

MACROFUNGI OF THE KANSAS ECOLOGICAL RESERVES

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The term "macrofungus" is used for those fungi with fruiting bodies that are easily seen with the unaided eye. In contrast, "microfungi" typically do not produce fruiting bodies, or their reproductive structures are sufficiently minute to require in some instances the use of a hand lens or microscope to be clearly seen. Microfungi far outnumber macrofungi, but both have essential roles in the ecosystem, where their decomposition activities recycle constituents of organic matter, releasing them as carbon dioxide, ammonia, phosphates, etc., which allows green plants to flourish and provides animals and other consumers with food. Other important activities of fungi include parasitism of animals and plants, as well as forming beneficial mycorrhizal associations with the roots of plants.

The list which follows contains 212 fungi included in two subdivisions of "higher" fungi: the Basidiomycotina and Ascomycotina. The Basidiomycotina (basidiomycetes) include gilled mushrooms, boletes, corals, tooth fungi and polypores, and a range of other interesting fungi commonly known as jelly fungi, earthstars, puffballs, bird's nests, and stinkhorns. The Ascomycotina (ascomycetes) actually comprise a larger subdivision of higher fungi than the Basidiomycotina, but many species do not produce fruiting bodies, or their fruiting bodies are not as obvious as are mushrooms, bracket fungi, and the like. Well known exceptions include the morels and false morels, often—and incorrectly—called "the mushroom" and "the beefsteak." A large number of nonfleshy or hard fruiting bodies of Ascomycotina can be found on wood.

The list of macrofungi of the Kansas Ecological Reserves (KER) was derived from several sources, including class field trips and forays by groups or individuals. The author compiled this checklist with the assistance of Bruce W. Horn, Richard Kay, Sherry N. Kay, and Dean Abel. The fungal species in many cases are substantiated by specimens, field notes, or photographs, but there are no organized permanent collections to serve as a reference. Our records go back more than 30 years in some cases, but the pace of collecting and identifying macrofungi has increased in the last decade, primarily because of a growing core of local persons interested in fungi, many of whom are knowledgeable and enthusiastic amateurs, including some of the contributors to this list who were instrumental in founding the Kaw Valley Mycological Society. Kay (1989) was used as a basic reference in compiling the macrofungi list.

It should not be assumed that our list is complete. There are records of many macrofungi in northeastern Kansas that have not yet been found on KER. How many macrofungi occur at KER? A very subjective estimate is that there may be more than one thousand, depending on what fungi one would include as "macrofungi." Excluded from our list are all "lower" fungi (phycomycetes), molds and other such microfungi, most plant parasites, and the slime molds (myxomycetes).

Of the KER tracts north of the Kansas River, we have included only the Fitch Natural History Reservation (FR), because collections are relatively sparse in the other tracts. South of the Kansas River, the Breidenthal Biological Reserve and Rice Woodland of the Baldwin Woods (BW) area have dramatically more species, according to our list. In part, there has been less collecting in the Fitch Natural History Reservation than in Baldwin Woods tracts. But this, in turn, is because there is a consensus among persons collecting macrofungi—at least among the contributors to this list—that the Breidenthal Biological Reserve and Rice Woodland do indeed contain more species of macrofungi than any of the KER tracts north of

the Kansas River. There have been no studies to explain this apparent discrepancy in species richness, and any attempt at an explanation now would be too speculative.

Common English names of most macrofungi are not used as uniformly and consistently as they are for some groups of animals and plants. Consequently, common names vary from one mushroom field guide to another. Unfortunately, many scientific Latin names of fungi also are not stable. Fungal nomenclature follows the International Code of Botanical Nomenclature, but despite these binding rules there are many legitimate reasons why fungal names may end up as synonyms or suffer some other fate that would cause them to be discarded. Especially irksome for specialists and nonspecialists alike are changes in generic names. We have tried to use the most accepted current binomial for each species. The reader will find that most good mushroom field guides often list in their indices the most common synonyms for scientific names.

Literature Cited

Kay, R. 1989. A checklist of Kansas mushrooms. Published by the author, 601 Mississippi St., Lawrence, KS 66044, for the Kaw Valley Mycological Society, Lawrence, KS. 77 p.

