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BISTORTA AMPLEXICAULIS: A BRIEF INSIGHT TO ITS ETHNOBOTANY

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Background

Bistorta amplexicaulis (D. Don) Greene is an herb that belongs to the Family Polygonaceae. Its local name in Pakistan is Rain and masloon (Saqib and Sultan, 2005) and in India it is Sarbguni (Sharma *et al.*, 2004).

Morphology

Plants in cultivation and in the wild are nearly always ascribable to (*Persicaria amplexicaulis*) *var. speciosa* (J.D. Hook.) characterized by its deep pinkish to reddish inflorescences (Akeroyd, 2013), and with a stem that is simple or branched, erect, with few leaves, 35-70 (to 100) cm tall, glabrous, perennial, long rhizomatous herb. The leaves are 3.0-15 x 1.75-10 cm, broadly lancoelate-ovate, serrate, acuminate, ciliate on midrib and margins, cordate or amplexicaule at base, petiole up to 10cm long. Ochrea 1.5 to 5.0 cm long, lanceolate, tubular, and acuminate with two to three long acuminate lobes. Inflorescence 1.5-10.0 cm long, terminal, simple (*var. speciosa*) or branched (*var. alba*), many flowered, dense pedunculate raceme, peduncles up to 8.0 cm long. Flowers up to 4.0 mm across, pedicel 1-3 mm long. Ochreolae 3-5 mm long, lanceolate, cartilaginous, with long aristate apex and entire margin. Tepals 5, 2-3.5 x 1.5-2.5 mm, lanceolate to ovate, obtuse, entire, unequal. Stamens 8, filaments thick and short, unequal; anthers dark bluish, subexserted to exserted. Ovary 1-2 x 0.25-0.5 (-0.75) mm, lanceolate, trigonous with three, long, filiform winged and free styles and non-prominent stigma. Nuts 3.0-5.5 x 2.0-3.5 mm, ovate, trigonous and unequal lobes, dark brown to black, glabrous, shining. Flowering period is June to September (eflora of Pakistan). Non-glandular trichomes in the form of hair like structure, which was basally septate or not, stomata anomocytic and staurocytic (Yasmin *et al.*, 2009).

Distribution

Bistorta amplexicaulis (syn.: *Persicaria amplexicaulis* Ronse Decraene, *Polygonum amplexicaule* (D. Don) Greene (Himalayas). A very rare and ephemeral garden escape. First seen in wasteland in Brussel in 1966 (Lambinon 1995). Recently recorded in an increasing number of localities, for instance in woodland in Beernem in 2003 and on rough ground in Schepdaal and Neder-over-Heembeek in 2011. It is abundantly found in Naran valley as well and used ethnobotanical (Khan *et al.*, 2011).

Ethnobotany

In Pallas valley Pakistan, Leaves are used as a vegetable. Rhizome is used as a medicinal product. The most frequently used wild vegetables include *Allium humile*, *Kunth* (Palon), *Amaranthus hybridus* (Ganhar), *Bistorta amplexicaulis* (Rain). These plants could provide an alternative or additional income for the local people. Surveys and analyses of the degree and extent of the subsistence etc for these plants should be conducted prior to encouraging more intensive commercial exploitation (Saqib and Sultan, 2005). It is also used for making tea which is very effective in flue, fever and joints (Qureshi *et al.*,2007)

The rhizome is applied on sores and wounds. The root is also given with the milk to women to check excess bleeding during menstruation period. Also used for

dysentery cough and tonic. Rootstock constitutes a drug Anjubar, used medicinally both in Unani and Ayurvedic system of medicine also contain tannins (Sharma *et al.*, 2004).

It roots and leaves are highly medicinal. In Swat Kohistan, they are used for curing ulcer, rhematic pain, backache, gout and for eyesight. Its current status is vulnerable (Hamayun *et al.*, 2006). *Bistorta amplexicaulis* is considered to purify blood (according to local traditional practitioners) and to cure ulcers in northwest Pakistan areas (Adnan and Holscher, 2010). It is also used for decoction and leaf paste are used to cure wounds, relieves dysentery and cause abortion (Bhat, 2013).

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