



Typification of plant names belonging to subfamily *Apioideae* (Apiaceae) for the Flora of Argentina

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Abstract

Names of Apiaceae subfamily Apioideae were found to need typification, as part of the studies for the Flora of Argentina project. To resolve typifications, protologues and type specimens of all names were studied. As a result, 27 lectotypifications (including two second step lectotypifications) and 2 epitypifications are designated here, giving brief justifications for each selection. In addition, a new synonym in *Daucus* is proposed.

Introduction

Apioideae is the largest subfamily of Apiaceae, with its greatest diversity in temperate regions of the Northern Hemisphere, but originated in the Southern Hemisphere (Stevens 2001, onwards; Calviño *et al.* 2016). In Argentina, the subfamily comprises 24 genera and 42 species, ca. 55% of which are native.

As part of the treatment of Apiaceae for the Flora Argentina project, 29 names of Apioideae were found to require typification. Herein, we resolve typifications for all these names.

Materials and Methods

To resolve typifications, protologues and type specimens of all names were studied. Type specimens were examined from B, BM, BR, C, CORD, E, FI, G, GH, GOET, HAL, K, L, LP, M, MA, MO, MPU, P, PR, S, SGO, SI and US at the JSTOR website (<http://plants.jstor.org>), by visiting herbaria, and through digital images obtained by personal communications with herbaria curators (acronyms according to Thiers 2016). Specimens selected as lectotypes or epitypes are indicated by their barcodes.

Results

We propose 27 lectotypifications (including two second step lectotypifications) and 2 epitypifications. Brief justifications of each selection are given as notes. After taxonomic evaluations of all names, those accepted are set in bold.

1. *Apium ammi* Urban (1879: 341) f. *pedunculata* Chodat (1899: App.1, 77).

Lectotype (designated here):—PARAGUAY. In arvis prope Atira, Oct. 1885, *Hassler 1260* (P03255860!; isolectotype, P03255859!).

= *Cyclospermum leptophyllum* (Persoon 1805: 324) Britton & Wilson (1925: 52) var. *leptophyllum*.

Notes:—The protologue of *Apium ammi* f. *pedunculata* (Chodat, 1899) indicates as place of collection, date and collector number: “In arvis p. Atira, Oct., n°1260”. We localized two specimens at P that perfectly match the protologue. We designate P03255860 as the lectotype of *Apium ammi* f. *pedunculata* because it has more material.

2. *Apium andinum* Philippi (1894: 717).

Lectotype (designated here):—CHILE. Vegas del Toro, *F. A. Philippi s.n.* (SGO000003634!)-

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Apium andinum* (Philippi, 1894) indicates a collection from F. Philippi in “monte Doña Ana, loco dicto Vegas del Toro”, without collection date. We have found four specimens at SGO that do not show identifications as *Apium andinum* by the author, but match the protologue, and were collected by F. Philippi (SGO000003632, SGO000003633, SGO000003634, SGO000003762). All labels indicate Vegas del Toro, but they are not identical in additional information and therefore we do not consider them part of the same gathering. Moreover, these specimens also match the protologue of *Pimpinella andina* Philippi (1894: 85; see its typification below). We have designated SGO000003634 as the lectotype of *Apium andinum* because it is a complete specimen with basal leaves, flowers and fruits, that agrees with Philippi’s description in all details.

3. *Apium prostratum* Labillardière ex Ventenat (1804: t. 81).

Lectotype (designated here):—FRANCE. Jard. de Malm. *Ventenat s.n.* (G00359756!).

Notes:—*Apium prostratum* Labillardière (1800) is a *nomen nudum*. In 1804 Ventenat described *A. prostratum* as one of the species that grew at the “Jardin de la Malmaison”, and indicated that the species is native from “la Nouvelle Hollande” (Australia). The original material corresponds to a collection from Ventenat from plants cultivated at Malmaison’s Garden. Short (1979) indicates that the holotype of *Apium prostratum* Ventenat is housed at P, however, the material that we have found at P corresponds to gatherings from Australia collected by Labillardière (e.g. P00307178) and therefore are not part of the original material of Ventenat’s name. At G, however, we have found two accessions of the original material: G00359756 and G00478844. The latter, is at the same sheet with other two gatherings (G00478843 and G00478846) and apparently lacks material associated with the label by Ventenat, or it is unlikely to unequivocally assign any of the specimens to it. On the contrary, G00359756 is the only specimen on the sheet and matches the protologue in the description and label indications, and was therefore designated as lectotype of *Apium prostratum* Ventenat.

