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Studies on the genus *Atriplex* (*Chenopodiaceae*) in Italy. VIII. Names published by Vincenzo Tineo and Michele Lojacono-Pojero

Abstract

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The typification of the *Atriplex* names published by Vincenzo Tineo and Michele Lojacono-Pojero is discussed. *Atriplex ambigua*, *A. dealbata*, *A. graeci*, *A. halimoides*, *A. halimoides* var. *glomerata*, *A. halimoides* var. *perglauca*, *A. polyphylla*, and *A. rotundifolia* are neo- or lecto-typified on specimens preserved at FI or PAL and synonymized with *A. glauca* (= *A. dealbata*), *A. halimus* (= *A. halimoides* = *A. halimoides* var. *glomerata* = *A. halimoides* var. *perglauca*), *A. rosea* (= *A. ambigua* = *A. graeci*) and *A. tornabenei* (= *A. polyphylla* = *A. rotundifolia*). The Tineo's *A. arenaria*, previously considered as replaced synonym of *A. tornabenei*, is clarified and typified (neotype) on a specimens deposited at FI.

Key words: *Atriplex halimus*, *Atriplex rosea*, nomenclature, new synonymy, typification.

Introduction

Atriplex L. (*Chenopodiaceae* Vent.) includes about 260 species distributed in arid and semi-arid regions of Eurasia, America, and Australia (Sukhorukov & Danin 2009). According to Kadereit & al. (2010) the majority of *Atriplex* taxa are to be considered as part of a monophyletic clade, including *Obione* Gaertn., *Teutliopsis* (Dumort.) Čelak., and other segregates.

As part of ongoing studies on the genus *Atriplex* (see e.g., Iamónico 2010, 2011, 2012a, 2012b, 2013, 2017; Iamónico & Sukhorukov 2014; Iamónico & El Mokni 2019; Iamónico & Bovio 2023) and on the typification of Lojacono-Pojero's names (Aghababyan & al. 2008; Domina & al. 2014a; Di Gristina & al. 2017), this contribution deals with the names of *Atriplex* taxa described by Tineo (1827) in his *Catalogus Plantarum Horti Regii Panormitani* and by Lojacono-Pojero (1907) in his *Flora Sicula*.

Materials and methods

The paper is based on an extensive analysis of literature, and examination of the specimens preserved in the Herbaria FI, G, K, LECB, LINN, NAP, P, PAL, RO, and W

(acronyms according to Thiers 2023 [continuously updated]). The taxonomic revision is based on the morphology of the investigated specimens.

The articles cited throughout the text are those of the *Shenzhen Code*, hereafter reported as “ICN” (Turland & al. 2018).

Typification of the names

Atriplex ambigua Lojac., Fl. Sicul. (Lojacono) 2(2): 286. 1907.

Lojacono-Pojero (1907: 286) described *Atriplex ambigua* through a detailed diagnosis, also reporting the habitat and provenance (“Luoghi marittimi, Trapani” = “Maritime places, Trapani [NW Sicily]”); moreover, morphological comparisons with *A. laciniata* L. and *A. platysepala* Guss. were given. By implication, this refers to material collected by Lojacono himself.

We traced at PAL one folder bearing (bottom-right corner) the following original label (Lojacono-Pojero’s handwriting): “*Atriplex, ambigua* Lojac. | mihi | pro nomine ubi”. This folder includes seven mounted specimens (PAL58450, PAL58451, PAL58452, PAL58453, PAL58454, PAL58455, and PAL58456; images available at http://147.163.8.207/herbarium_vsimple_en.asp). No date of collection or locality are mentioned on the individual specimens; nonetheless, it is reasonably certain that all these plants were collected before 1907, because later on Lojacono-Pojero did not deposit any material in PAL, as he subsequently moved to Messina (Domina & al. 2014b). So, these specimens can be considered original material. This agrees with the opinion of Aghababayan & al. (2008), who considered as original material the specimens housed in PAL with Lojacono’s handwriting even in the absence of a date. According to the Art. 8.3 of ICN (Ex. 9) the above mentioned sheets can be considered as a single specimen and they are here designated as the lectotype of the name *Atriplex ambigua*.

