

Tiselius' *Potamogeton* exsiccates: changes in taxonomy and nomenclature from one-century perspective

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Tiselius' outstanding collection *Potamogetones suecici exsiccati* is reviewed and re-evaluated from the viewpoint of the present nomenclature and taxonomy. All 150 gatherings issued in this collection are listed and interpreted taxonomically. In a few cases new taxonomic findings are given based on molecular investigation of plant material from the type localities. All new names proposed in this collection are listed and checked for their nomenclatural validity and legitimacy. Lectotypes are designated for 64 valid names and authentic specimens listed for 27 additional invalid designations. Two names (and their types) are of particular importance for contemporary plant taxonomy because these are the correct names for recognized and confirmed *Potamogeton* hybrids: *P. × torssanderi* for the triple hybrid *P. gramineus × P. lucens × P. perfoliatus* and *P. × lanceolatifolius* for *P. gramineus × P. nodosus*.

Key words: herbarium, nomenclature, Potamogetonaceae, taxonomy, typifications

Introduction

The Potamogetonaceae are one of the families of aquatic plants with the highest diversity and markedly pronounced taxonomic difficulties (Wiegleb & Kaplan 1998, Kaplan *et al.* 2009). The main sources of taxonomic complexity are the reduced morphology limiting possible taxonomic characters that could be used to separate the species (Preston & Croft 1997, Kaplan & Štěpánek 2003), extensive range of phenotypic plasticity (Kaplan 2002) and the occurrence of many hybrid combinations (e.g. Preston 1995, Wiegleb & Kaplan 1998, Kaplan & Fehrer 2007).

The origin of the observed variation was in the past often inadequately understood, which resulted in unnecessary naming of individual phenotypes (Kaplan 2002). This activity culminated in late 19th and early 20th centuries in works of some authors (e.g. Ascherson & Graebner 1897, Fischer 1907, Graebner 1907, Hagström 1916) who produced complicated systems of infraspecific taxa, sometimes distinguishing up to two dozens of varieties and forms within a single species or nothospecies. An extensive literature search yielded more than 2500 names published for about 78 existing species and about the same number of hybrids, but the type material of majority of them has never been critically re-evaluated by any expert.

Typification of previously published names is an essential act of plant nomenclature contributing to correct interpretation of names and nomenclatural stability (e.g., Kaplan 1997, 2001, Kaplan & Symoens 2004, 2005, Chrtek jun. & Mráz 2007, Jarvis 2007, Kirschner *et al.* 2007, Bureš & Danihelka 2008, Kaplan 2008, Zalewska-Gałosz *et al.* 2009). It is one of the necessary steps in preparing a monograph of a plant group. The goal of this paper is to list new names published by Tiselius in his exsiccate collection, to check them for their nomenclatural validity and legitimacy, to evaluate and interpret the respective plants taxonomically, and to designate lectotype specimens.

Tiselius and the importance of his collections

Gustaf August Tiselius (25.VIII.1833–21.II.1904) was a Swedish botanist and a high school teacher (Staffeu & Cowan 1986). His main interest was in *Potamogeton*. Although Tiselius published only a few short contributions on *Potamogeton* of rather negligible importance (Tiselius 1884a, 1884b, 1884c), he substantially contributed to studies of *Potamogeton* taxonomy in his time. He prepared a unique collection of well-developed and beautifully preserved plants entitled *Potamogetones suecici exsiccati*. It contained 150 gatherings, each in triplicate, issued in three sets in July–August 1894, July–August 1895 and July–August 1897, respectively (Staffeu & Cowan 1986). Each of these three sets was preserved in a dark-green laminated-cardboard box. Each box was provided with a booklet (Tiselius 1894–1897) containing taxonomic notes and descriptions of new taxa and distributed to all major European botanical institutions (e.g., BM, C, E, G, H, K, LD, LE, O, PR, S, UPS, W, Z; acronyms follow Holmgren *et al.* 1990) as well as to outstanding *Potamogeton* experts and collectors of that time (e.g., I. Baagöe, C. Bailey, E. F. Cooper, A. Fryer). By this, Tiselius influenced many contemporary botanists including I. Baagöe, J. O. Hagström, S. Almquist, I. Dörfler, F. W. Schultz, P. Ascherson, P. Graebner, G. Fischer, A. Magnin, A. Fryer, A. Bennett, G. C. Druce and others. Comments on the identity of the Tiselius specimens can

be found particularly in Fryer (1894), Graebner (1907) and Hagström (1916). At that time, the Tiselius' sets showed by then underrecorded morphological variation of several taxa, particularly hybrids. Still today, *Potamogetonaceae* hybrids are rarely represented in exsiccate collections. A few hybrids were issued only in the Tiselius' exsiccates.

Tiselius clearly intended to cover by his sampling the Swedish diversity of *Potamogeton* as thoroughly as possible. For many phenotypes he proposed new names, sometimes immediately supplemented with brief descriptions on his herbarium labels. Some names were validated in the booklets enclosed with the exsiccates, others were validated by later researches (such as J. O. Hagström, P. Graebner or A. Fryer), yet others remained invalidly published. The corresponding specimens in the exsiccate collection are nomenclatural types for the new valid names.

It should be also mentioned here that Tiselius issued many herbarium collections under a similar title *Potamogetones scandinavici*. He often used this title as a general heading to his normal collections. However, those with the numbers 151–180 can be considered as continuation of his *Potamogetones suecici exsiccati*. They were distributed to relatively limited number of herbaria. I saw some of the sheets in BP, C, H, LD, S, UPS and WU, where they are integrated with other collections. In contrast to the previous sets, these collections were apparently not accompanied with booklets and do not contain descriptions of new taxa. They are therefore not treated here in detail.

Material and methods

During revision of herbarium material of *Potamogetonaceae* in major European herbaria (including B, BM, BP, BR, BRA, BRNM, BRNU, BRVU, C, CGE, E, FR, G, GOET, H, HR, K, L, LD, LE, M, MP, MSB, OL, OLD, OLM, P, PR, PRA, PRC, ROZ, S, SAV, SLO, SZU, U, UPS, W, WAG, WU, Z, ZA, ZT), I have located at least some Tiselius' exsiccate collections in BM, BP, BRNM, C, E, G, H, K, LD, LE, PRA, PRC, S, UPS, WU, Z and ZT. The complete sets in the three original dark-green boxes are still kept

separately in only a few herbaria, including BP, C, H, LE, PRC and S. In almost all others, the individual sheets were sorted and integrated with other collections, mostly according to species names of the original identifications.

