The Turkey Tail Mushroom and its Many Look-alikes

A field guide to the genus *Trametes* and similar small polypores of the northwoods

August C. Camp & Tara L. Bal

Michigan Technological University College of Forest Resources and Environmental Science



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Description: A field guide to small polypores of the north woods, especially focused on macroscopic identification of the genus *Trametes*, and polypores found in northeastern North America that resemble the popular turkey tail mushroom, *Trametes versicolor*.

Key words: Trametes, polypore, fungi, mushroom, turkey tail, field guide, identification



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Introduction

This field guide was created to aid in the identification of small saprophytic polypores commonly found in the northern hardwood forest of northern Michigan, such as the ever popular "turkey tail" and its many look-alikes. We include 15 of some of the most common white-rot hardwood decomposers as well as a handful of brown-rot decomposers, all which colonize standing or fallen wood.

Not included in this guide are larger polypore brackets such as those in the genera *Ganoderma, Fomitopsis*, and *Fomes*, including familiar names like the artist's conk or tinder conks, or soil-born polypores such as *Boletus* mushrooms.

Identification using this guide is based solely on macroscopic traits that can be seen with the naked eye, or with the aid of a small hand lens. All microscopic features such as spore size and shape have been ignored for the purpose of creating a user-friendly guide that can be used while in the field with minimal gear.

For beginner mushroom hunters, a terminology section has been included to provide clear picture examples for some of the most frequently used terms regarding pore surfaces and growth forms.

We use the binomial scientific name (i.e. *Genus species*) to organize the fungi contained here, but include common names for some species often seen in field guides and literature. Turkey tail is sometimes hyphenated, but hyphenations in botanical names are usually indicators of misleading names of different taxonomies, like Douglas-fir (which is not a true "fir") or box-elder (which is not an elder, but a maple). The "tail" here isn't likely to be confused with a bird!

This guide offers no information regarding the edibility or medicinal use of any species. DO NOT assume edibility of any foraged plant or fungi until positive ID has been made using multiple resources

Getting Started

Tools Needed: While this guide focuses only on macroscopic features, a small hand lens or jewelers loupe is useful for viewing small features such as pore surfaces. Additionally, a set of metric calipers or a small metric ruler is recommended for measuring the size of mushrooms and their pores.

Terminology: Start by familiarizing yourself with the common terms used to describe different mushroom pore surfaces. Understanding the differences between these is critical for making a positive ID of any specimen.

The "Quick and Dirty Key": The "Quick and Dirty Key" is designed to be used similarly to a true dichotomous key, however, it will NOT lead to a positive ID. It should instead be used to rapidly narrow down the selection of potential species for comparing a specimen to, using the species descriptions found later in the guide to confirm identification.

Species Descriptions: Individual species descriptions in this guide include the most frequently found small polypores in Midwestern northern hardwood forests. This is by no means an exhaustive list of polypores in the area, and additional resources may be needed.

Underlined Characteristics: Any underlined trait in the species descriptions is a <u>key</u> <u>characteristic</u> that is helpful for differentiating between species. This means it is a unique trait that must be present for a positive ID to be made.

Look-alikes: Each species description contains a list of look-alike species at the bottom. It is important to compare unknowns to each of these look-alikes to achieve a positive ID.

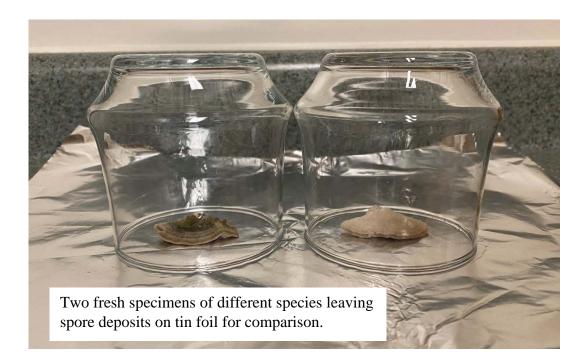
Commonly Confused: Includes an additional collection of species that do not fit the general traits of *Trametes*, however, could still be easily misidentified without a closer look.

