



DIVERSITY OF LENIZITES FROM THE FOREST OF JALGAON DISTRICT (MAHARASHTRA), INDIA

S. A. Firdousi

Department of Botany, H. J. Thim College, Jalgaon-425001 (Maharashtra), India

Abstract

A frequent, extensive intensive survey was made in order to collect the macro fungi of jalgaon districts. Jalgaon is one of the districts in the Khandesh region of North Maharashtra with great biodiversity of plants. A frequent survey was conducted to study the diversity of Marofungi of the forest of Jalgaon districts. The present paper deals with the three species of Lenizites from the forest of Jalgaon Districts (Maharashtra). These species are reported for the first time from Satpuda range of Jalgaon district, (Maharashtra). The study provides a detailed taxonomic description, and relevant information based on fresh collections about the Lenizites.

Key words: Diversity, Lenizites, Lenizites elagens (Fr.) Pat. Lenizites acuta Berk. Lenizites steroids (Fr.) Ryv

Introduction

The term “mushroom” describes the reproductive structure of fruiting body of a fungus (Berch *et al.*, 2007). Mushrooms belong to the kingdom of fungi, a group very distinct from plants, animals and bacteria. Mushrooms often live in symbiosis with other plants, mostly the roots of certain trees, both profiting from this relationship. Commercial mushrooms are either produced in cultivation or harvested from the wild, including forests. The species produced in cultivation are all decomposers (or saprobes) capable of completing their life cycles on dead organic matter. Most of the forest harvested mushrooms are ectomycorrhizal and can form fruiting bodies only when growing with living host trees fungus.

Lenizites. is a macrofungi growing on dead wood. Lenizites repersent basidiopore are annual, pileate, corky and coriaceous, plieus smooth to hirsute, zonate, white, greyish to light yellowish brown, usually, dimidiate with a contracted base, context yellowish to green white, tough, pore surface white to pale yellowish, hymenophorew deadaleoid tolamellate, hyhae system trimitic, generative hyphae thin-walled, hyaline, clamped, steltal hyphae thick, hyaline bidin hyphae hyaline, stongly branched, torous with long sword-like sidebranched, cystidia none, spore hyline, cylindrical, smoth, on deaed hardwoods ormore rarely

**Author for correspondence* : E-mail : shakeel.talk@gmail.com

onconifer, white rot. Cosmopolitan egenus.

Material and Methods

In order to collect the mushroom fungi of the forest of Jalgaon district a frequent survey was conducted into different sites like Manudevi Forest, Pal Forest, Scrubed Forest, Yawal Forest, Nurseries, Plantation, Garden and Road Side Plantations. In the field and other information such as place of collection, locality, local names of the plant and date of collections were noted. Morphotaxonomic study was followed by Legend and singer, A thin section was made of the specimen.

Methodology

1. Extensive and intensive survey was made in different locally of the forest of Jalgaon Districts in the different season.
2. The sample was kept in the Polythene bag and brought in the laboratory.
3. Morphological character was noted in the field character charts and field number was given in the specimen, Spoke was made after removing the pious and placing on the slide.
4. Material were dried kept in the oven and identified with the help of various monographs, reviews, authentic books, research papers published in the

1 Lenizites elagans(Fr.) Pat

Morphological character

Name of the mushroom	Character	
Lenizites elagans (Fr.) Pat	Macroscopic.Shape	Flabiliform.dimidiata Sessile, circular
	size	1-35cm broad.2-3cm, thick
	Texture	Corky and flexible in fresh , dry in maturity
	Pilues	White, creamish. Grey,to black, smooth to sulcate, often warted
	Stipe	none
	Context	White to pale cream , upto15cm thick
	Pore surface	Puff to creamy puff
	Tube layer	Upto6mm deep
Microscopic character	Hyphal system	Trimitic.hyphal system, yellow to golden, thick walled to solid, hyphae hylaline,profusely branched
	Clamp connection	Generative hyphae hyaline,thin walled . clamp connenction.
	Sterile element	none
	Basidiocarp	Cylindrical to.oblong Ellipsoidal, hyline. 5-7x2-3 μ m
Habitat character		Dead hard wood to many genera,
	Seasionality	Annual to perenial
	Type of decay	White rot
	range	Common in all site

It is common in many hard wood and very rarely on coniferous wood in the tropical to subtropical zones throught in India.

2 Lenizites elagans(Fr.) Pat

Morphological character

Name of the mushroom	Character	
Lenizites acuta Berk. (Fr.) Pat	Macroscopic.Shape	Flabiliform.dimidiata Sessile, circular
	Size	1-2.50cm wide, .9-2 cm long
	Texture	Corky and flexible in fresh , dry in maturity
	Pilues	first hite,cream.pale ochraceous to coloured
	Stipe	none
	Context	White to pale cream , upto15cm thick
	Pore surface	pore surface buff to tan colours pore surface variable in some specimens poroid, with 1-4 mm wide pores
	Tube layer	Upto 6mm deep
Microscopic character	Hyphal system	Trimitic.hyphal system , to solid, hyphae hylaline,profusely branched1. 5-3 μ m
	Clamp connection	Generative hyphae hyaline,thin walled . clamp connenction.
	Sterile element	none
	Basidiocarp	Cylindrical to. oblong Ellipsoidal, hyline. 5-7x2-3 μ m
Habitat character		Dead hard wood to many genera
	Seasonality	Annual to perennial
	Type of decay	White rot
	range	Common in all site

This is common species mostly on all dead hard wood and very rarely found on coniferous. It is common throught the plain in India. It is extended from tropical to temperate zones.

