

Present and Historic Relevance of Yartsa Gunbu

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(*Cordyceps sinensis* [Berk.] Sacc.),
An Ancient Myco-Medicinal in Tibet

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Nowadays, Yartsa Gunbu (*Cordyceps sinensis*, caterpillar fungus) is nearly as central to Tibetan life as the yak. While the yaks grazing the vast grasslands of the Tibetan Plateau are the backbone of the traditional subsistence economy, Yartsa Gunbu collected from these alpine pastures is enabling rural Tibetans to participate in the cash economy of the 21st century. The market is driven by demand in lowland China, where Yartsa Gunbu is known in Mandarin as “dong chong xia cao,” a verbatim translation of its Tibetan name. Chinese consumers use it not only as a tonic, an aphrodisiac, and for lung, liver and kidney issues, it has become fashionable luxury product given as present and a culinary status symbol.

Collection, trade and use of Yartsa Gunbu (*dbYar rTswa dGun 'Bu*), “summer grass-winter worm,” as the caterpillar fungus is known to Tibetans, has a long-standing history in Tibetan Medicine and culture. Before the Chinese takeover it was often used as a currency substitute, being precious, light-weight, and at low risk of perishing. The first mention of *Cordyceps sinensis* under the name of Yartsa Gunbu occurs in the writings of the 15th-century doctor and scholar Zurkhar Nyamnyi Dorje [1439–1475] in a work known as “Oral Instructions on a Myriad of Medicines.” The specific text is entitled “An Ocean of Aphrodisiacal Qualities: A Special Work on Yartsa Gunbu.” It has been translated for the first time in cooperation with tibetologist Jakob Winkler.

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The four-folio-long text describes where to find Yartsa Gunbu, how to recognize it, and how to prepare it—by cooking it as stuffing of a sparrow including the possible admixture of several other ingredients. The text opens with “In this world, sexual bliss is the most marvelous of all earthly pleasures, the essence of the enjoyment of the all senses.” Nyamnyi Dorje lists Yartsa Gunbu’s benefits thus: “It brings inconceivable advantages . . . Particularly it serves best for the purpose of sexual union increasing offspring and making the complexion shinier. It completely sharpens the five sense faculties. It has limitless qualities; to express it in words would be endless.” He goes on to warn that “foolish and selfish people with a mind separate of the benefits of faith and devotion, being afflicted by negative influence [of carnal desire] are not suitable recipients . . . The ones who are virtues, honest and have the



fortune of well heeding the samaya vow, for such people, this is the crucial point.”

According to some Tibetan doctors *Cordyceps sinensis* already might have been recorded under a different name in the “Four Tantras” (8th to 11th century). In Tibetan *materia medica* it is placed in the category of “medicinal essences” (*rTsi sMan*), which includes several tonics. It is used for general strengthening, boosting the immune system, virility, and is prescribed for kidney and heart problems. It is also used for treatment of Hepatitis B.

Prices of Yartsa Gunbu keep leaping higher: from 1997 to 2008 they went up by nearly 900%, on average of over 20% per year. Currently 1 kg of dried Yartsa Gunbu costs in Lhasa, Tibet from ¥ 80,000 to 120,000 (US\$ 12,000–18,000) depending on quality. In Chinese coastal cities it can cost up to ¥ 300,000 per kg (\$44,000/kg). The size of the infested caterpillar is the main criterion of quality, but a rich yellow-brown color is also highly esteemed. Too long a fruiting body, which grows out of the forehead of the larva, reduces the value and thus is often trimmed back. In June 2008 an individual specimen cost US\$ 3–30, and an average specimen traded for US\$ 5–10. However, the financial crisis seems to have affected Yartsa Gunbu prices as well; a 25% reduction in value has occurred in recent weeks.

In 2004 collection of Yartsa Gunbu was reported at 50 tons production in Tibetan Autonomous Republic (TAR) and Yartsa Gunbu contributed at least CN¥1.8 billion (US\$ 225 million) to Tibet Autonomous Region’s GDP, a value of 42% of the primary sector and exceeding the total of the secondary sector (industry and mining) by nearly 20%. Collection and sale generated 40% of the rural cash income in TAR. In prime production areas, income contribution reached 70–90%. Overall annual production on the Plateau is estimated at 100–200 tons.



A lucky gatherer reacts to his find.

Cordyceps sinensis derived cash income is the main agent in the commodification of rural Tibet. Yartsa Gunbu has developed into the single most important source of cash for rural households in contemporary Tibet. In short, Tibet has a globally absolutely unique “fungally fuelled” economy.

Due to the ever-increasing value of this tiny fungus, more and more Tibetans comb the vast high altitude grasslands searching for it in spring and early summer. For example, in Dengchen County (Chamdo Prefecture, TAR) a county official in charge of collection stated that in 2005 60% of the inhabitants were mobilized to collect Yartsa Gunbu, since that was the single most important source of money in the county. Though most counties have not yet made similar organized efforts, recognition of its economic importance is increasing.

Sustainability of collection is of concern. However, so far all collectors interviewed complain only about increased competition, not about reduced production. Some researchers and government agencies worry about the sustainability of present harvesting and favor regulation beyond current collection fees and licenses. As a result of a research cooperation between China’s Tibet Research Institute in Beijing and this author, a policy advisory was submitted to the government of TAR in late 2005 which served as a basis for the first TAR wide regulations on collection and protection of Yartsa Gunbu (published in April 2006). In brief, the regulation includes stipulation for surveying the resource and development of a protection program, minimizing resource

use conflict, ensuring environmental protection and clean-up, and making efforts to standardize the license system. This regulation was followed in December 2006 by a TAR conference addressing these issues and providing a framework for implementation. It is too early to judge if these initiatives will bear fruit.

Overall, the current pressure on natural populations of *Cordyceps sinensis* seems not yet to have seriously undermined the resource. It is still growing plentiful in areas where it has been collected for centuries. However, ever-increasing harvest pressure and the absence of reliable baseline data clearly necessitate more research to formulate sound management strategies that will secure the long-term survival of *Cordyceps sinensis*, a valuable resource especially for marginalized Tibetan families and humanity in general.

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Working in Tibet, Winkler realized that mushrooms play a crucial role in rural Tibet. Since 1998, he has been tracking Yartsa Gunbuas well as researching Tibet’s diverse mushroom industry and its importance for rural people, and he also leads “MushRoaming” tours to Tibet [visit www.mushroaming.com].



Bar La family members sort through their discoveries.