Notes: Characteristics such as <u>habitat</u>, <u>pore shape</u>, and <u>pore size</u> are often the best indicators of a species. Growth form, size, and color can be especially variable from specimen to specimen and often change with age. Since most polypores persist through winter, or grow perennially, these characteristics can be increasingly unreliable. It is critical to ensure that an unknown specimen matches all the listed criteria to achieve a positive ID.

Keep in mind that many species, especially *Trametes*, share multiple defining traits with other species, and there is considerable phenotypic variation within species populations. Sometimes a positive ID will simply not be possible using macroscopic traits alone. Welcome to the world of mycology, where less than 10% of species are well characterized!

Making a Spore Print: Fungi spore colors can vary between whites, tans, light pinks, yellows, greens, browns, blacks and more. The color of a spore print can certainly be a useful indicator to help with a species identification. <u>Though most of the polypores in this guide have white spores, some look-alikes may have brown or yellowish spores, which can help you eliminate species you know it is not. Importantly, you'll only be able to take spore prints of fresh specimens that are actively growing and sporulating. Some polypores take long periods of time to fully develop and begin sporulation. Older specimens may have ceased sporulation long ago, but may still have other morphological features that can help with an ID.</u>

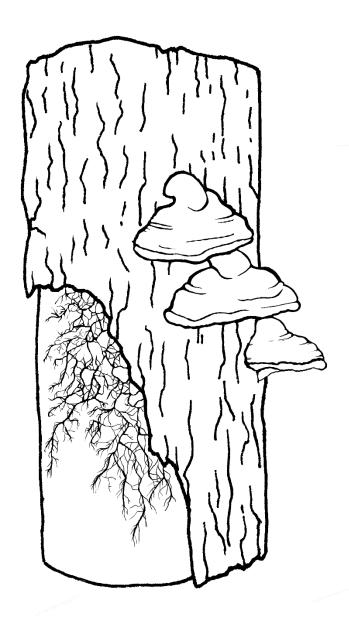
To make a print, take your fresh specimen and place the mushroom pore side down on a sheet of cardboard, paper, glass, or tin foil. Glass such as a microscope slide works best as spores of any color will appear clearly depending on what background you set it on, and if you're already set up if you want further confirmation by studying microscopic traits. Cover the specimen with a bowl or cup to prevent air from blowing the spores around and leave overnight or up to multiple days. Long-lived polypores will take longer to drop spore deposits than most terrestrial gilled mushrooms.



There is considerable phenotypic variation, or observable differences of form and color, in fungal populations. Consider the two *Trametes versicolor* populations above, demonstrating only a portion of the color spectrum known to that species.



Often, multiple species of fungus will colonize and fruit from the same substrate, this can make identification challenging. Take for instance the log pictured above. Turkey tail (*Trametes versicolor*) is fruiting on the right side of this maple log, with the violet-toothed polypore (*Trichaptum biforme*) fruiting on the left side. Examining the fertile surface is crucial to ID.



Fungal fruiting bodies, shown above on the outside of the log, are the recognizable reproductive portion of the fungus. The majority of the fungus actually lives within its substrate (soil or wood), often out of view. Mycelium, shown beneath the bark in the figure above, refers to the root-like mass of hyphae from which the fungus derives nutrients and water. Fruiting bodies that produce spores form from the mycelium.

Terminology

Commonly Encountered Pore Surfaces:



Pore Surface Patterns (from left to right):

- 1. Circular pores e.g. *Trametes versicolor*
- 2. Angular pores e.g. Trametes hirsuta
- 3. Tooth-like pores e.g. Trametes villosa
- 4. Maze-like and elongated pores e.g. Trametes gibbosa
- 5. Gill-like pores e.g. *Gloeophyllum sepiarium*
- 6. Smooth (crust fungi lacking pores) e.g. Stereum ostrea

*note, these species will always have these same pore surface patterns unless worn away by age. Pore type doesn't change based on environment.

