A pink coloured *Pleurotus djamor* (Rumph.) Boedijn from natural habitat of north Bihar, India

During the course of collecting edible mushroom from the area around humid subtropical region in north Bihar, India, a pink specimen of *Pleurotus* was found growing in abundance on drying dead semal (*Bombax ceiba* Linn.) and mango (*Mangifera indica* Linn.) trees severely infected with insect borer, during July 1999 to May 2000 (temperature range 10 to 32°C). It was most interesting to note that sporophores initially made their appearance from the holes made by the insect borers – a matter for investigation. The sporocarps are spread over from the basal portion of the tree trunk to the top, but their distribution is very much restricted to the holes only created by the insect borer.

The span of growth of the mushroom and its occurrence as recorded, coincides with the onset of rain. Immediately after the onset of rain, first flush of sporocarp sparsely distributed and few in number was observed during the initiation period from July to September. However, the flushes of sporocarps during October to March 2000 were in clusters and more fleshy. There was a decline in size, number and bulkiness of sporocarps as the temperature increased above 28°C (April to May 2000). By the end of May almost the entire trunk appeared barren without the presence of any mycelium till the onset of rains, thereby indicating a wide range adaptability of this strain of *P. djamor*, covering a temperature range of 10 to 32°C.

Keeping in view the highly attractive colour, fleshiness and wide adaptability, of this pink-coloured strain of *P. djamor*, standardization of technique for its production under farm conditions is being pursued.

Peter Roberts, a taxonomic mycologist from the Royal Botanic Gardens, Kew, UK reported that the specimen deposited to Royal Botanic Gardens, Kew UK, is a species of *Pleurotus* (Oyster cap), a pink colour variant of the common pantropical *P. djamor* (Rumph.) Boedijn.

Sporophores grow usually on drying dead semal (*B. ceiba* Linn.) tree, pinkish in colour, pileus usually 2.5 to 6 cm in diameter, grown in cluster attached with one stipe, pink in colour, turning somewhat creamy-pinkish with age, fleshy when fresh, becoming stiff on drying (Figure 1). Gills crowded, decurrent, distinctly formed, unequal, pink, eccentric, 4–8 cm long, stipe lateral, often short, embedded in the substrate, cream to pinkish hyphae (Figure 2), sclerified thick-walled and pinkish to light pink. Basidiospores, cylindrical, 6.0–9.0 × 1.5–3.0 μm. Spore print whitish to creamish. Sporophores initiation was observed after 60 days on peptone–dextrose–agar medium.

Natural growth of sporocarps (pink fruit bodies) growing 'in mass' on decaying semal tree and close up picture of pink colour fruit bodies of *P. djamor* (Figures 3 and 4) give full information on the habit of the mushroom.

Figure 1. Fresh sporocarp (ventral view).

Figure 2. Sporocarp on natural habitat, showing pinkish gills.

Figure 3. Sporocarps (pink fruit bodies) growing 'in mass' on the decaying semal tree.

Figure 4. A closeup of pink colour fruit bodies of *P. djamor* growing 'in mass' on the dead, decayed semal tree.

The fungus was isolated from pileus as tissue culture. Mycelial growth was initiated after 3 days of isolation with sparse spreading mycelium at room temperature, at around 28 ± 2°C. After purification the culture was transferred into 90 mm petri dishes on peptone–dextrose agar and incubated at room temperature around 28 ± 2°C. After 6 days, the surface of the medium in the petri dish was covered with fluffy mycelial growth. However, at the temperature range of 22 ± 2°C, the mycelium covered the entire surface within 8 days. The observation on sporocarp formation is based on natural growth of *P. djamor* on dead trees. As regards fruiting body initiation in culture, the petri dish was incubated at room temperature in March at a temperature range of 26 ± 4°C. The sporocarp was initiated, but no further growth was observed in culture.

The specimen was identified as the variant of pink-coloured *P. djamor* (Rumph.) Boedijn. This pink-coloured *P. djamor* variant has not been reported as yet growing on drying dead semal and mango trees in specific association with insect borer, having typical and distinct characteristics, either from Bihar or India[1].