4. *Apium sellowianum* Wolff (1927: 30).

Lectotype (first step, designated by Mathias, Constance & Araujo 1972: 70)—PARAGUAY, Guarapi. *Balansa 3161*.

Lectotype (second step, designated here):—PARAGUAY, Guarapi, January 1880, *Balansa 3161* (P00834720!; isolectotypes BM000504127, L2580915!, P00834721!)

Notes:—In the protologue of *Apium sellowianum*, Wolff (1927) cites a large list of specimens that constitute syntypes because he did not designate a holotype. From this list, Mathias *et al.* (1972), selected the gathering *Balansa 3161* to lectotype the name. However, because there are several duplicates of this collection housed at different herbaria (BM, C, COR, L, P, and also G and K according to Mathias *et al.* 1972), a second step of lectotypification is required (Art. 9.17, ICN; McNeill *et al.* 2012). We designate as lectotype the specimen *Balansa 3161* P00834720, because it is a complete specimen with diagnostic leaves. The gathering from the same locality *Balansa 3161bis* is from November 1879 and therefore constitutes a different collection (BM000504126, C10008335, L (U.1083413), P00834722, P00834723).

5. *Caldasia chaerophylloides* Lagasca (1821: 99) ≡ *Caldasia chaerophyllaea* var. *glabriuscula* Candolle (1830: 229).

Lectotype (designated here):—PERU. Ruiz & Pavón *s.n.* (MA814138!).

= *Chaerophyllum andicola* (Kunth 1821: 13) Chung (2007: 677).

Notes:—The protologue of *Caldasia chaerophylloides* Lagasca (1821: 99) indicates that the species occurs in Havana and Peru. We designate as lectotype the original material found at MA because it coincides with the protologue and is well preserved. Candolle (1830) describes var. *glabriuscula* based on the material we selected as the lectotype of *Caldasia chaerophylloides* Lag., therefore this variety automatically becomes a homotypic synonym.

6. *Daucus australis* Poeppig ex Candolle (1830: 214).

Lectotype (designated here):—CHILE. In *ruderat. marit.* at Concon, *E. F. Poeppig Diar. 330 (Coll. Pl. Chil. I 97)* (HAL0066181!; isolectotype, P00757836!).

= *Daucus pusillus* Michaux (1803: 164).

Notes:—In the original publication of *Daucus australis*, Candolle (1830) attributes the name to Poeppig and cites a specimen labeled with Poeppig's name. He indicates that he had examined Chilean specimens from two collectors, Poeppig and Bertero, but does not designate any particular collection as type material. Therefore, Candolle's name was based on several syntypes. By examining Poeppig's collection (HAL0066181, P00757836) and several possible Bertero syntypes (P00757829, P00757831, P00757830) it is evident that the material is heterogeneous. The collection of Poeppig corresponds to *D. pusillus*, whereas those of Bertero to *D. montanus*. The specimen *Poeppig Diar. 330* (in HAL) has been chosen as lectotype because it is undoubtedly original material and corresponds also with the description. By designating this lectotype, *D. australis* Candolle is now included under the synonymy of *D. pusillus* Michaux for the first time; in *Flora Patagónica* (Constance 1988) and in the catalogue of the vascular plants of the Southern Cone (Zuloaga *et al.* 2008) the binomial of Candolle is indicated as a synonym of *D. montanus* Sprengel.

7. *Daucus hispidifolius* Clos in Gay (1847: 135).

Lectotype (designated here):—CHILE. *Gay 125* (P00757834!; isolectotypes, P00757835!, SGO000003690!).

