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Family - <u>Dematiaceae</u> Fries systema Mycologicum, sistens fungorum ordines, genera et species huscusaue cognitas, Vol. 3, 1821-1832, 1866.

This family belongs to the order Hyphomycetales and characterised by its well developed mycelium either sterile or bearing spores (= conidia) directly or on special branches (sporophores) which may be single or variously aggregated but not in pycniia or aervuli (Ainsworth <u>et al.</u>, 1973).

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G. ACREMONIUM

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Acremonium Link, Obs. Myc. I : 13, 1886; Sacc. Mich., 2 : 17,1886.

Link established this genus in 1886 with the type species <u>A. alternata</u> Link. It belongs to the order Hyphomycetales. It is characterised by : Mycelium branched, septate, hyaline, possessing side branches which become errect and functioned as conidiophores. Conidia single, or grouped, terminal, hyaline, usually ovate small and one-celled. It is known by about 135 species and in India it is known by 7 species. Only one species is known as parasitic on the members of the family Meliolaceae.

Type species - A. alternata Link

A. meliola F.L. Stevens, Botan. Gazette, 65 : 234, 1918.

(Text Fig. X, Figs. 1 & 2; Text PL. IX -Figs. 3-5)

Overgrowing on the foliicolous colonies mostly on lower side of the leaf; mycelium branched, septate, hyaline, 2 μ m wide, forming errect conidiophores. Conidiophores hyaline, dense, nonseptate, tapering to the apex, in group but separate, straight, 13-25 μ m long; conidia one-celled, hyaline, smooth, terminal, 0.7 to 2.5 μ m in diameter and held in group.

Habit : Overgrowing on the colonies of <u>Meliola holigrahnae</u> Stev. on the leaves of <u>Holigrahna grahamii</u> (Wight) Kurz. (F.-Anacardiaceae, Anmode (K.S.), 23-1-1995 Miss Anjali M.Patil, HCIO No. and WIF. No.

Remarks : Stevens, F.L. (1918) has recorded this species on the colonies of <u>Meliola paulliniae</u> Stev. on the leaves of <u>Paullinia</u> <u>pinnaata</u> (F.- Sapindaceae) from Porto Rico. The present collection as to compare with this species matched well in respects of morphology and dimensions of conidiophores as well as conidia which are hyaline, smooth, one-celled and thus referred to it. This species grows so profusely not only on the colonies but also on ascospores to form dense, cottany or velvety white colonies against black substrate.



G. ATRACTILINA

Atractilina Dearness & Bartholomew, Mycologia, 16 : 175, 1924.

Dearness & Bartholomew established this genus in 1924 based on the type species viz. <u>A. parasitica</u> (Wint.) Deighton & Pirozynski. It belongs to the family Dematiaceae (Hyphomycetales) and characterised by mycelium which is superficial, conidiophores macronematous, mostly synnamatous, aggre-gated in fascicles, branched, pale brown and smooth. Conidia dry, simple, smooth, septate and yellow. It is known by two species. It is new generic record to the fungi of India.

Type species : <u>A. parasitica</u> (Wint.) Deighton & Pirozynski

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<u>A. parasitica</u> (Wint.) Deighton & Pirozynski, <u>Mycol. Pap.</u>, <u>128</u>: 34-42, 1972.

Basio = Arthrosporium parasiticum wint., Hedwigia, 9: 103, 1886.

= <u>Arthrobotrym</u> <u>deightonii</u> Hansford, <u>Mycol. Pap.</u>, <u>15</u>:218-219, 1946.

(Text Fig.X, Figs. 3 & 4)

Overgrowing on the foliicolous colonies mostly on lower side of the leaf. Hyphae climb the setae of the host upto the top, loose fascicle of conidiophores to form an aggregate of 200 µm in diameter and yellowish-brown. Conidiophores simple, 2-4 septate, 100 X 4-5 µm, slightly attenuate towards the apex, each producing single terminal conidium. Conidia yellow to brown, subhyaline, obclavate to fusoid, smooth, 3-septate, 50-70 X 3.5-5 µm, non-constricted, slightly attenuate to the basal flat hilum about 2 µm thick.