Almost all duplicates of each gathering distributed in the Tiselius exsiccates are of comparative quality and importance. For the convenience of future studies, a single set (duplicate) of the exsiccate collections was chosen for typifications. I used the separate boxed collection kept in herbarium S, which contains well preserved plants and which is carefully stored. This was also the collection studied by Hagström in 1906 and some sheets are annotated by him. I examined the entire collection and labelled the respective lectotypes in March 2007. Several duplicates (often two to five sheets) of each collection are preserved among other Potamogetonaceae specimens sorted in the Nordic herbarium of S and are thus available to researchers looking for distribution records and not interested in typifications and nomenclature.

Account of the collections

In the following account, the individual gatherings are listed in sequence according to the fascicles and exsiccate numbers. The first line shows the name under which the collection was issued (given in quotation marks) in the original form, which does not need to be correct from the viewpoint of the present nomenclature. If it is a valid name for a new taxon discovered by Tiselius or a new but invalid designation used by him, all names based on the respective collection are listed in the next paragraph. It starts with the full citation of the new name in a standard form, and subsequently all homotypic synonyms (if any) discovered in the literature are listed. Typifications follow valid names proposed for new taxa. For nomenclaturally invalid designations authentic specimens are listed instead. All herbaria where the respective collection was seen are listed. My view on the actual identity of the collection is given in square brackets in another paragraph. This identity refers to the plant(s) preserved in the collection and not necessarily to the type of the previously published name

used by Tiselius. Various notes are added in respective cases. The recently recognized genus *Stuckenia* (see e.g. Les & Haynes 1996, Holub 1997, Haynes & Hellquist 2000, Ceska 2001, Haynes & Holm-Nielsen 2003, Kaplan 2008) is accepted here.

Fascicle 1

1 and 2. "*Potamogeton natans* L."

[= *Potamogeton natans*].

3. "*Potamogeton natans* L. Forma *fluviatilis* Fr."

Potamogeton natans f. *fluviatilis* Fr. ex Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 3. 1894, *nom. illeg., non* Schlecht. 1823. — TYPE: "Suecia: Upsaliæ, in flumine Fyris, 59°54' latit. bor., 13 met. s. m., 18/6 1886, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton natans*].

4. "*Potamogeton natans* L. Forma *amphibia* Fr."

[= *Potamogeton natans*].

NOTE: Plants in this collection are semiterrestrial phenotypes ("landforms").

5. "*Potamogeton sparganiifolius* Læst."

[= *Potamogeton* × *sparganiifolius* = *P. gramineus* × *P. natans*].

NOTE: The sheet in the separate boxed collection in S was annotated as *P. gramineus* × *P. natans* = *P. tiselii* by Hagström in 1906.

6. "*Potamogeton fluitans* Roth. Forma *typica* Tis."

Potamogeton fluitans f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 6. 1894, *nom. inval.* ("typica") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, in effluvio lacus Fysingen ad Vallstanäs, 59°34'15'' latit. bor., 6 met. s. m., 26/7 1887, leg. *Daniel et Gustaf Tiselius*" (BM, BP, BRNM, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *fluitans* = *P. lucens* × *P. natans*].

NOTE: This collection is a part of the original material of the name *P. × sterilis* Hagstr. One duplicate identified by Hagström in 1906 as “*P. lucens + natans*” was designated as the lectotype by Kaplan (2005) and is now preserved in a separate type collection in S.

7. “*Potamogeton plantagineus* Du Croz. Forma *typica* Tis.”

Potamogeton plantagineus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 7. 1894, *nom. inval.* (“*typica*”) [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: “Suecia: in provincia Skåne, ad Eskilstorp, 55°28′ latit. bor., /8 1891, leg. *Rudolf Larsson*” (BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, W, WU, Z).

[= *Potamogeton coloratus*].

8. “*Potamogeton plantagineus* Du Croz. Forma *terrestris* Tis.”

Potamogeton plantagineus f. *terrestris* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 8. 1894, *nom. nud.* — *Potamogeton coloratus* f. *terrestris* Tiselius ex Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 179. 1916, *nom. nud.* — AUTHENTIC SPECIMENS: “Suecia: in provincia Skåne, ad Arrie, 55°32′ latit. bor., 17/9 1891, leg. *Hjalmar Nilsson*” (BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton coloratus*].

9. “*Potamogeton polygonifolius* Pourr. Forma *largior* Tis.”

Potamogeton polygonifolius f. *largior* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 9. 1894, *nom. nud.* — *Potamogeton polygonifolius* subvar. *largior* Tiselius ex Graebn. in Engl., Pflanzenz. 31 (IV.11): 66. 1907. — TYPE: “Suecia: in provincia Vermland, Elgå in rivulo Mörtbäcken, 59°40′ latit. bor., 120 met. s. m., 21/8 1885, leg. *Carl Rhodin et Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton polygonifolius*].

NOTE: The invalid Tiselius designation was validated as a new name by Graebner (1907). The particular duplicate of the type collection examined by Graebner is not available. It was almost certainly destroyed in B during World War II. Because the Code includes among the original material also “isosyntypes of the name irrespective of whether such specimens were seen by ... the author of the validating descrip-

tion or diagnosis” (Vienna ICBN Art. 9.2, Note 2; McNeill *et al.* 2006), the duplicate preserved in the separate boxed collection in S is available for lectotypification and designated so here.

10. “*Potamogeton polygonifolius* Pourr. Forma *angustifolia* Fr.”

[= *Potamogeton polygonifolius*].

11. “*Potamogeton polygonifolius* Pourr. Forma *amphibia* Fr.”

[= *Potamogeton polygonifolius*].

12 and 13. “*Potamogeton alpinus* Balb. Forma *palustris* Fr.”

[= *Potamogeton alpinus*].

14. “*Potamogeton alpinus* Balb. Forma *viridis* Tis.”

Potamogeton alpinus f. *viridis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 14. 1894. — TYPE: “Suecia: in provincia Södermanland, Wermdön, in rivulo ad Björknäs, 59°18′30″ latit. bor., 6 met. s. m., 28/8 1882, leg. *Bertil Buhre et Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton alpinus*].

15. “*Potamogeton alpinus* Balb. Forma *longifolia* Tis.”

Potamogeton alpinus f. *longifolius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 15. 1894 (“*longifolia*”). — *Potamogeton alpinus* subvar. *longifolius* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 73. 1907. — TYPE: “Suecia: in provincia Medelpad, in flumine Dysjö ad Ånge, 62°30′30″ latit. bor., 114 met. s. m., 5/8 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton alpinus*].

16. “*Potamogeton alpinus* Balb. Forma *borealis* Tis.”

Potamogeton alpinus f. *borealis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 16. 1894. — *Potamogeton alpinus* subvar. *borealis* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 73. 1907. — TYPE: “Suecia: in provincia Medelpad, in rivulo Sems å ad Lugnvik non procul ab oppido Östersund, 63°25′ latit. bor., 297 met. s. m., 25/8 1884, leg. *Gustaf*

Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton alpinus*].