The taxonomic identity of *Atriplex ambigua* is complex. In fact, none of the Lojacono-Pojero’s material bears mature fruits, a feature (especially the kranz-anatomy of the bracteoles) that is important for the reliable identification of *Atriplex* species (see, e.g., Castroviejo 1990; Akeroyd 1993; Iamónico 2017). Giardina & al. (2007: 59), in their catalogue of Sicilian plants, listed *Atriplex ambigua* as a distinct species but express taxonomic “doubt, perhaps close to *A. laciniata*”; on the other hand, The Plant List (2013a) and POWO (2023a) reported *A. ambigua* as, respectively, an “unresolved name” and an “unplaced name”. Note that the Linnaean name *A. laciniata* was incorrectly interpreted by most Italian authors and the Italian concept of this species is included in the current *A. tatarica* group *sensu* Uotila (2011), particularly in *A. tatarica* L. (see e.g., Iamónico & Sukhorukov 2014; PFAI 2023+). This group includes, for Italy, *A. tatarica*, *A. rosea* L., and *A. tornabenei* Guss., which are herbaceous annuals with fruiting bracteoles of triangular or rhombic shape, fused for up to one half of their length (Iamónico 2017). On the basis of protologue information and the morphology of the extant PAL specimens, *A. ambigua* is an annual herbaceous species, placed by Lojacono-Pojero (1907) in the informal group “*Herbaceae*”, with fruiting bracteoles transversely rhombic (width > length), smooth, with obsolete reticulate veins, entire or scarcely dentate margins, with prominent laciniae (original description: “sepalis fruct. ... *laevibus obsolete nerv.-reticulatis integris, magis latis*

quam longis late rhombeis integerrimis rarius parcissime subdentatis auriculas satis productis prominulis ...”), and with flowers grouped in glomerules arranged in in terminal, basally leafy spikes (“*Fruct. in spica termin. [terminali]*” in the description of the group “*Herbaceae*”). This combination of characters, especially the size of the fruiting bracteoles and inflorescenc structure (axillary glomerules and terminal leafy spikes) allows us to identify *A. ambigua* as *A. rosea* as currently understood (see e.g., Iamónico & Sukhorukov 2014; Iamónico 2017). Since no earlier citation of *A. ambigua* as a synonym of *A. rosea* was found, we here consider a new synonymy.

Atriplex arenaria Tineo, Cat. Pl. Hort. Panorm.: 276. 1827. (*A. tornabenei* ('*tornabeni*') Guss., Fl. Sicul. Syn.: 589. 1843.

Tineo (1827: 276-277) for his newly proposed species *Atriplex arenaria* provided a diagnosis, the provenance (“*Crescit in maritimis arenosis Cataniae: nella Rina di Catania*”), and the flowering and fruiting times (“*Floret et fructificat Septembri, Octobri*”). Tineo’s name is a later homonym of the previously validly published *A. arenaria* Nutt. (Nuttal 1818) and is therefore illegitimate (Art. 53.1 of ICN). Gussone (1843: 589) proposed the name *A. tornabenei* providing a description and reporting Tineo’s illegitimate *A. arenaria* as a synonym. Iamónico (2013: 54-55, 57) discussed Gussone’s name and lectotypified *A. tornabenei* using a Cupani’s illustration (“*T. III*” *Atriplex marina minor supina lanceolato foliola incano semine tricuspide alata*) published in *Panphyton Siculum* (Cupani 1713; see Iamónico 2013: fig. 1) since no specimens of original material are in extant; Cupani’s illustration was designated as a lectotype for both *A. tornabenei* and *A. arenaria*, which were considered by Iamónico (2013) as homotypic synonyms (*A. tornabenei* as *nomen novum* of Tineo’s *A. arenaria* non Nuttall). Iamónico (2013) also designated an epitype using a specimen preserved at FI (barcode FI002557) collected by V. Tineo at Catania. However, since Tineo (1827: 276-277) did not cite Cupani (1713) in the protologue, Iamónico’s lectotype cannot be retained for Tineo’s name (Cupani’s illustration is not part of the original material for *A. arenaria*) and a different type should be designated. No original material for *A. arenaria* was found and, according to the Art. 9.8 of ICN, a neotypification is required. We designated FI002557 as the neotype of Tineo’s name *A. arenaria*, being the only found specimen collected by V. Tineo at Catania (*locus classicus* of *A. arenaria*).

