Contributions to our Knowledge of the Cercosporae of Bombay State I

By P. P. Chiddarwar

(Maharashtra Association for the Cultivation of Science Poona-4, India.)

With Plates V & VI.

Species of the genus *Cercospora* are of widespread occurrence parasitising various species of flowering plants and ferns. The interest in the taxonomic study of this genus has been revived by the monographic account by Chupp*) (1954) who brought together the various descriptions scattered in literature. The work on the species of *Cercospora* in India was taken up by Thirumalachar and Govindu which included large number of species not known before. In the present paper the author is presenting an account of *Cercosporae* of the Bombay State which is based on the work carried out for the last five years. The Bombay State with its varied climate and rainfall in different parts has much diversity in its flora, and this afforded a good opportunity for studying several *Cercospora* species parasitising them. The types of the new species are deposited in the Herb. Crypt. Ind. Orient, New Delhi, Commonwealth Mycological Institute, Ferry Lane, Kew, and at the U.S.D.A. Herbarium, Plant Industry Station, Beltsville, Maryland, U.S.A.


Hab. On leaves of *Arisaema murrayi* (Graham) Hook. Mahabaleshwar. 14-10-54, leg. P. P. Chiddarwar. This species has not been previously reported from India.

(2) *Cercospora barlericola* Payak & Thirum. Indian Phytopath. 2: 191. 1949. Hab. On leaves of *Barleria cristata* Linn. Poona. 29-9-54. leg. P. P. Chiddarwar. This species has not previously been reported from Bombay State.

(3) *Cercospora benghalensis* Chiddarwar sp. nov.

Leaf spots amphigenous, dull brown to dark brown with pale brown centre, irregular, not coalescent, 0.5—4.0 mm. in diameter. Stroma pale brown, loose, sub-stomatal, 17—25 μ in diameter. Fruiting bodies amphigenous, emerging through stomata. Conidiophores fasciculate to non-fasciculate, 4—20 in number, loose, brown, divergent,

straight to curved, 0—11 septate, scars distinct, 1—4 bluntly geni- 
culate, rounded at apex, 27.2—233.1 X 3.4—4.2 μ. Conidia hyaline, aci-
cular, sometimes filiform, straight to mildly curved, 2—22 septate, 
scars distinct, gradually attenuated, conic to obconic at tip truncate 
at base, 27.3—273 X 2.5 μ.

Hab. On leaves of Commelina benghalensis Linn. Poona. 8. 9. 54. 
leg. P. P. Ghiddarwar. No. 1 (Type) Figs. 1, 2 and 3.

Foliorum maculae amphigenae, obscure brunneara centro pallide brunneo, irregulares, non coalescentes, 0.5— 
4 mm. diam. Stroma pallide brunnum, laxum, substomatale, 17—25 μ 
diam. Fructificationes amphigenae, emergentes per stomata. Conidio-
phori fasciculati vel non fasciculati, 4—20 numero, laxi, brunnei, diver-
gentes, recti vel curvati, 0—11 septati, cicatricibus distinctis, 1—4 
obtuse geniculati, rotundati ad apicem, 27.2—233.1 X 3.4—4.2 μ. 
Conidia hyalina, hyalina, acicularia, aliquando filiformia, recta vel 
moderate curvata, 2—22 septata, cicatricibus distinctis, gradatim 
attenuata, conica vel obconica at apicem, truncata ad basin, 27.3— 
273 X 2.5 μ.

(4) Cercospora beticola Sacc. var. poonensis var. nov. Chid-

Leaf spots amphigenous, numerous, circular to ovoid, dull white 
ine the centre with pale brown periphery, surrounded by brown to 
purple border, not coalescent, 1—5 mm. in diameter. Stroma pale 
brown, compact, 17.0—34.0 μ in diameter. Fruiting bodies amphig-
genous, emerging through stomata. Conidiophores in fascicles, 5—20 
in number, slightly compact, uniformly pale brown, straight to mildly 
curved, walls straight to slightly sinuous, non septate, rarely 1—2 sep-
tate, non geniculate, scars distinct, breadth uniform to slightly 
attenuated, bulged at the base, rounded at the apex, 25.5—41.0 X 
3.4—5.1 μ. Conidia hyaline, sub-obclavate to acicular, straight, 3—13 
septate, scars distinct, walls smooth, gradually attenuated, conic to 
obconic at tip, truncate at base, 35.0—117.0 X 3.4—3.8 μ.

