

THREE NEW COMBINATIONS IN THE GENUS *CEPHALOPHILON* (MEISN.) SPACH (POLYGONACEAE)

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Abstract

Three new combinations in the genus *Cephalophilon* (Meisn.) Spach (Polygonaceae) viz., *C. glaciale* (Meisn.) Qaiser & A. Perveen, *C. humilis* (Meisn.) Qaiser & A. Perveen and *C. sinuatum* (Royle ex Bap.) Qaiser & A. Perveen have been proposed.

The generic circumscription of the genus *Polygonum* L. (s.l.) has always been a source of controversy. Linnaeus (1753, 1754) established the genus as a heterogeneous unit and included several unrelated species under the canopy of *Polygonum*. Miller (1754) described the genus *Persicaria*. Meisner (1826) monographed the genus *Polygonum* and accepted it in a broader sense and reduced *Persicaria* as a section of *Polygonum* along with six other sections. Later on Meisner (1854) recognized three more sections including *Cephalophilon*. The new section *Cephalophilon* was recognized on the basis of capitate inflorescence and he transferred all those species of section *Persicaria* having capitate or globose inflorescence to his new section *Cephalophilon*. A number of workers accepted this treatment and treated the genus *Polygonum* L. in a broader sense (Bentham & Hooker, 1880; Hooker 1886; Steward, 1930; Coode & Cullen, 1967; Schiman - Czeika & Rechinger, 1965). Spach (1841) raised the section *Cephalophilon* to the generic level but did not transfer any species under it. Gross (1913) treated all these sections as independent genera for the first time. However, he kept *Cephalophilon* as a section of *Persicaria* Mill. Ronse Decraene & Akeryod (1988) partially followed this treatment and accepted *Polygonum* and *Persicaria* (s.l.) as independent genera. They treated Section *Cephalophilon* along with other sections *Bistorta* and *Aconogonon* under *Persicaria* whereas other workers who believed in the homogeneity of the genus *Polygonum* followed Gross (1913) and accepted these sections as independent genera with the exception of *Cephalophilon* which was treated as a section of *Persicaria* (Hara, 1966; Grierson & Long, 1983; Munshi & Javeid, 1986; Haraldson, 1978; Chaudhari, 1999; Boulos, 1999 and Qaiser, 2001). None of them recognized *Cephalophilon* (Meisn.) Spach as an independent genus inspite of a clear heterogeneity in inflorescence character of spike - like or cylindrical to filiform verses ovoid to capitate inflorescence.

During the preparation of an account of the family Polygonaceae for Flora of Pakistan the senior author also observed a distinct heterogeneity in the genus *Persicaria* Mill. (s.l.) (Qaiser, 2001). The genus is clearly divided into two distinct entities having different type of inflorescence and pollen. In one group the inflorescence is spike - like cylindrical to filiform raceme and the pollen are porate (tri-pantoporate) whereas in the other group the inflorescence is ovoid or globose-capitate and the pollen

are 3-4 colpate. The first group represent the true *Persicaria* Mill. (s.str.) having spike-like cylindrical to filiform inflorescence and porate pollen whereas the second group having ovoid or globose inflorescence and 3-4 colpate pollen represents section or genus *Cephalophilon* (Fig. 1A-B & Fig. 2A-B).

Tzvelev (1987, 1989) resurrected the genus *Cephalophilon* (Meisn.) Spach and transferred number of species from *Persicaria* Mill., under it. However, the following three taxa still need to be placed under *Cephalophilon* in which the inflorescence is globose- head like and the pollen are 3-4 colpate. Therefore following new combinations are proposed:

Cephalophilon glaciale (Meisn.) Qaiser & A. Perveen **comb. nov.**

Syn: *Polygonum perforatum* var. *glaciale* Meisn., in *DC. Prodr.* 14(1): 128. 1856.

Polygonum glaciale (Meisn.) Hook. f., *F1. Brit. Ind.*, 5:41. 1886,

Persicaria glaciale (Meisn.) Hara in *Jap. J. Bot.*, 53:134. 1978.

Type: Kumaon Alt. 13000 ft. *Strachey & Winterbottom* 44 (K!)

Cephalophilon humilis (Meisn.) Qaiser & A. Perveen **comb. nov.**

Polygonum humilis Meisn., in *Wall. Pl. As. Rar.*, 3: 59. 1882.

Persicaria humilis (Meisn.) Hara in *Jap. J. Bot.*, 53: 134. 1978.

