

Notes on Economic Mushrooms

Xiao Ren Ren: The “Little People” of Yunnan¹

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Xiao ren ren are widely known in Yunnan province, China, at least at the mid-elevations where Han Chinese and Yi people predominate. The phrase means “little men” or “little people” (*xiao*, little; *ren*, man or person, the redundancy being an idiom to indicate *lots* of men or people, which the standard plural form *renmen* does not necessarily connote). *Xiao ren ren* are typically glimpsed or experienced after dining on inadvertently undercooked, blue-staining boletes of uncertain identity. The people of Yunnan seem almost universally amused by the *xiao ren ren* rather than fearing them or revering them.

First Encounter

My initial acquaintance with *xiao ren ren* was made, as many unexpected acquaintances are, on a back road, in 1995. A freeway by any other name, even *gao su gong lu*, is still a freeway. The landscape blurs at 100 km an hour, so once out of Yunnan’s major city, Kunming, we (my translator, her friend and I) exited the freeway at the first opportunity and followed an old, narrow, potholed highway. The scenery was idyllic with a slightly sinister undercurrent: farmers hoeing their vegetable plots, plowing their fields, and applying pesticides to their rice paddies from portable canisters mounted on their backs. There were a few hills in the distance, clear cut years ago and bleeding red clay into the flatlands.

Later we saw hills clothed with young pine and chinquapin forests, and at a petrol station farmers were queued up at the water tap patiently waiting to wash the wild mushrooms they had just gathered. Then we came to a small but lively market town. Stretching in a long line between brick wall and busy byway, perhaps one hundred sellers stood in front of small heaps of assorted

wild mushrooms — mostly boletes — displayed on sheets of cloth or plastic or in small wicker baskets. Across the street in a shaded alley, a few enterprising individuals were busily amassing mountains of boletes, amanitas and russulas for resale in Kunming.

I was particularly dazzled by the variety of blue-staining boletes for sale — nearly 20 species, smooth and plump, spilling out of sellers’ baskets like tumbled stones in brilliant hues of red, yellow, brown, and blue. In North America, the general rule of thumb is to avoid all blue-staining boletes with a red pore surface (underside), and many field guides expand this to, “Don’t eat any bolete that stains blue when touched” — thereby permanently banishing from the kitchen the majority of edible boletes. I was therefore intrigued that they were selling so many blue-staining boletes that, as an American, I had been taught to avoid, and I lingered for a closer look.

A crowd of onlookers quickly pressed around us. Foreigners were a rarity there, and a foreigner interested in mushrooms bordered on the unbelievable. We were viewed as some kind of absurd street theater.

“These mushrooms,” I asked a man minding a small pile of red-pored boletes, “are they good to eat?”

“Yes. Good. Very good,” he replied in the local version of Mandarin. “You want to buy?”

But I was cautious. In the current Chinese climate of making money any way one can, it would not be inconceivable to be offered poisonous mushrooms — for a price.

“How do I prepare them?” I asked.

“Stir-fry for ten minutes.”

“And if I *don’t* stir-fry for ten minutes?”

“Ahhh,” the man said, his eyes bright and mischievous and his wide grin punctuated by a massive, gleaming metal molar. “Well, then of

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course, *ni kan xiao ren ren* (“you will see the little people”).

At the mention of *xiao ren ren* the ever-tightening knot of onlookers broke into grins and loud guffaws and began to chatter all at once in the local dialect. My two city-bred companions complained, with more than a hint of disdain, that their pronunciation was crude and difficult to understand. One gap-toothed woman, however, was able to speak volumes without saying a word. She was waving some different, slightly bigger boletes, as if to say, “Eat these without cooking them properly and you will see the little people — *lots* of them!”

This scene was to repeat itself not once, but many times, as we meandered our way through central Yunnan. Cook these boletes thoroughly, or *ni kan xiao ren ren*. Some people said one should stir-fry them for 15 or 20 minutes, others said that 10 minutes was sufficient but emphasized the necessity to stir them constantly (presumably so that all the pieces are evenly cooked). Since the people of Yunnan treat the boletes as a food and not a drug (that is to say, they try *not* to undercook them), their acquaintance with *xiao ren ren* seemed based largely on hearsay. Yet they did not seem particularly *afraid* of meeting the little folk, and in fact, they seemed to be rather fond of them, as they would invariably leer and grin when the subject was broached.

But it proved difficult at first to find someone who had actually *seen* the *xiao ren ren*, and I began to wonder if they might be a figment of their collective imagination, or a folk myth, like Santa Claus and his reindeer. It was Miss Oh, an office worker in Kunming, who set me straight.

“No!” she said, most emphatically, “They are *real*. I have seen them myself!”

It happened when she was a child, but she still remembered the experience as if it were yesterday. Her mother had bought some blue-staining boletes from the market and stir-fried them for the family, but she was in a hurry that evening and presumably didn’t cook them for the requisite amount of time. Miss Oh clearly remembered the hallucinations that began that evening and continued into the next day. The walls moved and shifted in geometrical patterns and strange shapes appeared.