MACROFUNGI OF THE KANSAS ECOLOGICAL RESERVES

ORDER/Family/Species	Common name	Occurrence	
		BW	FR
BASIDIOMYCOTINA			
AGARICALES			
Agaricaceae			
<i>Agaricus abruptibulbus</i>	Abruptly bulbous agaric	+	
<i>Agaricus silvicola</i>	Forest agaric	+	
Amanitaceae			
<i>Amanita bisporigera</i>	Bi-spored amanita	+	
<i>Amanita citrina</i> var. <i>citrina</i>	Citron amanita	+	
<i>Amanita flavoconia</i>	Yellow warts	+	
<i>Amanita fulva</i>	Tawny ringless grisette	+	
<i>Amanita muscaria</i> var. <i>alba</i>	Fly agaric	+	
<i>Amanita pantherina</i>	The panther	+	
<i>Amanita pantherina</i> var. <i>velatipes</i>	Booted amanita	+	
<i>Amanita rubescens</i>	Reddish amanita	+	
<i>Amanita spreta</i>	Hated amanita	+	
<i>Limacella illinita</i>	White limacella		+
<i>Limacella illinita</i> var. <i>argillacea</i>	Clay-colored limacella		+
Boletaceae			
<i>Boletellus russellii</i>	Russell's jagged bolete	+	
<i>Boletus affinis</i>	Related bolete	+	
<i>Boletus campestris</i>	Field bolete	+	
<i>Boletus edulis</i>	King bolete	+	
<i>Boletus variipes</i>	Bloomless queen bolete	+	
<i>Gyroporus castaneus</i>	Chestnut-colored bolete	+	
<i>Gyroporus purpurinus</i>	Rosy bolete	+	
<i>Leccinum griseum</i>	Gray scaly-stalk	+	
<i>Strobilomyces floccopus</i>	Old man of the woods	+	
Copriniaceae			
<i>Coprinus comatus</i>	Shaggy mane	+	
<i>Coprinus lagopus</i>	Wooly-stalked inky cap	+	
<i>Coprinus micaceus</i>	Little inky cap	+	+
<i>Coprinus radians</i>	Orange-mat inky cap	+	
<i>Psathyrella hydrophila</i>	Clustered psath	+	
<i>Psathyrella velutina</i>	Weeping widow	+	
Cortinariaceae			
<i>Cortinarius albidus</i>	White cortinarius	+	
<i>Cortinarius bolaris</i>	Collared cortinarius	+	
<i>Cortinarius cinnabarinus</i>	Cinnabar cort	+	
<i>Cortinarius cinnamomeus</i>	Cinnamon cort	+	
<i>Cortinarius cotoneus</i> gp.	Scaly cortinarius	+	
<i>Cortinarius distans</i>	Wide-gilled cort	+	
<i>Galerina autumnalis</i>	Deadly galerina	+	+
<i>Hebeloma mesophaeum</i>	Veiled hebeloma	+	
<i>Inocybe geophylla</i>	Little white inocybe	+	

MACROFUNGI OF THE KANSAS ECOLOGICAL RESERVES (cont.)

ORDER/Family/Species	Common name	Occurrence	
		BW	FR
BASIDIOMYCOTINA, cont.			
AGARICALES, cont.			
Hygrophoraceae			
<i>Hygrocybe conica</i>	Witch's hat		+
<i>Hygrocybe miniata</i>	Miniature waxy cap	+	
<i>Hygrophorus puniceus</i>	Scarlet waxy cap	+	
Lepiotaceae			
<i>Lepiota procera</i>	Tall parasol	+	
Paxillaceae			
<i>Phylloporus rhodoxanthus</i>	Yellow-rose pax	+	
Pluteaceae			
<i>Pluteus admirabilis</i>	Yellow pluteus	+	
<i>Pluteus cervinus</i>	The fawn	+	+
<i>Pluteus longistriatus</i>	Pleated pluteus	+	
<i>Volvariella bombycina</i>	The silky	+	
<i>Volvariella volvacea</i>	Sooty cloak		+
Russulaceae			
<i>Lactarius alnicola</i>	Golden milk cap	+	
<i>Lactarius corrugis</i>	Corrugated-cap milky	+	
<i>Lactarius hygrophoroides</i>	Distant-gilled milky	+	
<i>Lactarius indigo</i>	Blue milky	+	
<i>Lactarius minusculus</i>	Tiny little lactarius	+	
<i>Lactarius piperatus</i>	Pepper milky	+	
<i>Lactarius piperatus</i> var. <i>glaucescens</i>	Green-staining pepper milky	+	
<i>Lactarius psammicola</i>	Sandy milky	+	
<i>Lactarius subplinthogalus</i>	Salmon-staining milky	+	
<i>Lactarius subvellereus</i> var. <i>subdistans</i>	Velvety pepper milky	+	
<i>Lactarius torminosus</i>	Bearded milky	+	
<i>Lactarius volemus</i>	Velvety milky	+	
<i>Russula albonigra</i>	Blackening russula	+	
<i>Russula crustosa</i>	Encrusted green-quilt russula	+	
<i>Russula emetica</i>	Emetic russula	+	+
<i>Russula fragrantissima</i>	Stinking russula	+	
<i>Russula mariae</i>	Powdered russula	+	
<i>Russula pectinatoides</i>	Comb	+	
<i>Russula virescens</i>	Green crust	+	
Strophariaceae			
<i>Pholiota albocrenulata</i>	White-edged pholiota	+	
<i>Pholiota polychroa</i>	Variable flammula	+	
Tricholomataceae			
<i>Armillaria mellea</i>	Honey mushroom	+	
<i>Armillariella tabescens</i>	Veil-less honey mushroom	+	
<i>Asterophora lycoperdoides</i>	Powder cap	+	
<i>Clitocybe epichysium</i>	Brownish clitocybe	+	
<i>Clitocybe gibba</i>	The funnel	+	
<i>Clitocybe odora</i>	Anise funnel	+	
<i>Flammulina velutipes</i>	Velvet foot	+	+
<i>Laccaria amethystina</i>	Amethyst laccaria	+	
<i>Laccaria laccata</i>	Waxy laccata	+	