Habit : Overgrowing on the colonies of <u>Meliola memecyli</u> H. and <u>Harbor</u> P. Syd. on the leaves of <u>Memecylon umbellatum</u>/(F.-Melastomataceae), Kankumbi (K.S.), 24-1-1994, Miss T.V.Shinde, HCIO No.

Remarks : Winter (1886) has reported this species as <u>Arthrosporium</u> <u>parasiticum</u> Wint. on <u>Meliola inermis</u> on the leaves of unknown host from South Africa. Deighton & Pirozynski (1972) restudied Winter's collection & transferred this species to the genus <u>Atractilina</u> on the basis of conidiophores which are simple, producing single

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terminal conidia, conidia smooth, non-constricted, and proposed a new combination as <u>A. parasitica</u> (Wint.) Deighton & Pirozynski. The present collection as to compare with this species, matched well in respects of morphology and dimensions of conidiophores as well as conidia which are smooth, non-constricted and septate and thus, referred ot it. It is a new record to the fungi of India.

G. ISTHMOSPORA

Isthmospora F.L.Stevens, Bot. Gaz. 65 : 224, 1918.

Stevens (1918) established this genus with the type species belonged to the The genus family I.spinosa Stevens. viz. Dematiaceae (order - Hyphomycetales). It is characterized by conidiophores which are micronematous, branched, pale to dark brown and smooth. Conidiogenous cells fragmenting to liberate specialised arthroconidia sometimmes called isthmospores. Conidia solitary, dry, smooth or echinulate, complex, lobed. It is a conidial state of Trichophyton asterophorum (Berk. & Br.) Hohnel. It grows commonly as hyperparasite on the members of ectoparasitic foliicolous ascomycetes, commonly Asterinales, Meliolales etc.

Type : <u>I. spinosa</u> Stevens.

I. spinosa Stevens. Mycol. Pap., 50 : 70-94, 1953.

(Text Fig. XI, Figs. 1 & 2; Text PL. IX - Figs. 6-8)

Overgrowing on the colonies mostly on both sides of leaf producing dense colonies. Myceium hyaline, branched and septateconidiophores micronematous, branched, pale to brown and smooth. Conidia solitary, lobed, dark brown, echinulate and 15-21 X 12-17 µm.

Habit : Overgrowing on the colonies of Irenopsis wendlandiae Patil on the leaves of Wendlandia notoniana Wall, (F.-Rubiaceae); Meliola carissae var. indica Hansf.on the leaves of Carissa carandas L. (F. -Apocynaceae); M.crescentiae Stev. on the leaves of Heterophragma quadriloculare (F.- Bignoniacee); M. grotena on H.Syd. on leaves of Maesa indica Wall. (F.-Myrsinaceae); on M. memecyli Syd. and Syd. on leaves of Memecylon umbellatum (F.-Melastomataceae); on M. nothopegiae Hansf. on leaves of Nothopegia colebrookiana Wight. (F.- Anacardiaceae), Jamboti (K.S..), Amboli (M.S.), Kankumbi (K.S.), Amboli (M.S.), Kankumbi (K.S.), Mahabaleshwar (M.S.), Anmode (K.S.), 25-1-1994, 28-1-1994, 24-1-1994, 28-2-1988, 24-1-1994, 22-2-1982, 23-1-1995, Miss T.V.Shinde, M.S.Patil, Miss Anjali M. Patil, C.R.Patil, M.S., Miss T.V.Shinde M.S.Patil, Miss Anjali M.Patil respectively. HCIO No. 41848, 41850, 41849, 41851, 41852 and WIF. Nos. 767, 769, 768, 770. 777 respectively.

Remarks: Stevens (1918) reported and described this species overplurimis growing as hyperparasite on <u>Meliola</u> /(Hansf.& Deight.)Ciferri on

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reported unknown host from Porto Rico. Then Nair & Kaul (1983)/ this species on <u>M. mangiferae</u> Earle on <u>Mangifera indica</u> L. from Mahabaleshwar (M.S.). The present collections as to compare with this species matched well in respects of morphology and dimensions of conidiophores as well as conidia which are lobed, echinulate, salitory, dark brown thus referred to it. Thus <u>M. carissae</u> Doidge var <u>indica</u> Hansf., <u>M. grotena</u> H.Syd. and <u>M. nothopegiae</u> Hansford are new additional hosts in Maharashtra and also it is new record to the fungi of Karnataka State.