Hab. On leaves of Beta vulgaris Linn. Poona. 24-3-53. leg. P. P. 
Ghiddarwar. No. 33 (Type), Figs. 15 and 16.

The fungus differs from Cercospora beticola Sacc., which is 
reported from a wide host range, in having uniformly coloured non-
geniculate and short conidiophores and smaller conidia and is, there-
fore, described as a new variety.

(5) Cercospora blainvilliae Govindu & Thirum. Sydowia 
6-10-55. leg. P. P. Ghiddarwar. This species is a new record 
for Bombay State.

(6) Cercospora blepharidis Chiddarwar sp. nov.

Leaf spots amphigenous, irregular to ovoid, pale to dark brown
with concentric rings especially distinct on lower sides, coalescent, 3—18 mm. in diameter. Stroma well developed, compact, dark brown, 25.5—50.0 μ in diameter. Fruiting bodies amphigenous, emerging through stomata. Conidiophores in compact fascicles, numerous, slightly divergent, brown, straight to irregularly curved, margin wavy, thick walled, 0—1 septate at base, rarely 2 septate, scars distinct, non-geniculate, unbranched, tapering gradually to abruptly, bulged at the base, rounded to narrowly obtuse at apex, 18.7—39.1 × 3.4—4.4 μ. Conidia sub-hyaline to light coloured, narrowly acicular, straight to slightly curved, 6—13 septate, gradually attenuated, conic to ob-conic at tip, truncate at base, 34—59.5 × 2.5 μ.

Hab. On leaves of *Blepharis asperrima* Nees. Khandala. 9-11-56. leg. P. P. Chiddarwar. No. 2 (Type) Figs. 4 and 5.

Foliolum maculae amphigenae, irregulares vel ovoideae, pallide vel fusce brunneae annulis concentricis distinctis praesertim in inferiore pagina, coalescentes, diametientes 3—18 mm. Stromata bene evoluta, compacta, fusce brunnea, diametientia 25.5—50.0 μ. Fructificationes amphigenae, emergentes per stomata. Conidiophori compacte fasciculati, plurimi, tenuiter divergentes, brunnei, recti vel irregulariter curvati, marginibus undulatis, parietibus crassis, 0—1-septati ad basin, raro bis septati, cicatricibus distinctis, non geniculati, nec ramosi, plus minusve gradatim fastigati, tumescentes in medio, rotundati vel anguste obtusi ad apicem, 18.7—39.1 × 3.4—4.4 μ. Conidia subhyalina vel pallide colorata, anguste acicularia, recta vel tenuiter curvata, 6—13-septata, gradatim fastigata, conica vel obconica ad apicem, truncata ad basin, 34—59.5 × 2.5 μ.


(8) *Cercospora blumeicola* Das. Current Sci. 27: 260—261. 1958. Hab. On leaves of *Blumea lacera* DC. Poona. 8-1-1956. leg. P. P. Chiddarwar. This species has not been previously reported from Bombay State

(9) *Cercospora bombycina* Chiddarwar sp. nov.

Leaf spots amphigenous, rounded to ovoid dull white with concentric pale brown rings in the centre, surrounded by dark brown border, not coalescent, 3—15 mm. in diameter. Stroma brown to pale brown, loose, sub-stomatal, 20—30 μ in diameter. Fruiting bodies amphigenous, emerging through stomata. Conidiophores in loose fascicles, 5—30 in number, brown, slightly divergent, straight to curved, margin sinuous, 2—6 distinctly septate, scars distinct, 1—6 sub-geniculate, breadth uniform, narrowly rounded at apex, 54—130
Conidia hyaline, sub-obclavate, straight, margin smooth, 4—12 septate, scars distinct, gradually attenuated, obconic at tip, truncate at base, 54.6—129.7 × 3—3.4 µ.

