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Chamaesyce ophthalmica (Pers.) Burch (Euphorbiaceae): a weed species newly recorded from Australia

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Abstract

***Chamaesyce ophthalmica* (Pers.) Burch (Euphorbiaceae) is a plant of the American tropics and is here reported for the first time as a naturalized weed. It is a plant which can be confused with the pantropical species *C. hirta* (L) Millsp. Records at the Queensland Herbarium (BRI) indicate that it is possibly restricted to the Brisbane region but it is likely that it has been overlooked or misidentified elsewhere. A brief description is given for the species and its inflorescence illustrated.**

Introduction

A number of weed species in the genus *Chamaesyce* S.F.Gray (Euphorbiaceae) have been recorded as occurring in Australia and they include *C. hirta* (L.) Millsp., *C. hyssopifolia* (L.) Small, *C. maculata* (L.) Small and *C. prostrata* (Ait.) Small.

Chamaesyce hirta, commonly known as asthma plant, is a very widespread and common pantropical species throughout the world, including much of Australia, and has its origins in central America. *C. ophthalmica* was previously known as a variety of *C. hirta* (as *Euphorbia hirta* var. *procumbens*) by Wheeler (1939, 1941) but is now regarded as a distinct species by American workers e.g. Burch (1966, 1969), Webster and Burch (1967) and the USDA plants database (http://plants.usda.gov/plants). It is readily recognized and distinct from *C. hirta*.

Chamaesyce ophthalmica (Pers.) Burch
Euphorbia ophthalmica Pers.
Euphorbia gemella Lag.
Euphorbia hirta var. *procumbens* (DC.) N.E.Br.

Description

Annual or perennating; prostrate, forming mats to 30 cm in diameter; stems pinkish to 1.5 mm in diameter, internodes to 25 mm long, branched freely from base upwards, not rooting at the nodes, nodes thickened, tomentose on all surfaces, pink; hairs multicellular, pink or orange. *Leaves* membranous; blades ovate to rhombiform, to 15 mm long and 12 mm wide, base oblique, subcordate or rounded, margin prominently serrated, thickened, apex obtuse, midrib prominent on lower surface, both surfaces tomentose, green; petiole *c.* 2 mm long; stipules joined at base, ca. 1.3 mm long, deeply lacerate, strigose. *Cyathia* in dense terminal glomerules formed of condensed leafless dichasia, strigose; glands very small, *c.* 0.2 mm in diameter, pink; appendages obsolete. *Capsule* strigose, ovoid to 1 mm long 1 mm wide; seed tetragonal in cross section, *c.* 0.8 mm long, 0.4 mm wide, transversely ridged, red-brown.

Specimens

Queensland. Moreton District: 15 Whittaker Street, North Ipswich, 27°37'S 152°47'E, April 1992, *K.A. Williams* 92002 (BRI); Mt. Ommaney, 27°3-' S 152°5-'E, February 1981, *N. Byrnes* 4070b (BRI); Brisbane Botanic Gardens, Mt. Coot-tha, 27°28'S 152°58'E, February 2000, *W.K. Harris* 119, 123 (BRI).

Distribution and ecology

At present only recorded from the Brisbane and Ipswich areas (Moreton District) where it occurs as a weed on cleared or disturbed land.

Table 1. Character differences between *C. hirta* and *C. ophthalmica*.

Character	*C. hirta*	*C. ophthalmica*
Stem branching	branching at the base but only infrequently near tip	branching freely
Habit	mostly robust ascending	mostly low, prostrate
Inflorescence	glomerules axillary on short leafless peduncles or terminal (Figure 1)	glomerules terminal on main axes, often in pairs, or on leafy laterals (Figure 2)
Leaf size	large to 45 mm long	mostly small to 15 mm long
Leaf margin	serrate	prominently dentate

Affinities

This species is closely related to *C. hirta* but is readily distinguished by the position of the glomerules of cyathia which are always terminal.

Table 1 summarizes the differences between the two species and Figures 1 and 2 illustrate the inflorescences.

Figure 1. *Chamaesyce hirta*, Brisbane Botanic Gardens, Mt. Coot-tha. Portion of the flowering stem showing both terminal and axillary inflorescences (natural size).

Figure 2. *Chamaesyce ophthalmica*, Brisbane Botanic Gardens, Mt. Coot-tha. Portion of the flowering stem showing terminal inflorescences (natural size).

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