## What to do if you find it: Habitat

## 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.



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 what trees or other habitat features are nearby. For example, was the mushroom growing from duff and humus, or from bare soil? Did it have a particular smell?

## 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. 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. State and County Parks generally do not allow mushroom picking, but regulations vary, so make sure to check your destination before you go out. In Arizona and other Southwestern states, most Forest Service and BLM lands allow collecting for personal use without a permit, but again, regulations vary, so check ahead of time.

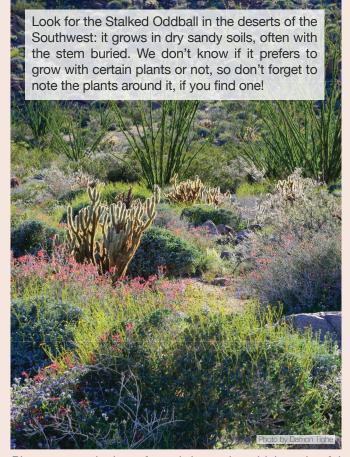
Don't forget to look for other mushrooms and fungi while you're there! Like other Rare Fungi, part of why this mushroom is rare is because it grows in a place that mushroom pickers don't generally go: the desert. Since you've already got iNaturalist open, why not record your other finds?

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



Plant spotters: look out for weird growth amid the colourful flower displays after the heavy winter rains in early spring! Mushroom followers: keep your eyes open for the Stalked Oddball when you drive through the desert on your way to the Sky Islands after the summer monsoons in Arizona and the Southwest.

## *More information*

Arora D. 1986. Mushrooms Demystified. 2nd Edition. Ten Speed Press: pg. 713-715.

Long WH & Plunkett OA. 1940. Studies in the Gasteromycetes. I. The Genus Dictyocephalos. Mycologia. 32(6): pg. 696-709.

Mushroom Observer (2 obs.):

mushroomobserver.org/name/show\_name/2125

iNaturalist (6 obs.):

iNaturalist.org/taxa/196617-Dictyocephalos-attenuatus

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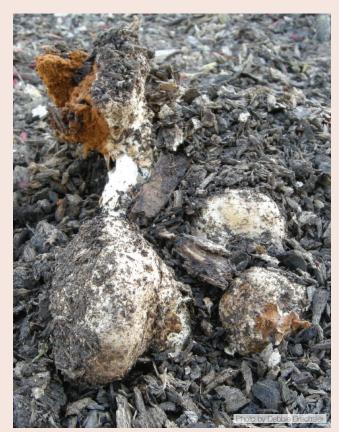
# Stalked Oddball

Dictyocephalos attenuatus



The Stalked Oddball fully deserves its name: it resembles a block of wood or a rock, not any 'normal' mushroom. It grows in dry and barren places, where one does not expect to see mushrooms. Its appearance is so variable, it's hard to pin down in one sentence. It is also a champion weightlifter, breaking through asphalt and moving heavy blocks of soil aside.





## Description

It starts out in the ground, completely inside its 'egg' (volva, in mycological terms), then the stem starts to grow, carrying the top part where the spores are formed, and everything breaks through the volva and appears above ground. The top part is wider than the stem, and is filled with the spores, first still in small white-walled compartments, then breaking up into a brown powder. This top part can look like a ball, or be irregular and wider than high. The stem is woody, scaly, tough, from a narrow base widening towards the top. The volva is like a sac, at the base of the stem. The whole fruitbody can be up to 1.5 foot high, with the spore bearing part up to 2.5 inches high and 4 inches wide. One volva can hold several of these fruitbodies.

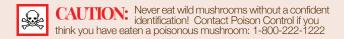
And lastly, its fruitbodies — or at least their woody stems — can last for 30 years in the dry deserts. **Oh, did I forget to mention it has a fishy smell?** 



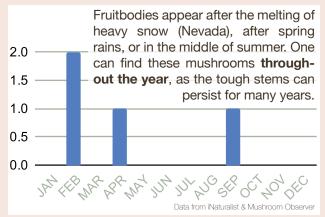
## What else could it be?

**Deadman's Foot** (*Pisolithus* species) resembles the Stalked Oddball in that it can also have a stalk and a wider head full of spores. However, when Deadman's Foot is still young, its spores are in little peas (David Arora, in his book *Mushrooms Demystified*, calls them "rice crispies in tar"). The mature spores of that mushroom are a chocolate brown and very powdery, the stalk never gets woody, it always grows in the vicinity of trees such as oaks, pines, and eucalypts, and the juicy bits stain the hands and yarn a golden yellow.

A handful of other mushroom species are adapted to life in dry places, and have a woody stem and a head filled with spores; they all can withstand the elements for a long time. The **Scaly-stalked Puffball** (*Battarrea* species) has a tall, slender wooden stalk with a cap carrying a heap of cinnamon-brown spores; the stems can be up to 2 ft high, and it is much more common than the Stalked Oddball. The **Urn-like Stalked Puffball** (*Phellorina strobilina*) is much smaller and club-shaped; the top part disintegrates and leaves an 'urn' behind. And, the much more common **Desert Shaggy Mane** (*Podaxis pistillaris*) looks like a dried out Shaggy Mane with a scaly-papery outside and very dark spores.



## When & Where?



Records are from Nevada (where the fruitbody for the first description was found), the dry parts of southern California (e.g. the Antelope valley near Lancaster), but there is also a record from Santa Rosa. It is known from the Four Corners area and in general in the arid southwest; a few recent finds are from two of the Channel Islands.