Hab. On leaves of *Pothos scandens* Linn. Poona. 22-10-54. leg. P. P. Chiddarwar. No. 3 (Type) Figs. 6 and 7.

Foliorum maculae amphigenae, rotundatae vel ovoideae, sordide albae annulis concentricis pallide brunneis in medio, circumdatae margine fusce brunneo, non coalescentes, 3—15 mm. diam. Stroma brunneum vel pallide brunneum, laxum, substomatal, 20—30 µ diam. Fructificationes amphigenae, emergentes per stomata. Conidiophori laxe fasciculati, 5—30 numero, brunnei, paulum divergentes, recti vel curvati, marginibus sinuosis, 2—6 distincte septati, cicatricibus distinctis, 1—6 subgeniculati, latitudine uniformi, anguste rotundati ad apicem, 54—130 × 4.1—5.1 µ. Conidia hyalina, subobclavata, recta, marginibus levibus, 4—12 septata, cicatricibus distinctis, gradatim attenuata, obconica ad apicem, truncata ad basin, 54.6—129.7 × 3—3.4 µ.

(10) *Cercospora brachiata* Ell. & Ev., Jour. Mycol. 4: 5. 1888.

Hab. On leaves of *Amaranthus paniculatus* Linn. Poona. 12-12-55. Leg. P. P. Chiddarwar. This species is new record for India & *Amaranthus paniculatus* L. is a new host record for the fungus.

Hab. *Calendula officinalis* Linn. Poona. 12-11-1956. leg. P. P. Chiddarwar. There is no previous record of this species from India.

(12) *Cercospora canscorina* Chiddarwar sp. nov.

Leaf spots amphigenous, irregular to angular, pale brown to brown with distinct dark brown border, not coalescing, 3—6 mm. in diameter. Stroma moderately developed, sub-stomatal, pale brown, compact, 17—42.5 µ in diameter. Fruiting bodies amphigenous, emerging through stomata. Conidiophores in fascicles, 5—20 in number, compact, thick walled, pale brown, slightly divergent, straight to curved, 1—3 septate, rarely non-septate, 2—4 bluntly geniculate. Slightly attenuated, obconic at apex, broader at the base, 29.8—85.0 × 3.4—4.2 µ. Conidia subhyaline, sub-obclavate, straight to curved, walls smooth, 3—9 septate, gradually attenuated, obconic at tip, truncate at base, 31.2—89.9 × 3—3.4 µ.


Foliorum maculae amphigenae, irregulares vel angulares, pallide brunneae vel brunneae, marginne distincto, brunneae circumdatae, non coalescentes, 3—6 mm. diam. Stromata moderate evoluta, substomatalia pallide brunnea, compacta, 17—42.5 µ diam. Fructificationes
amphigenae, emergentes per stomata. Conidiophori fasciculati, 5—20 numero, compacti, crassis parietibus, pallide brunnei, tenuiter divergentes, recti vel curvati, 1—3-septati, rare non-septati, obtuse 2—4-genulati, tenuiter attenuati, conica ad apicem, latiores ad basin, 28.9—85.0 × 3.4—4.2 μ. Conidia subhyalina, subobclavata, recta vel curvata, parietibus levibus, 3—9-septata, gradatim attenuata, conica ad apicem, truncata ad basin, 31.2—89.9 × 3—3.4 μ.

Hab. On leaves of *Carthamus tinctorius* Linn. Poona. 4-1-1955. leg. P. P. Chiddarwar. There is no previous record of this species in Bombay State.

