

**Strangospora** Krber

After Poelt & Vezda, 1977, and Duke & Coppins, 1992

Rev. 5/94

Thallus crustose, usually thin and poorly developed,  $\pm$  continuous, without a well defined margin; prothallus absent. Photobiont chlorococcoid. Apothecia biatorine, convex, colorless, pale yellow to brown or black, rarely rpuinose. True exciple usually very thin to almost absent, persistent in some tropical species, of parallel, brownish, ochrecolored to colorless hyphae. Hymenium variously colored, I+ deep blue. Hypothecium colorless or pale grayyellow, often cloudyoily. Paraphyses branched and  $\pm$  anastomosed, in a gelatinous matrix, the apices free, usually unbranched,  $\pm$  vertical and unthickened. Asci clavate, with a strongly thickened, I+ blue wall, particularly at the apex, without gelatinous outer layer, and a strongly I+ blue apical dome. Spores many, blobose, simple, thin walled, colorless. Pycnidia small, globose, colorless to brownish; conidia ellipsoid. On bark or wood, sometimes overgrowing bryophytes.

Differs from Biatorella in that the asci lack a gelatinous outer layer and have a strongly I+ blue apical dome.

- 1. Apothecia reddish brown, or brown to blackish, to 0.5 mm wide.** On bark or wood. .... 2  
**1. Apothecia ochraceousyellow or scarletred, to 0.20.3 mm wide.**  
Hypothecium ochraceous or pale yellowish. On bark. .... 4

**2. Apothecia reddish brown (brighter when wet), becoming darker and blackish when mature. Epithecium yellow to redbrown; paraphyses 1.52  $\mu$ m thick.** Thallus widespreading, thin, evanescent, minutely warted, or rather thick,  $\pm$  delimited, granularwarted, pale to dark gray or graybrown; granules dispersed or contiguous,  $\pm$  convex, irregular. Apothecia often crowded or sometimes in groups of 23, immersed, becoming sessile; true exciple thin to almost absent, if well developed, the outer 1215  $\mu$ m brownish with radiating hyphae and inner 1215  $\mu$ m colorless with parallel hyphae, I; hymenium 5565  $\mu$ m tall, mainly colorless, the upper 1220  $\mu$ m and epithecium yellowbrown to brown, often with reddish tinge, semitransparent, not granular, K or K+ redbrown, N+ pale brown or orangebrown, with a gelatinous coat 12  $\mu$ m thick; hypothecium 50100  $\mu$ m, colorless or pale straw, of

small, compacted indistinct isodiametric cells. Paraphyses  
densely anastomosed towards base, often sparingly so above,  
indistinct in water, but visible in K. Asci 4050 x 1520 um, ca.  
100spored, broadly clavate; wall 3 um thick at sides and 68 um at  
apex. Spores 1.52.5 um diam. Pycnidia ca. 50 um diam., very  
rare, globose, ± colorless; conidia 34 x 1 um, ellipsoid. On  
bark of broadleaved trees, rarely on conifer wood. Southern  
Ontario. Reports of S. moriformis from Minnesota and  
Massachusetts are probably this species instead. Not in  
Egan? ..... Strangospora pinicola (Massal.) Koerber

**2. Apothecia dark brown to black. Hypothecium hyaline.**

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**3. Apothecial envelope well developed, yellowbrown to olivebrown,**  
K+ violet. Apothecia at first flat and marginate, later somewhat  
convex and marginless. Spores about 100 per ascus, 1.72 um wide.  
Epihymenium pale olive. On bark. [Not reported for N. America].  
.....[S. deplanata]

**3. Apothecial envelope lacking or very thin.** Apothecia highly  
convex, adpressed, black, rarely dull blueblack or blackbrown,  
not noticeably paler or translucent when wet; true exciple thin  
to almost absent, inapparent; hymenium to 110 um, upper layers  
and epihymenium translucent aeruginose bluegray (K+ pale  
greenish gray) or in part pale olive gray (K), rarely pale brown  
(K) or violet, not granular and never K+m purple, usually N+  
mauvepurple. Paraphyses 0.51 um,, densely anastomosed. Asci  
4050 x 723 um, 100200(300) spored, Spores 1.52.5 um diam.  
Pycnidia 5070 um diam., ± globose, colorless to brownish; walls  
dark green; pycnosporangia 2.53.5(4) x 11.7 um, shortly oblong.  
Spores 33.5 um wide. Epihymenium olivegreen to bluegreen, rarely  
violet. Thallus grayish, often sparse, irregularly granular,  
sometimes scurfy. On decorticated conifers, especially worked  
timber, rarely on bark. Washington, California, possibly  
elsewhere (see note under S.  
pinicola). .....S. moriformis

**4. Apothecia scarletred to coral red, without envelope (not  
appearing pruinose), K or intensified, 0.050.2(0.3) mm, convex to  
globose, ± sessile, scattered or in small, ± contiguous groups  
(13), becoming brighter and somewhat translucent when wet; true  
exciple poorly developed, inapparent, hyphae densely anastomosed;  
hymenium (60)7085(95) um tall, ± golden yellow in parts, upper  
1020 um together with epihymenium bright golden yellow, without  
granular inclusions; hypothecium 2550 um, colorless to pale  
yellowish, of closely compacted, shortcelled anastomosed hyphae  
in a gel matrix, I+ dark blue. Paraphyses 1(1.5)um wide, richly**

branched and anastomosing, particularly towards the apices (clearly visible in N), orangeyellow in part. Asci 6085 x 1830 um, 5070spored, broadly clavateellipsoid, wall at apex 48 um thick, sometimes with goldenyellow granular contents. Spores (3)44.5 um diam. Thallus widespreading, inconspicuous, often evanescent, of scattered or ± contiguous, minute, low granules, often concentrated around apothecia giving them a spurious thalline exciple, pale greengray or gray. On oak and alder bark in boggy woodlands. .... S. microhaema

**4. Apothecia pale ochraceousyellow to deep orangered, with thick envelope (appearing ± densely orangepruinose) K+ scarlet or violet red, 0.10.5 mm diam., adressed to ±sessile, convex, mainly scattered,** brittle (easily broken when touched with a dissecting needle); true exciple 1020 um tall, redorangebrownyellow, I+ blue. Spores 33.5 um wide. Hymenium (60)7585(125) um, pale redorangeyellow, the upper 1530 um, together with epithecium, densely granular, the granules minute, goldenyellow or ochred, K+ dissolving; hypothecium 50150 um, ± ochrecolored, pale beneath, I+ blue. Paraphyses 11.5 um wide, anastomosed, hardly visible in water but clearly visible in K, apices 33.5 um wide. Asci 5560 x (15)2025 um, 100200spored, swollenclavate or oval; upper wall 2.53.5 um wide. Spores 44.5 um diam. Overgrowing mosses or on bark of broadleaved trees, in wellwooded sites or occasionally wayside trees in sheltered sites. The apothecia are sometimes confused with small tufts of freeliving Trentepholia, which are similar in color and texture. .... S. ochrophora

## Literature

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

Magnusson, A. H. 19 . Biatorella and Sarcogyne in N. America. [need to see if this has additional info.]

Poelt, J. and A. Vezda. 1977. Bestimmungsschlssel europischen Flechten. Erg. I. J. Cramer, Vaduz.