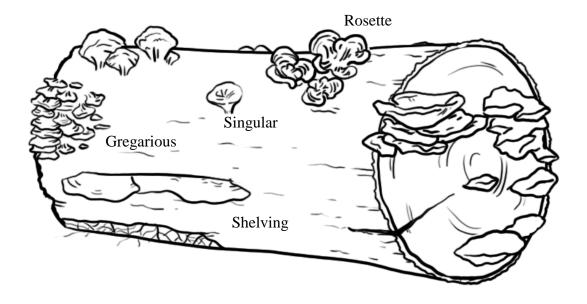
Commonly Encountered Growth Forms:



Growth forms (from left to right):

- 1. Fan-shaped e.g. *Trametes versicolor*
- 2. Shelving e.g. Stereum ostrya
- 3. Rosette e.g. Trametes versicolor
- 4. Crust-like e.g. Bjerkandera adusta
- 5. Singular e.g. Lenzites betulina
- 6. Gregarious e.g. Cerrena unicolor

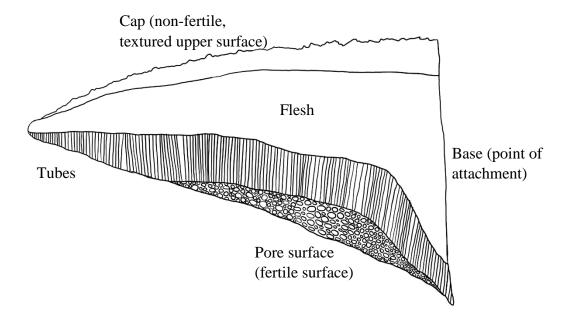
*note, these species listed as examples may have typical growth forms, but this is a characteristic that can be quite variable between individuals or populations of the same species.



Commonly Encountered Growth Forms Continued:

Often, multiple species will colonize the same substrate, each with its own growth form. Similarly, multiple fruiting bodies of one species can take many forms on the same substrate. For instance, turkey tail often grows shelving, fan-shaped, and forms singular rosettes all on the same log.

Basic Polypore Anatomy:



Becoming familiar with the basic structures of a polypore mushroom is critical for understanding identifying characteristics.

Quick and Dirty Key

Pore surface consists of small pores, circular to angular or toothed with age

- 3-6 circular pores/mm, contrasting cap colors... Trametes versicolor
- 3-4 circular to angular pores/mm, grey shades on hairy cap, dark band in cross section... *Trametes hirsuta*
- 3-4 circular to angular pores/mm, light cream/tan shades on cap, no band in cross section ... *Trametes pubescens*

1-3 pores/mm, angular to tooth like with age, dense hairy cap surface ... *Trametes villosa*Angular pores, violet color around margin... *Trichaptum biforme*Pore surface is dark grey or black, pores circular... *Bjerkandera adusta*Pore surface is maze-like or toothed with black line under cap in cross section... *Cerrena unicolor*

Pore surface consists of large pores, elongated or gill-like

Pores are highly elongated with thick walls, growing on oak... *Daedalea quercina* Pores circular to elongated, bruising pinkish, strongly zonate cap... *Daedaleopsis confragosa* Pore surface having circular, elongated, or maze-like pores, often all on same mushroom,

with white flesh and bumpy cap base... *Trametes elegans* Gills or gill-like pores present, on conifer, dark flesh... *Gloeophyllum sepiarium* Pore surface consists of "true" gills, lacking pores entirely, white flesh... *Lenzites betulina*

Specimens do not fit above

Pore surface is entirely smooth, lacking pores... Stereum ostrea

Fresh specimen is entirely white, thick (1-3 cm), and watery when squeezed... *Tyromyces chioneus*

Both cap and pore surface are red/rusty orange... Pycnoporus cinnabarinus

Species Descriptions

Trametes versicolor

Common Name: Turkey tail.

Growth: Single/shelving, fan-shaped and rosette.

Habitat: Deciduous logs and stumps. White-rot.

Size: 8 cm across, thin, only <u>1-4 mm thick</u>.

Pore Surface: <u>3-6 circular pores/mm, hard to see without squinting</u>. Tubes up to 3 mm deep. Surface white when fresh to light tan with age.

Cap Surface: Zonate with variable <u>contrasting colors</u> between tan, orange, red, brown, green, and blue. Dense, fine, velvety cap, smooth with age.

Flesh: White.

Spores: White.

Look-alikes: *Stereum ostrea* (without pores), *T. hirsuta* (thicker cap, densely hairy, poorly zonate), and *T. pubescens* (larger pores, thicker, tan cap).



Trametes hirsuta

Common Name: Hairy bracket.