(14) *Cercospora cassiae-siameae* Chiddarwar sp. nov.
Leaf spots amphigenous, irregular, generally at the margin, pale brown to brown, surrounded by indistinct brown border, rarely coalescent, 5—12 mm. in diameter. Stroma pale brown, compact, substomatal, 17—23.8 μ in diameter. Fruiting bodies amphigenous, mostly hypophyllous, emerging through stomata. Conidiophores in compact fascicles, numerous, pale brown to brown, slightly divergent, straight to mildly curved, 0—1 indistinctly septate, generally at the base, scars distinct, 1—2 in number, rarely 3, non-genulate, unbranched, narrowed truncate at apex, blunt rounded at base, 15.3—27.2 × 3.4—4.2 μ. Conidia light brown, narrowly cylindric to cylindro-obclavate, straight, 3—10 septate, sub-truncate at base, rounded at apex, 28.9—93.5 × 3.4—4.2 μ.

Hab. On leaves of *Terminalia chebula* & *T. tomentosa* W. & A. Mahabaleshwar. 17-1-1955. leg. P. P. Chiddarwar. There is no previous record of this species from Bombay State; and *T. tomentosa* is a new host species.

(16) *Cercospora colocasiae* Chupp. in Monogr. genus Cercospora, 58. 1954.
Hab. On leaves of *Colocasia esculenta* (L.) Schoot. Torna. 18-11-1958. leg. P. P. Chiddarwar. *Colocasia esculenta* is a new host record for this species.

Hab. On leaves of *Amorphophallus campanulatus* Blume. Poona. 6-11-1955. Leg. P. P. Chiddarwar. This species has not been previously recorded from Bombay State.

(18) *Cercospora cleomes* Ell. & Hals., Jour. Mycol. 6: 34. 1890.
Hab. On leaves of *Gynandropsis pentaphylla* DC. Poona. 22-1-1954. leg. P. P. Chiddarwar. There is no previous record of this species from Bombay State.

Hab. On leaves of *Celosia argentea* Linn. Poona. 18-11-1955. leg. P. P. Chiddarwar. There is no previous record of this species from Bombay State.

Hab. On leaves of *Vernonia cinerea* (L.) Less. Poona. 3-12-1956. leg. P. P. Chiddarwar. There is no previous record of this species from Bombay State.

(21) *Cercospora cosmi* Chiddarwar sp. nov.
Leaf spots amphigenous, prominent and darker on upper surface, irregular, whitish pale brown in the centre, surrounded by dark brown border, often coalescing, 2—6 mm. in diameter. Stroma substomatal, compact, pale brown, 15.3—28.9 μ in diameter. Fruiting bodies amphigenous, chiefly epiphyllous, emerging through stomata. Conidiophores in fascicles, 4—15 in number, loose, divergent, pale brown, straight to curved, walls slightly wavy, 1—5-septate, 3—8 geniculate, slightly bulged at the base, 25.5—136 × 5.1 μ. Conidia subhyaline, obclavate to acicular, straight to slightly recurved, 3—29 septate, scar distinct, gradually attenuated, conic to obconic at tip, truncate at base, 39.1—334.0 × 2.5—3.4 μ.
Hab. On leaves of *Cosmos bipinnatus* Cav. Poona. 16-12-1956. leg. P. P. Chiddarwar. No. 6 (Type) Figs. 12, 13 and 14.
Foliorum maculae amphigenae, eminentes atque fuscores in pagina superiore, irregulares, albidopallide brunneae in medio, marginibus fusce brunneis, saepe coalescentes, 2—6 mm. diam. Stromata substomatalia, compacta, pallide brunnea 15.3—28.9 \( \mu \) diam. Fructificationes amphigenae, vulgo epiphyllae, emergentes per stomata. Conidiophori fasciculati, numero 4—15, laxi, divergentes, pallide brunnei, recti vel curvati, parietibus tenui undulatis, 1—5-septati, 3—8-genulati, tenuier tumescentes ad basin, 25.5—136 \( \times \) 5.1 \( \mu \). Conidia subhyalina obclavata vel acicularia, recta vel tenuier curvata, 3—20-septata, cicatricibus distinctis, gradatim fastigata, conica vel obconica ad apicem truncata ad basin, 39.1—334.0 \( \times \) 2.5—3.4 \( \mu \).

(22) *Cercospora cycleae* Chiddarwar sp. nov.

