



## A new nomenclatural change in *Polycarpon* (Caryophyllaceae): *P. tetraphyllum* subsp. *sauvagei* comb. & stat. nov., an endemic taxon from Morocco

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The recent molecular investigations by Kool *et al.* (2007) clearly showed the polyphyly of the genus *Polycarpon* Linnaeus (1759: 859, 881) which includes, in the new restricted sense, only the taxa belonging to the *Polycarpon tetraphyllum* clade, while the South American *P. suffruticosum* Grisebach (1874: 77–78), and *P. coquimbense* Gereau & Marticonema (1995: 154), and the widespread tropical *P. prostratum* (Forsskål 1775: 207) Ascherson & Schweinfurth (1889: 128) are to be excluded. Kool *et al.* (2007) also suggested treating all the members of the *P. tetraphyllum* group as a single species with the recognition of several subspecies. Accordingly, Iamonico (2013), and Iamonico & Domina (2015) proposed four new nomenclatural combinations [a further proposal about the northwestern American *P. depressum* Nuttall ex Torrey & Gray (1838: 174) is in preparation].

*Polycarpon sauvagei* Mathez (1983: 357) was described based on plants observed and collected on the cervices quartzitic rocks of the Moroccan Central Plateau. Kool *et al.* (2007) do not included this species in the phylogenetic analyses, but, on the basis of its morphology, there is no doubt that *P. sauvagei* belongs to the *P. tetraphyllum* group (see also Kool *et al.* 2007: 781). On the whole, *P. sauvagei* resembles the perennial members, especially the taxon *herniarioides* (Ball 1873: 301) that currently occurs in northwestern Africa, and southeastern Spain (see Amich & Pedrol 1990). The vegetative characters of the entities *sauvagei* and *herniarioides* (habitus, plant high, leaves shape, size, thickness, arrangement, and stipules shape, and size) partially or totally overlap, as well as some sexual features (e.g., inflorescence structure, sepals shape, apex and median keel, stamens number, seed surface); the habitat (cervices rocks) is also the same (see e.g., Mathez 1983, Amich & Pedrol 1990). Differences exist (personal observations and literature data) on the calyx, and corolla sizes which are longer in *P. sauvagei* (sepals 3.5–4.0 vs. 1.8–2.0 mm, and petals about 3.5 vs. 0.8–1.0 mm).

All things considered (molecular, morphological, ecological, and chorological data) it is proposed that the subspecies rank is more appropriate for the *Polycarpon sauvagei*:

***Polycarpon tetraphyllum*** (Linnaeus 1753: 89) Linnaeus (1759: 881) subsp. ***sauvagei*** (Mathez) Iamonico, comb. & stat. nov.

Basionym: *Polycarpon sauvagei* Mathez (1983: 357).

Holotype:—MOROCCO. Plateau Central, région de Sidi-Hassine, fissures de quartzites à Akzou, 16 Jun 1965, Mathez 30767 (RAB!), image available from <http://plants.jstor.org/stable/history/10.5555/al.ap.specimen.rab050627>).

**Note:**—On the basis of the new circumscription in *Polycarpon*, the flora of Morocco currently includes one species, *P. tetraphyllum* s. lat. which is represented by four subspecies: subsp. *tetraphyllum* (annual to perennial herb with cosmopolitan distribution), subsp. *herniarioides* (Ball) Iamonico & Domina (2015) [subshrubs distributed in southeastern Spain (Almería, Sierra del Gádor) and northeastern Africa (Morocco, and Algeria) - see Amich & Pedrol 1990, Quézel & Santa 1962, Fennane *et al.* 1999], subsp. *polycarpoides* (Bivona 1814: 5–6) Iamonico (2013: 105) [subshrubs occurring in northwestern Africa (Morocco, Algeria, and Tunisia) and southern Italy - see Conti *et al.* 2005, Marhold 2011], and subsp. *sauvagei* (Mathez) Iamonico (perennial chamaephyte, endemic to Morocco - see Fennane *et al.* 1999, Marhold 2011).

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