Atriplex dealbata Lojac. Fl. Sicul. (Lojacono) 2(2): 280. 1907.

Lojacono-Pojero (1907: 280) provided a detailed diagnosis and stated “In Sicilia in Herb. Pan.” [Herbarium Panormitanum] where he must have used at least one specimen previously identified as *Atriplex littoralis* (“...pro *A. littorale!* determinata”).

One specimen, deposited at PAL (PAL58541), bears some parts of one plant and the following label: “*Atriplex littorali* | *fila 11 posto 9*”. Even though both the locality and the date of collection are lacking on the label, note that Lojacono-Pojero (1907: 281) in the protologue of *Atriplex dealbata* stated “in Herb. Pan. (*s. nom. nec indicatione loci spec.*) a manu Auctoris mihi ignotus pro *A. littorale!* determinata”. This specimen was seen by Lojacono-Pojero, who revised the entire herbarium in Palermo to compile his “Flora Sicula”, we considered PAL58541 as part of the original material for *A. dealbata* and, being the single specimen referred to in the protologue (syntype; Art. 9.6 of ICN), desig-

nate it as the [obligate] lectotype (perhaps even the holotype, Art. 9.1 of ICN). On the basis of the morphology of that specimen, as well as the description given by Lojacono-Pojero (1907), *A. dealbata* is a perennial, suffruticose plant woody at the base, with branches glabrous to furfuraceous, leaves alternate, linear to oblong-elliptic, with entire margins, flowers arranged in dense glomerules or spikes, fruiting bracteoles triangular-rhombic, warty and with denticulate margins. This combination of characters agrees with *A. glauca* especially concerning the shape of the fruiting bracteoles which is diagnostic for this species in comparison with the related *A. halimus* [Giardina & al. (2007: 57-58) treated *A. dealbata* as a synonym of *A. littoralis*, but *A. littoralis* differs being an annual herb (see e.g., Akeroyd 1993; Iamónico 2017); The Plant List (2013b) and POWO (2023a) treated *A. ambigua* as, respectively, an “unresolved name” and an “unplaced name”]. Note that Lojacono-Pojero (1907: 279-281) did not list *A. glauca* among the shrubby taxa, which were: *A. halimus* (currently an accepted species), *A. halimoides* (= *A. halimus* s. str.; see the taxonomic treatment in the present paper), *A. dealbata*, and *A. bocconei* Guss. (= *A. glauca* according to Iamónico 2011).

Atriplex graeci Tineo, Cat. Pl. Hort. Panorm.: 277. 1827.

Tineo (1827: 277) provided a detailed diagnosis, as well as mentioning the habitat (“*Crescit in pratis arillosis, ad vias*”), the provenance (“*prope Panormum; nel piano della Consolazione, nei Colli*”), and the phenology (“*Floret, fructificat Augusto, Septembri*”).

There is a specimen at PAL (PAL58483), where Tineo’s herbarium is preserved (Stafleu & Cowan 1986: 365; HUH Index of botanists 2013 onwards), bearing one plant with leaves and fruits and the following original label: “*13 7bre [September] 1827 | Atriplex Graeci Nob. [Nobis] | Atriplex rosea Guss. Syn. | Palermo Colli*”. This specimen is clearly part of the original material used by Tineo (1827: 277) to describe *Atriplex graeci*. We also traced two further sheets (PAL58486 and PAL58489) including labels with localities cited in the protologue, i.e., respectively, “*Consolazione*” (plus the month of collection, “*luglio*” = July) and “*Colli*”. Since the year of collection is lacking, we cannot be sure that these plants were collected before 1827. However, at least the specimen PAL58489, collected at “*Colli*”, could be a duplicate of PAL58483, and Tineo could have reported the locality only [Piana dei Colli, generically referred to as “*Colli*”]. We here designated PAL58483, which morphologically matches Tineo’s diagnosis, as the lectotype of the name *Atriplex graeci*. According to the current opinion (see e.g., Akeroyd 1993; Sukhorukov 2006; Iamónico 2017), *A. graeci* can be synonymized with *A. rosea*.

