

*Gomphrena celosioides*

**Family:** Amaranthaceae

**Species:** *Gomphrena celosioides* Mart.

**Common Names:** bachelor's button, prostrate globe-amaranth

**Synonyms:**

*Gomphrena decumbens* Jacq. (Bayer, 1982)

*Gomphrena decumbens* auct. afr. non Jacq.

**Bayer Code:** GOMCE

**Description:** Annual or short-lived perennial weed, mainly prostrate, with a deep taproot. Leaves opposite on very short, hairy petioles, elliptical, entire, pubescent, 3–4 cm long, about 1 cm wide. The inflorescences are dense terminal spikes, initially round but lengthening in maturity up to 4 cm long and 1 cm thick. The individual flowers whitish or pink, 5–6 mm long on a densely woolly receptacle. Fruit one-seeded, the seed 1.5 mm long, lenticular, brown and glossy.

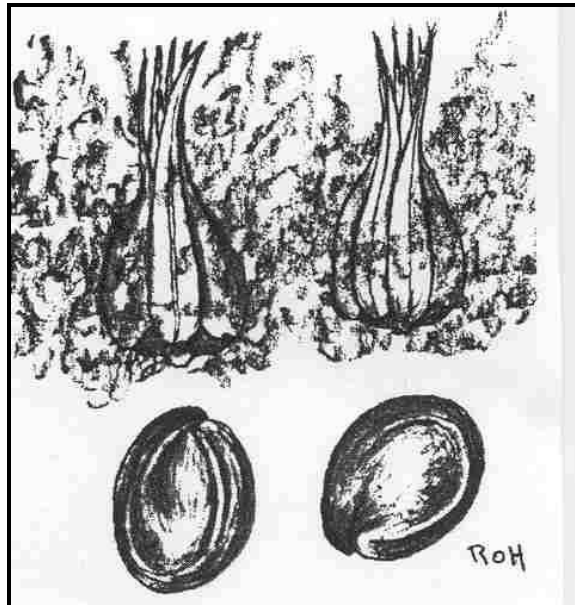


Figure 1. *Gomphrena celosioides* fruit and seed from Reed (1977)



Figure 2. *Gomphrena celosioides* from Auld and Medd (1992)

