

# To the Editor

It was gratifying to see David Rose's important and erudite article on anti-Semitism and *Auricularia auricula-judae* receive wider circulation. Readers, however, may be left with the impression that this practice is all in the past, which is far from the case. Apparently the pejorative "Jew's Ear" remains in use, at least among mushroomers in Great Britain and on the continent, judging from its continued use in mushroom guides published there as late as 2004 (e.g., *The Encyclopedia of Fungi of Britain and Europe*, Michael Jordan, rev. 2004; *The Pocket Guide to Mushrooms*, Jean-Marie Polese, 1999, original edition in French; *Mushrooms and Toadstools of Great Britain*, etc., Marcel Bon, 1987; *Mushrooms & Other Fungi of Great Britain*, Roger Phillips, 1981). It is telling that Phillips's *Mushrooms of North America* (1991) avoids this odious epithet. In contrast to the Old World, no North American field guide since the early years of the 20th century has found it necessary to revive this prejudicial usage, and all use the revised Latin name, *Auricularia auricula*. This same pattern is evident on the Web, where Wikipedia has an entry with no explanation nor apology, and Tom Volk's Web site, which features it for Easter 2004 (!), refers to "Judas' ear fungus," refraining from "other translations" of the name which "some would consider . . . pejorative," without reference to its anti-Semitic past. Several British sites, including the well-known BioImages, openly retain "Jew's Ear," while many more use only the Latin, softening the blow with acceptable common names such as Tree Ear.

In an era when the American Ornithologists Union has addressed such racial prejudices, changing the name of the Old-Squaw Duck to Long-tailed Duck in order to avoid injury to the sensibilities of Native Americans, it seems that the mycological community remains far behind the times, mired in the past.

—Joel Horman, Editor  
*Long Island Sporeprint*

## EDITOR'S PICKS

*A roundup of recent notes and sightings from the news and literature*

### **Gourmet mushrooms making news: Truffles are therapeutic . . .**

A study recently published in the *International Journal of Medicinal Mushrooms* is the first broad investigation of therapeutic activities of hypogeous fungal fruit bodies from North America—that is, truffles and truffle-like fungi of the classes Ascomycetes and Basidiomycetes, respectively.

The research was conducted by Rita Stanikunaite, James M. Trappe, Shabana I. Khan, and Samir A. Ross, who evaluated 22 species of fungi from 12 families in several biological assays. Biological screening results indicate that one species showed anti-malarial activity, 11 species were active in anti-oxidant assay, nine species were active in anti-inflammatory assay, nine species showed anti-tuberculosis activity, and two species showed anti-cancer activity.

Among the fungi examined were the truffle and false-truffle species: *Elaphomyces granulatus*, *E. muricatus*, *Geopora clausa*, *Hy-menogaster subalpinus*, *Melanogaster tuberiformis*, *Rhizopogon couchii*, *R. nigrescens*, *R. pedicellus*, *R. subaustralis*, *R. subgelatinosus*, and



*Editor shaves truffles . . .*

*Scleroderma laeve*. These species were noteworthy as they expressed therapeutic activity in more than one assay.

The results of this investigation indicate that this group of fungi has promising therapeutic activities that could lead to the development of new agents for the treatment and prevention of diseases. Besides all this fancy talk, most gastronomes have long felt that truffles were a wonder drug. Even addictive!

### **. . . and saffron milk caps are cultivated.**

A wild mushroom that is well known to us mycophiles in the northern hemisphere is being grown for the first time this year in the southern hemisphere and in commercial quantities. The saffron milk cap (*Lactarius deliciosus*) is the first of a number of exciting new forest-grown mushrooms that will be produced in New Zealand over the coming years. The cultivation of exotic wild mushrooms promises to add a new dimension to New Zealand cuisine but also represents a step along the way to the development of a flourishing new high-value food export industry. Most highly prized wild mushrooms are seasonal and do not store very well. Growers in New Zealand hope to have a captive market for antipodean fresh mushrooms in Europe and North America.