17. "*Potamogeton alpinus* Balb. Forma *gracilior* Tis."

Potamogeton alpinus f. *gracilior* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 17. 1894. — *Potamogeton alpinus* subvar. *gracilior* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 73. 1907. — TYPE: "Suecia: in provincia Vesterbotten, in laculo parvo ad Munksund prope oppidum Piteå crescens, 65°20' latit. bor., 5 met. s. m., 7/8 1882, leg. C. Håkansson" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton alpinus*].

18. "*Potamogeton alpinus* Balb. Forma *iterata* Tis."

Potamogeton alpinus f. *iteratus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 18. 1894 ("iterata"). — *Potamogeton alpinus* subvar. *iteratus* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 73. 1907. — TYPE: "Suecia: in provincia Medelpad, in rivulo ad Tunadal non procul ab oppido Sundsvall, 62°25' latit. bor., 18/8 1884, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton alpinus*].

19. "*Potamogeton dubius* Tis."

Potamogeton × *dubius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 19, notulae p. 5. 1894. — TYPE: "Suecia: in provincia Småland, Mållilla, in fluvio ad Hagserum infra aggerem, 57°15' latit. bor., 31 met. s. m., a: 25/8 1885, leg. E. Haglund, b: 3/8 1881, leg. Fr. Hagström" (lectotype: S, the plant marked with "b", designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, LD, LE, PRC, S, UPS, WU, Z, ZT).

[= *Potamogeton* × *sparganiiifolius* = *P. gramineus* × *P. natans*].

NOTE: The sheet in the separate boxed collection in S was annotated as *P. gramineus* × *P. natans* = *P. tiselii* f. *dubia* (Tis.) by Hagström in 1906.

20. "*Potamogeton gramineus* L. Forma *typica* Tis."

Potamogeton gramineus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 20. 1894, *nom. inval.* ("typica")

[Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Ryd, in rivo Tranbygge, 59°27' latit. bor., 12 met. s. m., 14/8 1881, leg. Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

21. "*Potamogeton gramineus* L. Forma *sinuensis* Tis."

Potamogeton gramineus f. *sinuensis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 21. 1894, *nom. nud.* — *Potamogeton gramineus* subvar. *sinuensis* Tiselius ex Graebn. in Engl., Pflanzenr. 31 (IV.11): 88. 1907. — TYPE: "Suecia: in provincia Jemtland, in Örsviken lacus Holmsjön, 62°25' latit. bor., 41 met. s. m., 14/8 1887, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

22. "*Potamogeton gramineus* L. Forma *normalis* (Fr?) Tis."

Potamogeton gramineus f. *normalis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 22. 1894, *nom. nud.* — AUTHENTIC SPECIMENS: "Suecia: in provincia Jemtland, in lacu Holmsjön ad Ljungå, 62°25' latit. bor., 141 met. s. m., 23/8 1881, leg. Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

23. "*Potamogeton gramineus* L. Forma *jemtlandica* Tis."

Potamogeton gramineus f. *jemtlandicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 23. 1894, *nom. nud.* ("jemtlandica"). — *Potamogeton gramineus* subvar. *jemtlandicus* Tiselius ex Graebn. in Engl., Pflanzenr. 31 (IV.11): 87. 1907. — *Potamogeton gramineus* f. *jemtlandicus* (Tiselius ex Graebn.) Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 206. 1916. — TYPE: "Suecia: in provincia Jemtland, in lacu Storsjön ad oppidum Östersund, 63°25' latit. bor., 292 met. s. m., 27/8 1884, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

24. "*Potamogeton gramineus* L. Forma *angermanica* Tis."

Potamogeton gramineus f. *angermanicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 24. 1894, *nom. nud.* ("angermanica"). — *Potamogeton gramineus* subvar. *angermanicus* Tiselius ex Graebn. in Engl., Pflanzenr. 31 (IV.11): 87. 1907 ("angermanica"). — TYPE: "Suecia: in provincia Ångermanland, in fluvio ad Sollefteå, 63°20'20'' latit. bor., 9 met. s. m., 1/8 1884, leg. Gustaf Tiselius" (lectotype: S, desig-

nated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

25. "*Potamogeton gramineus* L. Forma *angustifolia* Tis."

Potamogeton gramineus f. *angustifolius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 25. 1894, *nom. nud.* ("angustifolia"). — *Potamogeton gramineus* f. *angustifolius* Tiselius ex Hagstr. in Neuman, Sverig. Fl. 796. 1901. — *Potamogeton gramineus* subvar. *angustifolius* (Tiselius ex Hagstr.) Graebn. in Engl., Pflanzenz. 31 (IV.11): 86. 1907. — TYPE: "Suecia: in provincia Helsingland, in flumine Ljusnan ad Järfösö, 61°40'20'' latit. bor., 120 met. s. m., 28/7 1889, leg. C. O. Schlyter" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

26. "*Potamogeton gramineus* L. Forma *terrestris* Tis. (*major*)."

Potamogeton gramineus f. *terrestris* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 26 & 27. 1894, *nom. nud.* — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Rimbo, in fossa inter lacus Metsjön et Långsjön sita, 59°44'' latit. bor., 6 met. s. m., 10/8 1893, leg. Isidor Berg et Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

27. "*Potamogeton gramineus* L. Forma *terrestris* Tis. (*minor*)."

Potamogeton gramineus f. *terrestris* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 26 & 27. 1894, *nom. nud.* — AUTHENTIC SPECIMENS: "Suecia: in provincia Gestrikland, Tierp, in ripis fluvii Temnaren, 60°20' latit. bor., 5 met. s. m., 16/8 1893, leg. Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

28. "*Potamogeton gramineus* L. β . *fluctuans* Tis. (*major*)"

Potamogeton heterophyllus var. *fluctuans* Tiselius ex Fryer, J. Bot. 28: 174. 1890. — *Potamogeton gramineus* var. *fluctuans* (Tiselius ex Fryer) Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 28 & 29, notulae p. 5. 1894. — *Potamogeton gramineus* f. *fluctuans* (Tiselius) Hagstr. in Neuman, Sverig. Fl. 796. 1901. — TYPE: "Suecia: in provincia Nerike, Götlunda, Hasta, in rivulo rapido, 59°20'20'' latit. bor., 27 met. s. m., a: 7/8 1884, planta fructificans, b: 19/6 1886, planta juniorifolia, leg. Gustaf Tiselius" (lectotype: S, the plant marked with "b", designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S,

UPS, WU, Z).

[= *Potamogeton gramineus*].

29. "*Potamogeton gramineus* L. β . *fluctuans* Tis. (*minor*)"

[= *Potamogeton gramineus*].

