

4.6 = Critical forms in Sicilian populations of annual *Lysimachia* L. (Primulaceae)

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Based on recent literature, in the Primrose family the genus *Lysimachia* L. absorbed *Anagallis* L. (1). As a result, new name combinations have been introduced for this genus, thus involving the increase of specific and intraspecific taxa (for Italian flora see 2 and 3). A further consequence, focused in this contribution, concerns the binomial combination *Lysimachia arvensis* (L.) U.Manns & Anderb., which has different synonyms and includes several specific and intraspecific taxa. As far as the taxonomic history of the annual taxa of *Anagallis* is concerned, different authors preferred to include some of them in *A. arvensis* and in *A. foemina* at the level of variety (4) or subspecies (2), while others recognized their specific rank (5, 6, 7). Among these taxa, *A. parviflora* Hoffmanns. & Link is frequently reported, even included among the synonyms of *A. arvensis* (5) and then considered as a distinct species (7). The already complex *status* is further complicated by the occurrence of hybrids, as reported by Pignatti (6). The cited case would regard *A. foemina* and *A. parviflora*, but other taxa are also mentioned in literature [cf. *Anagallis* × *intermedia* Giraudias = *Lysimachia* × *intermedia* (Giraudias) B.Bock [(*Lysimachia arvensis* (L.) U.Manns & Anderb. × *Lysimachia foemina* (Mill.) U. Manns & Anderb.]. The analysis of the variability observed in a Sicilian population referable to this group (Fig. 1) revealed a quite critical case, introducing additional variables in the different interpretations of varieties, forms and hybrids of this group of complex species. Plant samples collected in the territory of Palermo particularly showed new colours of the corolla and different dimensions of petals. This recurrence of form and colour observed in the same station for two years, with the presence of congeneric taxa, allows to hypothesize a temporary recurrence of the mentioned features; the authors were induced to interpret this population at variety level or consider it the result of recurring hybridization processes. Field researches were extended on this basis and a second population was found in the territory of Misilmeri, near Palermo. Both populations coexist with the best known and widespread *A. arvensis* (incl. *A. phoenicea* Scop.) and *A. foemina*. The possible hybrid origin of this unit – elsewhere reported by amateurs not just in Italy – led to start genetic investigations which are still in progress.



Fig. 1. Different colours and forms of corolla in annual *Lysimachia* (= *Anagallis*) observed in Sicily.

- 1) U. Manns, A.A. Anderberg (2009) *Willdenowia*, 39(1), 49-54
- 2) L. Peruzzi (2012) *Inform. Bot. Ital.*, 42(1), 383-384
- 3) F. Bartolucci, L. Peruzzi, G. Galasso et al. (2018) *Plant Biosyst.*, 152(2), 179-303
- 4) A. Fiori (1926) *Nuova Flora Analitica d'Italia*, 2, 224-225. Firenze
- 5) L.F. Ferguson (1972) *Anagallis* L. In: T.G. Tutin, V.H. Heywood, N.A. Burges et al. (Eds.), *Flora Europaea*, 3, 28-29. Cambridge University Press, Cambridge
- 6) S. Pignatti (1982) *Flora d'Italia*, 2, 290-291. Edagricole, Bologna
- 7) P.V. Arrigoni (2010) *Flora dell'Isola di Sardegna*, 2, 566-573. Carlo Delfino editore, Sassari