

Whether the illustration in Rheede (l.c.) or the specimen G00360112 is accepted as the lectotype leads to either *Asplenium arifolium* or *Hemionitis cordata* being the basionym of the correct name of the species. In June 2021, in Google Scholar, *Asplenium arifolium*, and combinations based on it, had 461 hits; *Hemionitis cordata*, and combinations based on it, had 95 hits. The species is referred to as *Parahemionitis arifolia* in Panigrahi (Amer. Fern J. 83: 90. 1993b), Pteridophyte Phylogeny Group (l.c.: 580) and Vaganov & al. (in Turczaninowia 21(3): 72. 2018); and as *Hemionitis arifolia* in Tardieu & Christensen (in Lecomte, Fl. Indo-Chine 7: 189. 1940), Holttum (Rev. Fl. Malaya 2: 596. 1955 [‘1954’]), Tagawa & Iwatsuki (in Acta Phytotax. Geobot. 25: 19. 1971; in Smitinand & Larsen, Fl. Thailand 3: 191. 1985), Piggot (Ferns Malaysia: 427. 1988), Shieh (in Fl. Taiwan, ed. 2, 1: 250, 252. 1994), Parris & Latiff (in Malayan Nat. J. 50: 240. 1997), Boonkerd & Pollawatn (Pterid. Thailand: 101, 123. 2000), Hoshizaki & Morran (Fern Growers Manual: 337. 2001), Newman & al. (Checkl. Vasc. Pl. Lao PDR: 31. 2007) and Zhang & al. (in J. Beijing Forest Univ. 31: 15. 2009). There also appears to be a body of literature on the phytochemistry of the species under the name *Hemionitis arifolia*. The species is referred to as *Parahemionitis cordata* in Zhang & Ranker (in Wu & Raven, Fl. China 2–3: 235. 2013), Fraser-Jenkins (l.c.) and Nor-Ezzawanis (in Parris & al., Fl. Penins. Malaysia, ser. 1, 3: 168. 2020); and as *Mickelopteris cordata* (Roxb. ex Hook. & Grev.) Fraser-Jenk. in Fraser-Jenkins & al. (l.c.: 247).

The genus name *Mickelopteris* Fraser-Jenk. and combination *M. cordata* were published by Fraser-Jenkins & al. (l.c.) as a logical consequence of their assessment that *Parahemionitis arifolia*, the type of the generic name, was typified by a specimen of *Acrostichum aureum* and, therefore, that the genus *Parahemionitis* was a synonym of *Acrostichum*, thereby leaving *Parahemionitis cordata* without a genus to accommodate it. Christenhusz & al. (Global Flora 4: 7. 2018), however, lumped all species of *Pteridaceae* subfam. *Cheilanthes* into *Hemionitis*, a position at variance with that of the Pteridophyte Phylogeny Group (l.c.), which we choose to follow.

Acceptance of the typification by Mazumdar (l.c.) has the elegant effect of enabling use of the genus name *Parahemionitis* and of the species epithet most frequently used for this species under the name *Parahemionitis arifolia*. However, lack of agreement as to whether the specimen G00360112 or the Rheede illustration is the lectotype will continue to hamper efforts to bring stability to the name of this taxon. A good argument can be made that even if G00360112 has been effectively chosen as lectotype, that it could be superseded under Art. 9.19c with the Rheede illustration. But as this possibility has already been rejected by Fraser-Jenkins & al. (l.c.), stability can best be achieved by conservation of *Asplenium arifolium* with a conserved type. The specimen that we propose agrees with Burman’s description and matches the Pterid and Rheede illustrations.

If this proposal is accepted the correct name in *Parahemionitis* will be *Parahemionitis arifolia*, the correct name in *Hemionitis* will be *Hemionitis arifolia*, and there will be no nomenclatural need for the genus *Mickelopteris* or the combination *Mickelopteris cordata*. If this proposal is not accepted, there will continue to be competing names for this taxon (*Parahemionitis arifolia* vs *Mickelopteris cordata* or *Hemionitis arifolia* vs *Hemionitis cordata* depending on the genus concept adopted) causing unnecessary confusion in both science and horticulture.

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(2837) Proposal to reject the name *Juniperus lycia* (*Cupressaceae*)

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(2837) *Juniperus lycia* L., Sp. Pl.: 1039. 1 Mai 1753 [*Gymnosp.*: *Cupress.*], nom. utique rej. prop.
Lectotypus (vide Jarvis, Order out of Chaos: 605. 2007):
Herb. Linnaeus No. 1198.10 (LINN).

Juniperus lycia L. (Sp. Pl.: 1039. 1753) is a name that has been neglected and shrouded in confusion since the time of its publication.