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ORDER/Family/Species	Common name	Occurrence	
		BW	FR
BASIDIOMYCOTINA, cont.			
AGARICALES, cont.			
Tricholomataceae, cont.			
<i>Lentinellus ursinus</i>	The bear	+	
<i>Marasmiellus nigripes</i>	Black-footed marasmius	+	
<i>Marasmius capillaris</i>	Hair marasmius	+	
<i>Marasmius delectans</i>	Delightful marasmius	+	
<i>Marasmius rotula</i>	Pinwheel	+	+
<i>Marasmius siccus</i>	Orange pinwheel	+	+
<i>Marasmius sullivanii</i>	Sullivan's marasmius	+	
<i>Mycena inclinata</i>	Tilted mycena	+	
<i>Mycena haematopus</i>	Bleeding mycena	+	
<i>Mycena luteopallens</i>	Walnut mycena	+	
<i>Omphalotus olearius</i>	Jack o'lantern	+	
<i>Oudemansiella radicata</i>	The roofer	+	+
<i>Panellus stipticus</i>	Bitter pan		+
<i>Phyllotopsis nidulans</i>	Orange mock oyster	+	+
<i>Pleurotus ostreatus</i>	Oyster mushroom	+	+
<i>Rhodotus palmatus</i>	Netted rhodotus	+	+
<i>Tricholomopsis platyphylla</i>	Broadgill	+	
APHYLLOPHORALES			
Cantharellaceae			
<i>Cantharellus cibarius</i>	Golden chanterelle	+	+
<i>Cantharellus cinnabarinus</i>	Little red chanterelle	+	
<i>Cantharellus lateritius</i>	Gill-less chanterelle	+	
<i>Craterellus cornucopioides</i>	Trumpet of death	+	
<i>Craterellus fallax</i>	Horn of plenty	+	
Clavariaceae			
<i>Clavaria flava</i>	Pale yellow-tipped coral	+	
<i>Clavariadelphus pistillaris</i>	Indian club	+	
<i>Clavicornia pyxidata</i>	Crown-tipped coral	+	
<i>Ramaria formosa</i>	Yellow-tipped pink coral	+	
Coniophoraceae			
<i>Serpula lacrimans</i>	Dry rot		+
Hydnaceae			
<i>Dentinum repandum</i>	Spreading hydnum	+	
<i>Hericium coralloides</i>	Coral tooth	+	+
<i>Hericium erinaceus</i>	Hedgehog	+	
<i>Hydnellum spongiosipes</i>	Spongy-footed tooth fungus	+	
<i>Hydnellum zonatum</i>	Zoned tooth	+	
<i>Hydnum imbricatum</i>	Shingle tooth	+	
<i>Phellodon niger</i>	Black tooth	+	
Polyporaceae			
<i>Cerrena unicolor</i>	Unicolored daedalea	+	
<i>Daedaleopsis ambigua</i>	Ambiguous maze-polypore	+	+
<i>Daedaleopsis ambigua</i> var. <i>coronata</i>	Crowned puzzling maze-polypore		+