SPIROPES G.

Spiropes Ciferri, Sydowia, 9, 302-303, 1955.

Ciferri established this genus in 1955 with the type species viz. S. guareicola (Stev.) Ciferri. It belongs to the family Dematiaceae and characterised by effuse colonies, hairy or velvety, pale olive to brown or black often overgrowing and parasitic on Conidiophores Meliolaceous fungi. macronematous. unbranched. straight or flexuousus sometime geniculate, arising from hyphae singly in loose fascicles or closely adpressed to form synnemata, pale olivaceous -brown to dark blackish-brown, smooth often thickwalled. Conidia solitary, dry, simple, most commonly obclavate but sometime clavate, ellipsoidal, fusiform, or oblong rounded at the apex truncate at the base, straight, curved or sigmoid, subhyaline to olivaceous brown or dark brown, smooth, rugose or vertuculose with 1-9 transverse septa or pseudosepta. The genus is known by its 29 species. Ellis M.B. and others (1971, 1976) studied the taxa of this genus and key out the species. In India seven species have been recorded by Nair and Kaul (1984), Miss Patil S.D. (1984) and Bilgrami et al., 1979 and 1981).

Type species : S. guareicola (Stev.) Ciferri Key to he species of Spiropes studied :

1. Conidiophores separate or in loose fascicles 2 Conidiophores closely adpressed to form synnemata ... 1. 6 2. Conidiophores with upper fertile part Zigzag

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... S. guareicola

2.	Conidiophores with upper fertile part not	zigzag 3
3.	Conidia 2-septate	<u>S.</u> armatella
3.	Conidia 3-6 pseudoseptate	4
4.	Conidia 3 septate	••• 5
4.	Conidia 4-6 Pseudoseptate	S. effusus
5.	Conidia 5-7 µm thick	S. dorycarpum
5.	Conidia 6-11 µm thick	S. capensis
6.	Conidia always 4-6 pseudoseptate	<u>S.</u> japonicus
6.	Conidia always 3-septate	S. clavatus

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S. armatellae M.B.Ellis, Mycol. Pap., 125 : 15-16, 1971.

(Text Fig.XII - Figs. 1 & 2; Text PL. X - Figs.1 & 2)

Overgrowing on the foliicolous colonies, mostly on both side of leaf.Colonies are effuse dark brown and hairy. Mycelium 1-2 superficial hyphae u m thick. septate and branched. Conidiophores, solitary, cylindrical, dark-brown, paler near the apex with scattered conidial scars, septate, thick-walled, 300 X 5-7 µm. Conidia flexuous, solitary, terminal, straight or obclavate, rostrate, truncate at the base, verruculose, brown, paler towards the ends usually one-septate, rostrate, occasionally 2-septate, 30-50 X 7-9.3 µm.

Habit : Overgrowing on the colonies of <u>Armatella litseae</u> (P.Henn.)/ Hug & Sydow on the leaves of <u>Litsea</u> sp. (F.-Lauraceae), Ooty (T.N.), 29-11-1987, R.S.Sawant, HCIO No.) and WIF No.

Remarks : Ellis, M.B. (1971) has described this species as a hyperparasite on <u>Armatella cinnamomicola</u> Hansf. on the leaves of <u>Cinnamomum</u> sp. and <u>A. litsea</u> (P.Henn.) Theiss. & Sydow on <u>Daphnidium</u> and <u>Litsea</u> sp. from Sri Lanka. The present collection as to compare with this species matched well in respects of morphology and dimensions of conidiophore as well as conidia which are flexuous, straight or obclavate, rostrate, brown, truncate at the base and thus, referred to it. It makes a new record to the fungi of India.

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S. capensis (Thum.) M.B.Ellis, Mycol.Pap., 114 : 8, 1968.

Basio. = <u>Helminthosporium</u> <u>capensis</u> Thum., <u>Pass. die. pilze des</u> wein. st. P.40, 1886.