Leaf spots amphigenous, irregular, pale to dark brown, often coalescent, and forming big infection patches, 2—10 mm. in diameter. Stroma well developed, compact brown to dark brown, 17—42.5 \( \mu \) in diameter. Fruiting bodies amphigenous, emerging through stomata. Conidiophores in fascicles, numerous, compact, pale brown to brown, slightly divergent, straight to mildly curved, 1—3 septate, 1—3 geniculata, rounded to obtuse at tip, bulged at the base, 13.6—34.0 \( \times \) 3.4 \( \mu \). Conidia obclavate to cylindro-obclavate, brown, straight to curved, 2—8 septate, scars distinct, attenuated at the apex, obtuse to obconic at tip, obclavately truncate to sub-truncate at base, 23.8—59.9 \( \times \) 3.4—4.1 \( \mu \).


Foliorum maculae amphigenae, irregulares, pallide vel fusce brunneae, coalescentes saepe atque efformates textus infectionis magnos, 2—10 mm. diam. Stromata bene evoluta, compacta, brunnea vel fusce brunnea, 17—42.5 \( \mu \) diam. Fructificationes amphigenae, emergentes per stomata. Conidiophori fasciculati, plurimi, compacti, pallide brunnei vel brunnei, tenuier divergentes, recti vel curvati, 1—3-septati, 1—3-genulati, rotundati vel obtusi ad apicem, tumescentes ad basin, 13.6—34.0 \( \times \) 3.4 \( \mu \). Conidia obclavate vel cylindrico-obclavate, brunnea, recta vel curvata, 2—8-septata, cicatricibus distinctis, attenuata ad apicem, obtuse vel obconica ad apicem, obclavate truncata vel subtruncata ad basin, 23.8—59.9 \( \times \) 3.4—4.1 \( \mu \).

(23) *Cercospora dalbergiae-latifoliae* Chiddarwar sp. nov.

Leaf spots amphigenous, irregular, dark brown towards periphery, pale brown in the centre becoming ash colour with age, not coalescing, 2—12 mm. in diameter. Stroma sub-globular, brown, compact, 17—51 \( \mu \) in diameter. Fruiting bodies amphigenous, emerging through stomata. Conidiophores in fascicles, compact, brown, slightly divergent, thick walled, straight to curved, 3—8 septate, scars distinct, 1—10 bluntly geniculate, slightly bulbous at base, rounded to obconic
at apex, 54.4—170.0 × 4.2—5.1 μ. Conidia hyaline, acicular, straight to curved, 6—16 septate, scars distinct, gradually attenuated, conic at tip, truncate at base, 62.4—295.5 × 2.5 μ.


Foliorum maculae amphigenae, irregulares, fusce brunneae ad margines, pallide brunneae in medio, ad maturitatem evadentes cinereae, non coalescentes, 2—12 mm. diam. Stromata subglobularia, brunnea, compacta, 17—51 μ diam. Fructificationes amphigenae, emergentes per stomata. Conidiophori fasciculati, compacti, brunnei, tenuei divergentes, crassis parietibus, recti vel curvati, 3—8-septati, cicatricibus distinctis, 1—10-geniculati obtuse, tenuiier bulbosi ad basin, rotundati vel obconici ad apicem, 54.4—1470.0 × 4.2—5.1 μ. Conidia hyalina, acicularia, recta vel curvata, 6—16-septata, cicatricibus distinctis, gradatim attenuata, conica ad apicem, truncated ad basin, 62.4—295.5 × 2.5 μ.

(24) Cercospora ellipticola Chiddarwar sp. nov.

Leaf spots epiphyllous, irregular to elongated with dirty white centre and pale brown periphery, not coalescent, 0.5—3 mm. in diameter. Stroma very poorly developed, pale brown, substomatal. Fruiting bodies amphigenous, emerging through stomata, conidiophores non-fasciculate, 1—4 in number, brown, straight to curved, walls sinuosis, 2—5 distinctly septate, constricted, scars distinct, 2—4, rarely bluntly geniculate, bulged at the base, rounded at apex, 35—81 × 3.4—4.2 μ. Conidia subhyaline, narrowly acicular, straight to curved, 9—22 septate, scars distinct, obconic to conic at tip, truncate at base, 117—280 × 3—3.4 μ.


