



1, Ascocarps between wood and bark ($\times 20$); 2, beak with brown terminal hairs and hyaline periphyses ($\times 250$); 3, wall ($\times 500$); 4, ascus and pseudoparaphyses ($\times 500$); 5, ascospores with sheath ($\times 1000$); all from DAOM 153402.

Massaria lantanae (Oth) Shoemaker & LeClair, Can. J. Bot. 53: 1583. 1975.

\equiv *Cladosphaeria lantanae* Oth., Mittheil. Naturf. Ges. Bern, 1868: 51. 1869.

\equiv *Massaria plumigera* Ell. & Everh., N. Am. Pyr. p. 404. 1892.

\equiv *Massarina plumigera* (Ell. & Everh.) Sacc. & Trotter in Sacc., Syll. Fung. 22: 202. 1913.

\equiv *Massaria plumigera* Ell. & Everh. var. *tetraspora* Dearness & House in House, New York State Museum Bull. 188: 35. 1916.

ASCOCARPS scattered or loosely clustered in twos or threes, immersed in bark, not penetrating wood, lacking black stromatic lines in wood, with brown mycelium covering wood surface below bark near ascocarps, spherical, 500-700 μ diam.; wall 30-40 μ thick, consisting of 6-8 layers of brown, thin-walled, rectangular cells 6-8 \times 3-4 μ ; beak terete, barely erumpent through raised bark, 100-140 μ long and 150-180 μ wide, lined with hyaline periphyses 25-30 \times 2.5-3.5 μ and distal brown vertical hairs 30-50 \times 4.0-5.0 μ . ASCI numerous in a broad hymenium, bitunicate, cylindrical, 180-200 \times 30-38 μ , 4-spored. PSEUDOPARAPHYSES very numerous and persistent, branching and anastomosing, mucilage-coated, 1.0-1.5 μ diam., septate at 25-35 μ intervals. ASCOSPORES biseriata, cylindrical to long ellipsoidal, straight or slightly curved, hyaline or rarely pale brown in age, symmetrically 3-septate,

the central cells short, the end cells over twice as long, contents large angular to rounded guttules, 70-88 \times 14-18 μ , the exterior smooth with a mucilaginous sheath 2.0-5.0 μ wide.

HOSTS: *Viburnum acerifolium* L., *V. lentago* L., *V. opulus* L.

DISTRIBUTION: Ontario, Manitoba.

COLLECTIONS: **Ontario:** on *Viburnum acerifolium* L., South of Hatchley, Brant County, 5.V.1938, DAOM 86047 (TRTC 12962, R.F. Cain 10971), and DAOM 14746 and duplicate 85777 (TRTC 12963, R.F.C. 10972); on *Viburnum lentago* L., High School Valley, London, 23.XII.1891, DAOM 129604 (J. Dearness) and Chadwick's Pasture, ? near London, 12.VII.1892, DAOM 153401 (J.D.). **Manitoba:** on *Viburnum opulus* L., Manitoba Agricultural College, Winnipeg, 14.IV.1927, DAOM 153402 (G.R. Bisby 3843).

NOTES: This species is fairly distinctive in having 4-spored asci, and ascospores that are mainly colourless. A pale brown pigment is evident in the walls of some very mature, or occasional discharged ascospores. The species was transferred to *Massarina* on the basis of hyaline spores, but seems to be more correctly placed in *Massaria*.

The Canadian collections match well part of the type of *M. lantanae*. John Dearness (London, Ont.) and Homer D. House (Albany, N.Y.) collaborated in the description of *Massaria plumigera* v. *tetraspora* but this name is based on *M. lantanae*. In the Dearness Herbarium, there are a number of collections from New York State that relate to this varietal name. One from Albany, on *Viburnum dentatum* L., 23.II.1915, bears the notes "asci 125-165 \times 32-40 μ , sporidia 60 \times 12-15, largest 82 \times 21", which matches the diagnosis, although the collection was made in February, not May or June as stated in the description. It does seem, despite this discrepancy, to be part of the material used for the description and, therefore, type. The June 1915 collection from the same shrub is labelled "too old". The collection(s) from Sylvan Beach were made 13.V.1915 and 13.VI.1915 and segregated within the packet. All these collections are *M. lantanae*. Additional New York records from the Dearness Herbarium include: on *Viburnum dentatum*: Woodville, Jefferson County, 18.VI.1924, H.D. House 262; McKeown's Grove near Albany, 13.VI.1915, H.D.H.; Albany, 29.XI.1917, and 8.XI.1919, H.D.H.; on *Viburnum lentago* L. as *Sphaeria gigaspora* Desm., Baiting Hollow (Albany), IX., C.H. Peck, and, as *Massaria gigaspora* Desm., Albany, V., C.H.P.

The host seems to be uniformly *Viburnum* except for one New York gathering on *Cephalanthus occidentalis* L. (Rubiaceae) which like *Viburnum* (Caprifoliaceae) is classed in Rubiales. This specimen on *Cephalanthus occidentalis* L., Albany, 8.V.1925, H.D. House 655, was the basis of the record from N.Y. of *Massarina plumigera* (Ell. & Everh.) Sacc. & Trotter var. *tetraspora* Dearness & House in U.S.D.A. Agriculture Handbook 165, p. 415, 1960, which was based on the publication by Dearness & House (New York State Museum Circular 24: 36. 1940). It would be interesting to have confirmation of this host record because the woody *Cephalanthus* twigs are not conspicuously different from those of *Viburnum*.

Three other interesting extralimital collections are in DAOM: 121841 on *Viburnum* sp., Lloyd Preserve, Ithaca, New York, 21.VIII.1926, L.E. Wehmeyer 3515; 121835, on *Viburnum rufidulum* Raf., Apalachee River, Macon Road, Georgia, 25.XI.1938, J.H. Miller, det. L.E.W. 3890 (as *M. plumigera* var. *tetraspora*); 121845, on *Viburnum dentatum* L., Stony Brook Reservation, Boston, Massachusetts, 23.VIII.1936, G.D. Darker 6088.

The extralimital records in U.S.A. include: New York, New Jersey (*locus classicus* of *M. plumigera*), Massachusetts, and Georgia. The type of *M. lantanae* was collected at Bern, Switzerland.

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