30. "*Potamogeton gramineus* L. γ . *septentrionalis* Tis. (*major*)"

Potamogeton gramineus var. *septentrionalis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 30–32, notulae p. 5. 1894. — *Potamogeton gramineus* f. *septentrionalis* (Tiselius) Hagstr. in Neuman, Sverig. Fl. 796. 1901. — *Potamogeton gramineus* subvar. *septentrionalis* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 86. 1907. — TYPE: "Suecia: in provincia Medelpad, Ånge, in flumine Ljungam ad Korsön, 62°30'30'' latit. bor., 114 met. s. m., 9/8 1887, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

31. "*Potamogeton gramineus* L. γ . *septentrionalis* Tis. (*minor*)"

Potamogeton gramineus var. *septentrionalis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 30–32, notulae p. 5. 1894. — TYPE: "Suecia: in provincia Medelpad, Torp, in lacu Nordanedesjön, 62°20'20'' latit. bor., 58 met. s. m., 9/9 1886, leg. Gustaf Tiselius" (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

NOTE: This collection is one of three syntypes of *P. gramineus* var. *septentrionalis* Tiselius. For lectotypification of this name and synonyms see under no. 30.

32. "*Potamogeton gramineus* L. γ . *septentrionalis* Tis. (*minimus*)"

Potamogeton gramineus var. *septentrionalis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 30–32, notulae p. 5. 1894. — TYPE: "Suecia: in provincia Medelpad, Torp, in lacu Nordanedesjön, 62°20'20'' latit. bor., 58 met. s. m., 9/9 1886, leg. Gustaf Tiselius" (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

NOTE: This collection is one of three syntypes of *P. gramineus* var. *septentrionalis* Tiselius. For lectotypification of this name and synonyms see under no. 30.

33. "***Potamogeton gramineus* L. *δ. debilis* Tis.**"

Potamogeton gramineus var. *debilis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 33. 1894. — TYPE: "Suecia: in provincia Jemtland, Undersåker, in lacu Litsjön, 63°20' latit. bor., 318 met. s. m., 19/8 1886, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton gramineus*].

34. "***Potamogeton nitens* Web? Forma *typica* Tis.**"

Potamogeton nitens f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 34. 1894, *nom. inval.* ("*typica*"). — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Ryd, in effluvio lacus Lejondalssjön, 59°27' latit. bor., 12 met. s. m., 21/7 1881, leg. *Gustaf Tiselius*" (BM, BP, C [folio herb.], C [herb. Baagöe], G, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

35. "***Potamogeton nitens* Web? Forma *mälarensis* Tis.**"

Potamogeton nitens f. *maelarensis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 35. 1894 ("*mälarensis*"). — TYPE: "Suecia: in provincia Upland, in lacu Mälaren ad Grönsö, 59°28'20" latit. bor., 2 met. s. m., 15/7 1885, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

36. "***Potamogeton nitens* Web? Forma *speciosa* Tis.**"

Potamogeton nitens f. *speciosus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 36. 1894 ("*speciosa*"). — TYPE: "Suecia: in provincia Upland, Ryd, in rivulo Tranbygge, 59°27' latit. bor., 12 met. s. m., 26/7 1884, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

37. "***Potamogeton nitens* Web? Forma *curvifolia* Hartm.**"

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

38. "***Potamogeton nitens* Web? Forma *jemtlandica* Tis.**"

Potamogeton nitens f. *jemtlandicus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 38. 1894, *nom. nud.* ("*jemtlan-*

dica"). — AUTHENTIC SPECIMENS: "Suecia: in provincia Jemtland, Hellesjö, in lacu Ansjö, 62°55' latit. bor., 263 met. s. m., 4/8 1886, leg. *Gustaf Tiselius*" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

39. "***Potamogeton nitens* Web? Forma *subsimilis* Tis.**"

Potamogeton nitens f. *subsimilis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 39. 1894, *nom. nud.* — *Potamogeton nitens* f. *subsimilis* Tiselius ex Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 226. 1916. — TYPE: "Suecia: in provincia Jemtland, in lacu Refsundsjön ad Gällö, 62°55' latit. bor., 288 met. s. m., 28/8 1884, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

40. "***Potamogeton nitens* Web? Forma *fyrisensis* Tis.**"

Potamogeton nitens f. *fyrisensis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 40. 1894. — TYPE: "Suecia: in provincia Upland, in flumine Fyris ad Ensta, 59°54' latit. bor., 14 met. s. m., 27/6 1882, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

41. "***Potamogeton nitens* Web? Forma *perfoliatifolia* Tis.**"

Potamogeton nitens f. *perfoliatifolius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 41. 1894 ("*perfoliatifolia*"). — TYPE: "Suecia: in provincia Upland, in flumine Fyris ad Wattholma, 60°5' latit. bor., 30 met. s. m., 5/7 1884, leg. *Ivar Österberg et Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

42. "***Potamogeton nitens* Web? Forma *maritima* Tis.**"

Potamogeton nitens f. *maritimus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 42. 1894 ("*maritima*"). — *Potamogeton nitens* subvar. *maritimus* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 90. 1907. — TYPE: "Suecia: in provincia Södermanland, Vermdön, in sinu maris Rörsvundsvik, 59°18'30" latit. bor., 26/8 1883, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton nitens* = *P. gramineus* × *P. perfoliatus*].

43. “*Potamogeton nitens* Web? Forma *vadosa* Tis.”

Potamogeton nitens f. *vadosus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 43. 1894 (“*vadosa*”). — *Potamogeton nitens* subvar. *vadosus* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 90. 1907. — TYPE: “Suecia: in provincia Södermanland, Vermdön, in fossis ad Rörsundsvik, 59°18′30″ latit. bor., 26/8 1883, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

44. “*Potamogeton nitens* Web? Forma *terrestris* Tis.”

[p. p. (plants marked with “a” and “b”) = *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*; p. p. (“c”, “d”, “e” and “f”) = *P. gramineus*]

NOTE 1: Although the herbarium label appears as if introducing a new name, Tiselius provided no description and referred to Fries (1828) where *P. nitens* f. *terrestris* Fr. was published. That is why I do not consider f. *terrestris* Tis. as a validly published name for a new taxon.

NOTE 2: This collection shows a wide variation range of semiterrestrial phenotypes collected at a seasonally emerged bottom of a lake edge. However, the gathering is a mixed collection as each duplicate sheet bears plants of both *P. gramineus* and *P. × nitens*. The individual plants on the sheets were marked by Tiselius with letters a–f. Their actual identities specified above refer to the separate boxed collection in S.

45. “*Potamogeton nitens* Web? β *praelongifolius* Tis. (*major*).”