Foliorum maculae epiphyllae, irregulares vel elongatae centro sordide albo, peripheria pallide brunnea, non coalescentes 0.5—3 mm. diam. Stroma pauperrime evolutum, pallide brunneum substomatale. Fructificationes amphigenae, emergentes per stomata. Conidiophori non fasciculati, 1—4 numero, brunnei, recti vel curvati, parietibus sinuosis, 2—5 distincte septati, constricti, cicatricibus distinctis, 2—4 raro obtuse geniculati, tumescentes ad basin, rotundati ad apicem, 35—81 × 3.4—4.2 μ. Conidia subhyaline, cicatricibus, distinctis, obconica vel conica ad apicem, truncata ad basin, 117—280 × 3—3.4 μ.

(25) Cercospora elaegnicola Chiddarwar sp. nov.

Leaf spots epiphyllous, round to ovoid, dark brown when young and brown to pale brown when old, surrounded by pale yellow necrotic area, not coalescing. 4—15 mm. in diameter. Stroma well developed, brown, compact, sub-epidermal, 34—68 μ in diameter. Fruiting bodies epiphyllous, rarely hypophyllous, emerging, through-
stomata. Conidiophores in fascicles, numerous, brown, not divergent, straight to curved, 1—4 septate at the base, non-geniculate, unbranched, considerably bulged at the base, obconic to truncate at apex, 22.1—39.0 X 2.5—3.8 μ. Conidia hyaline, cylindric, 2—8 septate, breadth uniform, truncate at base, rounded at apex, 17.0—51.1 X 3.4 μ.


Foliorum maculae epiphyllae, rotundatae vel ovoidae, fusce bruneae cum novellae, bruneae vel pallide brunneae ad maturitatem, circumdatae area necrotica pallide lutea, non coalescentes, 4—15 mm. diam. Stromata bene evoluta, brunnea, compacta, sub-epidermalia, 34—68 μ diam. Fructificationes epiphyllae, raro hypophyllae, emergentes per stomata. Conidiophori fasciculati, plurimi, brunnei, non divergentes, recti vel curvati, 1—4-septati ad basin, non-geniculati, non-ramosi, non nihil tumescentes ad basin, obconici vel truncati ad apicem, 22.1—39.0 X 2.5—3.8 μ. Conidia hyalina, cylindrica, 2—8-septata, uniformiter lata, truncata ad basin, rotundata ad apicem, 17.0—51.1 X 3.4 μ.

(26) Cercospora fagarae Chiddarwar sp. nov.

Leaf spots amphigenous, irregular, dark brown above, pale brown below, not coalescent, distinct pale yellow necrotic area, 3—10 mm. in diameter. Stroma well developed, compact, brown, 34—102 μ in diameter. Fruiting bodies hypophyllous, rarely epiphyllous, emerging through stomata. Conidiophores in fascicles, numerous, compact, brown, thick walled, slightly divergent, straight to curved, walls irregularly sinuous, 1—2 distinctly septate, rarely 3 septate, scars 1—3, rarely 4—5, non-geniculate, obtuse at tip, rounded at base, 34—59 X 3.4—4.1 μ. Conidia obclavate to cylindro-obclavate, pale brown, straight, walls sinuous, 0—3, septate, rarely up to 8-septate, scars distinct, gradually attenuated, obtuse to rounded at apex, truncate at base, 23.8—79.9 X 4.2—5.1 μ.

Hab. On leaves of Fagara budrunga Roxb. Bhimashankar. 5-3-1956. leg. P. P. Chiddarwar. No. 11 (Type), Figs. 27, 28 and 29.