This species name was validly published with a very short diagnostic statement: “JUNIPERUS foliis undique imbricatis ovatis obtusis” cited from Van Royen (Fl. Leyd. Prodr.: 90. 1740), Gmelin (Fl. Sibir. 1: 182. 1747), Sauvages (Meth. Fol.: 169. 1751), and from an earlier Linnaean work (Mat. Med.: 165 [no. 466]. 1749). The protologue also included two synonyms, the first “*Cedrus folio cupressi, media, majoribus baccis*” was cited from Bauhin (Pinax: “488” [recte 487]. 1623),

and the second “*Cedrus phoenicea altera plinii & theophrasti*” from Lobelius (Icon. Stirp. 2: 221. 1591). According to Linnaeus (l.c. 1753), *J. lycia* was a perennial species occurring both in Europe (Gallia [France]) and Asia, indicated as “*Habitat in Gallia, Sibiria*” in the protologue. The characters he provided were rather non-diagnostic and could apply to several species of *Juniperus*, especially taxa of the *J. phoenicea* group.

Taxonomic treatments of *Juniperus lycia* differ greatly, and the name has mostly been recognized as a heterotypic synonym of *J. phoenicea* L. (l.c. 1753: 1040) in published works (Farjon, Monogr. Cupressaceae Sciadopitys: 337. 2005; Adams, Junipers World, ed. 4: 244. 2014) and in databases (Earle, The Gymnosperm Database, available at: http://www.conifers.org/cu/Juniperus_phoenicea.php; Farjon & al., Conifer Database. 2014, available at: <https://www.catalogueoflife.org/data/taxon/5J6LZ>; Plants of the World Online, <http://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:2622671> [all accessed 1 Aug 2021]). However, other authors created new infraspecific taxa under this species (e.g., *J. lycia* var. *tarraconensis* Sennen, Diagn. Nouv.: 272–273. 1936) or treated it as a variety or subspecies of *J. phoenicea*, as *J. phoenicea* var. *lycia* (L.) Spach (in Ann. Sci. Nat., Bot., sér. 2, 16: 302. 1841) (see Albert & Jahandiez, Cat. Pl. Vasc. Var.: 451. 1908; Rouy, Fl. France 14: 373. 1913; Molinier, Cat. Pl. Vasc. Bouches-du-Rhône: 14. 1981 [sub “*J. phoenicea* var. *lycia* (L.) Carr. et St-Lag.”]) or “*J. phoenicea* subsp. *lycia*” (Bolòs & Vigo, Fl. Països Catalans 1: 205. 1986; Mansouri & al. in Biotechnol. Agron. Soc. Environnem. 15: 415–424. 2011), or applied it to populations that are currently treated as *J. turbinata* Guss. (Fl. Sicul. Syn. 2: 634. 1844) (e.g., Viviani, Fl. Libyc. Spec.: 61. 1824).

The *Juniperus phoenicea* group (*J.* sect. *Sabina* (Mill.) Spach) is an assortment of small monoecious or rarely dioecious Mediterranean trees whose distribution encompasses the Mediterranean basin and Macaronesian regions, from Madeira and Canary Islands in the west to Jordan and Saudi Arabia in the east, and is most prevalent throughout the Iberian Peninsula and North Africa (Franco in Tutin & al., Fl. Europ. 1: 39. 1964; Farjon, l.c. 2005: 336; Farjon & al., l.c.; Pavón & al. in Ecol. Medit. 46: 77–104. 2021). Traditionally, it has been accepted that *J. phoenicea* includes two subspecies: subsp. *phoenicea* and subsp. *turbinata* (Guss.) Nyman, which were defined based on taxonomic, morphological (Farjon, l.c. 2005: 336; Schulz & al. in Feddes Repert. 116: 122. 2005; Eckenwalder, Conifers World: 300. 2009; Mazur & al. in Pl. Biosyst. 150: 313–322. 2010), and molecular studies (Boratyński & al. in Pl. Syst. Evol. 277: 163–172. 2009; Działuk & al. in Ann. Forest. Sci. 68: 1341–1350. 2011; Vallès & al. in Tree Genet. Genomes 11: 43. 2015). Alternative interpretations define two independent species, *J. phoenicea* s.str. and *J. turbinata*, with *J. turbinata* being discussed by several authors (see Farjon, l.c. 2005), and its recognition as a separate species being supported by morphological and biochemical studies (Lebreton & Thivend in Naturalia Monspel., Sér. Bot. 45: 1–12. 1981; Lebreton in Agron. Lusit. 42: 55–62. 1983; Lebreton & Pérez de Paz in Bull. Mens. Soc. Linn. Lyon 70: 73–92. 2001; Mazur & al., l.c.) as well as through recent molecular works (Adams & al. in Biochem. Syst. Ecol. 30: 223–229. 2002, in Phytologia 95: 202–209. 2013; Adams & Schwarzbach in Phytologia 95: 179–187. 2013; Adams, l.c.: 243–245).