(Text Fig.XIII, Figs. 1 & 2; Text PL.X - Figs.3 & 4)

Overgrowing on the colonies mostly on lower side of leaf. Colonies are dark and hairy. Conidiophores arising singly or in groups, sometimes in very large groups of hundred or more, straight or flexuous, brown to dark brown, paler near the apex with well defined scars, 275-300 X 6-8 μ m. Conidia straight or curved, thick-walled, fusiform, subhyaline to brown, smooth, with 3-6 (usually 4-5) transversely pseudoseptate, 38-67 X 6-11 μ m.

Habit : Overgrowing on the colonies of <u>Meliola atalantiae</u> Hosagoudar on the leaves of <u>Atalantia</u> <u>wightii</u> Tanaka (F.-Rutaceae), Amboli (M.S.) 6-3-1987, C.R. Patil, HCIO No. 41853 and WIF No.772.

Remarks : Thumen (1886) has described this species as Helminthosporium capensis Thumen on the leaves of Vitis vinifera L. from Itali. Ellis (1968) restudied Thumen's collection and transferred to the genus Spiropes on the basis of conidiophores arising singly or in groups, straight, flexuous with well defined conidial scars with 3-6 pseuoseptate, fusiform conidia and proposed а new combination as S. capensis (Thum.) M.B.Ellis. Nair & Kaul (1984) have /reported this species on the colonies of Meliola mangiferae Earle M. litseae and Syd. on the leaves of Mangifera indica L. and Litsea sp. respectively from Mahabaleshwar (M.S.)

The present collection as to compare with this species matched well in respects of morphology and dimensions of conidiophores as well as conidia and thus, referred to it. So <u>Meliola atalantiae</u> Hosagoudar is a new additional host for this species.

<u>S. clavatus</u> (Ellis & Martin) M.B. Ellis, <u>Mycol.Pap.,114</u>:11-14, 1968. Basio. = <u>Isariopsis clavatus</u> Ellis & Martin, <u>Bull.Torr.Bot.Cl.</u>P.438, 1895.

(Text Fig.XIV - Figs. 1 & 2; Text PL. X - Figs. 5-7) Overgrowing on the foliicolous colonies mostly on both side of the leaf. Colonies are effuse, dark blackish-brown to black and hairy. Mycelium superficial, hyphae 1-2 μ m thick, septate, brown and branched. Conidiophores thread-like, very tightly packed together to form massive, erect, dark, blackish-brown to black synamumata, & measured /600-700 X 9-15 μ m; splaying out at the apex and base; individually brown to dark brown, septate, cylindrical with numerous scars apically. Conidia straight or curved, fusiform to obclavate, often rostrate, 3-septate, the two middle cells golden brown, smooth, and measured 18-23 X 5-7 μ m.

Habit: Overgrowing on the colonies of <u>Armatella litseae</u> (P.Henn.) Theiss & /Sydow.,<u>Meliola litseae</u> Syd. & Syd. on <u>Litsea</u> sp. (F.-Lauraceae)
and <u>M. nothopegiae</u> Hansf. on the leaves of <u>Nothopegia colebrookina</u>
Wight. (F.-Anacardiaceae); Mahabaleshwar (M.S.) and Amba (M.S.),
1-3-1994 and 28-2-1989, Miss Anjali M.Patil, C.R.Patil; HCIO Nos.
41854, 41855 and WIF Nos. 773, 774. 1

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Remarks : Ellis and Martin (1895) have described this species as <u>Isariopsis clavatus</u> Ellis & Martin on the colonies of <u>Meliola</u> <u>Stev.</u> <u>cujusdam</u> on the leaves of <u>Gordonia lasianthus</u> L.from Florida(USA). Ellis, M.B. (1968) has restudied this collection and found that it belongs to the genus <u>Spiropes</u> and thus.transferred to it. The present collection as to compare with this species matched well in respects of morphology and dimensions of conidiophores which form black synammata as well as conidia which are smooth, thickwalled and thus, referred to it. It makes new record to the fungi of India and <u>Armatella litseae</u> (P.Henn.) Hansf., <u>Meliola litseae</u> Syd. & Syd. and M. nothopegiae Hansf. are the additional hosts.