Growth: Single/shelving, fan-shaped.

Habitat: Deciduous logs and stumps. White-rot.

Size: Up to 10 cm across and up to 1 cm thick.

Pore Surface: <u>3-4 pores/mm</u>, circular to angular, <u>tubes up to 6mm deep</u>.

Cap Surface: Mildly zonate with grey, white, and brown shades lacking contrast between zones, darker grey or brown margin. <u>Dense, hairy cap</u>.

Flesh: 2-layered. Upper layer is thin and soft, with a very <u>thin dark band</u> separating it from the thicker, corky white layer below.

Spores: White.

Look-alikes: *T. villosa* (larger pores, quickly become tooth-like with age) and *T. pubescens* (no dark band separating flesh layers).

Note: Caps can be incredibly variable from brown to dark grey, or very light grey, however, dense hair is a consistent feature.



Trametes pubescens

Growth: Single/shelving fan-shaped and rosette.

Habitat: Deciduous logs and stumps. White-rot.

Size: Up to 6 cm across and 1 cm thick.

Pore Surface: <u>3-4 pores/mm</u>, often circular to angular, <u>tubes up to 6mm deep</u>, white when fresh turning pale yellow with age.

Cap Surface: White to pale <u>cream and tan</u> shades, with a <u>pale colored margin</u>. Mildly to weakly zonate, <u>sometimes striate</u>, <u>only finely velvety</u>, usually becoming <u>smooth with age</u>.

Flesh: White.

Spores: White.

Look-alikes: *T. hirsuta* (much hairier cap with dark band in cross section), and *T. villosa* (larger, angular pores).



Trametes villosa

Growth: Single/shelving, fan-shaped.

Habitat: Deciduous logs and stumps. White-rot.

Size: Up to 7 cm across and only 4 mm thick.

Pore Surface: White to tan or grey, large angular pores, <u>1-3 pores/mm</u>, <u>tubes only 1-2 mm</u> <u>deep</u>, becoming <u>tooth-like with age</u>.

Cap Surface: Weakly zonate with grey, white, tan shades <u>lacking contrast</u> between zones. <u>Dense, hairy cap.</u>

Flesh: White.

Spores: White.

Look-alikes: T. pubsecens (thicker cap, with smaller pores and deeper tubes).



Trichaptum biforme

Common Name: Violet-toothed polypore.

Growth: Gregarious, often shelving or fan-shaped.

Habitat: Deciduous logs and stumps. White-rot.

Size: Up to 7 cm wide and 4 mm thick.

Pore Surface: <u>Fresh surface is lilac to purple</u> in color, especially on margin, fading with age to pale buff or brown. 3-5 pores per mm, angular, turning tooth-like with age.

Cap Surface: Zonate with shades of white, cream, and buff, often green with algae. Finely velvety.

Flesh: White.

Spores: White.

Look-alikes: Related species include *T. abietinum* (fruits on conifers), and *T. subchartaceum* (fruits on Populus species). Not included in this guide due to visual similarities aside from the host plant.



Cerrena unicolor

Common Name: Mossy maze polypore.

Growth: Gregarious, shelving, fan-shaped, or crust-like when growing on underside of logs.

Habitat: Deciduous logs and stumps. White-rot.

Size: Up to 6 cm wide, thin.

Pore Surface: White to <u>buff or grey</u> color. 2-3 pores/mm, <u>maze-like when fresh</u>, turning tooth-like with age.

Cap Surface: Zonate with shades of white, and brown, often with lighter margin, rapidly turning green with algae. Velvety to hairy surface.

Flesh: White with distinct dark line just under cap surface seen on cross section.

Spores: White.

Look-alikes: Trichaptum biforme (purple pore surface with no dark line in cross section).



Bjerkandera adusta

Common Name: Smoky polypore.

Growth: Single, fan shaped, rosette, shelving, or crust-like without a cap. Highly variable.

Habitat: Deciduous logs and stumps. White-rot.

Size: 3-7 cm wide, less than 4 mm thick.

Pore Surface: Grey to black surface with 6-7 small circular to angular pores/mm.

Cap Surface: Occasionally zonate, velvety, turning smooth with age, tan, brown, or grey, often fading light tan or grey with age. Highly variable.

