

## *Cutandia dichotoma* (Forssk.) Trabut, a remarkable new species of annual grass for the UAE

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While surveying the White Bay area of Umm al-Qaiwain in February 2007, two of the authors (SA, DG) came across a distinctive, but unfamiliar grass in dunes immediately landward of the Umm al-Qaiwain to Ra's al-Khaimah road, just east of the "Dreamland" leisure complex. Several specimens were noted at the time and one was collected and shown to GB, who happened to be visiting to the UAE at the time. GB was able to identify the specimen (Fig. 1) immediately as *Cutandia dichotoma*, a species with which he is familiar from Kuwait.

*C. dichotoma* is superficially very similar to *C. memphitica*, particularly in respect of its zigzagging inflorescence, and is therefore easily overlooked. However, *C. dichotoma* is a generally smaller, more compact plant (branches of the inflorescence shorter than in *C. memphitica*), rarely exceeding 10 cm in height, whereas *C. memphitica* reaches up to 25 cm. Apart from general habit, the most useful distinguishing

feature is the awnlike point at the apex of the lemmas in *C. memphitica*. This is lacking in *C. dichotoma* (Fig. 2), but quite distinctive and easily visible with the naked eye in *C. memphitica*. (Fig 3).

Previously, only *Cutandia memphitica*, also an annual, had been recorded from the UAE (Jongbloed, 2003). This species is generally widespread in low, non-saline dunes along a narrow coastal strip from Taweela in Abu Dhabi Emirate north-eastwards to Ra's al- Khaimah (Brown *et al.*, in prep.). It is particularly common after plentiful winter rainfall, but populations are distinctly smaller in dry winters. *Cutandia dichotoma* is likely to be more widespread in the UAE than this first single find suggests, possibly occupying a similar distribution to that of *C. memphitica*. However, it is undoubtedly a much rarer plant, and probably threatened by the massive development of coastal areas currently under way between Abu Dhabi and Ra's al-Khaimah.



Fig 1. *Cutandia dichotoma* - habit.

*Cutandia dichotoma* is not listed for Oman by Ghazanfar (1992), or Yemen by Wood (1997). Neither Collenette (1997) nor Mandaville (1990) appear to have recorded the species from Saudi Arabia. The only published record for the species in Saudi Arabia is by Migahid (1989), who mentions it from the Eastern Najd. However, according to Shaukat Chaudary, an internationally recognised expert on the Saudi Arabian flora, this record is likely to be erroneous. *C. dichotoma*, does, however, occur in Kuwait (Al-Rawi, 1987), and has been authenticated from a number of locations there. Most recently, GB found it to be abundant on Failaka Island (Kuwait) in early March 2007, and also found it to be fairly common on near-coastal, non-saline sandy plains in southern Kuwait near Nuwaiseeb, less than a kilometre from the Saudi border. As most of the stations listed by Al-Rawi (1987) for Kuwait are near the coast, it seems that this species has a distinct affinity for coastal, but non-saline habitats. Furthermore, it can be assumed that given the proximity of Nuwaiseeb to the Saudi border, the species must occur in suitable habitats in the northern-most part of Saudi Arabia at least, but probably not in the Eastern Najd. Bor (1968) describes it as rather rare in southern Iraq, but more common in the north.

The record for Umm al-Qaiwain is therefore remarkable, in that it represents the southern-most occurrence of the species in Arabia, some 800 km to the south-east (300 km south) from its next known station (Nuwaiseeb, Kuwait) in the Peninsula, although the species probably does occur somewhat nearer, in western Iran.

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Fig 2. *Cutandia dichotoma* - inflorescence.



Fig 3. *Cutandia memphitica* - inflorescence.