Farjon (l.c. 2005: 337) indicated LINN No. 1198.10 as the lectotype of *Juniperus lycia*, wrongly attributing the choice to Jarvis & al. (in Regnum Veg. 127: 58. 1993). As Farjon’s statement was published after 1 January 2001, his omission of the phrase “designated here” or an equivalent (see Art. 7.11 of the ICN, Turland & al. in Regnum Veg. 159. 2018) renders his choice ineffective. However, an effective

lectotype designation was later published by Farjon (in Jarvis, Order out of Chaos: 605. 2007).

The sheet 1198.10 (LINN) (image available at <http://linnean-online.org/10767/>) bears a branch with leaves but no seed cones (galbulus) or pollen cones, with a manuscript label “*Cedrus folio cupressi major | fructu flavescence CB | a corcon*”. The branch is annotated with the letter “M”, and “3 *phoenicea*” was written by Linnaeus at the bottom of the sheet. The letter “M” indicates that the specimen originated from Pierre Magnol (1683–1715), whose herbarium from the South of France reached Linnaeus in 1749, donated by Boissier de Sauvages along with his own herbarium (Jarvis, l.c.: 221).

As has been noted previously (Stearn, Sp. Pl. Facsim. 1st Ed. 1957; Jarvis, l.c.), the presence of the 1753 *Species plantarum* number on a sheet in the Linnaean Herbarium in London (LINN) has been taken as evidence that the specimen was in Linnaeus’s possession in 1753. However, Linnaeus’s annotation on the sheet is contradictory because the *Species plantarum* number of *J. lycia* is in fact “3”, but the epithet given on the sheet is *phoenicea*. The *Species plantarum* number of *J. phoenicea* is “9” (Linnaeus, l.c. 1753: 1040). In addition, Linnaeus also annotated the sheet at the bottom with the number “1”, which corresponds to *J. oxycedrus* in *Species plantarum*.

The lectotype designated by Farjon (in Jarvis, l.c.) from the specimen 1198.10 (LINN) is effective. However, there are some questions to consider in terms of its impact on nomenclatural stability. (1) Linnaeus’s annotation “*phoenicea*” is in direct conflict with the protologue since the *Species plantarum* number annotation identifies it as belonging to another species. In addition, the polynomial annotated on the label “*Cedrus folio cupressi major fructu flavescence*” is the synonym included by Linnaeus in the protologue of *J. phoenicea*, cited from Bauhin (l.c.: 487). (2) The specimen shows diagnostic characters belonging to *J. turbinata* (e.g., leaves and branches more elongated than in *J. phoenicea*, and acute leaves), and does not match with the leaves described in the protologue of *J. lycia* (“*foliis [...] ovatis obtusis*”). Furthermore, the provenance of the material collected by Magnol (South of France) matches with the distribution of *J. turbinata* (France [Corse and mainland coasts], Greece, Italy [Sardinia, Sicily], Morocco, Portugal, Spain [Balearic Islands and mainland coast] and Tunisia, where it is restricted to littoral maritime habitats on rocks or sand dunes [see Farjon, World Checkl. Bibliogr. Conifers: 83. 1998, Handb. World’s Conifers, ed. 2: 449. 2017; Farjon & Filer, Atlas World’s Conifers: 164. 2013; Tison & al., Fl. France Médit.: 172. 2014]). Nevertheless, it seems that the material in the Linnaean Herbarium (LINN No. 1198.10) was original material used by Linnaeus and there is insufficient basis to reject this lectotype.

Among Linnaeus’s other original material of *Juniperus lycia*, there is another specimen from the Magnol Herbarium, annotated with the letter “M” and the *Species plantarum* number of *J. lycia* (i.e., “3”) by Linnaeus (LINN No. 1198.11) (image available at: <http://linnean-online.org/10768/>). This specimen matches the Linnaean protologue; however, it can be identified as belonging to *J. phoenicea*.