Flesh: White or light grey.

Spores: White.

Look-alikes: *Trichaptum biforme* (violet pore surface with larger angular pores).

Note: Caps are often not well formed or visually striking, easy to overlook.



Stereum ostrea

Common Name: False turkey-tail.

Growth: Single/shelving, fan-shaped, often curving, not entirely flat.

Habitat: Deciduous logs and stumps. White-rot.

Size: Up to 8 cm across and very thin.

Pore Surface: No pores, underside smooth, light grey, or tan.

Cap Surface: Zonate with concentric zones of red, orange, tan, brown, and green with age. Finely velvet when young turning smooth with age.

Flesh: Barely noticeable.

Spores: Often hard to collect.

Look-alikes: Trametes versicolor (polypore).

Note: *S. ostrea* is technically a crust fungus. The lack of pores easily differentiates it from others.



Lenzites betulina

Common Name: Gilled polypore.

Growth: Single, clustered, circular or bracket-shaped.

Habitat: Deciduous logs and branches, often on birch branches in canopy. White-rot.

Size: 5-10 cm wide and 2 cm thick.

Pore Surface: White, well-spaced "gills" up to 1 cm deep. Not true gills.

Cap Surface: Concentrically zoned with shades of brown, tan, white, orange, and grey, with thick velvety texture.

Flesh: White.

Spores: White.

Look-alikes: Daedalea quercina (larger, thicker, on oak with darker flesh).



Trametes gibbosa (including T. aesculi and T. elegans complex)

Common Name: Lumpy bracket.

Growth: single/shelving, kidney-shaped or sometimes with a short stem-like base.

Habitat: Deciduous logs and stumps. White-rot.

Size: Larger, up to 30 cm across and 4 cm thick.

Pore Surface: Variable shapes and sizes, ranging 1-2 pores/mm, circular to maze-like, gill-like, often displaying all three on the same mushroom.

Cap Surface: <u>Bumpy near base, smoother near margins</u> with zoned ridges of texture. White to pale buff cap. Surface densely velvety.

Flesh: White.

Spores: White.

Note: Green algae frequently grows near the base of the cap due to mushrooms' perennial growth.

Look-alikes: Daedalopsis confragosa (darker colored cap and flesh).



Daedaleopsis confragosa

Common Name: Thin maze polypore.

Growth: Single/shelving, bracket shaped.

Habitat: Small deciduous logs and branches, frequently on willows. White-rot.

Size: Up to 15 cm wide and 4 cm deep.

Pore Surface: Greyish white in color <u>bruising pinkish when fresh</u>. Variable pores, usually circular to elongated or maze-like, with <u>thin walls</u>.

Cap Surface: Zonate, reddish brown color fading to tan and grey with age. Surface smooth or minutely velvety.

Flesh: White to pinkish or tan, tough.

Spores: White.

Look-alikes: *Daedalea quercina* (gill-shaped pores with thicker walls), and *Trametes elegans* (bumpy white cap and flesh).



Daedalea quercina

Common Name: Thick maze oak polypore.

Growth: Single/shelving, bracket shaped.

Habitat: Deciduous hardwoods, prefers oak logs and stumps. White-rot.

Size: Up to 20 cm wide and 4 cm thick.

Pore Surface: White color, elongated pores, maze-like to gill-like, thick walled.

Cap Surface: White to tan, fading dark grey or brown with age. Surface somewhat zonate, smooth, or minutely hairy.

Flesh: Tobacco-brown, tough.

Spores: White.

Look-alikes: *Daedaleopsis confragosa* (thinner, circular to elongated pores), *Lenzites betulina* (dense velvety cap with "gills"), and *Gloeophyllum sepiarium* (fruits on conifers).



Gloeophyllum sepiarium

Common Name: Rusty gilled polypore.

Growth: Bracket-shaped.

Habitat: <u>Dead coniferous wood</u> (including decking and railroad ties) and occasionally soft deciduous species. Brown-rot.

Size: Up to 12 cm wide and 1 cm thick.

Pore Surface: "Gills" or highly elongated gill-like pores, <u>yellow-brown when fresh</u>, fading to dark orange-brown with age.