3 Lenizites steroids (Fr.) Ryv

Morphological character

Name of the mushroom	Character	
Lenizites stereoides (Fr.) Ryv	Macroscopic.Shape	Flabiliform.dimidiata Sessile, circular
	Size	1-2.50cm wide, 9-2 cm long
	Texture	Corky and flexible in fresh , dry in maturity
	Pilues	first hite,cream.pale ochraceous to coloured
	Stipe	none
	Context	White to pale cream , upto15cm thick
	Pore surface	pore surface buff to tan colours pore surface variable in some specimens poroid, with 1-4 mm wide pores
	Tube layer	Upto 6mm deep
Microscopic character	Hyphal system	Trimitic.hyphal system , to solid, hyphae hylaline,profusely branched1. 2-3 µm wide
	Clamp connection	Generative hyphae hyaline,thin walled . clamp connenction.
	Sterile element	none
	Basidiocarp	Cylindrical to. oblong Ellipsoidal, hyline. 5-7x2-3 µm
Habitat character		Dead hard wood to many genera
	Seasonality	Annual to perennial
	Type of decay	White rot
	range	Common in all site

standard journals.

- Some material were kept in the FA.A. Micro-anatomical character was noted after free hand section. Mounting in the lactophenol.
- They were kept in the 10% KOH and stain with 5% alkaline Congo red solution, Temporary slide was prepared in paraffin wax.
- Mushroom taxonomy was done by studying morphoogical character. Proper counselling will tribal for edible mushroom.

Results and Discussion

It is a rare species growing on dead hardwood stump in the tropical to sub tropical areas. They are pinkish white to pikes pale brownish. Colour of basidiocarp is oal and glabrous zonate pileus with hymenophore spilting to almost cylindrical spinus separate.

Conclusion

A frequent was made as to collect the mushroom and macrofungi from different sites the of Jalgaon district. About 50 different types of mushroom and macrofungi have been collected Among them, three species of Lenizitez have collected and studied. They were identified with the help of Literature and confirmed. Atkinson. G.F. (1961) Berkeley M.J. (1851) Lakhanpal, T.N. (1995) Buchanan, P.K. (2003), Hedawoo G.B., Mohite P.U. 2008

Sharma Jr., (2012) Mirko, S. (1975). . The species of Lenizites are Lenizites steroids (Fr.) Ryv. Lenizites acuta Berk. 2 Lenizites elagens.

References

- Alexopoulos, C.J., C.W. Mims and M. Blackwell (2004). *Introductory Mycology*. John Wiley & Sons. (Asia) Pte. Ltd., 808pp.
- Atkinson, G.F. (1961). Mushroom; Edible and poisons -Hefner, Pub. Co. New York PP-322
- Buchanan, P.K. (2003). Identification, Names and Nomenclature of Common Edible Mushroom
- Berkeley, M.J. (1851). Decades XXXII, XXXIII, Sikkim Himalayan Fungi collected by Dr. J.D. Hooker: Hooker. *Journal of Botany*, **349**: 39–40.
- Bhide, V.P., A. Pande, A.V. Sathe, V.G Rao and P.G Patwardhan (1987). Fungi of Maharashtra (Supplement–I). Maharashtra Association for the Cultivation of Science, Research Institute, Pune 146 p.
- Blatter, E. (1911). A list of Indian fungi, chiefly of the Bombay Presidency, with the description of two new species. *Journal of Bombay Natural History Society*, **21**: 146–152.
- Chavan, P.B. and S.N. Barge (1977). Some fleshy fungi from Maharashtra. *Botanique*, **8**: 124–128.
- Corner, E.J.H. and C. Bas (1962). The genus Amanita in Singapore and Malaya. *Persoonia*, **2**: 241–304.
- Farook, A.V., S.S. Khan and P. Manimohan (2013). A checklist

- of agarics (*Gilled mushrooms*) of Kerala State, India. *Mycosphere* 4(1), 97–131. <http://dx.doi.org/10.5943/mycosphere/4/1/6> Graham RJD. 1915 – Report of the Eco.
- Hedawoo, G.B. and P.U. Mohite (2008). Some wild edible mushrooms from Melghat Tiger Reserve Forest and Amravati Region. *Bioscience Biotechnology Research Communications*, **1(2)**: 163–167.
- Lakhanpal, T.N. (1995). Mushroom Flora of North West Himalayas, pp. 351–373. In: Chadha, K.L. & S.R. Sharma (eds.). *Advances in Horticulture*, **(13) Mushroom**. Malhotra Publishing House, New Delhi.
- Metzler, G. and M. Van (1992). *Texas Mushrooms: A Field Guide*. University of Texas Press.
- Mirko, S. (1975). *A Colour Guide to familiar Mushrooms and Fungi*. Octopus Books, London, 126pp
- Patil, D.A. (2003). *Flora of Dhule and Nadurbar District (Maharashtra)* Bishan Singh Mahendra Pal Singh Deharadun, 628-649
- Thite, A.N, M.S. Patil and T.N. More (1976). Some fleshy fungi from Maharashtra. *Botanique*, **Vol- I-II**. Pp-78-79.