= *Daucus pusillus* Michaux (1803: 164).

Notes:—The protologue of *Daucus hispidifolius* does not indicate type nor locality, except for the comment "... it is very common in Chile". Among the original material found (*Gay 125* P00757834, P00757835, SGO000003690; *Gay 234* P02518477) we designated as the lectotype the one with most abundant material.

8. *Daucus montanus* Humboldt & Bonpland ex Sprengel in Schultes (1820: 482).

Lectotype (designated here):—VENEZUELA. Silla de Caracas, *Bonpland s.n. & Humboldt* (B-W 05687; isolectotypes, P00757832!, P00757833!).

Notes:—Sprengel (in Schultes 1820) ascribed the new species name to Humboldt & Bonpland, and indicated in the protologue "Reliqu. Willd. MS. In Silla Caracas. Humb et Bonpl.". We localized three specimens of original material at B and P; the material and label indications coincide with the protologue. We designate B-W 05687 as lectotype of *Daucus montanus* because it is the best preserved and it belonged to Willdenow's herbarium.

9. *Daucus pusillus* Michaux (1803: 164).

Lectotype (designated here):—USA. *Michaux s.n.* (P00757828!).

Notes:—The protologue of *Daucus pusillus* (Michaux 1803) includes a reference to the original locality as "Hab. in campestribus Carolinae" but does not indicate a type nor makes a reference to any specimens. We designate here as the lectotype of *Daucus pusillus* a specimen collected by Michaux and included in Richard's herbarium, deposited at P, that agrees with the original description.

10. *Daucus toriloides* Candolle (1830: 214).

Lectotype (designated here):—PERU. *T. Haenke s.n.* (MO-2217906!).

= *Daucus montanus* Humb. & Bonpl. ex Spreng. in Schultes (1820: 482).

Notes:—The protologue of *Daucus toriloides* indicates two syntypes, one from Peru collected by Haenke (MO-2217906) and another one from Mexico collected by Berlandier (P00757827). After examination of both specimens, we selected the one from Peru as lectotype because it has more fruit and leaf material.

11. *Helosciadium laciniatum* Candolle var. *elatius* Hooker & Arnott (1833: 353) ≡ *Apium laciniatum* (Candolle) Urb. f. *elatius* (Hooker & Arnott) Wolff (1927: 56).

Lectotype (designated here):—CHILE. Cordillera of Chili, *Cuming 250* (BM001008587!; isolectotypes, E00334884!, E00334885!).

= *Cyclospermum leptophyllum* (Persoon 1805: 324) Britton & Wilson (1925: 52) var. *leptophyllum*.

Notes:—The protologue of *Helosciadium laciniatum* var. *elatius* includes two syntypes: “Cordillera of Chili, *Cuming* (N. 250) Aconcagua, *Bridges*, 1832, (N. 477.)”. After examination of both collections (*Bridges* N. 477 BM001008588, E00334886; *Cuming* N. 250 BM001008587, E00334884, E00334885) we designate BM001008587 as the lectotype because it perfectly coincides with the protologue in locality and is best preserved.

12. *Heracleum mantegazzianum* Sommier & Levier (1895: 79–81).

Lectotype (designated here):—GEORGIA. Abkhazia, ad flumen Seken, in alveo fluminis, 900 m, 25 Aug. 1890, *Sommier & Levier* 562 (FI015030!; isolectotype, BR0000005419487!).

Notes:—The protologue indicates the following syntypes: “in alveo fluminis Selten Abchasiae, 900 m, 25 Aug. fr. tantum” and “Ad ripam dextram fluminis Kliutsch, 1700-1800 m., 26 Aug., fr.”. We have found three gatherings that coincide in locality and collection date with the protologue (*Levier & Sommier* 562 with the former and *Levier & Sommier* 565 and 69 with the latter). From these, *Levier & Sommier* 562 is the only one with fruiting umbels (FI015030, BR0000005419487), the others only have fruits in envelopes (FI015032, FI015033). We have designated FI015030 as lectotype because it is the most complete and better preserved specimen; BR0000005419487 is a duplicate, being a photograph of the latter with an envelope with fruits.