Cap Surface: Rusty brown near base, orange to brownish-yellow margin when fresh, fading to grey with age. Concentric zones of velvety texture, turning smooth with age.

Flesh: Dark brown.

Spores: White.

Note: *Gloeophyllum trabeum* (not included) is visually similar yet often smaller, with darker brown cap shades and a creamy white colored margin when fresh. Pore surface is usually less gill-like and more poroid.

Look-alikes: Lenzites betulina (white flesh and lighter cap, growing on deciduous trees).



Pycnoporus cinnabarinus

Common Name: Cinnabar-red polypore.

Growth: Single/shelving, bracket-shaped.

Habitat: Deciduous or conifer logs and stumps. White-rot.

Size: Up to 13 cm across and 2 cm thick.

Pore Surface: bright red to orange, 3-4 pores/mm, circular to angular.

Cap Surface: Dry, azonate, <u>bright reddish-orange</u> fading to dull orange, smooth or finely suede-like near base when young.

Flesh: Pale red-orange.

Spores: White.

Note: *Pycnoporus sanguineus* (not included) is visually similar, with a thinner bracket (less than 1 cm thick) and smaller pores (5-6 per mm).



Tyromyces chioneus

Common Name: White cheese polypore.

Growth: Bracket shaped and convex.

Habitat: Deciduous logs and stumps, especially birch. White-rot.

Size: Up to 12 cm wide and <u>3 cm thick</u>.

Pore Surface: 3-5 pores per mm, circular to angular with thin walls. White, turning light yellow with age.

Cap: Soft, finely hairy surface, not zonate, pure white color turning faded yellow when dried out.

Flesh: White, thick, soft, watery when squeezed.

Spores: White.

Look-alikes: *Oxyporus populinus* (tough flesh, overlapping clusters usually colonized by moss, found on maple trunks) not listed in this guide.



Commonly Confused

Schizophyllum commune – split gill

Description: Smaller brackets, less than 4 cm wide. Pore surface consist of folded gills, white spores. Brackets are soft and flimsy unlike most shelf fungi such as *Trametes*. Commonly found across the globe on varying woody substrates. White-rot.



Coltricia cinnamomea

Description: Most often grows from bare soil unlike true bracket fungi. Broad vase shaped caps with a central velvety stem. A polypore underside usually dark brown in color with pale yellowish brown spore prints. *Coltricia perennis* is similar, often found in burned areas. White-rot.



Phaeolus schweinitzii

Description: Parasitic growth on the roots of conifers, sometimes appearing to grow terrestrially. Zonate cap with shades of brown and yellow, white to yellow spores. Often deteriorating into a brown mass of shelflike, zonate fungi. Much larger than small bracket fungi such as *Trametes*, with caps up to 30 cm across. Brown-rot.



Steccherinum ochraceum

Description: Small fruitbodies growing from deciduous wood, often with a crust-like growth form, or developing small shelving or fanshaped caps. Caps are zonate and pubescent, visually similar to *Cerrena unicolor*, however, the unique pore surface sets it apart easily. <u>Orange to</u> <u>salmon pink spines</u> (1-3 mm long) project from the fertile surface, spaced evenly apart, 3-5 spines per mm. White-rot.



Glossary

- **Angular**: In relation to pore shape, pores with tube walls that form geometric shapes other than round circles.
- Base: Part of bracket fungi anatomy, the point of attachment to the substrate.
- **Bracket**: A common polypore growth form, meaning fungal bodies that are tough, corky, and shelf-like.
- **Brown-rot**: A type of fungal wood decay targeting cellulose, leaving behind lignin.

Cap: Referring to the sterile upper portion of a mushroom body.

Circular: In relation to pore shape, pores with tube walls that form round circular pores.

Concentric: Containing multiple rings or zones within one another.

Coniferous: A cone bearing tree such as spruce or pine.

- **Conk**: A common term for describing polypore structures, thicker, often perennial, bracket shaped mushrooms.
- **Crust-like**: A common polypore growth form resembling the growth of crust fungi, usually growing flat on the underside of logs with little to no developed cap surface.
- **Deciduous**: A broad leaved tree that sheds its leaves annually.

Elongated: In relation to pore shape, pores that are long, drawn out, elliptic.

