

Rutstroemia P. Karst.

Type genus of the family Rutstroemiaceae. Type species: *Rutstroemia firma*. (Pers.: Fr.) P. Karst. Apothecia cup-shaped, brownish, stipitate, arising from stromatized patches of host tissues. Outer excipulum of angular to prismatic cells, with a ± prominent layer of gelatinized, long-celled hyphae. Ascospores ellipsoid, hyaline, (uni-) bi- multi-cellular, frequently budding (producing microconidia) while still within ascus. Macroconidial anamorphic state wanting. On wood. Most species fruit in summer and autumn. (= *Kriegeria* Rabh.). See also *Ciboria*, *Lanzia* and *Poculum*. Literature: White (1941), Buchwald (1947), Dennis (1956), Holm & Holm (1976, 1977), Holst-Jensen & al. (1997b).

1. Apothecia on coniferous wood 2.

1. Apothecia on other woody plants 3.

2. Apothecia on branchlets and needles of *Juniperus communis*. Apothecia cupulate to plane, short-stipitate, disc 0.5-2 mm diam., reddish brown, stipe 1-3 x 0.5-1 mm. Asci 110-130 x 8-10 µm. Ascospores ellipsoid, uni- to tetra-cellular, 12-18 x 5-6 µm. Apothecia in autumn ["*Rutstroemia "juniperi* Holm & Holm]

2. Apothecia on dead branches of *Abies alba*, still attached or detached from the tree. Apothecia cup-shaped, dark olivaceous brown to blackish, cartilaginous, short-stipitate, cup (disc) 2-6 mm diam., stipe 1-4 x 0.5-1 mm. Asci 130-160 x 10-13 µm. Ascospores ellipsoid to allantoid, biguttulate, uni-bicellular, 12-19 x 4.5-6.5 µm. Apothecia in early spring ["*Rutstroemia "elatina* (Alb. & Schw.: Fr.) Rehm] (= *Ciboria kriegieriana* Rehm = *Kriegeria elatina* (Alb. & Schw.) Wint. = *Kriegeria olivacea* Rabh.)

3. Apothecia on branchlets of *Rosa*. Apothecia cupulate, short-stipitate, medium brown to dark brown, arising from stromatized tissues, disc 2-4 mm diam., stipe 1-3 x 0.4-1 mm. Asci 110-130 x 7-8 µm. Ascospores ellipsoid, two-celled, 12-15 x 3-4 µm. Apothecia in spring ["*Rutstroemia "rhenana* (Kirschst.) Dennis]

3. Apothecia on branchlets of other woody plants 4.

4. Apothecia medium brown to dark brown, shallowly cup-shaped, soon becoming plane, arising from stromatized patches on decaying twigs and branchlets of deciduous trees (frequently *Quercus*) on the ground, disc 4-12 mm diam., stipe 6-25 x 0.5-1.5 mm. Asci 125-160 x 9-12 µm. Ascospores narrowly ellipsoid, becoming multiseptate with age, 12-19 x 3.5-6.5 µm. Apothecia in summer and autumn *Rutstroemia firma* (Pers.: Fr.) P. Karst. (= *Poculum firmum* (Pers.: Fr.) Dumont)



Apothecia of *Rutstroemia firma* on decaying twigs of *Quercus petraea*, Norway, Telemark, Kragerø, Kurdøla, October 20th. 1996. (© Photo: Arne Holst-Jensen).

4. Apothecia olivaceous brown to orange brown, cupulate to plane, arising from stromatized patches on twigs of *Betula* and *Alnus* on the ground, disc 2-10 mm diam., stipe 2-14 x 1-2 mm. Asci 110-150 x 9-12 μ m. Ascospores narrowly ellipsoid, uni-bi to tricellular, 15-20 x 5-6.5 μ m. Apothecia in summer and autumn ***Rutstroemia bolaris*** (Batsch : Fr.) Rehm (= *Ciboria bolaris* (Fr.) Fuckel)



Apothecia of *Rutstroemia bolaris* on decaying branch of *Betula pubescens*, Norway, Sør-Trøndelag, Oppdal, Vårstigen, August 22nd, 1996. (Photo: © Arne Holst-Jensen)

In the early summer, 1996, a taxon with affinity to the genus was collected on decaying twigs of *Myrica gale*. A picture of the apothecia is shown below:



Apothecia of an undetermined species with affinity to *Rutstroemia*, arising from decaying twigs of *Myrica gale*. Norway, Telemark, Kragerø, Kurdøla, June 30th. 1996. (© Photo: Arne Holst-Jensen).