

lipsoïd in a single layer, separated by rows of brownish, polygonal to flattened cells. The wall of the stromata is composed of 2-3 outer cell layers of dark brown to black, polygonal, thick-walled cells and several layers of brown polygonal to flattened cells towards the inside. Asci cylindrical-clavate, thick-walled, 8 spored, $35-54 \times 9-14 \mu\text{m}$. Ascospores distichous in the ascus, elliptic-cylindric, septate towards the upper end of the spore, not or very slightly constricted at the septum, initially hyaline becoming yellowish to olivaceous when mature, $10-15 \times 4-6 \mu\text{m}$. Pseudoparaphyses septate, filiform.

Acervulus mixed with ascostroma, subcuticular, applanate or irregularly pulvinate, separate, black, with the lower wall pale to medium brown of textura prismatica, dehiscing by irregular rupture, up to $200 \mu\text{m}$ diam. Conidiophores simple, arranged in a palisade-like layer, pale brown to brown septate, cylindrical, straight, formed from the upper cells of the acervulus. Conidiogenous cells holoblastic, determinate, cylindrical, pale brown, smooth or verruculose above, $8-10 \times 4-5 \mu\text{m}$. Conidia pale brown to brown, one septate, curved, smooth or distantly verruculose, $15-23 \times 8-9 \mu\text{m}$, with a truncate base and acute apex.

On leaves of *Betula*. Europe.

PLATYCHORA Petrak, *Annls mycol.* **23**: 102, 1925.

Type sp.: *P. ulmi* (Schleich.: Fr.) Petrak, *Annls mycol.* **23**: 103, 1925. Two species known. The type species is associated with a *Piggotia* anamorph and the other, *P. alni* (Peck) Petrak has no anamorph.

P. ulmi (Schleich.: Fr.) Petrak, *Annls mycol.* **23**: 103, 1925 (Fig. 363).

Sphaeria ulmi Schleich. in DC., *Fl. Franc.* **2**: 288, 1805.

Sphaeria ulmi Schleich.: Fr., *Syst. mycol.* **2**: 555, 1823.

Sphaeria ulmi Duval, *Hoppes Bot. Taschenb.*: 105, 1809.

Dothidea ulmi (Schleich.: Fr.) Fr., *Syst. mycol.* **2**: 555, 1823.

Phyllachora ulmi (Schleich.: Fr.) Fuckel, *Symb. mycol.*: 218, 1870.

Dothidella ulmi (Schleich.: Fr.) Winter in Rabenh., *Krypt.-Fl.* **1**: 904, 1887.

Euryachora ulmi (Schleich.: Fr.) Schroeter in Cohn, *Krypt.-Fl. Schles.* **3**: 473, 1908.

Systremma ulmi (Schleich.: Fr.) Theiss. & H. Sydow, *Annls mycol.* **13**: 334, 1915.

Anamorph: *Piggotia ulmi* (Grev.) Keissler, *Ann. Naturf. Mus. Wien* **1923-1933**: 207, 1933.

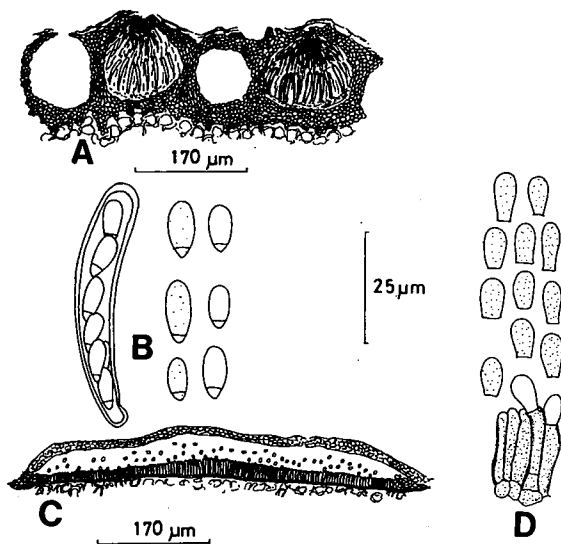


Fig. 363. *Platychora ulmi*. A, v.s. ascostroma; B, ascus and ascospores; C, v.s. conidioma; D, conidiophores and conidia.