Potamogeton nitens var. *praelongifolius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 45 & 46. 1894. — TYPE: “Suecia: in provincia Jemtland, Bräcke, in effluvio Märblings å ad lacum Refsundssjön, 62°45′30″ latit. bor., 238 met. s. m., 4/8 1886, leg. *Mauritz Grönlund et Gustaf Tiselius*” (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

NOTE: The name *P. nitens* var. *praelongifolius* Tiselius was based on two syntypes, namely collections no. 45 and 46. For lectotypification and synonyms see under no. 46.

46. “*Potamogeton nitens* Web? β. *praelongifolius* Tis. (*minor*).”

Potamogeton nitens var. *praelongifolius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 45 & 46. 1894. — *Potamogeton nitens* subvar. *praelongifolius* (Tiselius) Aschers. & Graebn., Synops. Mitteleur. Fl. ed. 2. 1: 496. 1913. — *Potamogeton* × *nitens* f. *praelongifolius* (Tiselius) Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 224. 1916. — TYPE: “Suecia: in provincia Jemtland, Åre, in lacu Gefsjön, 63°20′10″ latit. bor., 506 met. s. m., 4/8 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

47. “*Potamogeton nitens* Web? γ *subtilis* Tis.”

Potamogeton nitens var. *subtilis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 47. 1894. — *Potamogeton nitens* f. *subtilis* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 90. 1907. — TYPE: “Suecia: in provincia Jemtland, Åre, in lacu Gefsjön, 63°20′10″ latit. bor., 506 met. s. m., 19/8 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

48. “*Potamogeton nitens* Web? δ *intermedius* Tis.”

Potamogeton intermedius Tiselius ex Fryer, J. Bot. 28: 178. 1890, *nom. illeg., non* Cham. & Schlecht. 1827. — *Potamogeton nitens* var. *intermedius* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 48. 1894. — *Potamogeton gramineus* var. *intermedius* (Tiselius) Druce, List Brit. Pl. 73. 1908. — *Potamogeton* × *nitens* f. *intermedius* (Tiselius) Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 226. 1916. — TYPE: “Suecia: in provincia Upland, Svartsjölandet extra Väntholmen, 59°24′40″ latit. bor., 2 met. s. m., 21/7 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

49. “*Potamogeton nitens* Web? ε *innominatus* Tis.”

Potamogeton nitens var. *innominatus* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 49. 1894. — *Potamogeton* × *nitens* f. *innominatus* (Tiselius) Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 223. 1916. — *Potamogeton* × *innominatus* (Tiselius) P. Fournier, Quatre Fl. Fr. 140. 1935. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Ensta, 59°54′ latit. bor., 14 met. s. m., 19/8 1882, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC,

S, UPS, WU, Z, ZT).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

50. “*Potamogeton nitens* Web? ζ *merloensis* Tis.”

Potamogeton nitens var. *merloënsis* Tiselius, Potamog. Suec. Exs., fasc. 1: [sched.] no. 50. 1894. — TYPE: “Suecia: in provincia Medelpad, Timrå, in rivulo ad Merlo, 62°26' latit. bor., 5 met. s. m., 19/8 1884, 12/8 1887, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], E, G, H, LD, LE, PRC, S, UPS, WU, Z, ZT).

[= *Potamogeton gramineus*].

NOTE: A great majority of plants preserved under duplicates of this collection are fruiting and have submerged leaves with cuneate and not amplexicaul base; these belong to *P. gramineus*. However, the duplicate in G has falcate submerged leaves, which are partly semiamplexicaul at base; this may be *P.* × *nitens*. The identity of plants preserved in E and LD is uncertain. The sheet in the separate boxed collection in S was annotated as *P. gramineus* by Hagström in 1906 and by Preston in 2003.

Fascicle 2

51–53. “*Potamogeton lucens* L.”

[= *Potamogeton lucens*].

54. “*Potamogeton lucens* L. Forma *ovalifolia* M. K.”

[= *Potamogeton lucens*].

55. “*Potamogeton lucens* L. Forma *lancifolia* M. K.?”

[= *Potamogeton lucens*].

56. “*Potamogeton lucens* L. Forma *insignis* Tis.”

Potamogeton lucens f. *insignis* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 56. 1895. — *Potamogeton lucens* subvar. *insignis* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 78. 1907. — *Potamogeton lucens* var. *insignis* (Tiselius) Druce, List Brit. Pl. ed 2. 117. 1928. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Enstam, 59°54' latit. bor., 14 met. s. m., 8/8 1881, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb.

Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton lucens*].

57 and 58. “*Potamogeton lucens* L. Forma *acuminata* Schum.”

[= *Potamogeton lucens*].

59. “*Potamogeton lucens* L. β. *lucescens* Tis.”

Potamogeton lucens var. *lucescens* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 59. 1895. — *Potamogeton zizii* subvar. *lucescens* (Tiselius) G. Fisch. in E. Baumann, Veg. Untersees 94. 1911. — *Potamogeton* × *zizii* f. *lucescens* (Tiselius) Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 213. 1916. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Enstam, 59°54' latit. bor., 14 met. s. m., 21/7 1894, leg. *Nils Berlin et Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

60. “*Potamogeton lucens* L. γ. *longipetiolatus* Tis.”

Potamogeton lucens var. *longipetiolatus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 60. 1895. — *Potamogeton zizii* subvar. *longipetiolatus* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 82. 1907. — *Potamogeton zizii* f. *longipetiolatus* (Tiselius) E. Baumann, Veg. Untersees 94. 1911. — TYPE: “Suecia: in provincia Upland, Norrsunda, in effluvio lacus Oxunda, non procul ab Rosersberg, 59°34'15'' latit. bor., 3 met. s. m., /7 1894, leg. *Sigfrid Almqvist et Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

61. “*Potamogeton lucens* L. δ. *subviridis* Tis.”

Potamogeton lucens var. *subviridis* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 61. 1895. — *Potamogeton zizii* subvar. *subviridis* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 82. 1907. — TYPE: “Suecia: in provincia Upland, Näs, in lacu Örnäs, 59°32' latit. bor., 2 met. s. m., 13/8 1881, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isoelectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

62. “*Potamogeton lucens* L. ε *confertus* Tis.”

Potamogeton lucens var. *confertus* Tiselius, Potamog. Suec.

Exs., fasc. 2: [sched.] no. 62. 1895. — TYPE: “Suecia: in provincia Upland, Lomma, in lacu Mälaren ad Ådö, 59°28' latit. bor., 1,5 met. s. m., 9/8 1891, leg. *Karl et Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

63. “*Potamogeton lucens* L. ζ *foliosus* Tis.”