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S. dorycarpus (Mont.) M.B.Ellis, Mycol.Pap., 114:11-14, 1968.

Basio.= <u>Helminthosporium</u> dorycarpum Mont., <u>P.302 et cent. III,</u> <u>Icone Fung.</u> VI : <u>27</u>, 1886.

(Text Fig.XV - Figs.1 & 2; Text PL.X - Figs.8-10)

Overegrowing on the foliicolous colonies, mostly on both side of the leaf. Colonies are effuse, pale olivaceous-brown to dark brown and hairy to velvety. Mycelium superficial, hyphae 1-2 μ m thick, septate and branched. Conidiophores arising singly or in groups, straight or flexuousus pale brown with scars towards the apex, 250-450 X 3-7 μ m. Conidia straight or curved, variable rarely in shape but generally fusiform, mostly 3-septate (or/4-5 septate), pale brown, smooth, rugose or verruculose, 17-35 X 5-7 μ m.

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Habit : Overgrowing on the colonies of <u>Meliola bengalorensis</u> Hansf. & Thirum. on the leaves of <u>Ficus bengalensis</u> L. (F.-Moraceae), Trivendrum (Kerala), 29-2-1992, Varkad, R.S., HCIO No.41856 and WIF. No.775.

Montagne Remarks : (1886) has described this species as Helminthosporium dorycarpum Mont. on the leaves of Maculus atra from Cuba. Ellis (1968) restudied this species and found to belong to the genus Spiropes and thus, transferred to it on the basis of conidiophores arising singly, straight or flexuous, pale brown with conidial scars and smooth pale brown, 3-5 septate conidia and thus proposed a new combination as S. dorycarpus (Mont.) M.B.Ellis. Miss Patil, S.D. (1984) has reported this species on colonies of Meliola strychnicola Gall. on the leaves of the Strychnos nuxhomica L. from Londha (K.S.). The present collection as to compare with this species matched well in respects of morphology and dimensions of conidiophores which are septate and smooth, thick-walled conidia and thus, referred to it. It makes a new record to fungi of the Karnataka State and M. bengalorensis Hansf. and Thirum. is an additional host.

S. effusus (Pat.) M.B.Ellis, Mycol.Pap. 114 : 11-14, 1968.

Basio. = <u>Podosporium effusum</u> Patouillard, <u>Ab Seaver et Chardon,</u> <u>Scient. Surv. Virag. Ist. Bot. §</u> (1): 103, 1926. (Text Fig.XVI - Figs. 1 & 2; Text PL.XI - Figs.1-3) Overgrowing on the foliicolous colonies mostly on both side) of the leaf Colonies are effuse, pale, olivaceous-brown to dark brown and hairy. Mycelium hyaline, septate, branched and 1-2.5 μ m wide. Conidiophores arising singly or in groups, straight to flexuousus pale to brown with conidial scar towards the apex, 250-500 X 4-9 μ m. Conidia straight or curved, variable in shape, obclavate, 3-septate, occasionally pale brown, thick-walled and 20-39 X 4-9 μ m.

Habit : Overgrowing on the colonies of Meliola scolopiae var. Zeylanicum Hansf. on the leaves of Flacourtia montana Grah. (F.-Flacourtiaceae), M. memecyli Syd. & Syd. on the leaves of Memecylon umbellatum Burm. (F.-Melastomataceae), M. puerariae sp. nov. on the leaflets of Pueraria tuberosa DC. (F.-Fabaceae); and Ophioirenina theae Saw. & Yamamoto on the leaves of Thea sinensis (F.-Theaceae), Kamengundi Kankumbi (K.S.) L. and Kodaikanal (T.N.), 21-1-1991, 24-1-1995 and 12-1-1989; M.S.Patil, Miss T.V.Shinde and R.S.Sawant respectively. HCIO Nos. 41857, 41858 and 41859 and WIF Nos. 776, 777 and 778. respectively.