Foliorum maculae amphigenae, irregulares, fusce brunneae supra, pallide brunneae infra, non-coalescentes, distinctae, pallide luteam aream necroticam efformantes, 3—10 mm. diam. Stromata bene evoluta, compacta, brunnea, 34—102 μ diam. Fructificationes hypophyllae, raro epiphyllae, emergentes per stomata. Conidiophori fasciculati, plurimi, compacti, brunnei, crassis parietibus, tenuiter divergentes, recti vel curvati, pariitetibus irregulariter sinuosis, 1—2-septati distincte, raro 3-septati, cicatricibus 1—3, raro 4—5 praesentibus, non-geniculati, obtusi ad apicem, rotundati ad basin, 34—59 X 3.4—4.1 μ. Conidia obclavata vel cylindrico-obclavata, pallide brunnea, recta, pariitetibus sinuosis, 0—3-septata, raro usque ad 8-septata, cicatricibus,
distinctis, gradatim attenuata, obtusa vel rotundata ad apicem, truncata ad basin, 23.8—79.9 × 4.2—5.1 μ.

(27) *Cercospora fici-religiosae* Chiddarwar sp. nov.

Leaf spots amphigenous, irregular to angular, brown, become pale brown to dirty white at maturity, rarely coalescent, irregular brown necrotic area, 1—5 mm. in diameter. Stroma well developed, dark brown, compact, 30.6—68.0 μ in diameter. Fruiting bodies chiefly hypophyllous, emerging through epidermal tissue. Conidiophores in compact fascicles, numerous, pale brown, thick walled, non-divergent, straight to mildly curved, margin slightly sinuous, generally non-septate, rarely 1 septate, scars distinct and apical, non-geiculate, rounded to truncate at tip, slightly bulged at base, 17—32.3 × 2.5—3.4 μ. Conidia sub hyaline, sub-obclavate to cylindro-obclavate, rarely cylindric, straight, margin smooth, 1—6 septate, generally 3—4 septa, scars distinct, rounded to truncate at tip, conic to obconic at base, 20.4—62.9 × 3—3.4 μ.


Foliiorum maculae amphigenae, irregulares vel angulares, bruneae, ad maturitatem evadentes pallide bruneae vel sordide albiae, rare coalescentes, area necrotica brunea irregulari, 1—5 mm. diam. Stroma bene evolutum, compactum, 30.6—68.0 μ diam. Fructificationes vulgo hypophyllae, emergentes per textus epidermales. Conidiophori compacte fasciculati, plurimi, pallide brunei, crassis parietibus, non divergentes, recti vel moderate curvati, marginibus tenuiter sinuosis, ut plurimum non-septati, raro 1-septati, cicatricibus distinctis et apicalibus, non-geniculati, rotundati vel truncati ad apicem, paulum, tumescentes ad basin, 17—32.3 × 2.5—3.4 μ. Conidia subhyalina, sub-obclavata vel cylindrico-obclavata, raro cylindrica, recta, marginibus levibus, 1—6-septata, vulgo 3—4-septata, cicatricibus distinctis, rotundata ad apicem, conica vel obconica ad basin, 20.4—62.9 × 3—3.4 μ.


Hab. *Lepidagathis cuspidata* Nees. Mahabaleshwar. 24-1-1956. leg. P. P. Ghiddarwar. There is no previous record of this species from Bombay State.

Hab. On leaves of *Bidens biternata* Merr. & Sherff. Poona. 11-11-1954. Leg. P. P. Ghiddarwar. There is no previous record of this species from Bombay State.

Hab. On leaves of *Marsdenia volubilis* Cooke. Mahabaleshwar. 24-1-1956. leg. P. P. Ghiddarwar. There is no previous record of this species from India.

Hab. On leaves of *Vernonia indica* Clarke. Mahabaleshwar. 19-1-1955. leg. P. P. Ghiddarwar. There is no previous record of this species from Bombay State.

(33) *Cercospora peristrophes* Thirum. & Govindu. Sydowia 7: 47. 1953.
Hab. On leaves of *Peristrophe bicalyculata* Nees. Poona. 10-12-1956. leg. P. P. Ghiddarwar. There is no previous record of this species from Bombay State.


Hab. On leaves *Tridax procumbens*, Linn. Poona. 12-10-1955. leg. P. P. Ghiddarwar. This species has not been described from Bombay State.

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Plate I.


**Plate II.**


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