- **Fan-shaped**: A common polypore growth form, usually referring to thin brackets with individual points of attachment for each singular cap.
- Flesh: Inner tissue of fruitbody, seen on cross-section above fertile surface or tubes.
- **Gill-like**: In relation to pore shape, pores that are substantially elongated until the curved ends are sometimes no longer present, creating the appearance of "true gills".
- **Gregarious**: A common polypore growth form referring to dense clusters (groupings) of fruitbodies, often overlapping.

Hairy: A cap surface with long conspicuous hairs.

Kidney-shaped: A polypore growth form, usually referring to thick, curved brackets.

Hyphae: Individual cellular filaments that make up mycelium.

Macroscopic: Able to be seen with the naked eye.

Margin: The outer edge of a fungal cap.

- **Maze-like**: In relation to pore shape, comprising pores that are irregularly elongated, labyrinthine.
- Microscopic: Only able to be seen with the aid of a microscope or other tool.
- **Parasitic:** A fungus that may grow on living trees, but is detrimental to its host. Parasitic fungi may also be pathogenic, eventually causing mortality.
- Perennial: Growth that occurs over multiple seasons, persisting over winter.
- **Polypore**: A fungus that releases spores through tubes that create small openings on the fertile surface.
- Pore: The opening or mouth of a tube.
- Pubescent: A cap surface having soft hairs (shorter than "hairy").
- **Rosette**: A common polypore growth form that usually occurs on the upper surface of down wood, with fused, layered brackets taking the shape of a rose flower.
- Saprotrophic: Living and obtaining energy from dead and decaying plant matter.
- **Shelf-like, shelving**: A common polypore growth form, usually referring to thin brackets that fuse horizontally creating large fruit bodies with a long continual point of attachment.
- **Singular**: A common polypore growth form, referring to fruitbodies that grow independently from others, not overlapping or in tight clusters, sometimes completely solitary.
- **Spore**: Reproductive cells of a fungus.
- **Striate**: Parallel lines or furrows, often originating from mushroom base and spreading out towards margin.
- **Terrestrial**: Growing from the ground or soil.
- **Thick-walled**: In relation to pore shape, referring to pores with thick walled tubes, creating space between each individual pore.
- **Tooth-like**: In relation to pore surfaces, individual spines that hang down from fertile surface. Created by certain toothed fungi, or through the decay of polypore tubes into hanging spines.
- **Tube**: Small narrow cylinders on polypore's fertile surface that release spores.
- **Velvety**: Having short soft hairs, best seen with a hand lens or microscope (meaning shorter than pubescent).
- White-rot: A type of fungal wood decay targeting lignin and cellulose.
- **Zonate**: Concentric bands of differing colors and or textures.

Suggested References for More Information

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MycoGuide: <u>www.mycoguide.com</u>. Created by Patrick R. Leacock.

About the Authors

<u>August Camp</u> studies applied ecology and environmental science at Michigan Technological University. He focuses on botany but has a deep passion for studying mycology as well. He became fascinated with mushrooms early on in his career, gathering specimens and identifying them during his free time, especially long lived polypores as they were some of the only mushrooms available to study during the long winter season in northern Michigan. Turkey-tail was of particular interest due to its popularity, however, there was a lack of recourses dedicated to identifying the complicated genus *Trametes*. This book came to be with the goal of creating an easy-to-use field guide for anyone interested in identifying the ever-popular turkey-tail mushroom.





Tara Bal is currently an assistant professor at Michigan Technological University, where she has been teaching and conducting research related to wood decay, forest pathology and entomology since 2009. Her favorite class is Forest Health where her students can choose to put together either a large insect collection or a fungus collection, gaining identification skills in their preferred topic. The most rewarding part about teaching is seeing how excited an amateur mycologist or entomologist

gets in working through a key in a field guide and finally finding the matching species to the beetle or mushroom they are holding! Dr Bal currently serves as the Mycologist for the Wood Protection Group at MTU, curating a live collection of over 400 fungi.

Illustrator: <u>Ande Myers</u> is a Postdoctoral Researcher in CFRES working in forest health research. They have always used illustration as a tool to understand science and engage with plant, fungi, insects, and other forest life. More information on Andes' work can be found at https://myersal.com/.

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