Remarks: Patouillard (1926) has described this species as <u>Podosporium effusum</u> Pat. on the leaves of <u>Piper</u> sps. from Porto Rico. Ellis, M.B. (1968) has restudied this species and transferred to the genus <u>Spiropes</u> on the basis of conidiophores arising singly, straight to flexuosus, with conidial scars and thick-walled, pale brown conidia and thus, proposed a new combination <u>S. effusus</u> (Pat.) Ellis. The present collection as to compare with this

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species matched in respects of morphology and dimensions and thus, referred to it. It makes a new record to fungi of India and <u>Meliola</u> <u>scolpiae</u> var. <u>Zeylanicum</u> Hansf., <u>M. memecyli</u>, Syd. and Syd., <u>M. puerariae</u> sp. nov. and <u>Ophioirenina theae</u>. Sawada and Yamamoto are the additional hosts.

S. guareicola (Stev.) Cif., Sydowia,9: 303, 1955.

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Basio. = <u>Helminthosporium</u> guareicoloum Stevens, F.L., <u>Bot.</u> <u>Gazzatte, 65</u> : 241, 1918.

= <u>Nascimento</u> Ciferri and Batista, 1956 Fide Ellis, M.B., 1968.

(Text Fig.XVII - Figs. 1 & 2; Text PL. XI - Figs.4-6)

Overgrowing on the foliicolous colonies mostly on both side of leaf. Colonies effuse, dark, blackish-brown to black and hairy. Mycelium superficial composed of a network of branched, rather pale olivaceous brown, smooth and 2-4 μ m thick. Conidiophores arising singly or in groups, errect, lower part straight or flexuous, upper part fertile, zigzag, pale to dark brown, pale near the apex with numerous dark prominent conidial scars, 200-400 X 6-9 μ m. Conidia broadly fusiform, pale to dark brown or olivaceous brown, smooth, 3-5 pseudoseptate, § 25-32 X 10-13 μ m.

Habit : Overgrowing on the colonies of <u>Meliola atalantiae</u> Hosagoudar on the laves of <u>Atlantia wightii</u> Tanaka (F.-Rutaceae), <u>M. ixorae</u> Yates var. <u>macrospora</u> Hosagoudar on the leaves of <u>Ixora</u> <u>polyantha</u> Wt. (F.-Rubiaceae), and M. nothopegiae Hansf. on leaves

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of <u>Nothopegia colebrookiana Wight</u> (F.-Anacardiaceae), Ambli (M.S.) Amba (M.S.) and Anmode (K.S.), 6-3--1987, 29-2-1992, 28-22-1989 and 23-1-1995, C.R.Patil, M.S.Patil and Miss Anjali M. Patil respectively and deposited in HCIO. Nos. 41861, 41862, 41860 and WIF Nos. 800, 801 and 779 respectively.

Stevens, F.L. (1918) has described this species as Remarks : Helminthorium gaureicolum steven on the colonies of Meliola guareicola Bd. on Guarea trichiliodi Las.(Fam.-Meliaceae) from Porto Rico. Ciferri (1955) has restudied Steven's collection and transferred to the genus which are Spiropes on the basis of conidiophores/errect, lower part sterile, straight or flexuosus, upper part fertile, zigzag with numerous conidial scars and conidia fusiform, smooth, 3-5 pseudoseptate and thus. proposed a new combination viz. S. gaureicola (Stev.) Ciferri. Nair & Kaul (1984) have reported this species on Meliola mangiferae Earle on the leaves of Mangifera indica L. from Mahabaleshwar (M.S.). Miss Patil S.D. (1984) has also described the same species on M. holigarnae Stev. on the leaves of Holigarna grahamii Hk.f. from Petlond (M.S.). Present collections matched well with this species in respects of morphology and dimensions of conidiophores and conidia and thus referred to it. So Meliola atalantiae Hosagoudar, M. ixorae Yates var. macrospora Hosagoudar and M. nothopegiae Hansf. are the new additional host records for this species.

<u>S. japonicus</u> (P.Henn.) M.B.Ellis, <u>Mycol.Papl.</u>,114:11-14, 1968. === Basio. = Podosorium japonicum P.Henn., <u>Engl. Jahrab</u>, <u>29</u> : 152,1900.