13. *Ligusticum angustilobum* Philippi (1864: 95).

Lectotype (designated here):—CHILE. Valdivia, prope Molhue, Febrero 1860, *R. A. Philippi* s.n. (SGO000003729!, isolectotype HAL0117425!).

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Ligusticum angustilobum* (Philippi 1864) indicates a collection from F. Philippi in “Molhue, Valdivia”, without collection date. Muñoz Pizarro (1960) in his study of the plant species described by Philippi in the XIX century, indicates the existence of two specimens at SGO that correspond to original material: herbarium numbers SGO53520 and SGO41761 (the former corresponds to the specimen selected as lectotype, barcode SGO000003729). In addition, we have found a specimen at HAL that coincides with SGO53520 in label information, and also specimen K000975624 collected by Philippi at the same locality, but at a different year. We have not seen specimen SGO41761 from SGO, but select SGO000003729 as lectotype as it is well preserved and matches the protologue.

14. *Ligusticum apioides* Philippi (1872: 726).

Lectotype (designated here):—CHILE. Araucanía, Nahuelbuta, *J. Volkmann* s.n. (SGO000003730!).

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Ligusticum apioides* (Philippi 1872) indicates a collection from J. Volkmann in “Nahuelbuta”, without collection date. Muñoz Pizarro (1960) in his study of the plant species described by Philippi in the XIX century, indicates the existence of two specimens at SGO that correspond to original material (herbarium numbers SGO53514, SGO41762), and it is therefore necessary to select a lectotype. We have found specimen SGO53514 (=barcode SGO000003730) that is well preserved and matches the protologue, and therefore select it as lectotype of *Ligusticum apioides*.

15. *Ligusticum landbeckii* Philippi (1864: 95).

Lectotype (designated here):—CHILE. Colchagua, Dec. 1860, *L. Landbeck* s.n. (SGO000003737!).

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Ligusticum landbeckii* (Philippi 1864) indicates a collection by Landbeck in the province of Colchagua, Chile. We have found two specimens at SGO that match the protologue in the morphological description, collector and locality (SGO000003737, SGO000003738). Both specimens differ in the collection date (Dec. 1860 and Nov. 1860, respectively) and therefore they are not duplicates. We have chosen SGO000003737 as the lectotype because it is best preserved.

16. *Ligusticum nemorosum* Philippi (1864: 94).

Lectotype (designated here):—CHILE. Valdivia, *R. A. Philippi* s.n. (K000975621!; isolectotype, HAL0117426!).

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Ligusticum nemorosum* (Philippi 1864) indicates a collection in the province of Valdivia, Chile. We have found two duplicate specimens collected by Philippi that coincide with the protologue, and have chosen K000975621 as the lectotype because it has more material than HAL0117426.

17. *Ligusticum panul* Bertero ex Candolle \equiv *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Lectotype (designated here):—CHILE. Rancagua, *Bertero 375* (G00076248! (two sheets); isolectotype GH00076818!).

Notes:—The name *Ligusticum panul* was originally published as “pansil” (Candolle 1830). This was a typographical error, noticed and corrected by Reiche (1899). Since only one orthographic variant of a name can be validly published (Art. 61), the corrected form *Ligusticum panul* is the validly published name which is typified here.

The protologue of *Ligusticum pansil* Bertero ex Candolle (1830) indicates place of collection and collector “Rancagua Chilensium legit cl. Bertero”, but does not indicate collector number or date. We have found several specimens that coincide with the protologue in the description, place of collection, and collector. However, they correspond at least to two different gatherings as they differ in the collection dates: “8ber 1828” (G00076248, GH00076818, SGO000003739, the latter Bertero with no number), “1829” (P00834714, MPU019335), and no date information (P00834716). The specimens of the collection dated October 1828 are in general better preserved than the others. Basal leaves are important to diagnose species within *Apium*, and therefore we selected G00076248 as the lectotype of *Apium panul* because it is one of the few specimens with basal leaves, and it is well preserved.