Atriplex halimoides Tineo, Cat. Pl. Hort. Panorm.: 277. 1827.

This species was validly published by Tineo (1827: 227) who provided a diagnosis, mentioned the provenance (“*Crescit in inundatis prope Catanam; nella Piana*”), the phenology (“*Floret, et fructificat Augusto, Septembri*”), and the statement “*Affinis A. roseae, sed certe diversa*”.

Two pertinent specimens were found at PAL (PAL58502 and PAL58500), both bearing branches of plants with leaves and fruits. PAL58502 was collected at “*Piana di Catania, Oct. [October] 1826*” according to the original label by Tineo and it is part of the original material for the name *Atriplex halimoides*. PAL58500 includes a label “*Agosto | Atriplex halimoides Tin | Catania*”, without the collection year. We prefer to designate PAL58502

as the lectotype of *A. halimoides* because it certainly belongs to the original material and is more complete than PAL58500. The lectotype can be identified as *A. halimus* as currently circumscribed (see e.g., Akeroyd 1993; Sukhorukov 2006; Iamónico 2017).

Atriplex halimoides var. *glomerata* Lojac., Fl. Sicul. (Lojacono) 2(2): 280. 1907. and *A. halimoides* var. *perglauca* Lojac., Fl. Sicul. (Lojacono) 2(2): 280. 1907.

These two varieties were described by Lojacono-Pojero (1907: 280) by the following short diagnoses and provenances: “Ramis floriferis abbreviatis spicis *densioribus, tortuosis dense glomeratis* Trapani” (var. *glomerata*), and “*udinque farinosa, pulverulenta, viridi glauca aenea*. Ubi? Herb. Pan. !” (var. *perglauca*).

Concerning *Atriplex halimoides* var. *glomerata* one specimen is deposited at PAL (PAL58505), with the following label: “Trapani” [Todaro’s handwriting], “*A. halimoides* Tin. var.” [Lojacono-Pojero’s handwriting]). Todaro’s annotation is earlier than that by Lojacono-Pojero who accepted the Todaro’s identification as *Atriplex halimoides*, but specified that the plant is referred to a variety. PAL58505 lacks the date of collection but with certainty, as it belongs to Tineo’s herbarium and was seen by Lojacono-Pojero who reviewed the entire herbarium of Palermo during the preparation of his *Flora Sicula*. PAL58505, matches the diagnosis; it is the best possible, if not the only, candidate as lectotype of the name *Atriplex halimoides* var. *glomerata*. This specimen is identifiable as *A. halimus* (see, e.g., Akeroyd 1993; Sukhorukov 2006; Iamónico 2017).

Under the name *A. halimoides* var. *perglauca*, there is at PAL one folder labelled: “R. [Regio] ORTO BOTANICO DI PALERMO | *Atriplex halimoides* Tin. var. *perglauca* mihi | *majo ubi? Sicilia!* | *impossibile determinare senza frutto*”. The folder includes three specimens (PAL58496, PAL58497, and PAL58498) associated to the following. Despite the fact that the date of collection is lacking, the annotation “*mihi*” allows to consider it as [part of?] the original material for the name *Atriplex halimoides* var. *perglauca*. These PAL sheets, which are part of the same specimen (see Art. 8 Ex. 9 of ICN), matches the Lojacono-Pojero’s diagnosis and are here designated as the lectotype of the name *Atriplex halimoides* var. *perglauca*. They are identifiable as *A. halimus* (see e.g., Akeroyd 1993; Sukhorukov 2006; Iamónico 2017).

Atriplex polyphylla Lojac., Fl. Sicul. (Lojacono) 2(2): 282. 1907.

Lojacono-Pojero (1907: 282) described *Atriplex polyphylla* in detail and given the provenance (“*Arene del littorale occident., Trapani*” = Sands of the western shore, Trapani). Lojacono-Pojero’s name is illegitimate, being a later homonym of *A. polyphylla* Phil. (Art. 53.1 and 53.2), published 16 years earlier (Philippi 1891: 73). No specimens that might be considered as original material can be found in the PAL.