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		BW	FR
BASIDIOMYCOTINA, cont.			
APHYLLOPHORALES, cont.			
Polyporaceae, cont.			
<i>Daedaleopsis confragosa</i>	Thin-walled polypore	+	+
<i>Favolus alveolaris</i>	Diamond polypore	+	+
<i>Fomes fomentarius</i>	Tinder conk	+	+
<i>Fomitopsis cajanderi</i>	Rosy conk	+	
<i>Ganoderma applanatum</i>	Artist's conk	+	+
<i>Gloeophyllum sepiarium</i>	Sepia-gilled shelf	+	
<i>Grifola frondosa</i>	Hen-of-the-woods	+	+
<i>Irpex lacteus</i>	Milk-white toothed polypore	+	+
<i>Laetiporus sulphureus</i>	Sulfur shelf	+	+
<i>Lenzites betulina</i>	Razor-strop shelf	+	+
<i>Meripilus giganteus</i>	Big rosette	+	
<i>Perenniporia fraxinophila</i>	Ash-loving poria	+	
<i>Phellinus gilvus</i>	Oak conk	+	+
<i>Polyporus arcularius</i>	Angular-pored polypore	+	+
<i>Polyporus badius</i>	Black-footed polypore	+	+
<i>Polyporus balsameus</i>	Balsam polypore		+
<i>Polyporus elegans</i>	Elegant polypore	+	
<i>Polyporus radicans</i>	Rooting polypore	+	
<i>Polyporus varius</i>	Blackfoot	+	
<i>Poria spissa</i>	Dense poria		+
<i>Poronidulus conchifer</i>	Little-nest polypore	+	+
<i>Pycnoporus cinnabarinus</i>	Cinnabar polypore	+	+
<i>Pycnoporus sanguineus</i>	Blood-red polypore	+	
<i>Trametes elegans</i>	Ambiguous polypore	+	
<i>Trametes versicolor</i>	Turkey tail	+	+
<i>Trichaptium bififormis</i>	Biformed bracket fungus	+	
Schizophyllaceae			
<i>Schizophyllum commune</i>	Common split-gill	+	+
Stereaceae			
<i>Stereum albobadium</i>	Rufous-white parchment	+	+
<i>Stereum complicatum</i>	Crowded parchment leaves	+	+
<i>Stereum hirsutum</i>	Hairy parchment	+	+
<i>Stereum ostrea</i>	False turkey tail	+	+
<i>Xylobolus frustulatus</i>	Ceramic parchment	+	+
AURICULARIALES			
Auriculariaceae			
<i>Auricularia auricula</i>	Ear fungus	+	+
TREMELLALES			
Tremellaceae			
<i>Calocera cornea</i>	Staghorn	+	
<i>Dacrymyces palmatus</i>	Orange fairy butter	+	
<i>Exidia glandulosa</i>	Black witch's butter	+	+
<i>Tremella foliacea</i>	Brown jelly-leaf	+	+
<i>Tremella fuciformis</i>	White jelly fungus	+	
<i>Tremella mesenterica</i>	Golden witch's butter	+	+
<i>Tremellodendron pallidum</i>	False white coral	+	

MACROFUNGI OF THE KANSAS ECOLOGICAL RESERVES (cont.)

