen, *Santesonnia* sp., along with *Xanthoria* sp. in 2008. Finland Aland in 1999 depicted *Hypogymnia physodes*, *Xanthoria parietina* on postal stamps.

Different countries have fungal postal stamps for a variety of traits and their applications. A group of fungal genera from Basidiomycota that have effused, smooth basidiocarps which are formed on the undersides of dead tree trunks are named as crust or corticioid fungi. For example, the cobalt blue *Terena caerulea* inhabiting hardwood appeared on the stamp released in 2013 by Macedonia (Luther, 2014a). Other potential candidates for postal stamps are bright red *Phanerochaete sanguinea*, wine-red *Cytidia salicina*, yellow hydroid *Mucronella flava*, and green-blue *Byssocorticium atrovirens*, which are reported from different countries.

10. Recent fungal postal stamp releases

The Post Authority of the Isle of Man issued a set of 10 stamps to commemorate the 50th Anniversary of Manx Wildlife Trust in February 2023, and *A.muscaria* was one of them. This Fly agaric fungus is a classic fairy tale toadstool that often grows beneath pines and birches. (<https://www.mwt.im/news/isle-man-post-office-celebrates-50th-anniversary-manx-wildlife-trust>, 2023).

A Canadian post featured fungi and lichen in a new stamp series (Dabu, 2025). The fungi, which play important roles in the Canadian ecosystem, such as helping plants to survive and grow, decomposing plant and animal waste, storing carbon, and degrading pollutants, including plastics and synthetic chemicals. Indeed, traditional uses for medicine, pigments, and food of fungi have also noted by the Canadian post while releasing five fungal stamps. The illustrations are of star-tipped reindeer lichen (*Cladonia stellaris*), especially grown in the North, Oyster mushroom (*Pleurotus ostreatus*), Chicken of the Woods (*Laetiporus sulphureus*), which has yellow and orange shelves useful to clean and soften the clothing, Tinder fungus (*Fomes fomentarius*) as a health supplement, and *Rhizophagus irregularis* useful as fertilizer (Fig. 2).



Fig.2. Recent release of Canada post featuring fungi and lichen in new stamp series.

Great Britain's Royal Mail released mushrooms in a set of 10 on July 3, 2025 (Hartwig 2025). A presentation pack included all 10 stamps along with photos and text written by the mycologist Geoffrey Kibby, editor of Field Mycology, the journal of the British Mycological Society (Fig 3). The first-class, priority stamps (Fig.3 Lower panel) depict a penny bun (*Boletus edulis*), amethyst deceiver (*Laccaria amethystine*), collared earthstar (*Geastrum michelianum*), fly agaric (*Amanita muscaria*) and edible turkey tail (*Trametes versicolor*). The second-class stamps (Fig.3 Top panel) are of edible chicken of the woods (*Laetiporus sulphureus*), clustered bonnet (*Mycena inclinata*), scarlet waxcap (*Hygrocybe coccinea*), morel (*Morchella vulgaris*), and scarlet elf cup (*Sarcoscypha austriaca*). Regarding edible mushrooms, turkey tails are usually dried and ground before consumption, and they are believed to act as a dietary supplement with various health benefits, including assisting with cancer treatment. The Chicken of the Woods has a similar texture and taste to chicken when cooked.



Fig. 3. Recent release of Royal Mail, Great Britain, featuring mushrooms in a new stamp series.

Professor Kibby further discussed the range, diversity, and importance of fungi. According to him, around 4,000 mushroom species exist in the United Kingdom, and the count can reach up to 15,000 if microscopic fungi are included.