Potamogeton lucens var. *foliosus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 63. 1895. — *Potamogeton zizii* subvar. *foliosus* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 82. 1907. — *Potamogeton* × *zizii* f. *foliosus* (Tiselius) Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 214. 1916. — TYPE: “Suecia: in provincia Medelpad, in lacu Holmsjön ad Sunnansjö, 62°25' latit. bor., 141 met. s. m., 10/ 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

64. “*Potamogeton lucens* L. χ *longipedunculatus* Tis.”

Potamogeton lucens var. *longipedunculatus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 64. 1895. — *Potamogeton zizii* f. *longipedunculatus* (Tiselius) Baagöe, Bot. Tidsskr. 20: 322. 1896 (“*longipedunculata*”). — *Potamogeton zizii* subvar. *longipedunculus* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 82. 1907. — *Potamogeton* × *angustifolius* f. *longipedunculatus* (Tiselius) A. A. Bobrov & Chemeris, Novosti Sist. Vyssh. Rast. 38: 26. 2006. — TYPE: “Suecia: in provincia Jemtland, Hellesjö in flumine Ansjö, 62°55' latit. bor., 260 met. s. m., 13/9 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

65. “*Potamogeton lucens* L. ω *splendidissimus* Tis.”

Potamogeton lucens var. *splendidissimus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 65. 1895. — *Potamogeton zizii* subvar. *tiselii* Graebn. in Engl., Pflanzenr. 31 (IV.11): 82. 1907 (“*Tiselii*”). — TYPE: “Suecia: in provincia Jemtland, in lacu Refsundsön ad Gällö, 62°55' latit. bor., 288 met. s. m., 28/8 1884, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

NOTE: Although Graebner (1907) included

previously validly published name *P. lucens* var. *splendidissimus* Tiselius in the synonymy of his new name with a new epithet “*tiselii*”, his *P. zizii* subvar. *tiselii* is not an illegitimate superfluous name under Art. 52.1 of the Vienna Code (McNeill *et al.* 2006) because the epithet “*splendidissimus*” was simultaneously used for another, previously published infraspecific taxon, namely *P. zizii* subvar. *splendidissimus* F. W. Schultz *ex* Aschers. & Graebn. 1897. Graebner changed the epithet when transferring *P. lucens* var. *splendidissimus* under *P. zizii* to avoid illegitimacy of his new name.

66. “*Potamogeton lucens* L. Forma *terrestris* (*major*) Tis.”

Potamogeton zizii subvar. *major* Graebn. in Engl., Pflanzenr. 31 (IV.11): 83. 1907. — TYPE: “Suecia: in provincia Upland, Svartsjölandet, Norrskog, Väntholmen, 59°24'40'' latit. bor., 3 met. s. m., 5/8 1882, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

NOTE: Tiselius distributed two collections under the name *P. lucens* f. *terrestris*. However, when Graebner (1907) based his new name on a so-named Tiselius collection, he explicitly restricted the type to the collection “*terrestris major* Tisel. Potam. suec. exsicc. n. 66” whereas the other collection no. 67 “*terrestris (minor)*” was listed in the synonymy of *P. zizii* var. *coriaceus*.

67. “*Potamogeton lucens* L. Forma *terrestris* (*minor*) Tis.”

Potamogeton lucens f. *terrestris* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 66 & 67. 1895. — *Potamogeton zizii* f. *terrestris* (Tiselius) Glück, Biol. Morphol. Unters. Wasser Sumpfgew. 4: 509. 1924, *nom. illeg., non* G. Fisch. 1907. — *Potamogeton angustifolius* f. *terrestris* (Tiselius) Glück in Pascher, Süßwasserflora 15: 47. 1936. — TYPE: “Suecia: in provincia Upland, in effluvio lacus Oxunda, non procul ab Rosersberg, 59°34'15'' latit. bor., 4 met. s. m., 20/8 1894, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

68. "***Potamogeton decipiens* Nolte. Forma major Tis.**"

Potamogeton decipiens f. *major* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 68 & 69. 1895. — *Potamogeton decipiens* subvar. *major* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 138. 1907. — TYPE: "Suecia: in provincia Upland, in flumine Fyris ad Enstam, 59°54' latit. bor., 14 met. s. m., 27/6 1882, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE: The name *P. decipiens* f. *major* Tiselius was based on two collections. One of them is used here for lectotypification, the other was issued under no. 69, see below.

69. "***Potamogeton decipiens* Nolte. Forma major Tis.**"

Potamogeton decipiens f. *major* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 68 & 69. 1895. — *Potamogeton decipiens* subvar. *major* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 138. 1907. — TYPE: "Suecia: in provincia Upland, in flumine Fyris ad Enstam, 59°54' latit. bor., 14 met. s. m., 19/8 1882, leg. *Gustaf Tiselius*" (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

70. "***Potamogeton decipiens* Nolte. Forma typica Tis.**"

Potamogeton decipiens f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 70. 1895, *nom. inval.* [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: Stockholmiae in sinu maris Brunnsvikén., 10/9 1882, leg. *Gustaf Tiselius*" (BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

71. "***Potamogeton decipiens* Nolte. Forma transiens (minor) Tis.**"

Potamogeton decipiens f. *transiens* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 71 & 72. 1895. — TYPE: "Suecia: in provincia Upland, in flumine Fyris ad Jäsevad non procul Upsala, 59°53' latit. bor., 13 met. s. m., 27/7 1885, leg. *Gustaf Tiselius*" (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE: This collection is one of two syntype gatherings of *P. decipiens* f. *transiens* Tiselius. For lectotypification of this name see under no. 72.

72. "***Potamogeton decipiens* Nolte. Forma transiens (major) Tis.**"

Potamogeton decipiens f. *transiens* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 71 & 72. 1895. — TYPE: "Suecia: in provincia Upland, in flumine Fyris ad Jäsevad non procul Upsala, 59°53' latit. bor., 13 met. s. m., 12/7 1884, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

73. "***Potamogeton decipiens* Nolte. Forma pulchella (major) Tis.**"

Potamogeton decipiens f. *pulchellus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 73 & 74. 1895 ("*pulchella*"). — TYPE: "Suecia: in provincia Upland, in lacu Mälaren ad Runsam, 59°34'15'' latit. bor., 2 met. s. m., 28/7 1888, leg. *M. Floderus et Gustaf Tiselius*" (syntypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE: This collection is one of two syntype gatherings of *P. decipiens* f. *pulchellus* Tiselius. For lectotypification of this name see under no. 74.

74. "***Potamogeton decipiens* Nolte. Forma pulchella (minor) Tis.**"

Potamogeton decipiens f. *pulchellus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 73 & 74. 1895 ("*pulchella*"). — TYPE: "Suecia: in provincia Upland, in lacu Mälaren ad Runsam, 59°34'15'' latit. bor., 2 met. s. m., 18/8 1890, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

75. "***Potamogeton decipiens* Nolte. β *Torssandri* Tis.**"

Potamogeton decipiens var. *torssanderi* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 75. 1895 ("*Torssandri*"). — *Potamogeton* × *torssanderi* (Tiselius) Dörfler, Herb. Norm.