ORDER/Familiv/Species	Common name	Occurrence	
		BW	FR
BASIDIOMYCOTINA, cont.			
LYCOPERDALES			
Geastraceae			
<i>Geastrum fornicatum</i>	Arched earthstar	+	
<i>Geastrum rufescens</i>	Reddening earthstar	+	
<i>Geastrum saccatum</i>	Common earthstar	+	
<i>Geastrum triplex</i>	Saucered earthstar	+	+
Lycoperdaceae			
<i>Calvatia craniiformis</i>	Brain-shaped puffball	+	+
<i>Calvatia rubro-flava</i>	Orange staining puffball	+	
<i>Lycoperdon marginatum</i>	Peeling puffball	+	
<i>Lycoperdon perlatum</i>	Gem-studded puffball	+	
<i>Lycoperdon pyriforme</i>	Pear-shaped puffball	+	+
NIDULARIALES			
Nidulariaceae			
<i>Crucibulum laeve</i>	Common bird's nest	+	+
<i>Cyathus stercoreus</i>	Dung-loving bird's nest	+	
<i>Cyathus striatus</i>	Grooved bird's nest	+	
PHALLALES			
Phallaceae			
<i>Phallus hadriani</i>	Purple-egg stinkhorn		+
SCLERODERMATALES			
Sclerodermataceae			
<i>Scleroderma citrinum</i>	Common earthball	+	
UREDINALES			
Pucciniaceae			
<i>Gymnosporangium juniperi-virginianae</i>	Cedar-apple rust gall	+	+
ASCOMYCOTINA			
CLAVICIPITALES			
Clavicipitaceae			
<i>Cordyceps melolanthae</i>	Rhinoceros-beetle cordyceps	+	
<i>Cordyceps militaris</i>	Orange club cordyceps	+	
<i>Cordyceps ophioglossoides</i>	Golden-thread cordyceps	+	
Hypomycetaceae			
<i>Hypomyces chrysospermus</i>	Golden mold	+	
<i>Hypomyces hyalinus</i>	Whitish lobster mushroom	+	
<i>Hypomyces lactifluorum</i>	Lobster mold	+	
DOTHIDIALES			
Venturiaceae			
<i>Apiosporina morbosa</i>	Black knot (on cherry)	+	
ELAPHOMYCETALES			
Elaphomycetaceae			
<i>Elaphomyces granulatus</i>	Common deer truffle	+	
HELOTIALES			
Helotiaceae			
<i>Bisporella citrina</i>	Citron cup	+	
<i>Bulgarina inquinans</i>	Black saucer cup	+	

MACROFUNGI OF THE KANSAS ECOLOGICAL RESERVES (cont.)

ORDER/Family/Species	Common name	Occurrence	
		BW	FR
ASCOMYCOTINA, cont.			
HELOTIALES, cont.			
Helotiaceae, cont.			
<i>Chlorociboria aeruginascens</i>	Green stain	+	
<i>Leotia lubrica</i>	Yellow jelly club	+	
<i>Leotia viscosa</i>	Green-headed jelly club	+	
HYSTERIALES			
Hysteriaceae			
<i>Hysterographium elongatum</i>	Elongate boat-shaped crust	+	
<i>Hysterographium mori</i>	Boat-shaped crust	+	
PEZIZALES			
Humariaceae			
<i>Humaria hemisphaerica</i>	Brown-haired white cup	+	
<i>Pyronema omphalodes</i>	Depressed disk		+
<i>Scutellinia scutellata</i>	Eyelash cup	+	
Sarcosomataceae			
<i>Galiella rufa</i>	Filled rubber cup	+	
<i>Microstoma floccosa</i>	Shaggy scarlet cup	+	
<i>Sarcoscypha coccinea</i>	Earley scarlet cup	+	+
<i>Sarcoscypha occidentalis</i>	Little summer cup	+	+
<i>Urnula craterium</i>	Devil's gray goblet	+	
Pezizaceae			
<i>Peziza repanda</i>	Wavy peziza	+	+
Helvellaceae			
<i>Gyromitra fastigiata</i>	False morel	+	+
<i>Helvella acetabulum</i>	Brown-veined peziza	+	
<i>Helvella crispa</i>	Saddleback	+	+
<i>Helvella queletii</i>	Ribbed elfin saucer	+	
<i>Helvella stevensii</i>	Steven's helvella	+	
Morchellaceae			
<i>Morchella angusticeps</i>	Narrow-headed black morel	+	
<i>Morchella esculenta</i>	Common morel	+	+
<i>Morchella semilibera</i>	Half-free morel	+	+
<i>Verpa bohemica</i>	Early false morel	+	+
<i>Verpa conica</i>	Smooth thimblecap		+
SPHAERIALES			
Xylariaceae			
<i>Daldinia concentrica</i>	Zoned cramp balls	+	
<i>Entonaema liquescens</i>	Bag-of-water		+
<i>Hypoxylon fragiforme</i>	Red cushion hypoxylon		+
<i>Hypoxylon mediterraneum</i>	Black crust	+	
<i>Hypoxylon rubiginosum</i>	Reddish crust		+
<i>Hypoxylon sassafras</i>	Sassafras crust	+	
<i>Hypoxylon xanthocreas</i>	Yellow-flesh hypoxylon		+
<i>Xylaria hypoxylon</i>	Carbon antlers	+	+
<i>Xylaria polymorpha</i>	Dead man's fingers	+	+