Type: Hab. Nepal, *Wallich* 1821 (K!)

Cephalophilon sinuatum (Royle ex Bap.) Qaiser & A. Perveen **comb. nov.**

Polygonum sinuatum Royle ex Bap. in *Trans. Linn. Soc.*, 18: 10. 1838.

Persicaria sinuata (Royle ex Bap.) K. P. Rajbhandari & R. Joshi in *Jap. J. Bot.*, 70(6): 332. 1995.

Type: Roke in Kunawar (LIV.)

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Fig. 1. *Persicaria glabra*: A, habit; *Cephalophylon sinuatum*: B, habit.

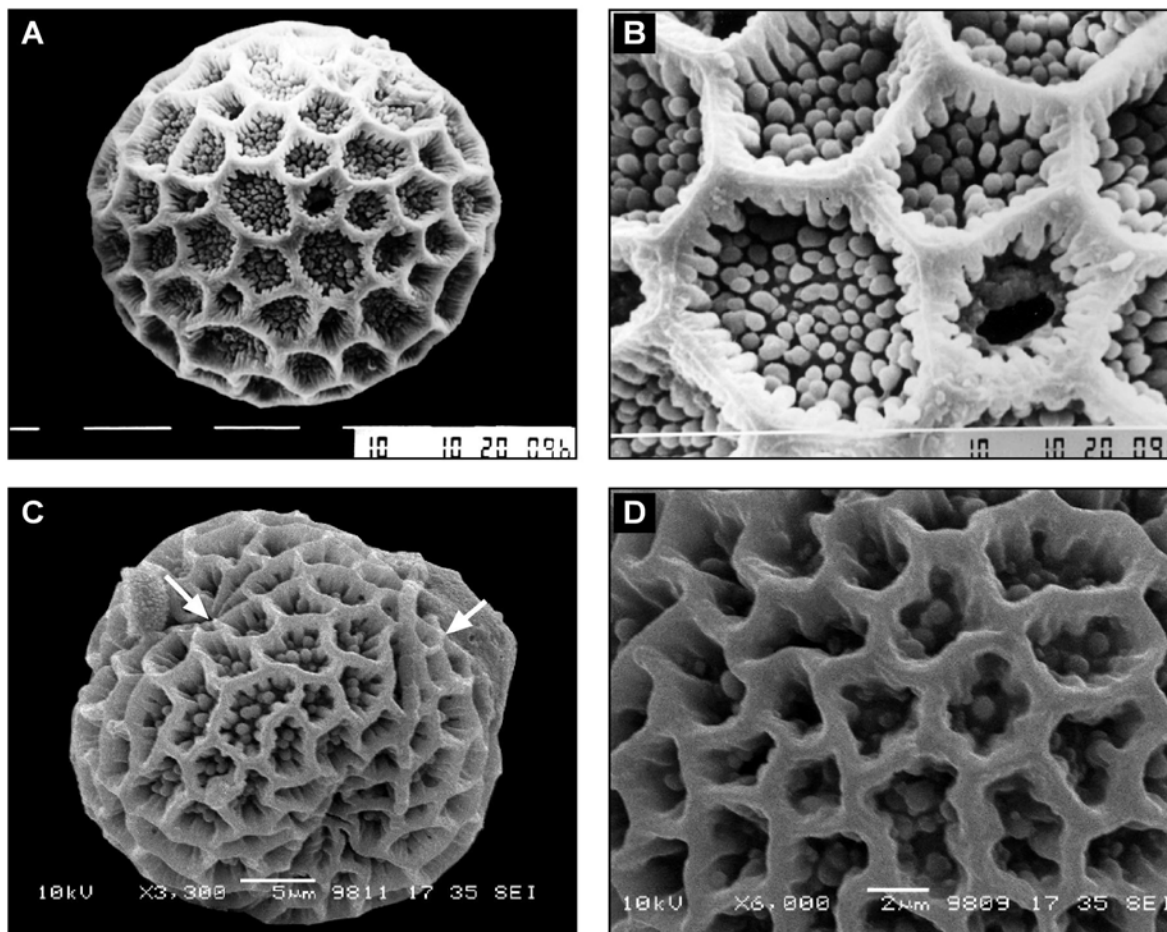


Fig. 2. *Persicaria glabra*: A, pollen grain; B, exine pattern. *Cephalophilon sinuatum*: C, pollen grain; D, exine pattern.

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