

arising from a membranous hypothallus. Columella ceasing below the apex of the sporangium. Capillitium with a smooth and usually close surface net, connected with the columella by (usually) few stout branches, and composed of rather firm threads bounding rounded meshes; the latter vary much in size in different developments. Spores pale ferruginous, nearly smooth, 4 to 6 μ diam.—Rost. Mon., 196, in part; Mass. Mon., 85, in part; Jahn in Abh. Bot. Ver. Brandenb., xlv. 164. *Trichia axifera* Bull. Champ., 118, t. 477, fig. 1 (1791)? *S. fasciculata* Schum. Enum. Pl. Saell., ii. 216 (1803)? *S. violacea* Schum. l.c.? *S. Smithii* Lister Mycetozoa, 115. *S. microspora* Lister in litt. ex Morgan in Journ. Cinc. Soc. Nat. Hist., xvi. 138 (1894). *S. axifera* Macbr. N. Am. Slime-Moulds, ed. 2, 168.

Var. *Smithii* Lister Mycetozoa, ed. 2, 150 (1911) (C. L. Smith). Sporangia 3 to 6 mm. high, with surface net of very slender threads, often uneven, the inner capillitium well developed.—*S. Smithii* Macbr. in Bull. Nat. Hist., ii. 381 (1893), and N. Am. Slime-Moulds, ed. 2, 167. *S. subclavata* Zoll. in Flora, xxx. 301 (1847)?

Var. *violacea* Meyl. in Bull. Soc. Bot. Genève, sér. 2, ii. 264 (1910). Sporangia slender, 5 mm. high; capillitium with rather uneven surface net; spores with a violet shade, 4 to 6 μ .

Pl. 119.—*e.* sporangia of various sizes (England); *f.* capillitium; *g.* spore.

This handsome species is subject to much variation in the size of the sporangia and the stoutness of the capillitium. The type of var. *Smithii* found by C. L. Smith in Nicaragua, 1893, has minute sporangia with capillitium showing abundant intermediate network and a very slender surface net; the same form has now been found in many places, and is connected with typical *S. ferruginea* by numerous gatherings showing intermediate characters: it bears considerable resemblance to *Comatricha typhoides* var. *microspora* from which it is distinguished by the more even and perfect surface net and the smoother spores. Prof. Macbride considers, and perhaps rightly, that Bulliard's description and illustration of *Trichia axifera* refer to the present species; but Bulliard describes no other species of what we know now as *Stemonitis*, and quotes under *T. axifera* synonymy that might apply to any member of the genus. It seems on the whole better not to discard the well-established name *ferruginea* given by Ehrenberg as to the application of which there is no uncertainty.

Hab. On dead wood: the typical form is widely distributed and abundant in temperate and tropical regions: var. *Smithii* has been recorded from Yorkshire, Aberdeen, Switzerland, Ceylon, Java, Ottawa, New York, Pennsylvania, Nicaragua, Antigua, and S. Chili: var. *violacea* has been recorded from Worcestershire and the Jura Mountains.

Genus 20.—**COMATRICHA** Preuss in Linnæa, xxiv. 140 (1851) (κόμη head of hair, θρίξ wool). Sporangia cylindrical, ovoid or globose, gregarious or scattered; sporangium-wall evanescent (subpersistent in *C. typhoides*); stalk extending within the sporangium as a columella; capillitium consisting of numerous threads usually combined into a more or less uniform network, not uniting to form an even surface net.