China Post released a set of stamps titled "Edible Fungi" in 2025. The Green Russula (*Russula virescens*), Golden ear (*Naematelia aurantialba*), Matsutake (*Tricholoma matsutake*), and Ganba fungus (*Thelephora ganbajun*). The stamps are unique because of high-precision offset printing, 3D embossing to replicate the texture of fresh mushrooms, and scented ink that releases an "earthy fragrance reminiscent of a forest" when rubbed. The stamps also feature mushroom-shaped perforations (<https://touchstamps.com/Issue/Details/384271/edible-fungi-2025>)

11. Mycologists on postal stamps

In 1978, Mauritius released a stamp set commemorating Alexander Fleming, a discoverer of *Penicillium* exhibiting antibacterial activity. Then, after several African countries released the commemorative stamps. A portrait and brief biography of Louis Pasteur appeared on a souvenir sheet issued in 2006 by the Democratic Republic of Congo. Mycologists who appeared on the stamps of different countries include: Michel Adanson (*Microlepiota procera*), Edward Fischer (*Phallus impudicus*), Charles Edwin Bessey (*Armillariella mellea*), Peter Adolph Karsten (*Marasmius oreades*), Charles Horton Peck (*Chroogomphus vinicolor*), Andrea Cesalpino (*Tricholoma flavovirens*), Miles Joseph Berkeley (*Paxillus involutus*), H. Anton de Bary (*Boletus lupines*), A. H. R. Buller and J. B. Ellis (*Agaricus peziza*), to name a few (Ghormade *et al.*, 2021)

12. Indian scenario of mycology, mycologists and philately

India is one of the richest countries in fungal diversity. The number of indigenous fungi fulfills the criteria to be part of philatelic documentation. For instance, *Termitomyces*, an edible



mushroom from Goa, a milky mushroom, *Calocybe indica*, endemic to India, *Ganoderma lucidum* is the most recognized species, appreciated in India for its traditional healing properties, endophytic *Metarhizium*, *Beauveria*, an entomopathogenic fungi being used as mycoinsecticide in agriculture, *Trichoderma* highly rated biocontrol and biofertilizer organism, and *Ustilago*, *Puccinia* smut and rust causing plant pathogens, and human pathogens like *Candida* and *Mucor* to name a few. *Saksenaea vasiformis* usually causes cutaneous or subcutaneous zygomycosis, but can also cause primary sinusitis and rhinocerebral disease. *Trichophyton rubrum* is a dermatophytic fungus causing superficial infection in humans, and can also be a candidate for postal stamps. *Xylaria hypoxylon*, a luminescent fungus found growing on dead wood in the Western Ghats, and *Glomus* is the most widely distributed and common genus of AM fungi in India, can also be one of the candidates.

Subramanian (1986) has extensively reviewed the progress and status of Mycology in India. According to him, EJ Butler, who came to India in 1901, contributed immensely to mycology. The mycologists who have contributed significantly to Indian Mycology, *per se* were: Sir Edwin John Butler, the Father of Indian Mycology, who worked on fungal plant diseases; Professor M.N. Kamat, a prominent Indian agricultural scientist and mycologist. He authored the Handbook of Mycology, a two-part publication that was a significant contribution to the field of mycology in India; Professor M.J. Thirumalachar was a fungal biologist, microbiologist, and plant pathologist; Professor C.V. Subramanian was a taxonomist; and Professor T.S. Sadashivan, a renowned plant pathologist, worked extensively on a wilt-causing pathogen, *Fusarium*. Dr. P.G. Patwardhan was a pioneering Indian lichenologist and mycologist known for his significant contributions to Indian lichenology, especially the study of lichens in the Western Ghats and Andaman/Nicobar Islands. Indian post can recognize the landmark contributions of these mycologists.

13. Epilogue

In 2012, David Moore compiled information on all the fungal postage stamps (Moore 2012). Interestingly, in 2001, the Indian Post Office released a set of 4 stamps of Indian corals, and one of them was the mushroom coral, *Fungia horrida*. This indicates that concerned authorities knew about the mushroom. The obvious concern is why is mycophilately practically absent in India? Still, a surprising fact is that not a single fungus or Indian mycologist stamp has been released till today from India. One of the reasons could be less awareness of the significance of philately in education, research, and in spreading knowledge to mycologists OR is there apathy or lack of perseverance by Indian mycologists?

During the 7th Indian Chitin and Chitosan Society meeting held in Pune in 2018, a special cover (FDC) was released depicting fungus as one of the sources for chitin (Deshpande *et al.*, 2018; Madhu, 2018). The cancellation stamp was of *Benjaminiella poitrasii*, a zygomycetous fungus that has high chitosan content in the cell wall. Of course, Indian Mycology deserves more than just a cancellation stamp.



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