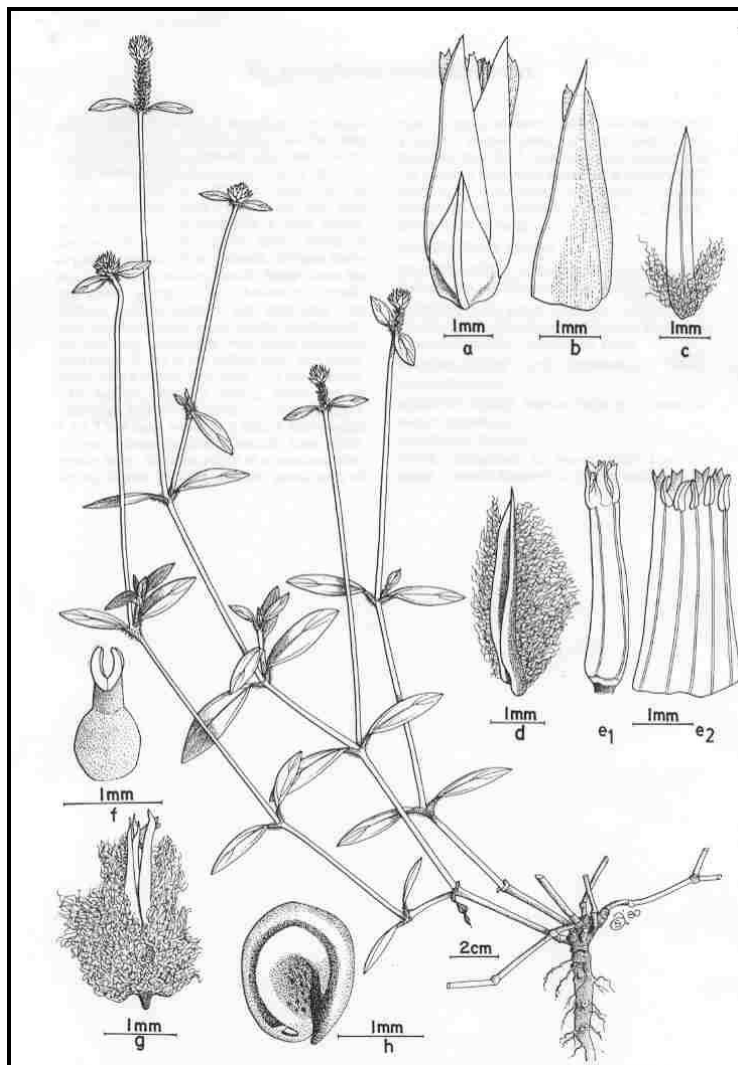
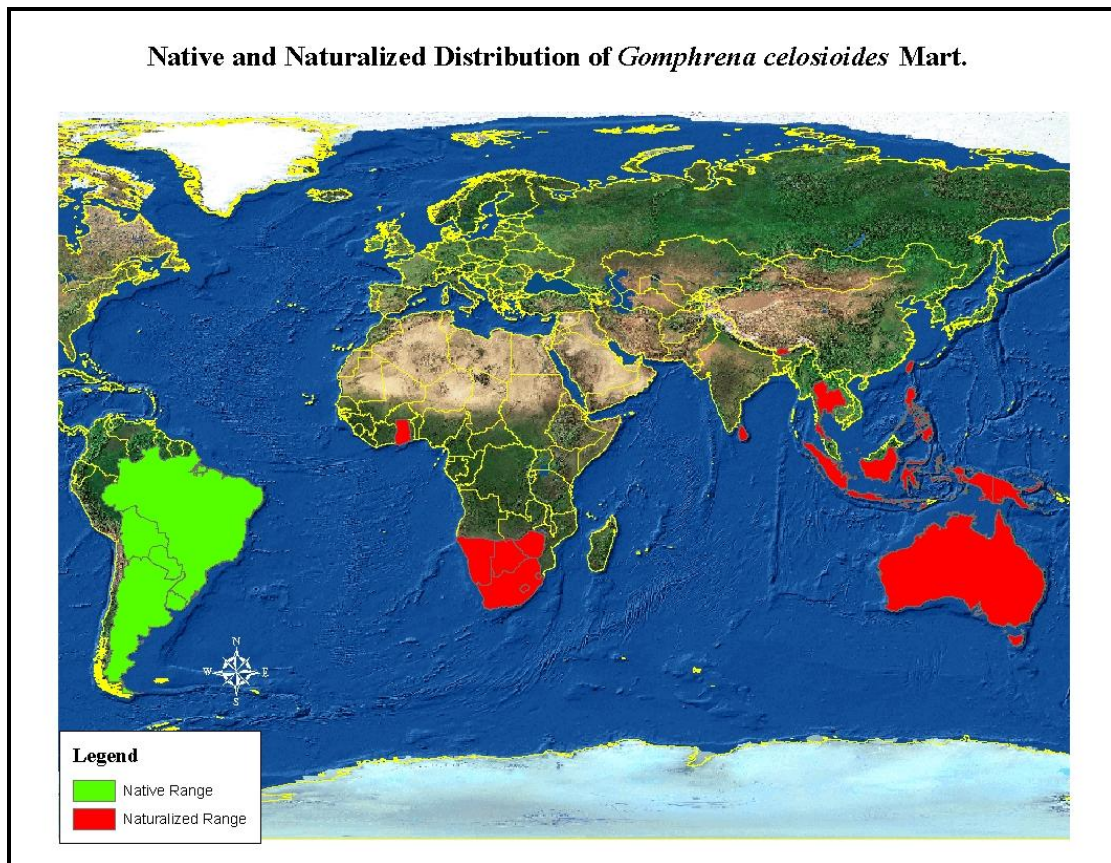


Figure 3. *Gomphrena celosioides* from Kostermans et al. (1987)

**Distribution:** *Gomphrena celosioides* is native in the Americas-Argentina, Bolivia, Brazil, Paraguay, Uruguay. It has naturalized in Asia (Bhutan, Indonesia, Philippines, Singapore, Sri Lanka, Papua New Guinea, Taiwan, Thailand), Africa (Botswana, Ghana,

Lesotho, Namibia, RSA, Swaziland, (Zimbabwe), and Australia (Grierson and Long, 1984; NGRP, 2002; Holm et al., 1979; Kostermans et al., 1987; Moody, 1989; Reed, 1977; Wells et al., 1986).



