

**Major Research Project Sponsored by  
UGC, New Delhi.**

**“Biodiversity of Marine Fungi from Mangroves of Andaman and  
Nicobar Islands”**

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**ABSTRACT**

In India taxonomical and natural investigations of higher marine parasites have been attempted from different pieces of the nation to research marine growths greenery, which is at last focused on a consolidated exertion towards the accumulation of a biodiversity, scientific categorization and environment of higher marine contagious vegetation of India. India is blessed to have a long coastline (7516.6 km), which accepts both tropical and subtropical mangrove vegetation. The mangrove woodland gives a characteristic substrate to number of marine organisms. Less consideration has been given to the investigation of marine growths from as opposed to earthly and new water parasites.

The present study of mangrove marine fungi is confined to the coast of Andaman & Nicobar Islands. Climatic conditions of this region show pronounced diversity in fungal flora. The mangrove forest in this region is very rich and these are good host for higher marine fungi. The mycologist and their collaborators have been reported few marine mangrove fungal species mainly from coast of Andaman & Nicobar Islands. The meager information on marine fungi from the Coast of Andaman & Nicobar Islands.

The current examination manages the higher marine growths (Ascomycetes and Mitosporic organisms) happening principally along the shore of Andaman and Nicobar Islands. They were gathered on intertidal wood, and lowered pieces of mangroves. Froth tests along the mangrove strands evaluated for propagules of marine growths.

A wide scope of growths having a place with two gatherings were recognized. These remember all out 73 species for 55 genera of marine growths were experienced from Andaman out of these complete 48 species in 39 genera having a place with Ascomycota and 25 species in 16 genera having a place with mitosporic parasites.

**1. Ascomycetes** - 48 species belonging to 39 genera of Ascomycetes were encountered. These includes *Aigialus* (2sp.), *Aniptodera* (1sp.), *Ascocratera* (1sp.), *Astrosphaeriella* (1sp.), *Biatrispora* (1sp.), *Bicrouania* (1 sp.), *Ceriosporopsis* (1sp.), *Corollospora* (2sp.), *Crinigera* (1sp.), *Dactylospora* (1sp.), *Eutypa* (1sp.), *Halomassarina* (1sp.), *Halorosellinia*(1sp.), *Hysterium* (1sp.), *Julella* (1sp.), *Koralionastes* (1sp.), *Leptosphaeria* (2sp.), *Lignincola* (1sp.),

*Lulworthia* (1sp.), *Microthelia* (1sp.), *Morosphaeria* (1sp.), *Neptunella* (1sp.), *Oceanitis* (1sp.), *Patellaria* (1sp.), *Phaeosphaeria* (1sp.), *Pleospora* (3sp.), *Pontogeneia* (1sp.), *Quintaria* (1sp.), *Rhizophila* (1 sp.), *Rimora* ( 1sp.), *Saccardoella* (1sp.), *Salsuginea* ( 1 sp.), *Savorella* (3 sp.), *Thalossogena* (1sp.), *Torpedospora* (1sp.), *Trematosphaeria* (2sp.), *Tubefia*, *Verruculina* (1sp.) and *Zopfiella* (2sp.).

**2. Mitosporic Fungi** –25 species belonging to 16 genera of Mitosporic fungi were encountered. These include *Alternaria* (1sp.), *Bactrodesmium* (1sp.), *Camarosporium* (2sp.), *Cirrenalia* (5sp.), *Clavatospora* (1sp.), *Cumulospora* (1sp.) *Drechslera* (1sp.), *Ellisemia* (1sp.), *Epicoccum* (1sp.), *Halenospora* (1sp.), *Hydea* (1 sp.), *Matsusporium* (1sp.), *Periconia* (1sp.), *Phoma* (1sp.), *Trichocladium* (5sp.) and *Zalerion* (1sp.).

Total of 8 mangroves were studied for their higher marine fungi recorded them are as given below:

Total 23 different species of Marine Fungi from different culture also isolated. *Halorosellinia oceanica* and *Verruculina enalia* of Ascomycota and *Alternaria* sp. of Mitosporic fungi are dominant and found in all four different culture media.

**Frequency occurrence and relative abundance:** In this investigation about 890 samples were collected from Andaman and Nicobar Islands which colonized by fungi and yielded 73 species of marine fungi.

- A. Common marine fungi:** An analysis of the data on the nature and composition of fungi recorded in this study revealed that species viz., two species belonging to Ascomycota (*Halorosellinia oceanica* and *Verruculina enalia*) and two species belonging to mitosporic fungi (*Alternaria* sp. and *Halenospora varia*) are the most common marine fungi.
- B. Frequent marine fungi:** Two species belonging to mitosporic fungi (*Hydea pygmea* and *Periconia prolifica*) were frequently collected.
- C. Occasional marine fungi:** Ten species belonging to Ascomycota and seven species belonging to mitosporic fungi are occasionally occurring fungi.
- D. Rare marine fungi:** Thirty-six species belonging to Ascomycota and fourteen species belonging to mitosporic fungi are rarely found in this study.

The outcomes are productive to give best site to parasitic variety. On the off chance that legitimate measures are embraced Andaman and Nicobar Islands will go about as focal points for mangrove environments and it prosper the marine contagious variety. The investigation was embraced to enlarge the hole about variety of marine parasites.

## PUBLICATIONS OUT OF THE PROJECT

Sr. No.	Title of Paper	Name of the author/s	Name of journal (Vol., page no.)	Level (Nat. /Int. nat.)	Year of publication	ISBN/ISSN No.
1	Marine fungi from Havelock-Andaman and Nicobar Island (India)-I	<b>A.R. Tuwar</b> and J.B. Cholake	Flora and Fauna, 2013 Vol-19:1, PP-22-26	International	2013	ISSN: 0971-6920
2	Mitosporic marine fungi from Mangrove ecosystem of Baratang–Andaman Island (India)-II	<b>A.R. Tuwar</b> and J.B. Cholake	(Speil) Darpan 2014 Vol-3, PP-20-24	International	2014	ISSN: 0802-4448
3.	Marine fungi from <i>Sonneratia alba</i> of Andaman Island (India)	J.B. Cholake, R.K. Aher and <b>A.R. Tuwar</b>	International Journal of Researches in Biosciences, Agriculture and Technology (2018). 6(2): 32-33	International	2018	ISSN: 2347-517X
4.	Some Marine Fungi from Laxmanpur Beach at Niel Island of Andaman	<b>A.R. Tuwar</b> , J. B. Cholake and R.K. Aher	International Journal of Researches in Biosciences, Agriculture and Technology, Vol. 2,: 48-52	International	May 2020	ISSN: 2347-517X