(Text Fig.XVIII - Figs. 1-2, Text PL.-XI, Figs.7-10)

Overgrowing on the foliicolous colonies mostly on both sides of leaf. Colonies are effusus, dark, blackish-brown to black and hyaline, septate, branched 2-4 hairy. Mycelium µ m wide. Coniiophore thread like very tightly packed together to form errect, dark blackish-brown to black synnamata, 350-400 X 8-10 µm, splaying out at apecx and base, individually brown to dark brown, smooth, cylindrical and 2-4 μ m thick, with numerous scars. Conidia straight to curved, fusiform to obclavate, often rostrate 3-6 septate, smooth, verruculose and 25-60 X 7-14 µm.

Habit : Overgrowing on the colonies of <u>Meliola</u> <u>canthi</u> Hansf. on the leaves of <u>Canthium</u> <u>umbellatum</u> Wt. (F.-Rubiaceae), Vishalgarh (M.S.), 25-11-1994, M.S.Patil, HCIO No. 41863 and WIF No. 802.

Remarks : Hennings, P. (1900) has described this species as <u>Podosporium japonicum</u> P.Henn. on the leaves of <u>Aucuba japonica</u> Thunb. (F.-Cornaceae) from Japan. Ellis, M.B. (1968) has restudied this species and transferred to the genus <u>Spiropes</u> on the basis which are of conidiophores/thread like and forming synnamata, with dark brown, smooth, cylindrical conidia and thus, proposed a new combination viz., <u>S. japonicus</u> (P.Henn.) Ellis. Nair & Kaul (1984)

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have reported this species on <u>Meliola litseae</u> Syd. from Mahabaleshwar (M.S.). The present collection well match with this species in respects of morphology and dimensions of conidiophores which are thread like and form a synnamata, with dark brown, smooth conidia and thus, referred to it. <u>Meliola canthis</u> Hansf. is an additional host for this species.

EXPLANATION OF TEXT FIGURE - VII

Phragmeriella clavatispora sp.nov.

- Fig.1 Pseudothecia
- Fig.2 Asci
- Fig.3 Ascospores

Phragmeriella fusiformis sp.nov.

- Fig.4 Pseudothecia
- Fig.5 Asci
- Fig.6 Ascospores

TEXT FIGURE-VII



EXPLANATION OF TEXT FIGURE - VIII

Phragmeriella pachydernatus sp. pov.

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- Fig. 1 Pseudothecia
- Fig.2 Asci
- Fig.3 Ascospores

Phragmeriella quadriseptata sp.nov.

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- Fig.l Pseudothecia
- Fig.2 Asci

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Fig.3 Ascospores

TEXT FIGURE-VIII



EXPLANATION OF TEXT FIGURE - IX

	bella parodiellicolo	P. Henn.
Fig.l	Pycnidia	
F ig.2	Conidia	

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Ectosticta bignoniicola Speg.

- Fig.3 Pycnidia um
- Fig.4 Conidia







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EXPLANATION OF TEXT FIGURE - X

Acremonium meliola F.L. Stevens.

Fig.1 Conidiophore

Atractilina parasitica (Wint.) Deighton & Pirozynski

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Fig.3 Conidiophore

Fig.4 Conidia

TEXT FIGURE-X

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EXPLANATION OF TEXT FIGURE - XI

Isthmospora spinosa F.L.Stevens.

Fig.1 Conidiophore

Fig.2 Conidia

TEXT FIGURE-XI





25-4m

EXPLANATION OF TEXT FIGURE - XII

Spiropes armatellae M.B.Ellis

- Fig.l Conidiophore
- Fig.2 Conidia

TEXT FIGURE-XII

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EXPLANATION OF TEXT FIGURE - XIII

Spiropes capensis (Thum.) M.B.Ellis

Fig.1 Conidiophores - grande maria

Fig.2 Conidia



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EXPLANATION OF TEXT FIGURE - XIV

Spiropes clavatus (Ellis & Martin) M.B.Ellis

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Fig.l Conidiophore

Fig.2 Conidia

TEXT FIGURE-XIV



EXPLANATION OF TEXT FIGURE - XV

Spiropes dorycarpus (Mont.) M.B.Ellis.

