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People Going Berserk Over “Himalayan Viagra- an Entomopathogenic Fungus”

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Abstract

Nature holds various cryptic wonders in itself. Discovery of Yarsagumbais such an example, which has positively affected livelihood of thousands in the regions where it is found and also its beneficiaries. Popularly known ‘Himalayan Viagra’ claims to have solutions for various medical problems. With increase in demand and hence price, we are seeing distressed situation among people in these localities. Cases of robbery, murder are becoming usual and overharvesting of the fungus has posed ecological threats. Despite its ancient importance, there are less scientific studies. Hence, it is the high time to take such initiative to know the nature of fungus and caterpillar association for its mass production in-vitro or in-vivo, thus curbing the gold rush and ecological threats.

Introduction

Sometimes we may wonder what human’s curiosity, or desire as it may sound appropriate, can accomplish. People were astonished when they came to know the secret behind the success of Chinese sprinter (Los Angeles Times, 1993). The key behind success was nothing but a tonic from caterpillar fungus. Hence, this fringe event initiated the hunt for caterpillar fungus, popularly known as Yarsagumba.

The caterpillar fungus, *Ophiocordyceps sinensis*, is an entomopathogenic fungus found in meadows of Himalayan region over range of 3600 to 4200 meters above mean sea level covering India, Nepal, Tibet and Bhutan (Chakraborty *et al.*, 2014). Fruiting body cycle of the fungus is as fascinating as any science fiction. Fungal mycelia parasitize the rare caterpillar (*Hepialisar moricanus*) during late autumn which remain underground during winter season. The fungus grows inside the caterpillar body resulting into mummification of caterpillar. This mummified body remains vertical to the soil surface and later overwintering ruptures the head of host body from where fruiting body emerges.

Importance

This little nature’s wonder claims to have solutions for diseases like asthma; bile, kidney and lungs disease; immune deficiency; cancer etc. It improves metabolism, lowers blood pressure and has several other medical properties as well (Ghanshyam *et al.*, 2017). Owing to its aphrodisiac properties, it is widely known as ‘Himalayan Viagra’.

Such astonishing properties have vigorous demands among pharmaceutical companies which are willing to pay a hefty amount for it. Currently, per gram of caterpillar fungus costs equal to per gram of gold, which has resulted into a gold

rush in the localities where it is found. People involved in this business have earned good wages and substantially improved their livelihood.

Threats

However, growing demands for the caterpillar fungus has brought certain threats with itself. Children are mostly involved in the search of caterpillar fungus because of their good eyesight, which hampers their education. Sometimes people spend months in trekking the mountains in the hunt for Yarsagumba, which has caused deaths of many. With increasing demand and price of Himalayan Viagra, incidences of theft, robbery and murder in these localities have also increased. It doesn't end here, overharvesting and overexploitation of this nature's creation has resulted into ecological threats as well. In China, they have declared it as an endangered species.

Conclusion

If this gold rush continues, it is quite possible that we will not find this species on earth for longer. This little wonder opens new paradigm for health and medical research. This association of Fungus and caterpillar throws light on diverse

arena of research studies such as ecological interaction between species, in-vitro culture of the fruiting body of Fungus, chemical composition of the tonic made from fruiting body of Fungus and its medical application, etc. These research areas not only provides new challenges but also the hope for cure of disease like cancer. Detailed study on the nature of fungus and its association with caterpillar will also help in multiplication of the fungal fruiting body in-vivo or in-vitro which will lead to curbing the gold rush for the search of this fungal fruiting body thereby containing the ecological threat.

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