# What to do if you find it:

## *Make an observation*

The first thing to do is to **record your observation**. We prefer to use the iNaturalist app for that (visit www.iNaturalist.org to learn more), but you could also upload your observation to Mushroom Observer (visit www.MushroomObserver.org). The QR code to the right will take you to the Fungal Diversity Survey (FunDiS for short) website on how to "Contribute Observations" to the project.

fundis.org/observe/contribute-observations

The best thing you can do is take *lots* of photographs and notes. Typically, smartphones will automatically georeference any photos taken, but it is good practice to note your exact location, preferably with GPS coordinates, and **be sure to note what trees are nearby**, and any other salient features (like smell and texture). In this particular case, **you should also document the host just as thoroughly as the parasite**.

## *Collect a specimen*

If you are in an area where it is allowed and have any necessary permits, **we strongly urge you to create a vouchered collection** of both the parasite *and the host*, if you are able. This means a dried specimen for deposit in a herbarium, where researchers can access it for things like DNA sequencing. If you don't know how to do this, please see:

fundis.org/sequence/sequence/dry-your-specimens

In California, collecting mushrooms is usually allowed in National Forests **with a permit**. Permits can be obtained at the headquarters of the National Forest you're visiting, and are usually inexpensive or free. However, restrictions vary among the individual National Forests, so make sure to find out the specifics when picking up your permit. In Oregon and Washington, you are typically allowed to collect one gallon without a permit on most public lands.

Don't forget to look for other mushrooms and fungi while you're at it! Keep your eyes open for **mushrooms growing on other mushrooms**: they're all rare, so even if you haven't found this one, you've got something neat! Since you've already got iNaturalist open, why not record your other finds?

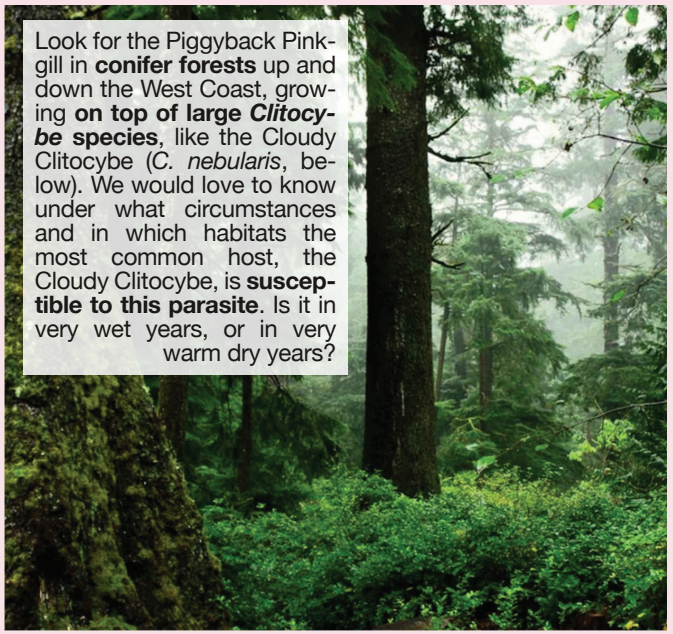
Most mushrooms are like fruit: picking an apple from an apple tree doesn't hurt the tree. In the same way, **harvesting mushrooms does not generally hurt the mycelium of the fungus**. We do still recommend leaving some mushrooms behind, and not picking perennial mushrooms, like brackets and conks.

## *Who to contact*

If you think you've found this mushroom, and you're not sure about any of the above, such as how to report the find, whether you can collect it, or what to do with it once you have collected it, please contact us!

**conservation@fundis.org**

# Habitat



Look for the Piggyback Pinkgill in **conifer forests** up and down the West Coast, growing **on top of large *Clitocybe* species**, like the Cloudy Clitocybe (*C. nebularis*, below). We would love to know under what circumstances and in which habitats the most common host, the Cloudy Clitocybe, is **susceptible to this parasite**. Is it in very wet years, or in very warm dry years?

*Clitocybe nebularis*

Photo by Christian Schwarz

# *More information*


Siegel N & Schwarz C. 2016. *Mushrooms of the Redwood Coast: A Comprehensive Guide to the Fungi of Coastal Northern California*. Ten Speed Press: pg. 225.