18. *Ligusticum peucedanoides* C. Presl ex Candolle (1830: 158).

Lectotype (designated here):—CHILE. 1790 *T. P. X. Haenke s.n.* (PR 376330!, isolectotype HAL0117428!).

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—In the protologue of *Ligusticum peucedanoides*, Candolle (1830), indicates that the name was used by Presl on specimens collected by Haenke from Chile. We have found the following specimens that coincide with the protologue in the morphological description and label information: HAL0117428, PR 376330, and have designated the latter as lectotype because it is a more complete specimen.

19. *Ligusticum peucedanoides* var. *tenuifolium* Candolle (1830) \equiv *Apium peucedanoides* (C. Presl ex Candolle) Reiche var. *tenuifolium* (C. Presl ex Candolle 1830: 159) Wolff (1927: 35).

Lectotype (designated here):—CHILE. 1790. *T. P. X. Haenke s.n.* (PR 376331!, isolectotype HAL0117427!).

= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Ligusticum peucedanoides* var. *tenuifolium* (Candolle 1830), basionym of *Apium peucedanoides* var. *tenuifolium*, indicates that the name was used by Presl on specimens collected by Haenke, without specifying a place of collection. We have found two specimens (HAL0117427 and PR 376331) that coincide with the protologue in the morphological description and label information, and have designated the one housed at PR as the lectotype because it is more abundant in material.

20. *Notiosciadium pampicola* Spegazzini (1924: 79).

Lectotype (designated here):—ARGENTINA. Buenos Aires, La Plata, 10 Nov. 1923. *Spegazzini s.n.* (LP002801!; isolectotype, K000534957!).

Notes:—Spegazzini did not cite any collection in the protologue of *Notiosciadium pampicola*, but he mentioned different localities and collection dates (“in uliginosis pampeanis, Bañado de Flores, prope Buenos Aires, aug. 1880, in Rufino, jan. 1902 [...] A principios de este mes en los alrededores de La Plata con el ingeniero y conocido agrostólogo don Lorenzo R. Parodi”). His description was therefore based on several syntypes. We have analyzed the following original material BAA00001137, K000534957, and LP002810. The latter was selected as lectotype because it is housed at the herbarium where the author of the name used to work (LP), and because it has pencil illustrations drawn by Spegazzini that match the figure of the original publication (*op. cit.* p. 85).

21. *Oligocladus andinus* Chodat & Wilczek (1902 [May]: 527–528).

Type:—ARGENTINA. Mendoza, Laguna, Río Manga, *Wilczek s.n.* (not found).

Lectotype (designated here):—Fig. 20 in Chodat & Wilczek (1902: 527).

Epitype (designated here):—ARGENTINA. Mendoza. Dpto. San Rafael: Ruta Provincial 180 entre cruce de la Ruta Provincial 184 y El Nihuil. *Zuloaga, F. O. 12269* (SI).
= *Oligocladus patagonicus* (Spegazzini 1902 [April]: 295) Pérez-Moreau (1936: 94).

Notes:—In the protologue of *Oligocladus andinus*, Chodat & Wilczek (1902) do not indicate a type, but they cite a specimen likely collected by Wilczek from Argentina, Mendoza: “Laguna, Río Manga, s.n.” Despite our numerous attempts to find the type specimen by contacting curators of G and LAU herbaria, and by searching at JSTOR global plants website, the specimen was not found. The only original material left is an illustration of the fruit of the species cited in the protologue, which we designate here as lectotype following Article 9.12 (ICN; McNeill *et al.*, 2012). The figure (a dorsal view of the fruit), however is not enough for the precise application of the name to this taxon, and therefore we also designate an epitype to serve as an interpretative type (Art. 9.8 ICN; McNeill *et al.* 2012). The specimen selected is *Zuloaga 12269* (SI) because this material agrees with the protologue, is complete, and was collected at the same province as the specimen collected by Wilczek.

22. *Osmorhiza berteroi* Candolle (1830: 232).