Concerning the identity of *Atriplex polyphylla*, by examining the protologue, note firstly that the author placed the name subsequent to “*A. tornabenei* Tin. (ex p.)”. Moreover, he stated (at the end of the treatment): “*Questa pianta ... credo non deve confondersi colla vera A. tornabenei ...*” (= This plant, I believe, is not to be confused with true *A. tornabenei* ...). So, it appears that Lojacono-Pojero’s notion of *A. polyphylla* comes close to that of *A. tornabenei*. When comparing the descriptions of these two species in *Flora Sicula*, one finds only two clear differential characters, viz.: the leaf margin (“*Foliis...integerrimis*” in *A. polyphylla* vs. “*parce angul-dent. subintegris*”

in *A. tornabenei*) and the number of flowers per glomerule (“Glomeruli fructiferi 2-5-flor.” vs. “Flo. axillar. ... subsolitariis”). However, according to the current opinion (see e.g., Castroviejo 1990; Iamónico 2013, 2017), the margins of the leaf blades in *A. tornabenei* vary from entire to irregularly sinuate-lobed, whereas the number of flowers per glomerule is 2 to 5. By consequence, we consider Lojacono-Pojero’s notion of *A. polyphylla* as currently included in *A. tornabenei*.

Atriplex rotundifolia Lojac., Fl. Sicul. (Lojacono) 2(2): 286. 1907.

Lojacono-Pojero (1907: 282), after the detailed description, reported several localities (“Luoghi arenosi della parte Orient., Vaccarizzo”, “Siracusa alle saline”, and “Girgenti, d’Orlando”) where the plants were collected by V. Tineo (“Tin”).

We found two specimens identified as *Atriplex rotundifolia* at PAL: PAL58631 and PAL58697. PAL58631 includes one plant (with leaves and fruits) collected by Lojacono, with the original label “*Atriplex rotundifolia* Lojac. mihi | Sicilia”. However, since label data and protologue information do not coincide, we consider this specimen as unsuited for lectotypification purposes. Even so, PAL58631 can serve to illustrate Lojacono-Pojero’s notion of *Atriplex rotundifolia*. It is identifiable as *A. tornabenei* as currently understood (see e.g., Castroviejo 1990, Iamónico 2013, 2017). Concerning the second specimen (PAL58697), it was collected by N. Citarda at “Girgenti” (currently Agrigento, a city of SW-Sicily), which is one of the localities cited by Lojacono-Pojero (1907: 282) in the protologue.

In the protologue of *Atriplex rotundifolia* (Lojacono-Pojero 1907) includes “*A. Tornabenei* Tin. pr. parte”, and at the end of the species treatment, he added: “La descrizione di Tin. abbraccia chiaramente tanto la vera *A. Tornabenei* che questa che descrivo sotto un nome mio” (= “Tineo’s description clearly encompasses both real *A. tornabenei* and this one, which I here describe under a name of mine”). Lojacono-Pojero (1907) accepted to recognize *A. tornabenei* (species no. 5 in his *Flora Sicula* vs. no. 4 for *A. rotundifolia*). His descriptions of *A. rotundifolia* and *A. tornabenei* differ in a single point only, viz. the shape of cauline leaves which are “subconformibus [± similar to the basal leaves, described as suborbicular with a truncate base to oblong-ovate with large marginal lobes]” in *A. rotundifolia*; but oblong-lanceolate in *A. tornabenei*. In other respects (habit, inflorescence, and flowers) both species are described in equal or near equal terms. The specific epithet *rotundifolia* chosen by Lojacono-Pojero (1907) refers to leaf shape. However, according to current concepts (see, e.g., Castroviejo 1990; Iamónico 2013, 2017), the leaf shape in *A. tornabenei* varies from ovate to lanceolate and rhombic to deltate, with margins entire to irregularly sinuate-lobed. By consequence, we include *A. rotundifolia* in *A. tornabenei* [Giardina & al. (2007: 57-58) listed *A. rotundifolia* as a synonym of *A. tatarica*, whereas The Plant List (2013d) and POWO 2023d) treat *A. ambigua* as, respectively, an “unresolved name” and an “unplaced name”].