The specimen has been retained in the Kew herbarium under the accession number K(M) 74029. The specimen culture and spawn are also being maintained in the Mushroom Centre, Department of Microbiology, Faculty of Basic Sciences and Humanities, Rajendra Agricultural University, Pusa (Samastipur) India under the accession number RAUMC-01.

1. Purkastha, R. P. and Chandra, A., *Manual of Indian Edible Mushrooms*, Today and Tomorrow Printers and Publishers, New Delhi, India, 1984, p. 267.

ACKNOWLEDGEMENTS. I acknowledge the quick response from Dr Peter Roberts, Royal Botanic Gardens, Kew, UK for deciding the status of the mushroom specimen, assigning the accession number and retaining the specimen in the Kew Royal Botanic Garden for reference. I also thank the Scientist-in-charge, Mushroom Compost and Spawn Production Centre, Department of Microbiology, RAU, Pusa for retaining the specimen, assigning the accession number and providing facilities for initial work of maintaining culture and spawn for future use in experimentation.

Received 17 July 2000; revised accepted 7 November 2000

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The Rann of Kachchh earthquake, 26 January 2001

IMD: M_s 7.8; Ml 6.9; 23.6N, 69.8E; 15 km; 8 hrs 46 min IST

USGS: 23.39N, 70.316E; 17 km; 8 hrs 46 min 41.29 sec IST
Seismic moment: $M_o = 2.3 \times 10^{20}$ Nm (M_w 7.5)
Fault plane 1 strike: 292°, rake 136°, dip 36°
Fault plane 2 strike: 60°, rake 62°, dip 66°

ERI, Tokyo: 23.4N, 70.3E; 10 km
Seismic moment: $M_o = 3.0 \times 10^{20}$ Nm (M_w 7.6)
Fault plane 1 strike: 276°, rake 105°, dip 33°
Fault plane 2 strike: 78°, rake 58°, dip 81°; duration 20 sec.

The M_w = 7.6 earthquake that rocked the Rann of Kachchh and adjoining areas at 8 h 46 min on the morning of 26 January 2001, appeared until then as an undistinguished piece of the diffused seismicity in this west-central part of the continental plate (Figure 1), east of the Herat–Chaman plate boundary in western Pakistan. It is the second major earthquake to have occurred in this region in recorded history after the *M* 7.7 ± 0.2 earthquake* of June 1819, which created an 80 km long fault scarp, a natural dam (Allah Bund), uplifted at its crest by 6.5 m. This was the first major intra-continental earthquake for which crustal deformation was quantified[1,2], and this corresponds to a range of models of a steep 80 km long NNW-SSE reverse fault dipping at 55 ± 5 with slip of 11 ± 2 m (ref. 3).

The epicentre of the recent earthquake lies about 70 km SSE of the 1819 event. The preliminary locations of the main shock and its aftershocks suggest that the southern edge of the Rann of Kachchh has failed in a sequence of events, just as its northern edge did in 1819. Of interest now is whether further propagation of this fault system to the east or west could occur, and if so when (Figure 2).

Some of these questions could be possibly resolved if the swarm of aftershocks expected to occur in the aftermath of this earthquake over the coming weeks and months are carefully studied by immediately establishing a small aperture array of seismic stations surrounding the epicentral area. Meanwhile, in the immediate future, the civil authorities will be well advised to make a quick inventory of vulnerable structures and dwellings and warn people of the damage potential of possible aftershocks, which could be as strong as *M* 5 or even *M* 6. In the longer term, it will be prudent to exploit the learning potential provided by this tragic event and its aftershocks to quantify the deformation regime and seismic characteristics of the region, which would provide a rational basis for economic design of building codes and a better assessment of seismic hazard towards a systematic design of disaster mitigation strategies.

The rare occurrence of major earthquakes within continental plates, however, makes this tragic event one of a lifetime opportunity to distil some extremely significant, and otherwise hard to quantify, rheological characteristics of the lower crust/upper mantle undercarriage of this continental region. Major earthquakes such as this involving a sudden slip by fracturing of a large region of

*Recalibrated magnitude by USGS/NEIC is *M* 7.5.