Chrysopogon filipes (Benth.) Reeder

This grass is an erect tufted perennial between 70-100 cm tall, usually found forming large clumps along stream banks and flood plains (Fig. 1a). The leaves are mostly basal with leaf sheaths tightly overlapping at the base (Fig. 1b). The basic flowering units or spikelets are arranged in pairs in a slender open inflorescence or flowering head. The branches of the flowering head are arranged in several whorls along a central stem, each whorl with branches arising from the stem like the spokes of a wheel, branches spreading becoming almost perpendicular to the central stem (Fig. 2). There are usually several spikelet pairs along each branch of the whorl. The spikelet pairs consist of a sessile spikelet which has a prominent awn, 13-26 mm long, and a tuft of often brown hairs at the base, and a much smaller reduced awnless spikelet at the end of a slender stalk (Fig. 3).

> BOTANICAL DESCRIPTION

A perennial grass with culms 70-100 cm high (Fig. 1a). Rhizomatous and forming large clumps. Leaf sheaths tightly overlapping at base, leaf blades held erect (Fig. 1b), 15-45 cm long, 3-6 mm wide, and a leaf surface more or less rough to the touch. The inflorescence is an open panicle, comprised of numerous raceme or spike-like branches arranged in whorls along a central stem (Fig. 2). Spikelets are arranged in pairs along each branch, each branch 3.5-9 cm long, with 3-many pairs per branch. Each spikelet pairs consists of a prominent sessile spikelet and a much smaller sterile pedicelled spikelet (Fig. 3). The sessile spikelets are 8-10 mm long and are conspicuously awned, the awn 13-26 mm long, the pedicelled spikelets are usually 3-8.3 mm long and awnless.

Fig. 1a. Habit of *Chrysopogon filipes*

Fig. 1b. Overlapping leaf sheaths of *Chrysopogon filipes*

> DIAGNOSTIC FEATURES

Species of this genus that occur in Cape York Peninsula can be identified when flowering by the whorled branches of the open panicle (Fig. 2), the awned sessile spikelet and the spikelet clusters occurring with one sessile spikelet and one or two stalked or pedicelled spikelets (Fig. 3). This species can be difficult to separate from other species within the genus but with careful examination of the inflorescence it can be identified by the combination of the following characters: the number of spikelet clusters per branch of inflorescence (3-many), the sessile spikelet more than 8 mm long, the companion spikelet present but sterile and the inflorescence branches weak and thin, 3.5-9 cm long. It is most likely to be confused with *Chrysopogon rigidus* a more robust species found in only a few localities on Cape York Peninsula (Fig. 4 & 5). The branches of the inflorescence in *Chyrsopogon rigidus* are shorter and more rigid, 1.5-4 cm long. It occurs in similar habitats to *Chrysopogon filipes* but is only known from a few localities on the northern tip of Cape York Peninsula. Spear grass species from the genus *Sorghum/Sarga* although usually easily recognisable may also cause confusion as they have a similar inflorescence structure to *Chrysopogon*, with branches of the inflorescence often in whorls and spikelets in clusters or pairs of awned sessile spikelets and stalked spikelets. The common spear grass species in the region have generally much more robust spikelet clusters, longer awns and quite pungent tips on the end of the sessile spikelet which spear into clothing (Fig. 6).