Lectotype (designated here):—CHILE. In sylvis umbrosis prope Tagua Tagua, *C. L. G. Bertero 446* (G00664656!; isolectotypes GH00077315!, P00758097!, P00758099!, P00758100!).

Notes:—In the protologue of *Osmorhiza berteroi*, Candolle (1830) cited a collection from Tagua-Tagua, Chile (“in sylvis umbrosis prope Tagua Tagua”) by Bertero, but did not indicate a collection number. We have found five herbarium sheets that coincide with the protologue. The labels from P00758099 and P00758100 do not perfectly match the indication of the original locality as “in sylvis umbrosis prope” is missing, however, the other three specimens (G00664656, GH00077315, P00758097) do have the complete locality information. From these, P00758097 is mounted on the same sheet with *Bertero 1160* from a different locality (P00758098), which may cause confusion; specimens G00664656 and GH00077315 are both complete and well preserved, but the one at G was part of De Candolle’s herbarium. Therefore, we designate G00664656 as the lectotype. It is worth noting that there are other specimens collected by Bertero with the same number as the lectotype designated herein (446), but these are not part of the original material of *O. berteroi* because they differ in the locality data (G00367087, M0172503).

23. *Osmorhiza mexicana* Grisebach (1879: 147).

Lectotype (Lowry & Jones 1984: 1158):—MEXICO. *Schaffner 37* (GOET011385!; isolectotypes P00834484!, P00834485!).

Notes:—In the protologue of *Osmorhiza mexicana*, Grisebach (1879) cites three different gatherings, one from Mexico (*Schaffner*), one from Bolivia (*Mandon 594*) and one from Tucumán, Argentina (likely *Lorentz & Hieronymus 668*). We have found original material at GOET, with annotations from Grisebach from all three syntypes (GOET011385, GOET011386, GOET011387, respectively) plus duplicates at different herbaria (P00834484, P00834485; K000534954, K000534955, P00834486, P00834487, P00834488; CORD00006020). Lowry & Jones (1984) considered the specimen GOET011385 as the holotype, because it was annotated with the statement “mine” (“m”(ihi)) in Grisebach’s handwriting. Their treatment of the specimen as “holotype” is correctable to lectotype under Art. 9.9 (McNeill *et al.* 2012).

24. *Peucedanum oreopansil* Grisebach ≡ *Austropeucedanum oreopansil* (Grisebach 1879: 147) Mathias & Constance (1952: 366).

Lectotype (designated here):—ARGENTINA. Tucumán, Sierra d. Cuesta del Garabatal, auf d. feuchten Baden d. Alisohange mit Escallonien, Ende Jan 1874, *Lorentz & Hieronymus 1055* (GOET011291!; isolectotype, GOET011292!).

Notes:—Grisebach in his *Symbolae ad Floran Argentinam* (1879) based his descriptions on material collected by Lorentz and Hieronymus (Hunziker 1960). In the original publication of *Peucedanum oreopansil*, Grisebach (1879) did not indicate a type specimen, but he provided information on the type locality: “T: Cuesta del Garabatal, in regione Aliso cum Escallonii in locis humidis”. When Mathias & Constance (1952) transferred *Peucedanum oreopansil* to *Austropeucedanum*, they indicated *Lorentz & Hieronymus 884* as the type. However, this number corresponds to the numeration of the species in Grisebach’s work (1879), and not to the collection number (in fact, *Lorentz & Hieronymus 884* is not even an Apiaceae). The specimen GOET011291 was selected as lectotype because the plant material agrees with the description, and the labels match perfectly with the protologue in locality specifications. Our study of type

material also included the examination of the following specimens from Tucumán with the same collectors and dates earlier than 1879: CORD00006021, CORD00006022, GOET007370, K000537234, S05-4106 and US01107833.

25. *Pimpinella andina* Philippi (1894: 721).