In the Van Royen Herbarium at L, there are two relevant specimens that are linked to the synonym of Van Royen (l.c.) cited by Linnaeus in the protologue and are undoubtedly original material of *Juniperus lycia* (see Thijsse & Veldkamp in Taxon 48: 629–631. 1999; Thijsse, The Van Royen Herbarium. 2003; Jarvis, l.c.: 153, 226). The sheet Herb. Van Royen No. L 901.130–171 (barcode L 0052630) bears a complete fragment with pollen cones, and is annotated “Herb. V. Royen” at the base of the sheet. It contains a label “*Cedrus folio cupressi media | majoribus baccis C.B.p.*” The sheet Herb. Van Royen No. L 901.130–170

(barcode L 0052629) bears a specimen with seed cones, and is annotated “Herb. V. Royen” at the base of the sheet. It has two labels, one is annotated “*Cedrus folio Cupressi, | media, majoribus baccis* CBP. 487” handwritten by Van Royen, and the other is annotated “*Cedrus folio cupressi major | fructu flavescente* C.B.p.” (this polynomial matches with the synonym cited by Linnaeus under *J. phoenicea*), and it was also annotated by Farjon on 10 March 1992 “*Juniperus phoenicea* L. | (syn.: *J. lycia* L., Sp. Pl. 1039. 1753) | (lectotype of *J. lycia* to be designated)”. Both of these two specimens can be identified clearly as belonging to *J. phoenicea*.

In the Burser Herbarium at UPS, there is a relevant sheet with material that is morphologically very close to *Juniperus phoenicea*: Herb. Burser XXV: 62 (UPS-BURSER), which bears a branch, and is labelled “An *Cedrus folio Cupressi media aut minor* Bauh. Aliquot milliaribus Monspelio in colle” (see also Juel in *Nova Acta Regiae Soc. Sci. Upsal.*, ser. 4, 5: 122. 1923). Linnaeus’s citation of the polynomial “*Cedrus folio cupressi, media, majoribus baccis*” from Bauhin’s *Pinax* (l.c.) provides a link to the specimen Herb. Burser XXV: 62 (UPS-BURSER). In this case the specimen can also be identified as belonging to *J. phoenicea*. We have been unable to trace any further specimens of original material in the other Linnaean or Linnaean-linked herbaria.

Finally, the illustration from Lobelius cited by Linnaeus (“ic. 221”) in the protologue under the second synonym “*Cedrus phoenicea altera plinii & theophrasti*” is part of the original material. This image can be identified as belonging to *Juniperus turbinata* (with seed cones greater than *J. phoenicea* s.str.; see Lobelius’s illustration on page 221 of *J. phoenicea* as “*Cedrus Phoenicea media*”).

We conclude that the name *Juniperus lycia* has been ambiguously and inconsistently applied by many authors. The precise application of the name remains highly uncertain due to the obscure taxonomic identity of its lectotype (LINN No. 1198.10), and identification with both *J. phoenicea* and *J. turbinata* of the other original material (LINN 1198.11, specimens at L and UPS-BURSER, and the Lobelius illustration).

On the other hand, the nomenclatural resurrection of *Juniperus lycia* (for example, by its epitypification) might be disruptive for the currently accepted nomenclatural and taxonomic schemes in the *J. phoenicea* complex, especially for *J. turbinata*, a well-established name that might have to be abandoned as a later synonym of *J. lycia*. Finally, as the name *J. lycia* is not now in current use, its rejection under Art. 56 would be the best solution for nomenclatural stability.

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(2838) Proposal to conserve the name *Pancratium flavum* (*Stenomesson flavum*) against *P. croceum* (*S. croceum*, *Clinanthus croceus*) (*Amaryllidaceae*)

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(2838) *Pancratium flavum* Ruiz & Pav., Fl. Peruv. 3: 54. Aug 1802 (Angiosp.: *Amaryllid.*), nom. cons. prop.

Lectotypus (hic designatus): Peru, Lima, Pachacamac, Pavon (MA barcode MA810581; isolectotypi: BM barcodes BM000938082 & BM000938083).

(=) *Pancratium croceum* Savigny in Lamarck, Encycl. 4: 725. 1 Nov 1798, nom. rej. prop.

Lectotypus (hic designatus): Peru, Dombey (P barcode P00712845).

The two species names that are the subject of this proposal, although originally described in *Pancratium*, were transferred very

early to *Stenomesson* Herb. (Appendix: 40. 1821). *Pancratium flavum* Ruiz & Pav. (Fl. Peruv. 3: 54. 1802), the basionym of *S. flavum* (Ruiz & Pav.) Herb. (l.c. 1821), was collected and described by Ruiz & Pavon from the lomas of Lurin, Lima, Peru, near the castle of Pachacamac, noting that the flowering season of the species was between December and January (Ruiz & Pavon, l.c.).

Pancratium croceum Savigny (in Lamarck, Encycl. 4: 725. 1798) is an earlier name and was in fact the first species of *Stenomesson* to be described. The lack of morphological details in the protologue and subsequent misleading illustrations have complicated the taxonomic history of *P. croceum*. Its source was a plant sent by Dombey from Peru to the National Garden in Paris in 1782, where it bloomed the