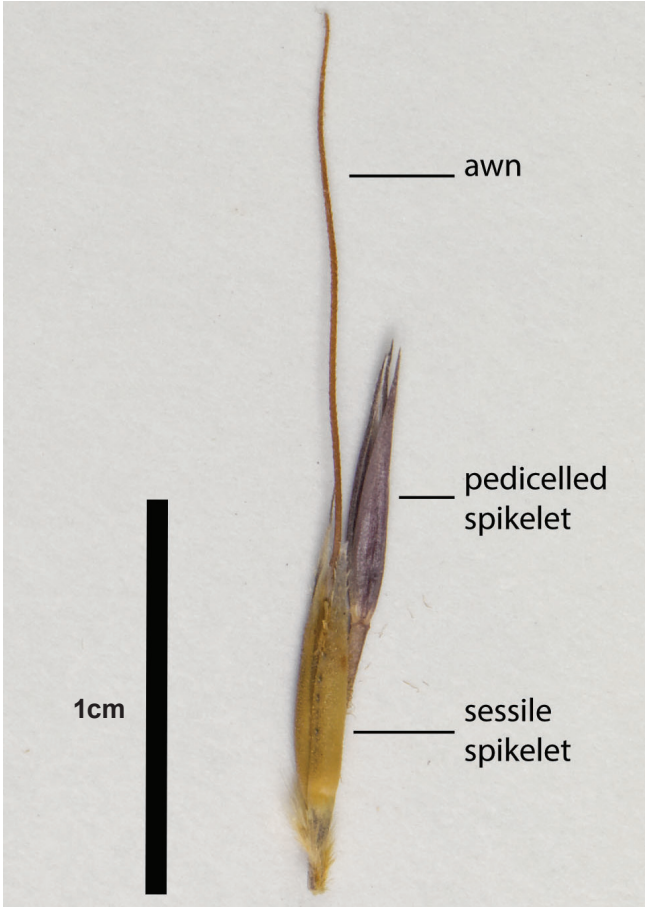

Fig. 3. Spikelet cluster of *Chrysopogon filipes*

Fig. 2. Inflorescence of *Chrysopogon filipes*

Fig. 4. Herbarium sheet of *Chrysopogon rigidus*

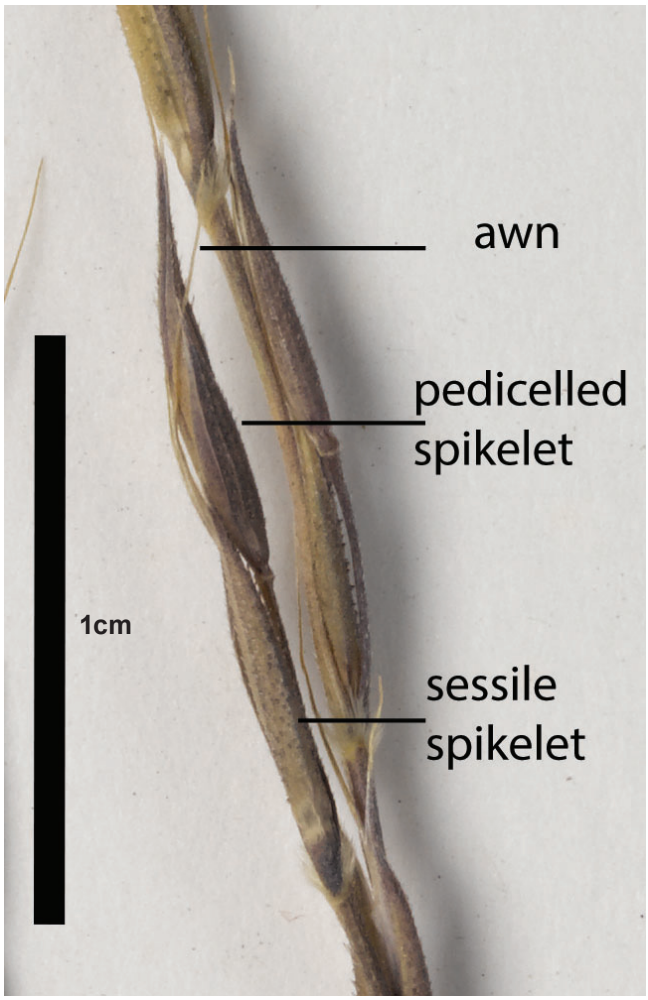

Fig. 5. *Chrysopogon rigidus* spikelet cluster

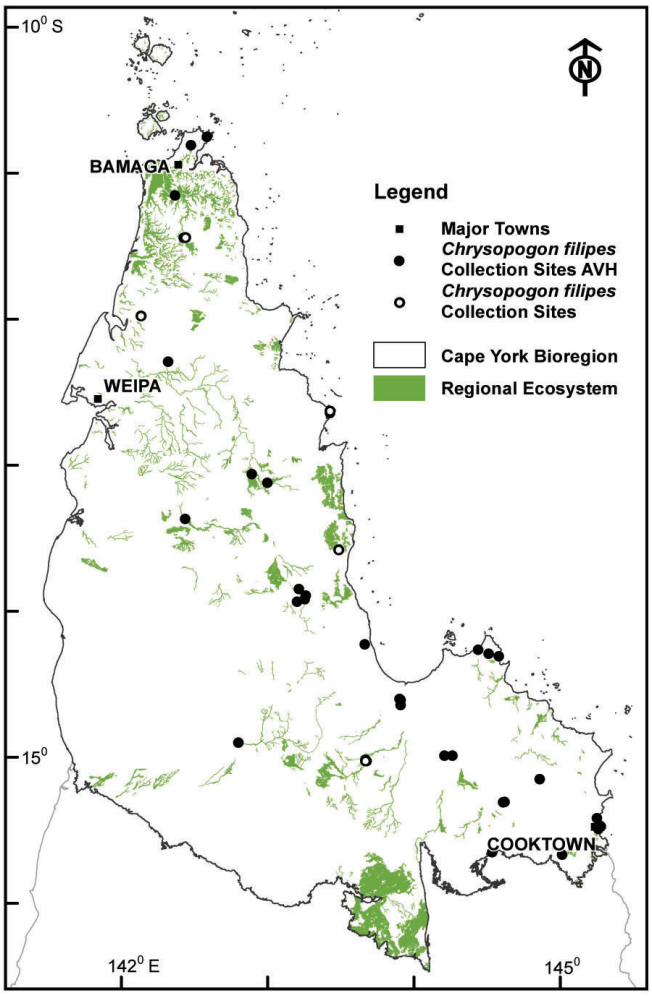

Fig. 7. Map of CYP bioregion showing actual herbarium collections (from BRI and CNS) (solid circle) and site records (open circle) of *Chrysopogon filipes*. The green shading indicates areas where this species might also be found, based on similarity of habitat to locations where the species has been recorded. (Mapping supplied by P. Bannink, DES). Data attribution: Environment and Science, Queensland Government, Biodiversity status of pre-clearing and 2015 remnant regional ecosystems series - version 10.0 licensed under Creative Commons Attribution.

> NATURAL VALUES

A rhizomatous perennial probably useful in stabilising soils along seasonal streambanks and floodplains.

> HABITAT

In Australia this species is found from northern New South Wales through to the tip of Cape York Peninsula extending as far inland as Winton and Longreach, and in the Top End of the Northern Territory. Usually grows along stream banks and floodplains.

> LAND MANAGEMENT NOTES

Apparently readily grazed (Lazarides 2002, Simon & Alfonso 2011).

RESOURCES:

AVH (2017) Australia's Virtual Herbarium, Council of Heads of Australasian Herbaria, <http://avh.chah.org.au>, accessed 30 May 2017.

Lazarides, M. (2002) Economic attributes of Australian grasses. Flora of Australia 43: 213-245.

Sharp, D. & Simon, B.K. (2002) Ausgrass: Grasses of Australia. CD-Rom. Version 1.0 (Australian Biological Resources Study, Canberra, and Environmental Protection Authority, Queensland).

Simon, B.K. (1989) Studies in Australian Grasses 4. Taxonomic and nomenclatural studies in Australian Andropogoneae. Austrobaileya 3(1): 95.

Simon, B.K. & Alfonso, Y. (2011) AusGrass2, http://ausgrass2.myspecies.info/accessed on [date 29 March 2017].

For more information: www.capeyorknrm.com.au | 1300 132 262

Queensland Government

Cape York Natural Resource Management

ATH Australian Tropical Herbarium

This project is supported by the Queensland Government Department of Natural Resources and Mines through the Queensland Regional Natural Resource Management Investment Program