



Short communication

Watsonia palustris (Iridaceae), a new species from KwaZulu-Natal, South Africa and a revised key to allied summer rainfall species

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ABSTRACT

Watsonia palustris is a wetland species restricted to marshy grassland in the vicinity of Greytown in central KwaZulu-Natal. Belonging to a group of species of eastern South Africa, Lesotho and Swaziland with pink flowers and a funnel-shaped perianth tube, it is characterized by its clumped habit, very narrow leaves, late summer flowering, partly herbaceous floral bracts, and shortly exerted anther filaments. *Watsonia* now comprises 53 species of corm-bearing geophytes restricted to southern Africa.

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1. Introduction

The genus *Watsonia* Mill. (Iridaceae), now comprising 53 species of cormous geophytes, is widespread in southern Africa and has two centres of diversity, in the winter-rainfall southwestern and in the summer-rainfall eastern part of the subcontinent, the latter area including eastern South Africa, Lesotho and Swaziland (Goldblatt, 1989). The genus is distinguished by firm-textured, sclerotic leaves with moderately to strongly thickened margins and main vein, and strongly 2-ranked flowering spikes with firm-textured floral bracts that are either green and herbaceous or partly to completely dry and brown. As in most other genera of tribe *Watsonieae*, the three style branches are deeply divided for about half their length. Also typical of the tribe, the corms are lateral in origin, a character shared in *Crocoidae* only with tribe *Tritoniopsidae* (Goldblatt et al., 2006). Corm development in all other *crocoids* is axial.

Watsonia palustris is a new species restricted to the vicinity of Greytown in central KwaZulu-Natal, South Africa. It is typical of most eastern southern Africa species in the genus in its pink flowers with a funnel-shaped perianth tube, cylindrical below and flared distally but stands out among them in its wetland habitat, relatively low stature, strongly clumped habit, late summer flowering, and floral bracts that

are green in the lower half, becoming dry and brown only distally. The perianth tube is relatively short, 20–25 mm long with the lower part 13–15 mm long, and the anther filaments are exerted 3 mm from the perianth tube.

The new species is one of several new *Iridaceae* recently described from southern Africa (Goldblatt and Manning, 2015; Goldblatt et al., 2015a, 2015b, 2015c; Manning et al., 2016).

2. Materials and methods

The new species was described from plants collected in the field, where habitat details were noted. The following herbaria containing significant holdings of southern African flora were examined for additional collections: MO, NBG, NH, NU, PRE and SAM (abbreviations following Holmgren et al., 1990).

3. Taxonomy

3.1. Key to species of *Watsonia* from eastern southern Africa with pink perianth and funnel-shaped tube

1a Bracts entirely dry at flowering, uniformly brown or with pale veins, (10–)20–40 mm long, strongly overlapping and at least 2 internodes long; spike crowded with (10)20 to 60 flowers.

2a Plants solitary with erect stems.

3a Leaves channelled with margins curved inward; bract-like cauline leaves not or hardly inflated... *W. canaliculata*.

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3b Leaves plane, the lower often dead and dry at flowering; bract-like cauline leaves inflated... *W. lepida*.

2b Plants forming clumps with stems more or less erect or inclined below.

4a Spike internodes (7–)9–15 mm long; tepals 25–32 mm long; spike 15- to 30-flowered... *W. confusa*.

4b Spike internodes 4–8 mm long; tepals 16–25 mm long; spike 30- to 60-flowered.

5a Bracts 22–28 mm long, dark brown with venation not evident; leaves mostly 15–30 mm wide... *W. pulchra*.

5b Bracts 16–40 mm long, light brown with dark margins and pale veins; leaves mostly 10–15 mm wide... *W. densiflora*.

1b Bracts usually partly green below, 5–30 mm long, sometimes overlapping but then either less than 2 internodes long or partly green below; spike crowded or relatively lax and with 3 to 30 flowers.

6a Anthers 5–6 mm long; leaves 3–6 mm wide.

7a Bracts herbaceous with brown papery margins, becoming dry and brown apically, (15–)20–25 mm long, not clasping rachis below and at least 2 internodes long; filaments exerted 3 mm from perianth tube...

W. palustris.

7b Bracts dry and brown, (10–)12–16 mm long, clasping rachis below and less than 2 internodes long; filaments included in tube...

W. bella.

6b Anthers 6–9 mm long; leaves 2–40 mm wide.



Fig. 1. *Watsonia palustris*, photographed at the type locality at Lake Merthley near Greytown. A, side view showing partly herbaceous floral bracts that are dry at the tips at flowering; B, flower with partially exerted anther filaments. C, inflorescence; D, plants typically form large clumps (arrowed) in marshy grassland; E, plants in habitat. Photographer: I. Johnson.

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