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DISCOMYCETES OF THE ASCOMYCETES GROUP

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ABSTRACT

Ascomycetes are the members which have the coenocytic mycelium and the septate branched mycelium and the dikaryotic stages in the life cycles. The structure of the fruiting body of the plectenomycetes types, the fruiting body is the complex. It is believed that the ascomycete is the lines of the evolution which have diverge from the liens of the common ancestor in the early of the evolution of the life. The basic feature of the formation of the ascus, the ascus is the sac like structures, having the 8 acsospores. The spores are cleaved by the formation of the septa like structure. In the mycelium body woronin body can be found, they are the special features of the ascomycetes mycelium. Because of the great diversity the mycelium of the ascomycete have the many kinds of the variations. The taxonomy of the ascomycete is also very difficult. ascomycetes are famous for the occupy of the several kind of the habits. The habitat ranges from the lower to the very board kinds off. Some of the spores can be found on the host for the whole of the year, however some of the species can found only at the time of the formation of the fruiting body on the leaf and the other body part. Plant parasitic ascomycetes form the ascopsores at the time of the death of the host. Some of the saprobe form also found on the hosts. They are the cup fungi and the morals. They form the ascocarps on the spring. On the basis of the host the fungi have been divided in to the corticilous, lignicolius, filicolous, some of the algae are the hypogean, since they are found in the subterranean party. Marine ascomycetes are of little investigated and they have been found the interesting subject on the today of the mycologists. The ascomycete are of the great values, they are highly parasitic, fermentative and some of them have the lichen components, they are used for the commercial production of the many kinds of the antibiotics of the commercial values and they have the metabolites of the many kinds of the acids which are used in the formation of the many medicines as well as the other kinds of the products of the commercial values. Here in this review article we are presenting some of the

aspects of the class discomycetes of the ascomycetes group. The members of the discomecete produces the fruiting body known as the apothecia's, apothecia's are the apocarps, theses members of the apothecia's and the variety is the main feature of the taxonomy of the ascomycetes, discomycetes members of the classes. Apothecia's produces the exposed hymenia at the maturity,. These asci are interspersed with the many kinds of the paraphysis of the different structures. The discomycetes have been divided in to the two kinds of the fungi these are the operculate and the inoperculate structures. The oerculate asci liberate the ascospores forcibly into the environment and the inoperculate kinds of the asci liberate the ascospores passively. Many of the discomycetes are the saprobes, some of the members of the discomycetes have the lichen, they are the important members of the lichens, in addition to that many of the discomycetes are the typical plant pathogens, some of the species have the host ranges and found only on the one species, a number of the inoperculate kinds of the discomycetes have been found as the inoperculate fungi as the endophtytes. Particularly in the conifer and in the angiosperms. Some of the discomycetes also found in the form of the mycorrizae overall this is the short review article of the class discomycetes of the class ascomycetess group. This review is very valuable for the students of the beginnings of the fungal study.

KEYWORDS: Ascomycetes, discomycetes, paraphysis, parasitic, saprobes, apothecia, inoperculate, operculate.

INTRODUCTION

The members of the discomycetes are commonly known as the morals and the club fungi, they are characterised by the formation of the apothecia like structures.[1][2][3][4] These are the ascocarps of the very valuable taxonomic importance. The members of this class can be recognise by the distinct colour and the shape of the ascocarps of the discomycetes. apothecial ascocarps produces the exposed hymenium, which mature at the maturity and the ascospores are discharged forcibly. The asci are the cylindrical as well as the long tube shaped. The asci are intermixed with the paraphysis like structures.[6] There are a number of the apothecies can be found in the differ genera of the ascomycetes, and they have been sued as the feature of the taxonomic values.[6] Tradionality the discomycetes have been dived in to the two group, these are the inoperculate and the opercluate asci. They have been divided in to the on the basis of the dehiscesences of the ascospores from the asci.[1][2][3][4][5] The asci

can be found on the deep seated on the ascocarps and some of them are discharged forcibly in to the environment.[6]

Many of the discomycetes are of the saprobe nature and they found on the lignocelluloses matter. Many of the discomycetes are found on the dung mycota. The dung is the main sources of the fungi of this class. Some of the members of the genus such as the *Ascobolous, Coprotus, Iodophonous* can be observed throughout their lifer cycle.[6]

One of the group is the oribilaceae is the typical of the saprobes in natures. some f the mebers have the very limited host ranges, these are the species of the Medeolariales, cyttariales, *Nothopagus.* Some of the members of the discomycetes are of the entophytes and they found on the conifers and on the angiosperms. They also form the mycorrizae associations.[6]

Table 1: Presenting the life forms of the discomycetes class.