*Lactarius deliciosus* world expert Jorinde Nuytinck told me that cultivating this and other mycorrhizal species (including truffles) has always been all but impossible. "A big hurdle has been in preventing a suitable host tree from being infected by other competing fungi," she said. But it seems the researchers in New Zealand now can claim success. My thanks to the Illinois Mycological Association for the news tip.

And a final note for those familiar with the difficult taxonomy of *L. deliciosus* (who would likely be quick to point out that, in reality, we're talking about a "complex" of

species and that those in North America may not be the same ones found in Europe) should read the recent paper by Nuytinck and Verbeken (*Mycological Research* 111: 1285–97) titled “Species delimitation and phylogenetic relationships in *Lactarius* section *Deliciosi* in Europe.”

**While we’re on the topic of mycorrhizal mushrooms . . .**

One curious little mushroom that rarely makes it into the headlines is the “stalked puffball-in-aspic” or *Calostoma cinnabarina*. A quick glance at the photo of this striking beauty and you’ll understand how it gets its name. The stalked puffballs, an assemblage of oddities looking like Basidiomycetes that couldn’t decide whether to fruit like a puffball or a mushroom and thus have picked something halfway between the two, have long been placed within the Gastromycetes (another, even larger and looser assemblage of fungi that mycologists didn’t know what to do with). Well, that’s all starting to change; we now know that many of those species are actually boletes, or closely related to them, at the very least. And now we learn that the shy *Calostoma* is to be no

longer considered a lowly saprobe, as long thought: it’s actually a mycorrhizal species. Such were the findings Andrew Wilson, Erik Hobbie, and David Hibbett published in a recent issue of the *Canadian Journal of Botany* (85: 385–93). Saprotrophs and mycorrhizal symbionts get their carbon and nitrogen from different sources. Using this knowledge, the researchers designed an experiment that involved tracing radioactive carbon and nitrogen back to its source and found that for *Calostoma* it was coming from a tree host—*Quercus* (oak), to be specific.

**Cystidia: What do they do, anyway?**

Many species of fungi have “sterile cells” called cystidia that project from their gills. Although cystidia are an important taxonomic character to those of us who use a microscope, their function remains unclear. Among several possible functions, cystidia may protect fruit bodies from predators or may serve to attract spore-dispersing organisms, including various insects. Despite common knowledge of cystidia (we see them whenever we put a mushroom under the scope), we have little knowledge about them.

Two Japanese researchers, Nakamori and Suzuki, set out to test the hypothesis that cystidia may defend against grazing microfauna. Collembola are minute insect-like arthropods, ubiquitous in the forest. No doubt anyone who has brought home wild mushrooms has seen these tiny “springtails” jumping off a pile of chanterelles or floating in a bowl of soaking morels. In fact, they’re now considered to be the most important consumer of organic material in the forest, among animals anyway. The researchers used fruit bodies of *Russula bella* and *Strobilurus ohshimae* and report that collembola were found dead on parts of the mushrooms of these species where cystidia were abundant. If basidiospores but no cystidia were present, the collembola ate fitfully until sated. Thus, these findings suggest a role in spore defense for cystidia (*Mycological Research* 111[11]: 1345–51).

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And finally I want to acknowledge some individuals without whom this Special Issue would not have been possible. First off, our sincere thanks to Jim Wells of Oregon Wild Edibles ([www.oregonwildedibles.com](http://www.oregonwildedibles.com)) for graciously donating a large parcel of choice Oregon truffles. (See cover and “The Wild Epicure” for images.) Also, thanks to the Inn at Stone Ridge, New York for providing our own David Work with a space in which to develop some of the dishes and recipes in this issue (as well as providing a beautiful 18th-century back-drop for several of the Editors to taste those dishes). We at FUNGI applaud the efforts of Jim Wells, Charles Lefevre, and others who are committed to educating the world about the Oregon truffle and the goal of preserving this treasure through its sustainable harvest. I urge you to find out for yourself why the Oregon truffle truly is a world-class truffle by attending the 2009 Oregon Truffle Festival. I hope to see you all there!



*Calostoma cinnabarina*. Photo: David Work