[sched.] no. 3583. 1898 (“*Torssandri*”). — TYPE: “Suecia: in provincia Södermanland, Vårdinge in lacu Sillen, 59°2′ latit. bor., 30 met. s. m., 27/7 1893, leg. *Axel Torssander et Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], E, G, H, LD, LE, PRA, PRC, S, UPS, WU, Z, ZT).

[= *Potamogeton* × *torssanderi* = *P. gramineus* × *P. lucens* × *P. perfoliatus*].

NOTE 1: The sheet in the separate boxed collection in S was annotated as “*P. gramineus* × *lucens* × *perfoliatus*” by Hagström in 1906.

NOTE 2: The Hagström’s view on the identity of this taxon was confirmed only recently when Kaplan and Fehrer (2007) used DNA sequencing of plant material from the original population and identified it as the triple hybrid between *P. gramineus*, *P. lucens* and *P. perfoliatus*. *Potamogeton* × *torssanderi* is the correct name for this unique hybrid.

76. “*Potamogeton decipiens* Nolte. γ *Torssandri* Tis. Forma *terrestris* Tis.”

Potamogeton decipiens var. *torssanderi* f. *terrestris* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 76. 1895, *nom. nud.* — AUTHENTIC SPECIMENS: “Suecia: in provincia Upland, Norrsunda, in effluvio lacus Holmboda, 59°34′15″ latit. bor., 3 met. s. m., /7 1894, leg. *Sigfrid Almquist et Gustaf Tiselius*” (BM, BP, C [folio herb.], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= ? *Potamogeton* × *torssanderi* = *P. gramineus* × *P. lucens* × *P. perfoliatus*].

NOTE: Plants in this collection are semi-terrestrial phenotypes that have only emerged coriaceous leaves. They may belong either to *P.* × *torssanderi* or to *P.* × *angustifolius*. These two hybrids are hardly distinguishable in the absence of submerged leaves. In addition, *P.* × *torssanderi* can only be morphologically identified if the particular plant is optimally developed and shows diagnostic features of all three species involved in hybridization (Kaplan & Fehrer 2007). Since the plants in this collections lack submerged leaves, their identity remain uncertain.

77. “*Potamogeton upsaliensis* Tis. Forma *major (prima)* Tis.”

Potamogeton upsaliensis f. *major* Tiselius, Potamog. Suec.

Exs., fasc. 2: [sched.] no. 77 & 78. 1895, *nom. inval.* [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: “Suecia: in provincia Upland, in flumine Fyris ad Enstam, 59°54′ latit. bor., 14 met. s. m., 27/8 1882, leg. *Gustaf Tiselius*” (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE 1: Although Tiselius used the designation *P. upsaliensis* in his publications already several years before he issued his exsiccates (Tiselius 1884a, 1884b), he never definitely adopted the name and it therefore remained invalid (Vienna ICBN Art. 34.1(a); McNeill *et al.* 2006). Consequently, no name proposed by Tiselius for infraspecific taxa under *P. upsaliensis* was validly published.

NOTE 2: Taxonomically, the morphotype “*upsaliensis*” represents a rather narrow-leaved form of the hybrid *P. lucens* × *P. perfoliatus*, which occasionally occurs in rivers. The type collection of the name *P.* × *salicifolius*, which refers to the same hybrid combination, is also of this phenotype (Kaplan & Zalewska-Gałosz 2004).

78. “*Potamogeton upsaliensis* Tis. Forma *major (secunda)* Tis.”

Potamogeton upsaliensis f. *major* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 77 & 78. 1895, *nom. inval.* [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: “Suecia: in provincia Upland, in flumine Fyris inter Ulvam et Jäsevad, 59°53′ latit. bor., 13 met. s. m., 28/6 1884, leg. *Gustaf Tiselius*” (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

79. “*Potamogeton upsaliensis* Tis. Forma *genuina (prima)* Tis.”

Potamogeton upsaliensis Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 79 & 80, notulae p. 6. 1895, *nom. inval.* [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — *Potamogeton upsaliensis* f. *genuinus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 79 & 80. 1895, *nom. inval.* (“*genuina*”) [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — *Potamogeton decipiens* subsp. *upsaliensis* Tiselius *ex* Magnin, Bull. Soc. Bot. France 43: 443. 1897, *nom. nud.* (“1896”). — *Potamogeton* × *decipiens* var. *upsaliensis* Tiselius *ex* Aschers. & Graebn., Synops. Mitteleur. Fl. 1: 332. 1897. — *Potamogeton* × *decipiens* f. *upsaliensis* (Tiselius *ex* Aschers. & Graebn.) Hagstr., Kungl. Svenska Vetenskapsakad. Handl.

55(5): 244. 1916. — TYPE: “Suecia: in provincia Upland, in flumine Fyris, non procul ab Upsala, ad Jäsevad, 59°53' latit. bor., 13,5 met. s. m., 3/7 1885, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, LD, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

80. “*Potamogeton upsaliensis* Tis. Forma *genuina* (*secunda*) Tis.”

Potamogeton × *decipiens* var. *upsaliensis* Tiselius ex Aschers. & Graebn., Synops. Mitteleur. Fl. 1: 332. 1897. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Jäsevad, 59°53' latit. bor., 13,5 met. s. m., 23/7 1890, leg. *Gustaf Tiselius*” (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE: This collection is one of two syntype gatherings of *P.* × *decipiens* var. *upsaliensis* Aschers. & Graebn. For lectotypification of this name and synonyms *see* under no. 79.

81. “*Potamogeton upsaliensis* Tis. Forma *intercedens* Tis.”

Potamogeton upsaliensis f. *intercedens* Tiselius, Potamog. Succ. Exs., fasc. 2: [sched.] no. 81. 1895, *nom. inval.* [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — *Potamogeton* × *decipiens* subvar. *intercedens* Tiselius ex Graebn. in Engl., Pflanzenz. 31 (IV.11): 138. 1907. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Enstam, 59°54' latit. bor., 14 met. s. m., 9/8 1891, leg. *Gustaf Adolf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

82. “*Potamogeton upsaliensis* Tis. β *jäsevadensis* (*primus*) Tis.”

Potamogeton upsaliensis var. *jaesevadensis* Tiselius, Potamog. Succ. Exs., fasc. 2: [sched.] no. 82–84. 1895, *nom. inval.* (“*jäsevadensis*”) [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — *Potamogeton* × *decipiens* subvar. *jaesevadensis* Tiselius ex Graebn. in Engl., Pflanzenz. 31 (IV.11): 138. 1907. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Jäsevad, 59°53' latit. bor., 13,5 met. s. m., 23/7 1886, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

83. “*Potamogeton upsaliensis* Tis. β *jäsevadensis* (*secundus*) Tis.”