**Figure 2.** By Glenn Fowler, USDA APHIS PPQ CPHST, 2002 (Fowler, 2002)

**Biology and Ecology:** In Indonesia, *Gomphrena celosioides* is a plant that occurs along grassy roadsides and upland rice fields in high-rainfall areas up to 1,300 m elevation (Kostermans et al., 1987). In Thailand it is described as preferring dry conditions (Noda et al., 1985). The seeds are distributed by ants.

**Possible Pathways to the United States:** As a weed of upland crops in a great many countries, there is a substantial risk of accidental introduction in crop seed or with other imported materials.

**Adverse Impact:** *Gomphrena celosioides* is a common and often troublesome weed of crops over a very wide range of the tropics and subtropics. Holm et al. (1979) classified it as “serious” in Taiwan and Thailand and “common” in Australia, India, Zimbabwe and South Africa. Wells et al. (1986) classified it as “competitive” and describe it as “replacing vegetation” in southern Africa. In Brazil, it is described as a damaging weed which is very common in dryland crops and plantations. It is toxic to mammals, and

Kostermans et al. (1987) notes that it is dangerous to horses, causing “coastal staggers” in Queensland, Australia. In the Western Ghats of Maharashtra, India, it is among the serious invasive weed species (Ghate, 1991). Owing to its wide distribution and adaptation to a wide range of climatic conditions, it poses a significant threat to substantial areas of the United States.

### **Literature Cited:**

- Auld, B. A., and R. W. Medd. 1992. Weeds: An illustrated botanical guide to the weeds of Australia. Inkata Press, Melbourne, Australia. 255 pp.
- Bayer AG. 1992. Important Crops of the World and their Weeds (2nd). Bayer AG, Federal Republic of Germany, Leverkusen. 1682 pp.
- Fowler, G. 2002. Distribution Map. USDA, APHIS, PPQ, Center for Plant Health Science and Technology, Raleigh, NC.
- Ghate, V. S. 1991. Noteworthy plant invasions in the flora of Western Ghats of Maharashtra. *Journal of the Bombay Natural History Society* 88:390-394.
- Grierson, A. J. C., and D. G. Long. 1984. Flora of Bhutan including a record of plants from Sikkim and Darjeeling. Vol. 1, Pt. 2. Royal Botanic Garden, Edinburgh. 190-462 pp.
- Holm, L. G., J. V. Pancho, J. P. Herberger, and D. L. Plucknett. 1979. A Geographical Atlas of World Weeds. Wiley, New York. 391 pp.
- Kostermans, A. J. G. H., S. Wirjahardja, and R. J. Dekker. 1987. The weeds: description, ecology and control. Pages 24-565 in M. Soerjani, A. J. G. H. Kostermans, and G. Tjitrosoepomo, (eds.). *Weeds of Rice in Indonesia*. Balai Pustaka, Jakarta, Indonesia.
- Moody, K. 1989. Weeds Reported in Rice in South and Southeast Asia. International Rice Research Institute (IRRI), Manila, Philippines. 442 pp.
- NGRP. 2002. World Economic Plants in GRIN (Germplasm Resources Information Network). United States Department of Agriculture, Agricultural Resources Service, National Germplasm Resources Program (NGRP). Beltsville. Last accessed 2009.
- Noda, K., M. Teerawatsakul, C. Prakongvongs, and L. Chaiwiratnukul. 1985. Major Weeds in Thailand. National Weed Science Research Institute, Bangkok, Thailand. 142 pp.
- Reed, C. F. 1977. Economically Important Foreign Weeds: Potential Problems in the United States. Agricultural Research Service, Animal and Plant Health Inspection Service, U.S. Dept. of Agriculture, Washington, DC. 746 pp.
- Wells, M. J., A. A. Balsinhas, H. Joffe, V. M. Engelbrecht, G. Harding, and C. H. Stirton. 1986. A Catalogue of Problem Plants in Southern Africa. *Memoirs of the Botanical Survey of South Africa* 53:1-658.