Siegel N, Vellinga EC, Schwarz C, Castellano MA, Ikeda D. 2018. *A field guide to the rare fungi of California's National Forests. Bookmobile*: pg. 128–129. Accessible at:
mykoweb.com/CAF/PDF/Rare_Fungi_of_CA_National_Forests.pdf

iNaturalist (0 obs. in Western North America):
inaturalist.org/taxa/384733-Volvariella-surrecta

Mushroom Observer (1 obs. in Western North America):
mushroomobserver.org/name/show_name/4004




*The*

# Piggyback Pinkgill

## *Volvariella surrecta*

Photo by Noah Siegel

RARE

Status: ***RARELY COLLECTED***

A parasitic mushroom, riding "Piggyback" on distorted *Clitocybe* species! There are only a handful of known collections of this mushroom from western North America — **we need more collections of this species** so scientists can determine whether it is different from the European populations with the same name.

## *Have you ever seen a* **parasitic** *mushroom?*

FUNGAL DIVERSITY SURVEY


*This pamphlet prepared by:*
Roo Vandegrift, Bitty A. Roy & Joanne Schwartz

Photo by Noah Siegel

# Description

This remarkable fungus is a parasite on *Clitocybe* species, hence its common name: "Piggyback". It is also pinky-white the way "white" pigs are white. **Like all *Volvariella*, it has a sac** (or in technical terms, a "volva") at the base of the stem. The cap is 0.75–2 inches across and the stem is 1–3 inches long. The gills are usually whitish to pale pink.

Photo by Christian Schwarz

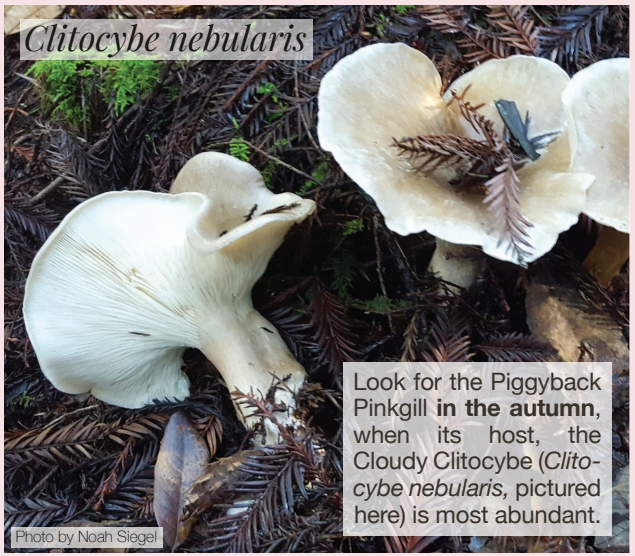
Look for the "eggs" of the Piggyback Pinkgill on the tops and around the margins of deformed-looking *Clitocybe*: if you leave them in a moist place for a few days, they are likely to hatch!

## *What else could it be?*

Nothing else like it grows on top of *Clitocybe* species, which are **often deformed by this parasite**. If you did not notice that it was on top of another mushroom, then it could be confused with *Volvariella smithii*, which grows on humus and has smaller spores. There are other mushroom parasites, for instance on old blackened *Russula*, but nothing as big, white, and pink as the Piggyback Pinkgill.

**CAUTION:** Never eat wild mushrooms without a confident identification! Contact Poison Control if you think you have eaten a poisonous mushroom: 1-800-222-1222

# When & Where?




Look for the Piggyback Pinkgill **in the autumn**, when its host, the Cloudy Clitocybe (*Clitocybe nebularis,* pictured here) is most abundant.

Photo by Noah Siegel

A first approximation of the range is that of its main host, *Clitocybe nebularis*, which can be found throughout the West in a **range of forested mountain habitats**, from southern California to British Columbia. The two California collections are both from Humboldt County.

*Potential Range*

Based on habitat for the host, *Clitocybe nebulosa*, using EPA North American Ecoregions 5 (Northern Forests), 6 (Northwestern Forested Mountains), 7 (Marine West Coast Forest), & 11 (Mediterranean California). Data from EPA; map layer from Stamen Design.