Serial number	Inoperculate discomycetes	Lecanoralean discomycetes	Operculate discomycetes
1	Endophytes	Lichens	Mycorrizae
2	Plant parasites	Lichenocolous fungi	Burned substrate fungi
3	Lichesns		Urinophillic fungi
4	Lichenocolous fungi		Lichens
5	Mycorrizae		

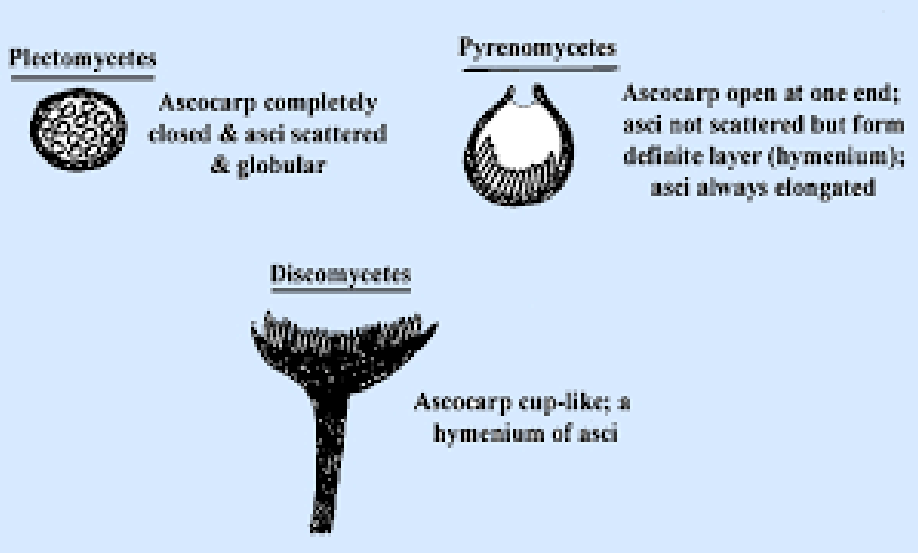

Figure 1: Discomycetes fungi apothecia (sources faculty ucr.edu).

An apothecia consist of the three parts, *the hymeniaum, the hypothecium and the excipulum,* the hymenuium lines is the depression of the ascopcarps,. they lies on the surface of the apothecia, the hymenia have the club shaped structures, they are the cylindrical asci, which are intermingle with the paraphysis of the thread like structures.[6] In some of the cases the

tips of the paraphysis may branch and they fuse to form the epithecium. Hypothecium is the thin layer of the interwoven hypahe, which is located below the hymenium. The fleshy part of the hymenium which supports the asci and the hypothecium, is the main part for the support of the asci on the ascoapcarps. Three types of the ascocarps development has been described like it is the Cleistohymenial eugymnohymenial, paragymnohymeial.[1][2][3][6]

The structure of the ascus apex and the mechanism of the dehiscence's of the asci is the very useful feature of the discomyctes taxonomy. Most discomycetes eject their spores forcibly through various types of the openings, at the near of the apex. In one types of the ascus development they have been classified as the inoperculate types of the ascus development, in the second tyepe they are of the inoperculate type of the development of the asci. The ascus have the lid on the top of the ascus, it works as the operculum and they are sued for the dehisces of the ascospores for the ascus.[6]

Lichens are the major group of the plants which forms the association of the algae and the fungi, the ascomycetes form the half of the lichens mycobionts groups.[6]

Many of the inoperculate discomycetes are the plant parasites. Some of the species have the very narrow ranges and they are confined only to the one of the species.[4][5][6]

A number of the inopercultes kinds of the discomyctes also found in the form of the endophytes. They are found in the conifers and in the angiosperms. The members of the orders Rhytismatales, Helotiales are typically of the endophytes.

Some of the members of the discomycetes also forms the mycorrizae.[6]

Disocmycetes have been classified by the various means, there are several class and the several orders, some of the common genera's of the discomycetes: *Morchellea, Verpa, Helvella, Gyromotra.*

CONCLUSION

Overall this is the short review of the class discomycetes of the ascomycetes group. They are the typical plant parasites and they are also found in the form of the endophytes and the parasites of the diseases producing agents. they are cup shaped fruiting g body is the main features of the discomycetes group, they can be identified on the basis of the various kinds of the fruiting g body and the types of the asci which are preset on the hymenium layer. A

number of the detailed account can be written over the discomycetes fungi, it is the short but the informative review on the discomycetes fungal group.

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