All things considered, we here designate the specimen PAL58631 as the lectotype of the name *Atriplex rotundifolia* and synonymize this name with *A. tornabenei*.

Taxonomic treatment

Atriplex glauca L., Cent. Pl. 1: 34. 1755.

Lectotype (designated by Castroviejo 1987: 474): [icon] *Atriplex maritima Hispan. frutescens and procumbens Tourn.*” in Dillenius (1732: 46, t. 40, f. 46); image of the lectotype available at <https://bibdigital.rjb.csic.es/viewer/10700/?offset=#page=94 &viewer=picture&o=bookmark&n=0&q=>

= *Atriplex dealbata* Lojac., Fl. Sic. 2(2): 280. 1907.

Lectotype (designated here): ITALY, s.l., s.d. (sub *Atriplex littoralis*), *s. c. s. n.* (PAL58541!; image of the lectotype available at http://147.163.8.207/zoomify/view_img.asp?ic=58541).

Atriplex halimus L., Sp. Pl. 2: 1052. 1753 ≡ *Chenopodium halimus* (L.) Thumb., Prodr. Pl. Cap.: 48. 1794 ≡ *Schizotheca halimus* (L.) Fourr., n.s., Ann. Soc. Linn. Lyon 17: 143. 1869.

Neotype (designated by Brennan in Turril & Milne-Redhead 1954: 14): Herb. Linn. No. 1221.1 (LINN!); image of the lectotype available at <http://linnean-online.org/10762/>.

= *Atriplex halimoides* Tineo, Cat. Pl. Hort. Panorm.: 277. 1827.

Lectotype (designated here): ITALY, Piana di Catania, 10/1826, *V. Tineo s. n.* (PAL58502!); image of the lectotype available at http://147.163.8.207/zoomify/view_img.asp?ic=58502

= *Atriplex halimoides* var. *glomerata* Lojac., Fl. Sic. 2(2): 280. 1907.

Lectotype (designated here): ITALY, Trapani [manu Todaro], s. d., *s. c. s. n.* (PAL58505!); image of the lectotype available at http://147.163.8.207/zoomify/view_img.asp?ic=58505

= *Atriplex halimoides* var. *perglauca* Lojac., Fl. Sic. 2(2): 280. 1907.

Lectotype (designated here): ITALY, Sicilia, s. d., *M. Lojacono-Pojero s. n.* (PAL58496!, PAL58497!, and PAL58498!); image of the sheet (single specimen according to the Art. 8.2-Ex.9 of ICN) available at http://147.163.8.207/herbarium_vadv_en.asp.

Atriplex rosea L., Sp. Pl., ed. 2, 2: 1493. 1763 ≡ *Chenopodium roseum* (L.) E. H. L. Krause, Deutschl. Fl., ed. 2, 5: 183. 1901.

Neotype (designated by McNeill & al. 1983: 553): Herb. Haller, “Semen a Zinnio sub nomine *Atriplex seminis capsula aculeata*” (P-HA).

= *Atriplex graeci* Tineo, Cat. Pl. Hort. Panorm.: 277. 1827.

Lectotype (designated here): ITALY, Palermo, Colli, 13/09/1827, *V. Tineo s. n.* (PAL58483!); image of the lectotype available http://147.163.8.207/zoomify/view_img.asp?ic=58483

= *Atriplex ambigua* Lojac., Fl. Sic. 2(2): 286. 1907, **syn. nov.**

Lectotype (designated here): ITALY, Sicily, s.d., *M. Lojacono-Pojero s.n.* (PAL58450!, PAL58451!, PAL58452!, PAL58453!, PAL58454!, PAL58455!, and PAL58456!), images of the sheets (single specimen according to the Art. 8.2-Ex.9 of ICN) available at http://147.163.8.207/herbarium_vsimple_en.asp.