Asteroma ulmi Grev., *Fl. Edinb.*: 368, 1824.

Dothidea astroidea Berk., *Engl. Fl.* 5: 287, 1836.

Piggotia astroidea (Berk.) Berk. & Br., *Ann. Mag. Naturf. Hist. ser. 2*, 7: 95, 1851.

Basiascella gallarum Bubak, *Ann. Naturf. Hoffmus. Wien* 28: 216, 1914.

Mycelium immersed, branched, septate, pale brown. Stromata black, subepidermal, gregarious, aggregated, cushion shaped, multilocular, up to 0.5 mm broad, with each locule provided with a papillate ostiole. The stroma is composed of dark brown, thick-walled, globose to angular cells which are almost radially arranged in walls separating the locules. Finally it ruptures the epidermis and appears somewhat tuberculate. Asci narrowly cylindrical, sessile, 8 spored, $50-60 \times 6-8 \mu\text{m}$ arising from a basal hymenium. Ascospores monostichous, ovoid, $10-12 \times 4-5 \mu\text{m}$, with a transverse septum near the lower end, hyaline to subhyaline. Pseudoparaphyses filiform, hyaline, branched.

Acervuli single or aggregated into compound fructifications, black, applanate to irregularly pulvinate, up to 1 mm broad, opening by

irregular rupture of the overlying cuticle. Conidiophores branched, pale brown, smooth, cylindrical, septate near the base, formed from the upper cells of the acervulus. Conidiogenous cells holoblastic, with ragged annellations, indeterminate, discrete, cylindrical, pale brown, smooth to verruculose above, $10-12 \times 4-4.5 \mu\text{m}$. Conidia pale brown, one celled, smooth, cylindrical to almost cuneiform, thin walled, $8-10 \times 4.5-5 \mu\text{m}$, with an obtuse apex and truncate base.

On *Ulmus*, causing leaf lesions. Europe.

VENTURIA Sacc. nom. cons., *Syll. Fung.* 1: 586, 1882.

Phaeosphaerella P. Karsten, *Meddel. Soc. Fauna Flora Fenn.* 16: 28, 1888.

Asterula (Sacc.), Sacc., *Syll. Fung.* 9: 375, 1891.

Sphaerellopsis Kleb., *Haupt- und Nebenfr. Ascom.*: 168, 1918, non Cooke, 1883.

Spilosticta H. Sydow, *Annls mycol.* 21: 171, 1923.

Endostigme H. Sydow, *Annls mycol.* 21: 173, 1923.

Endocoleroa Petrak, *Sydowia* 22: 388, 1968(1969).

Lectotype sp.: *V. inaequalis* (Cooke) Winter in Thüm., *Mycol. Univ. no.* 261 (in sched.) 1875.

Anamorphs: *Cladosporium* Link: Fr., *Fusicladium* Bonorden, *Pollaccia* Baldacci & Cif., *Spilocaea* Fr.

Pseudothecia immersed in the host substrate, barely to markedly erumpent at the apex, separate or aggregated, sometimes as locules in a stroma or below a blackened clypeus, setose around the ostiole. The wall is composed of somewhat thick-walled pseudoparenchymatic cells on the outside and thin walled cells toward the inside. Asci 8 spored, rarely 4-8 spored, cylindrical, stalked. Ascospores septate above or below the middle, sometimes in the middle, olive green to pale brown or dark brown, smooth or slightly verruculose to echinulate, oblong, elliptic, clavate, ellipsoid to ovoid, not or constricted at the septum, with or without a thin gelatinous sheath. Pseudoparaphyses filiform, septate, branched, hyaline.

Fifty-two species have been recognised in this genus (Sivanesan, 1977) of which fifteen are known to have anamorphs. Parasites of economic importance causing diseases like apple scab, peach scab, poplar shoot blight, poplar scab and cherry scab. The anamorph is usually parasitic and the teleomorph acts as an overwintering structure by developing in fallen overwintered leaves.

Anamorphs: *Cladosporium* Link: Fr.: Colonies velvety, floccose or hairy. Stroma sometimes present. Conidiophores straight or flexuous, mostly unbranched or branched at the apical region forming a stipe and