Lectotype (designated here):—CHILE. Vegas del Toro, prov. Coquimbo, 12 Feb. 1883, *F. A. Philippi s.n.* (SGO000003762!).-
= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—The protologue of *Pimpinella andina* (Philippi 1894) indicates a collection from F. Philippi in “monte Doña Ana, loco dicto Vegas del Toro febr. 1883”. We have found three specimens at SGO that match the protologue description in morphology, locality and date of collection, and that were collected by F. Philippi (SGO000003632, SGO000003633, SGO000003762). The specimen SGO000003634, selected in this work as lectotype of *Apium andinum*, could also be part of the type material of *P. andina*, but its label does not show collection date information. We have therefore selected SGO000003762 as lectotype of *P. andina* because it is a complete specimen with basal leaves, flowers and fruits, and coincides with the protologue in all aspects, including collection date.

26. *Pimpinella leptophylla* Persoon ≡ *Cyclospermum leptophyllum* (Persoon 1805: 324) Britton & Wilson (1925: 52).

Lectotype (designated here):—DOMINICAN REPUBLIC. Isla de Santo Domingo. *P.A. Poitieu s.n.* (P00834709!; isoelectotype, P00834710!).

Notes:—The protologue of *Pimpinella leptophylla* Persoon (1805) does not indicate a type nor a collector, but does indicate a locality: “Habitat in Ins. St. Dominica”. We found two specimens of the original material at P that agreed with the protologue in diagnostic characters of the material and label information. We designate P00834709 as lectotype of *Cyclospermum leptophyllum* because it is most abundant and complete.

27. *Pimpinella macrophylla* Philippi (1894: 722).

Lectotype (designated here):—CHILE. Renaico, March 1887, *R. A. Philippi s. n.* (SGO000003765!; isoelectotype SGO000003764!).-
= *Apium panul* (Bertero ex Candolle 1830: 669) Reiche (1899: 832).

Notes:—We have found two specimens that perfectly match the protologue of *Pimpinella macrophylla* Philippi (1894; “In praedio Renaico Araucaniae in parvo nemore plerumque a Cryptocarya Peumo formato martio 1887 inveni”) and correspond to the same gathering (SGO000003764, SGO000003765). The former, has leaf material only, while the latter, and therefore chosen as lectotype, is a complete specimen with fruiting umbels.

28. *Sanicula patagonica* Spegazzini ≡ *Oligocladus patagonicus* (Spegazzini 1902: 295) Pérez-Moreau (1936: 94).

Holotype:—ARGENTINA. Neuquén. Confluencia entre ríos Limay y Neuquén. *C. Spegazzini 134* (LP002802!).

Epitype (designated here):—ARGENTINA. Neuquén. Dpto. Zapala: Ruta Nacional 22, al este de Zapala, suelo arenoso-pedregoso de estepa, *Zuloaga, F.O. 14981* (SI1106656!).

Notes:—The holotype of *Sanicula patagonica* Speg. is markedly deteriorated, consisting of fragments of leaves, and lacking flowers or fruits. Therefore, an epitype is selected to serve as an interpretative type for the precise application of the name. We select as an epitype *Zuloaga 14981* (SI) because the material agrees with the protologue, and is abundant and complete (it has basal and cauline leaves, and fruiting umbels).

29. *Selinum divaricatum* Brown ≡ *Oenanthe divaricata* (Brown in Buch 1825: 195) Mabberley (1980 [1978 publ. 1980]: 63).

Lectotype (first step, designated by Mabberley 1980: 63):—PORTUGAL, Madeira, 1776, *F. Masson s.n.* (BM).

Lectotype (second step, designated here):—PORTUGAL, Madeira, 1776, *F. Masson s.n.* (BM000829122!, isoelectotype BM000829123!).

= *Oenanthe crocata* Linnaeus (1753: 254).

Notes:—Mabberley (1980) designated the material collected by Masson in Portugal, Madeira, held at BM as the lectotype. Because there are two specimens of this gathering at BM, a second step of lectotypification is required (Art. 9.17, ICN; McNeill *et al.* 2012) and therefore we designate the specimen BM000829122 as the lectotype. Both specimens at BM have been damaged by insects but the one designated as lectotype is best preserved.

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