



## Identification of *Alternanthera philoxeroides* (Alligator weed) from its native congener *Alternanthera sessilis* (Mukunuwenna)

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*Alternanthera sessilis* is one of the most popular green leaves (vegetable) in Sri Lanka and *A. philoxeroides* is a widely distributed noxious weed. Both of these species belong to family Amaranthaceae. *A. sessilis* has been used as a medicine and relish in many Asian and African countries. Because of the similar appearance of these two plants and lack of information to distinguish them, local people tend to grow, sell and consume *A. philoxeroides* instead of *A. sessilis*. This is one of the major problems in controlling *A. philoxeroides*. Use of this weed as a vegetable may cause health problem. At present *A. philoxeroides* has invaded many *A. sessilis* growing areas in Sri Lanka causing *Alternanthera sessilis* harvest mingle with *A. philoxeroides*. To overcome this problem it is necessary to study about the co-occurring nature of *A. sessilis* and *A. philoxeroides*. and to develop control measures for *A. philoxeroides*. In this study different morphological forms of *A. sessilis* were identified. *A. philoxeroides* was compared with different morphological forms of *A. sessilis*, Karu Mukunuwenna, Sudu Mukunuwenna, Mal Mukunuwenna and Rathu Mukunuwenna. According to the result, *A. philoxeroides* could be distinguished from *A. sessilis* forms by using their leaf and stem morphology and anatomy. Floral characters are useful in distinguishing two species at some stages only since *A. philoxeroides* does not bear flowers throughout the year and at the immature stage of the life cycle. Therefore anatomical characters can be reliably used to identify *A. philoxeroides*. Further research on growth competitiveness and chemical absorption of these two species is required to develop control measures.

**Key words:** *Alternanthera philoxeroides*, *Alternanthera sessilis*, Morphology, congener