

**Tomasellia Massal.**

After Harris (1975), and others

Rev. November 18, 1998

Thallus inconspicuous or slightly bleaching the bark, immersed. Photobiont probably absent. Ascomata circular, ellipsoid or irregular in outline, black,  $\pm$  flattened, composed of few to many perithecia-like locules each with its own, often raised, ostiole (best seen when wet); overlying wall dark brown, K-, composed of compacted hyphae and bark cells; locules separated by colorless to dark brown compacted hyphae. Hamathecium of branched pseudoparaphyses, I-. Asci with two functional wall layers; obpyriform to oblclavate, 8-spored, I-; discharge fissitunicate. Spores clavate or sole-shaped, 1- or 3-septate, constricted at middle septum, upper half at least slightly wider than lower, colorless or brown and finely warted; perispore thin or indistinct. Pycnidia black; conidiogenous cells  $\pm$  cylindrical; conidia bacilliform. No substances. On smooth bark of trees and shrubs. Temperate.

**1. Spores very soon 4-celled. ....2**

**1. Spores 2-3- or tardily 4-celled. ....4**

**2. Spores 15-17 x 4-5.5  $\mu$ m.** Ascocarps orbicular to elliptical, 0.25-0.7 mm in diameter or length, occasionally somewhat less in width, 0.05-0.1 mm in height, with few to many locules. Asci ovate to narrowly ovate or narrowly elliptical, 35-60 x 14-18  $\mu$ m, Spores irregularly arranged, narrowly ovate, mostly 4-celled; perispore thin. Massachusetts; Florida. ....T. americana (Willey) R. C. Harris

**2. Spores 17  $\mu$ m or more in length and 5.5  $\mu$ m or more in width. ....3**

**3. Spores 17-22 x 5.5-7  $\mu$ m.** Ascocarps orbicular, elliptical or irregular in outline, 0.3-0.7 mm in diameter or length, often ca. 0.1 mm or less in width, 0.05-0.1 mm in height, with few to many locules. Asci mostly ovate or elliptical, less commonly narrowly ovate or narrowly elliptical, 45-60 x (15-)20-27  $\mu$ m. Spores irregularly arranged, narrowly ovate, mostly 4-celled; perispore thin. On smooth bark. California, Texas; Florida; Hawaii. ....Mycoporum californicum (Zahlbr.) R. C. Harris

**3. Spores (19-)20-28 x (5-)7-8  $\mu$ m,** soon 3-septate, colorless or a few old spores brownish; perispore indistinct. Ascomata 0.3-1 mm diameter,  $\pm$  circular, occasionally broadly ellipsoid, with 10-55 locules; locules separated by colorless or pale brown tissue; pseudoparaphyses 1.5-2.5  $\mu$ m wide, the cells 3-10  $\mu$ m long. Asci 52-70 x 18-26  $\mu$ m. On young trunks and branches of various trees and shrubs. Newfoundland, Maine. ....T. gelatinosa (Chev.) Zahlbr.

**4. Spores constantly 3-celled.** Ascocarps orbicular to elongated and irregular, 0.4-0.6 mm in diam. to 1.2 mm long and 0.4 mm wide, 0.07-0.12 mm in height, with few to many locules. Asci ovate to elliptical, 45-65 x 27-33  $\mu$ m. Spores irregularly arranged, narrowly ovate to ovate, 22-26 x 8-12  $\mu$ m; upper cell the largest; perispore moderately thick. Massachusetts. ....T. macularis (Minx ex Willey) R. C. Harris

**4. Spores mostly 2-celled, often tardily 4-celled. ....5**

**5. Spores small, 12-15 x 4.5-5  $\mu$ m,** constantly 2-celled. Ascocarps orbicular, 0.9-2.0 mm diam., 0.05-0.1 mm in height, mostly with many locules. Asci narrowly ovate to narrowly elliptical, 45-

70 x 13-15 um. Spores irregularly arranged to subbiseriate, narrowly ovate, the lower cell narrower and longer; perispore not evident. Microconidia bacilliform, 3-5 x 1 um. On smooth bark, especially young Fraxinus. [Not yet reported for N. America]. ..... (T. arthonioides)

**5. Spores larger, over 17 um in length. ....6**

**6. Spores 1.5-2.5 times longer than broad, 17-22(-25) x 7.5-10 um.** Ascocarps orbicular, elliptical or irregular in outline, 0.4-0.6 mm in diameter or length, often somewhat less in width, 0.08-0.2 mm in height, with relatively few locules (up to c. 15). Asci ovate or elliptical, 55-85 x 24-35 um. Spores irregularly arranged, ovate, 2-celled; perispore thin. Microconidia bacilliform, 4-5 x 1 um. Florida. ....  
Mycoporum sparsellum Nyl.

**6. Spores 2.5-4 times longer than broad, 17-27 x 5-8 um.**  
.....7

**7. Spores (18-)20-27 x (5-)6.5-8 um,** mostly 1-septate (a few 3-septate), the upper cell broader and with  $\pm$  pointed apex, each cell biguttulate, colorless, but a few old spores sometimes 3-septate and/or brownish; perispore thin to moderately thick. Ascomata 0.25-0.6(-0.8) mm in diameter or length, 0.09-0.13 mm in height,  $\pm$  circular to elliptical or more usually irregular in outline, with (1-)2-15 locules, sometimes decaying at center leaving an irregular circle of locules; tissue between locules colorless or pale brown. Pseudoparaphyses 1.2-1.7(-2) um wide, the cells 7-12 um long. Asci ovate to elliptical or narrowly ovate to narrowly elliptical, 50-75(-100) x (17-)24-27(-30) um. Spores irregularly arranged, narrowly ovate. Pycnidia rare, 30-60 um diam.; conidia 3-4 x 0.8 um. On bark and wood. California, Alabama, Florida, Massachusetts, South Carolina, Texas. .... Mycoporum lacteum (Ach.) R. C. Harris

**7. Spores 17-20(-22) x 5-6(-7) um.** Ascocarps orbicular to irregular, 0.3-0.6(-0.8) mm in diameter or length, often somewhat less in width, 0.06-0.12 mm in height, with few to many locules. Asci narrowly ovate, 42-65 x 20-23(-26) um. Spores irregularly arranged, narrowly ovate, mostly 2-celled, a few spores becoming 4-celled; perispore thin. Microconidia bacilliform, 4-5 x 1 um. On bark and rarely on palmetto petioles. Material from Iowa and Minnesota have a very thin wall, and the spores tend to collapse. Southeastern U.S. .... Mycoporum eschweileri (Mull. Arg.) R. C. Harris

## Literature

Coppins, B. J. 1992. Tomasellia. In: Purvis, et al., Lichen Flora of Great Britain and Ireland.

Harris, R. C. 1975. Arthopyrenia s. lato in N. America.

Harris, R. C. 1995. More Florida Lichens.

Poelt, J. 1969. Bestimmungsschlüssel europäischer Flechten.