

## **I. Usnea Subgenus Eumitra**

**Axis  $\pm$  hollow, at least in thicker branches**

Central cavity empty or  $\pm$  filled with cobwebby hyphae. Cortex papillose but not pitted. On bark or wood, southern U.S. (If thallus distinctly angular in cross section, see U. duriuscula in Gonioides)

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**1. Medulla red. Thallus with fibrils**, 418 cm long, sparingly to richly branched. Axis with very wide cavity, with white arachnoid hyphae; fibrils many, threadlike. Soredia isidiose, abundant on thinner branches. Sterile. CMA 80:80:1500. Medulla K+ yellow then orange or red (or K?), P+ orange or red (or P). Ch.: norstictic and traces of salazinicchemotype of type specimens of U. baileyi and the synonymous taxa reported from N. America; other chemotypes are known from elsewhere). ..... U. baileyi

**1. Medulla pink. Thallus with or without fibrils.** U. perplectata sensu lato. .... 2

**2. Thallus without fibrils or only some short ones on bases of branches;** thallus to 20 cm long, branches about 1.3 mm thick, with large blunt farinose warts (isidiatesorediate or sorediate); ashen dusky green. Cavity wide, moderately filled with cobwebby hyphae. CMA 90105:90120:525550. Medulla K (diffractaic acid). ..... U. perplectata Mot. s. str.

**2. Thallus with fibrils.** ..... 3

**3. Thallus clear green, smooth; branches often inflated. Medulla K+ yellow then deep red (unknowns). Cavity indistinct,  $\pm$  filled with dark hyphae.** Medulla pinkish next to cavity. Fibrils few. Thallus 720 cm long, abundantly sorediose. CMA 100:180:560. .... U. subcavata

**3. Thallus distinctly ashy green, often appearing pruinose. Medulla K or + slightly reddish. Cavity very wide.** ..... 4

**4. Soralia almost globose, farinose, without isidia, conspicuous, often 11.5 mm diameter (possibly abnormal in origin according to Harris, 1990). Thallus to 17 cm long and 10 cm wide, with many branches and branchlets. CMA 100:100:8001000.** Cortex, medulla, and axis very hard. Cavity with lax sordid yellow hyphae. Medulla K or + slightly reddish (ch.: diffractaic

acid). Thallus olivaceous ashy green. Base short, ca. 2 mm diam. Primary branches ca. 2 mm thick, attenuated above, becoming hairlike towards tips, straight or slightly flexuous, terete, almost smooth or indistinctly subverruculose, subpapillate or uneven; verruclues obtuse, pale at tips. Fibrils not rare on basal parts of branches, ca. 0.51 cm long, divergent, flexuose, cuneiform thickened at base, attenuated towards tips, verruculose, absent from upper parts. Branch tips rather elongated, thick but hairlike, branched, subtuberculate. Soredia very noticeable, not rare, often on thicker branches, farinose, in semiglobose soralia, yellowish white. Medulla, brown or almost reddish, surrounding cavity. Apothecia unknown. S. Carolina to Florida. .... U. vainoi

**4. Soralia rather long, thin, isidiose, not forming large capitata soralia. Thallus 715 cm long, with relatively thin branches and branchlets. Medulla very dense. CMA 40:60:900.**

(This taxon is treated by Swinscow & Krog as a synonym of U. baileyi, but it differs in having a dense, pale medulla, and a different outer color). .... U. sp.