- Fig.1 Conidiophore 5
- Fig.2 Conidia

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TEXT FIGURE-XV



EXPLANATION OF TEXT FIGURE - XVI

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Spiropes effusus (Pat.) M.B.Ellis

- Fig.1 Conidiophore
- Fig.2 Conidia

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TEXT FIGURE-XVI



EXPLANATION OF TEXT FIGURE - XVII

Spiropes guareicola (Stev.) Cif.

- Fig.l Conidiophore
- Fig.2 Conidia

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TEXT FIGURE-XVII

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EXPLANATION OF TEXT FIGURE - XVIII

Spiropes japonicus (P.Henn.) M.B.Ellis

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Fig.1 Conidiophore

Fig.2 Conidia

TEXT FIGURE-XVIII



EXPLANATION OF TEXT PLATE - VII

<u>Ceratocystis</u> <u>angusticollis</u> Wright & Griffin

Fig.l	Perithecia	100	x
Fig.2	Ascospores	665	x
	Dimerina parasitica (Sacc.) Hansford		
Fig.3	Pseudothecia	100	х
Fig.4	Asci with Ascospores	530	x
	Dimerium meliolicola (Petrak) Hansford		
Fig.5	Pseudothecia	665	X
Fig.6	Asci with Ascospores	365	X
	Phaeodimeriella cantareirensis (P.Henn.) Hans	ford.	•
Fig.7	Pseudothecia	43 0	х
Fig.8	Ascospores	420	x

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EXPLANATION OF TEXT PLATE - VIII

Phragmeriella clavatispora sp.nov.

Fig.l	Pseudothecia	355 X
Fig.2	Asci with Ascospores	170 X

Phragmeriella fusiformis sp.nov.

Fig.3	Pseudothecia	215	Х
Fig.4	Ascospores	1000	х

Phragmeriella pachydermatus sp. nov.

Phragmeriella quadriseptata sp.nov.

- Fig.5 Pseudothecia 500 X
- Fig.6 Ascospores 470 X

Fig.7 Fig.8

Pseudothecia	400	Х
Ascospores	1000	х

EXPLANATION OF TEXT PLATE - IX

Cicinnobella parodiellicola P.Henn.

	Fig.l	Pycnidia	100	х
1	Fig.2	Conidia	400	X
2		Acremonium meliola Stevens.		
J. or	Fig.3	Conidiophore with conidia	895	x
6 8	Fig.4	Conidiophore with conidia	895	x
Prive of	Fig.5	Conidiophore with conidia	120	X
× (r ⁱ		Isthmospora spinosa Stevens		
I	F ig. 6	Habit		
1	Fig.7	Mycelium with conidia	500	x
]	Fig.8	Conidia	500	X

EXPLANATION OF TEXT PLATE - X

Spiropes armatellae M.B.Ellis

Fig.l	Conidiophore	180	Х
Fig.2	Conidia	325	x
	Spiropes capensis (Thum.) M.B.Ellis		
Fig. 3	Conidiophore	100	x
Fig.4	Conidia	49 0	x
	<u>Spiropes</u> <u>clavatus</u> (Ellis & Martin) M.B.Ellis		
Fig.5	Conidiophore	615	x
F ig. 6	Upper part of conidiophore	265	Х
Fig.7	Conidia	78 0	X
	Spiropes dorycarpus (Mont.) M.B.Ellis		
Fig.8	Conidiophore	315	x
Fig.9	Conidiophore	625	х
Fig.10	Conidia	630	х

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EXPLANATION OF TEXT PLATE - XI

Spiropes effusus (Pat.) M.B.Ellis

Fig.1	Conidiophores	428	Х
Fig.2	Single conidiophore	260	x
Fig.3	Conidia	325	x

Spiropes guareicola (Stev.) Cif.

Fig.4	Conidiophores	330	Х
Fig.5	Enlarged conidiophores	185	X

Fig.6 Conidia 605 X

Spiropes japonicus (P.Henn.) M.B.Ellis

Fig.7	Conidiophore	105 X
Fig.8	Conidiophore	135 X
Fig.9	Upper enlarged part of conidiophore	340 X
F ig.1 0	Conidia	500 X

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