Atriplex tornabenei Tin. ex Guss., Fl. Sicul. Syn.: 589. 1843 ≡ *Atriplex laciniata* var. *tornabenei* (Tin. ex Guss.) Fiori & Paol., Fl. Anal. It. 1: 306. 1896–1898 ≡ *Atriplex tatarica* subsp. *tornabenei* (Tin. ex Guss.) C. Blanché, Molero & Rovira, Butl. Inst. Catalana Hist. Nat. 51: 117. 1984.

Lectotype (designated by Iamónico 2013: 57, Fig. 1):—[Icon] *Atriplex marina minor supina lanceolato foliola incano semine tricuspide alata*, T. III in Cupani (1713).

Epitype (designated by Iamónico 2013: 57):—ITALY, Sicily, Catania, Spiaggia, s. d. [Ex Tineo in Maggio 1847], *V. Tineo s.n.* (FI002557!); image of the lectotype available at <http://parlatore.msn.unifi.it/types/search.php>

= *Atriplex arenaria* Tin., Cat. Pl. Hort. Panorm.: 276. 1827 *nom. illeg. non* Nuttall (1818: 198).

Neotype (designated here):—ITALY, Sicily, Catania, Spiaggia, s. d. [Ex Tineo in Maggio 1847], *V. Tineo s. n.* (FI002557!); image of the lectotype available at <http://parlatore.msn.unifi.it/types/search.php>

= *Atriplex polyphylla* Lojac., Fl. Sic. 2(2): 282. 1907, *nom. illeg. non* Philippi (1891: 73).

= *Atriplex rotundifolia* Lojac., Fl. Sic. 2(2): 282. 1907.

Lectotype (designated here): ITALY, Sicilia, s. d., *M. Lojaco-Pojero s. n.* (PAL58631!); image of the lectotype available at http://147.163.8.207/zoomify/view_img.asp?ic=58631

Selected specimens examined

Atriplex glauca. SPAIN, Murcia, Los Nietos (Mar Menor), en arenales nitrofosfatos, 12 April 1984, *J. P. Peris & G. Stübimg s. n.* (FI!); *ibidem* (RO!); Alacantí, Santa Pola, matojares nitrohalófilos, 22 April 1984, *A. Aguilera & I. Mateu s. n.* (FI!). Granada, Cullar Baza, salt marsh, 22 June 1988, leg. *B. Valdés et al. s. n.*, det. *M. Watson* (FI!); *ibidem*, det. *P. Wilkin s. n.* (FI!); Almería, Campohermoso, S-facing limestone bank at edge of cultivated area, 17 April 1994, *S. L. Jury s. n.* (FI!); Tenerife, 15 November 1988, *S. Castroviejo 10436SC* (P01182765!). UNKNOWN COUNTRY, s.d. *P. Arduino* (LINN-1221.6!).

Atriplex halimus. ALGERIA, Biskra, in argillosis subsalsis, 24 October 1903, *L. Chevalier 613* (K000243881!). FRANCE, Bouches-du-Rhône, bordi de la Méditerranée aux S. Marces de la Mer (Bouches du Rhône), 09 November 1882, *R. Neyra s.n.* (RO!). ISRAEL, Jordan valley, banks of Jordan near Kinnereth, 30 November 1951, *M. Zohary & A. Fahn s.n.* (RO!). ITALY, Basilicata, Pomarico, September 1883, *coll. illeg. s.n.* (RO!); Calabria, abbonda sui fianchi dei Colli pr. Crotone, lungi dal mare, 26 October 1935, *G. Lusina s.n.* (RO!); Scogliera Còrica a S di Amantea, 11 September 1975, *De Stefani s.n.* (PAL108191!); Lazio, zona litoranea presso Civitavecchia verso S. Marinella, 30 October 1980, *B. Anzalone s.n.* (RO!); Parco Nazionale del Circeo, Caprolace, October 1989, *B. Anzalone s.n.* (RO!); Liguria, Ager nicaeensis, ad marginem agrorum et in ripis torrentis Magnon, 4 October 1904, *A. Goiran & Adr. Fiori s.n.* (FI!); Marche, Ancona-Falconara, siepi, 18 July 1947, *A. Bettini s.n.* (FI!); Puglia, Gravina, 19 August 1933, *G. Carasso s.n.* (RO!); Sardegna, nelle siepi di Cagliari (inselvaticita), August (XIX sec.), *s.c. s.n.* (RO!); Sicilia, sopra le Cave vulcaniche di Catania, s.d. (XIX century), *s.c.* (RO!); Catania, s.d. (August), *V. Tineo s.n.* (PAL58502!, sub *A. halimoides*); Lipari, s.d., *s.c.* (PAL58493!, sub *A. halimoides*);

