Erysiphe polygoni DC. 1821 (Ascomycetes, Erysiphales)
≡Ischnochaeta polygoni (DC.) Sawada 1959
≡Microsphaera polygoni (DC.) Sawada 1914
≡Erysiphe communis f. fagopyri Jacz. 1927
≡Oidium muehlenbeckiae N. Ahmad, A.K. Sarboy, Kamal & D.K. Agarwal 2004
≡Erysiphe polygoni f. muehlenbeckiae O. Savul. & Tud.-Ban. 1967


Notes: On Amaranthaceae, now referred to as E. betae (Junell, 1967). On Apiaceae now referred to as E. heraclei (Blumer, 1967). The name Erysiphe communis (Wallr.:Fr.) Schltdl. 1824 nom. rej. has previously been used for this powdery mildew as well as Erysiphe pisi var. pisi and other Erysiphe spp. E. communis was sanctioned by Fries, and would have priority, but the name has been rejected (Taxon 44:226, 1995; Taxon 48: 375, 1999).

Distribution: Cosmopolitan.

Substrate: Living leaves.

Disease Note: Powdery mildew.

Host: Polygonaceae.

Internal Note: Drew added some invalid names to Erica's treatment.

Supporting Literature:
Salmon (1900) defined *Erysiphe polygoni* DC. broadly, to include a wide range of morphological characters, and to occur on a number of host families, including (among others) Apiaceae (=Umbelliferae), Chenopodiaceae, and Polygonaceae. Blumer (1967) restricted *E. polygoni* to include only taxa occurring on Chenopodiaceae and Polygonaceae, and placed those occurring on Apiaceae in *E. heraclei*, differentiated primarily on the basis of characteristics of cleistothecial appendages (but see Parmelee 1977). Junell (1967) further limited the concept of *E. polygoni* to include only hosts in the Polygonaceae, with *E. betae* for those occurring on Chenopodiaceae (primarily *Beta vulgaris*). Braun (1987, 1995) followed these conventions in his monographs on the Erysiphales.

Saenz & Taylor (1999) have provided ITS rDNA sequences for several collections of *E. polygoni*. Several ITS sequences for *E. heraclei* are available in GenBank (unpublished). Based on a BLAST comparison, the ITS regions are 98% homologous. The two species appear to be closely related, and further analysis (more collections) would be needed to confirm their taxonomic status as separate species.

**Geographic Distribution and Plant Hosts**

Based on Braun 1995 (following Blumer 1976 and Junell 1976), *E. polygoni* is confined to plant hosts in the Polygonaceae. In the literature, however, *E. polygoni* is commonly used in the broad sense (i.e., following Salmon 1900), especially in reports from North America. Our fungus-host database includes more than 1000 observations after 1976 of *E. polygoni* on hosts other than Polygonaceae. Of these, twelve observations were made after 1976 of *E. polygoni* on members of the Apiaceae. In most cases, the original reference mentions that the authors are using *E. polygoni* in the sense of Salmon 1900. In other cases, the authors do not specify. There are no reports of other *Erysiphe* spp. on *Apium* spp. in the literature.

**Additional Literature**


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