

Reports and observations by Stephen Mifsud (MaltaWildPlants.com)

Code: F05-002a	Report date: 4 th Feb 2007
Report Category :	Report of a specimen or population of a rare species
Species :	<i>Calendula bicolor</i> Rafin.
Date of Observation :	26th March 2005
Location :	Dwejra, Gozo
Remarks :	While exploring Dwejra during a short visit in Gozo, I met some specimens of <i>Calendula</i> species with vivid orange ligules, purple-brown disc florets and a flowerhead estimated to be 24mm across [fig.2]. It was recently that I dedicated time to study various photographs and specimens grouped as <i>Calendula arvensis</i> and its varieties. The plant at Dwejra turned out to be <i>Calendula bicolor</i> Rafin. - different from <i>Calendula arvensis</i> var. <i>bicolor</i> (Raf.) DC. or <i>C. aegyptiaca</i> Pers. which in Malta was the taxon referring to those varieties of <i>Calendula arvensis</i> with rather small flowers having bright yellow ligules and purple-brown disc florets. Identification of <i>C. bicolor</i> was further agreed upon by [EL] who had seen it in Tunisia and [RL] an Italian researcher who additionally, extracted keys [Fig.1] from Flora d'Italia [1] . The keys of A. Fiori [2] also leads to <i>C. bicolor</i>. [EL] stated that this is the first record of <i>C. bicolor</i> for the Maltese islands. The study also leads to eliminate the taxon of <i>C. aegyptiaca</i> , a desert species from our islands, since this plant has more narrow leaves, described as linear-lanceolate [1], [3] compared to the oblanceolate ones of <i>C. arvensis</i> s.l. and <i>C. bicolor</i>. Such plants with a discolourous capitulum less than 2cm are for the moment placed as <i>Calendula arvensis</i> var. <i>bicolor</i> (Raf.) DC. The presence of <i>Calendula bicolor</i> on the Maltese islands would be no surprise since it is reported in neighbouring territories like Sicily and Tunisia [1]

Genere *Calendula* - Specie annuali

Capolini con diametro di 0,5-1,2 mm. Foglie lineari-lanceolate	<i>Calendula tripterocarpa</i> Rupr. (= <i>Calendula aegyptiaca</i> Auct. Fl. Ital. non Desf.)
Capolini con diametro di 2-5 cm. Foglie generalmente oblanceolate	
Ligule lunghe 0,7-2 cm. Fiori tutti dello stesso colore	<i>Calendula arvensis</i> L.
Ligule lunghe 2-3 cm. Fiori tubulosi centrali più scuri di quelli periferici ligulati	
Capolini con diametro generalmente ≥ 3 cm. Foglie subglabre	<i>Calendula stellata</i> Cav. (= <i>Calendula algeriensis</i> Boiss. et Reuter)
Capolini con diametro generalmente ≤ 3 cm. Foglie inferiori tomentose	<i>Calendula bicolor</i> Rafin.

Fig 1: Keys from Flora D'Italia [1] adapted by Luigi Rignanese [LR]



Fig 2: Comparison of *C. bicolor* and *C. arvensis* var. *bicolor* . (photos S. Mifsud)
Photographs are of same scale, also observed from the same size of the leaf ends.

[EL] Personal communication with Edwin Lanfranco – University Lecturer
[LR] Personal communication with Luigi Rignanese – Photographer and researcher

- [1] Flora d'Italia; Pignatti Sandro; Il Sole 24 Ore Edagricole, 2002.
- [2] Nuova Flora Analitica D'Italia (Vol.2); Adriano Fiori; Edizioni Agricole, 1969
- [3] Flora of Saudi Arabia (Vol.3); Ahmad Mohammed Migahid; Riyadh Univ, 1989