Ustica, 1854, *s.c.* (PAL58509!; Toscana, Isola di Pianosa (Livorno), Cala Giovanna, 20 September 1999, *R. M. Baldini et L. Vivona s.n.* (FI!); Umbria, lago Trasimeno (Perugia), 23 July 1955, *F. Palombini s.n.* (FI!). PORTUGAL, Buarcos, nas muralhas, September 1888, *A. Moller s.n.* (RO!); Algarve, Portinão, Praia da Rocha, nos morros proximos da poaia, 15 September 1961, *A. Raimondo s.n.* (RO!). SPAIN, Canary Islands, Gran Canary, Jileta, 29 December 1887, *Kuntze s.n.* (K000243889!).

Atriplex rosea. CYPRUS, Limassol, zypern archäologischen Gelände des Heiligtumsder Aphrodite, 22 June 1996, *Walter 7920* (W!). ITALY, Lazio, Cerenova (Lido di Cerveteri), spiaggia, paludi, ruderi, ecc., 23 October 1977, *B. Anzalone s.n.* (RO!); Ladispoli-Cerenova, loc. Campo di Mare, September 1985, *B. Anzalone s.n.* (RO!); Sicilia, Palermo, 1847, *V. Tineo s.n.* (K000898528!), Palermo, Colli, s. d. [XIX century], *V. Tineo s.n.* (PAL58489!, sub *A. graeci*); Palermo, Consolazione, s. d. (July) [XIX century], *V. Tineo s.n.* (PAL58486!, sub *A. graeci*); Palermo, s.d., *V. Tineo s.n.* (LECB!, sub *A. graeci*); presso il semicerchio della Barchetta della Marina, September 1849, *V. Tineo s.n.* (PAL58679!, sub *A. graeci*); Sferracavallo, September 1846, *V. Tineo s.n.* (PAL58485!, sub *A. graeci*); Sicilia, *V. Tineo s.n.* (K000898529!, sub *A. graeci*). SPAIN, Madrid: Colemar de Oreja prés de Madrid, 19 September 1980, *Sag 1007* (P!).

Atriplex tornabenei. ITALY, Campania, Napoli al Fusaro, Bagnoli, October 1826, *s. c. s. n.* (sub *A. laciniata*) (NAP!); Pozzuoli, August 1844, *s. c. s. n.* (NAP!); Ischia, alla marina di Casamicciola, August 1860, *G. Gussone s.n. s. n.* (NAP!); tra il Fusaro e Torre Gaveta, in arenosis maritimis, June 1912, *M. Guadagno s. n.* (NAP!); Campi Flegrei, Coroglio, September 1919, *N. Terracciano s. n.* (NAP!); Lazio, Tarquinia, Pian di Spille, spiagge, 1 m s.l.m., 01 October 2004, *M. Iocchi et F. Bartolucci s. n.* (FI!, APP!); Puglia, Bari, località Fesca a circa 100 m dalla foce del torrente Tiflis, sabbie ciottolose, 2 m s.l.m., 08 September 2011, *D. Iamónico & V. Buono s. n.* (RO!); Sicily, Mazara del Vallo, Capo Feto, Posidonia Banquettes, (WGS84: 37.659993N, 12.538759E), 1 m a.s.l., 5/11/2020, *G. Domina & G. Barone s. n.* (PAL), Palermo, Solanto, s. d. [XIX century], *V. Tineo s. n.* (NAP!), *ibidem*, July, *V. tineo s.n.* (PAL58635!), *Girgenti*, s. d. [XIX century], *N. Citarda s. n.* (PAL58697!, sub *A. graeci*).

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