“I’m sleepy all day,” she said in English. “I see them [*xiao ren ren*]. And I see flies bigger than the

actual one, perhaps two times big. I see little insects. Not all the time, but when the water splashed out.” She apparently became fascinated by the dripping kitchen faucet, for each drop would, upon hitting the sink, sprout wings and legs and crawl away. And she remembered, very clearly, staring intently at the bows of her shoelaces until they turned into butterflies and fluttered off. Her brother experienced similar effects, but her mother and father did not feel any — perhaps because they ate less proportional to their body weight. Also, Miss Oh said, “I ate too much,” i.e., much more than anyone else. From that day on her mother refused to serve boletes in the home, but continued to buy other wild mushrooms such as the popular green russulas (*Russula virescens* [Schaeff.] Fr.) and *Termitomyces* spp.

Further Encounters

I have since met more than a dozen people in Yunnan who have personally seen the *xiao ren ren*, including one woman whose visual experience, though pleasant, was accompanied by nausea and vomiting. The two first-hand accounts below were unusual in that they were related to me in English.

Returning to my hotel in Kunming one day, two young ladies at the reception desk asked why I was always bringing back bags of mushrooms from my excursions and was I really going to eat them all myself. I said no, and tried to explain my professional interest in the wild mushrooms of Yunnan. But as soon as I mentioned *xiao ren ren* they laughed, and one of them, Zhao Li, said her mother had seen them.

“About five years ago, I bought some [boletes] near my home. My mother cook it short time. Just once. My mother saw many *xiao ren ren* in the house. My mother touch them, she try to *catch* [them].” She giggled, clearly amused by the memory of her mother chasing them around the house. “But I don’t see *xiao ren ren*,” she said, her face clouding over with apparent disappointment.

“What a pity,” I responded, trying to console her.

“Oh, no,” she said with a grin, “It’s better! I see *xiao dongwu* (little animals)! *Many!* I never see before. I never hear [of them] before. And peacock. Front no, just the back. And when I close my eyes I saw it — more animals! I think maybe it’s a dream!” She paused, remembering,

smiling: “A lot of colors. It’s *beautiful!*” She sighed.

“Lovely! Can you go to the market with me and show me the mushroom you ate? I would like to see the little animals too!” I said.

“Oh, no!” she said sternly, stiffening her posture and frowning. “It’s dangerous. Sometimes your head ache. A friend of my mother, her children died.” But not from the same kind of mushroom, she admitted under questioning.

Later, I met a professor with excellent English skills who had actually seen the *xiao ren ren*, not *xiao dongwu*.

“It was in a restaurant. I asked for stir-fried mushrooms and just as I was getting ready to leave, after eating them, I noticed moving colors and shapes. I wasn’t worried. My first thought was, ‘Oh, they must not have cooked the mushrooms enough — I’ll be able to see the *xiao ren ren!*’ But it was disappointing —there were no *xiao ren ren* to be seen. I looked everywhere — at the walls, the tables, the floor, outside. But then, I don’t know why, I lifted the tablecloth just a little and peeked *under* — ohhhh — a *lot!* Hundreds of *xiao ren ren*, marching like soldiers. And even more curious, when I lifted the tablecloth higher the heads came off and stuck to the bottom of the cloth and the bodies kept marching in place [on the surface of the table]. I put down the tablecloth and looked at my watch. Then I looked under the tablecloth again. I did this many times, at two minute intervals and each time they were there, marching and grinning.”

“I measured them, too,” the professor added. “They were 2 cm high.” So intrigued was I by his story and the vision of other restaurant patrons watching him repeatedly peer under the tablecloth that I neglected to ask him whether the figure he provided was inclusive of the heads.

Features of Xiao Ren Ren

One striking feature of the *xiao ren ren* is the ambivalence they seem to inspire. On the one hand, the people of Yunnan are clearly amused by them, even awed as Zhao Li was, by their beauty. A hotel manager, Ms. Liu, has not seen the *xiao ren ren* herself but insists that it is widely agreed that “everything appears before you very beautiful. Never ugly things.” But while the people of Yunnan take an almost childish pleasure in the notion that *xiao ren ren* are just one undercooked mushroom dish away, they do not seem to invest

them with any potency or special significance. And few if any deliberately seek to make their acquaintance (I have not met anyone who did) as one might expect to be the case in the West (Letcher 2007). Some are even prone to giving stern admonitions, as Zhao Li did, to avoid seeking out the *xiao ren ren* and to always cook one’s mushrooms thoroughly.

Another striking feature of the *xiao ren ren* is that they are always described as small (*xiao*) even when they manifest themselves as wild animals or insects rather than people. This calls to mind the “Lilliputian hallucinations” of the Kuma of New Guinea described by Reay (1977), and also caused, apparently, by consumption of boletes, in particular *Boletus manicus* Heim (Heim and Wasson 1964, 1965).

Features of the Mushrooms Responsible

The people of Yunnan refer to many blue-staining boletes (Fig. 1) as *jian shou qing* (“look blue in the hand”) because they tend to be very



Fig. 1. Zhu Gui Fen of Lu Feng, Yunnan, spends her summers picking, buying and selling wild mushrooms. She has seen the *xiao ren ren*. Here she is holding a handful of blue-staining *jian shou qing* of uncertain identity.

colorful (red, yellow, etc.) but bruise blue, blue-green, or blue-black when handled. This oxidation process, it should be noted, is typical of many boletes and does not indicate the presence of the psychoactive compound psilocin as it does for the bluing species of *Psilocybe*. Blue-staining boletes are much more highly valued as food by Yunnan people than are the white-fleshed, non-bluing boletes (porcini) favored in the West; the above-mentioned Ms. Liu, in fact, describes *jian shou qing* as “the most delicious mushrooms here [if] deeply cooked.” As already stated, informants say that *jian shou qing* should be fried for 10–20 minutes, and they often emphasize that the mushrooms should be constantly stirred while frying to ensure that all the pieces are fully cooked.

But distinguishing between the many blue-staining bolete species can be difficult even for experts, and the name *jian shou qing* is applied differently by different people in Yunnan along with a host of other names for blue-staining boletes, e.g., *cong jun*. Furthermore, Yunnan people tend to assign the *xiao ren ren* quality to many or all blue-staining boletes just as people in the United States frequently attribute to all blue-staining boletes the tendency of several species to cause nausea and vomiting if undercooked. Some Yunnan people also say that nausea and vomiting may result from eating undercooked *jian shou qing*, but it is not clear how these symptoms are linked to the species that elicit visions of *xiao ren ren*. As already noted, only one of those who actually described seeing *xiao ren ren* to this author specifically reported gastrointestinal distress.

Further complicating the identification process is the fact that the various *jian shou qing* do not necessarily occur discretely. They often grow together in the woods, are often sold together in the markets, and are often cooked together in the kitchen. Because picking, purchasing and consuming wild mushrooms are routine activities in Yunnan, and nowhere near as unusual as seeing *xiao ren ren*, there is also a frustrating but understandable tendency on the part of informants not to remember, or not to have noticed, critical identifying features of the mushrooms they ate. Miss Oh, Zhao Li and the professor agreed that the culprits were boletes that stained blue or blue-green when bruised or cut. They also seemed to agree, though with considerable less certainty, that there was some reddish color somewhere on the mushrooms they ate. The

two women seemed to think that the pore surface was yellow (but again, were not certain); the professor did not see the mushrooms until after they were cooked but opined, with more certainty than the women, that the pore surface was red. None of the three could say whether the stalk was reticulate (covered with a netting), or smooth.

As a result of this kind of uncertainty, I have been unable to precisely identify the species responsible for provoking visions of *xiao ren ren* beyond the fact that they are blue-staining boletes. According to Heim (1965, 1972), traces of indolic substances were found in (presumably dried specimens of) *B. manicus* by the noted chemist Albert Hofmann, but were never identified. It is possible, then, that related *Boletus* species in Yunnan cause people to see *xiao ren ren*. Another genus of boletes, *Phlebopus*, is also a possible culprit. At least two species of *Phlebopus* are commonly marketed in Yunnan and southeast Asia, and in Thailand it is sometimes said that one should cook them well to avoid becoming *mao* (drunk or dizzy).

Further Research

One could, in theory, pinpoint the identity of the boletes responsible for *xiao ren ren* by going to Yunnan and eating one’s way through the wild mushroom markets, bio-assaying every kind of raw, blue-staining bolete available. But this is not as attractive an option as it sounds, because, as already pointed out, a number of blue-staining boletes can cause mild to severe gastrointestinal distress if uncooked or undercooked. Furthermore, it is unclear how critical the process (and extent) of undercooking is to the evoking of *xiao ren ren*. While it is tempting to assume that the active constituent is present in greater amounts when the mushroom is raw versus slightly cooked, this may not be the case. The bluing compounds are highly volatile, darkening intensely as soon as they contact the hot wok and then rapidly fading to yellow as they undergo further changes, and the same may be true for whatever psychotropic principles are present — much as ibotenic acid in *Amanita muscaria* (L.) Lam. is converted by grilling or roasting to the much more potent compound, muscimol (Phipps 2000). It is within the realm of possibility, then, that the raw *jian shou qing* must be partially cooked (but not “deeply”) for the *xiao ren ren* to be seen.

A more interesting and informative approach to unmasking the identity of the *xiao ren ren* boletes would be to make a more rigorous search in Yunnan (especially central Yunnan) for people who have recently made acquaintance with the *xiao ren ren* and who can clearly recall significant details of the mushrooms involved or at least eliminate from consideration a number of the blue-staining bolete species. Despite conflicting and elusive details, however, one thing is evident. In Yunnan there is at least one, and perhaps several, commonly consumed, blue-staining boletes that, if not cooked "deeply," will cause one to see the *xiao ren ren*.

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