Potamogeton upsaliensis var. *jaesevadensis* Tiselius, Potamog. Succ. Exs., fasc. 2: [sched.] no. 82–84. 1895, *nom. inval.* (“*jäsevadensis*”) [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — *Potamogeton* × *decipiens* subvar. *jaesevadensis* Tiselius ex Graebn. in Engl., Pflanzenz. 31 (IV.11): 138. 1907. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Jäsevad, 59°53' latit. bor., 13,5 met. s. m., 23/7 1890, leg. *Gustaf Tiselius*” (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE: This collection is one of three syntype gatherings of *P.* × *decipiens* subvar. *jaesevadensis* Graebn. For lectotypification of this name *see* under no. 82.

84. “*Potamogeton upsaliensis* Tis. β *jäsevadensis* (*tertius*) Tis.”

Potamogeton upsaliensis var. *jaesevadensis* Tiselius, Potamog. Succ. Exs., fasc. 2: [sched.] no. 82–84. 1895, *nom. inval.* (“*jäsevadensis*”) [Vienna ICBN Art. 43.1; McNeill *et al.* 2006]. — *Potamogeton* × *decipiens* subvar. *jaesevadensis* Tiselius ex Graebn. in Engl., Pflanzenz. 31 (IV.11): 138. 1907. — TYPE: “Suecia: in provincia Upland, in flumine Fyris ad Jäsevad, 59°53' latit. bor., 13,5 met. s. m., 23/7 1890, leg. *Gustaf Tiselius*” (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *salicifolius* = *P. lucens* × *P. perfoliatus*].

NOTE: This collection is one of three syntype gatherings of *P.* × *decipiens* subvar. *jaesevadensis* Graebn. For lectotypification of this name *see* under no. 82.

85. “*Potamogeton praelongus* Wulf. Forma *elegans* Tis.”

Potamogeton praelongus f. *elegans* Tiselius, Potamog. Succ. Exs., fasc. 2: [sched.] no. 85 & 86. 1895. — *Potamogeton praelongus* var. *elegans* (Tiselius) Graebn. in Engl., Pflanzenz. 31 (IV.11): 97. 1907. — *Potamogeton praelongus* subvar. *elegans* (Tiselius) Aschers. & Graebn., Synops. Mitteleur. Fl. ed. 2. 1: 481. 1913. — TYPE: “Suecia: in provincia Jemtland, Undersåker, in lacu Gefsjön, 63°4' latit. bor., 507 met. s. m., 8/8 1885, leg. *C. F. Sundberg et Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton praelongus*].

86. "*Potamogeton praelongus* Wulf. Forma *elegans* Tis."

Potamogeton praelongus f. *elegans* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 85 & 86. 1895. — TYPE: "Suecia: in provincia Jemtland, Undersåker, in flumine Hjerpsströmmen, 63°20' latit. bor., 325 met. s. m., 28/8 1885, leg. C. F. Sundberg" (syntypes: BM, BP, C [folio herb.], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton praelongus*].

NOTE: This collection is one of two syntype gatherings of *P. praelongus* f. *elegans* Tiselius. For lectotypification of this name and synonyms see under no. 85.

87. "*Potamogeton praelongus* Wulf. Forma *typica* Tis."

Potamogeton praelongus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 87 & 88. 1895, *nom. inval.* ("*typica*") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Medelpad, Torp, in lacu Öfvernordanede, 62°20'20" latit. bor., 58 met. s. m., 27/8 1881, leg. Gustaf Tiselius" (BP, C [folio herb.], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton praelongus*].

88. "*Potamogeton praelongus* Wulf. Forma *typica* Tis."

Potamogeton praelongus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 87 & 88. 1895, *nom. inval.* ("*typica*") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Ryd, in lacu Mälaren ad Gällöfstam, 59°34'14" latit. bor., 2 met. s. m., 26/7 1884, leg. Gustaf Tiselius" (BM, BP, C [folio herb.], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton praelongus*].

89. "*Potamogeton perfoliatus* L. Forma *typica* Tis."

Potamogeton perfoliatus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 89. 1895, *nom. inval.* ("*typica*") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: a: in lacu Mälaren, b: in flumine Fyris, /7 1884, leg. Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton perfoliatus*].

90. "*Potamogeton perfoliatus* L. Forma *rotundifolia* M. K."

[= *Potamogeton perfoliatus*].

91. "*Potamogeton perfoliatus* L. Forma *densifolia* Tis."

Potamogeton perfoliatus f. *densifolius* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 91. 1895, *nom. illeg.* ("*densifolia*"), *non* G. Mey. 1836. — TYPE: "Suecia: in provincia Upland, Ryd, in rivulo Tranbygge, 59°27' latit. bor., 12 met. s. m., 27/7 1884, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton perfoliatus*].

92. "*Potamogeton perfoliatus* L. Forma *imbecilla* Tis."

Potamogeton perfoliatus f. *imbecillus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 92. 1895 ("*imbecilla*"). — TYPE: "Suecia: in provincia Jemtland, Undersåker, in lacu Gefsjön, 63°4' latit. bor., 507 met. s. m., 8/8 1885, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton perfoliatus*].

93. "*Potamogeton crispus* L. Forma *typica* Tis."

Potamogeton crispus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 93 & 94. 1895, *nom. inval.* ("*typica*") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Tierp, in lacu Temnaren, 60°10' latit. bor., 38 met. s. m., 16/8 1893, leg. Gustaf Tiselius" (BP, C [folio herb.], CGE, E, G, H, K, LD, PRC, S, UPS, WU, Z).

[= *Potamogeton crispus*].

94. "*Potamogeton crispus* L. Forma *typica* Tis."

Potamogeton crispus f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 93 & 94. 1895, *nom. inval.* ("*typica*") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Näs, ad Aspvik, 59°25' latit. bor., 8 met. s. m., 18/8 1881, leg. Gustaf Tiselius" (BP, C [folio herb.], CGE, E, G, H, K, LD, PRC, S, UPS, WU, Z).

[= *Potamogeton crispus*].

95. "*Potamogeton zosteræfolius* Schum. Forma *typica* Tis."

Potamogeton zosteræfolius f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 95 & 96. 1895, *nom. inval.* ("*typica*") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Närtuna, in lacu Sparren ad Hamram, 59°41'30" latit. bor., 20 met. s.

m., 23/7 1894, leg. *Nils Berlin et Gustaf Tiselius*" (BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton compressus*].

NOTE: In contrast to ordinary *P. compressus*, the plants of this collection have short peduncles and short spikes with abortive flowers that only partly open the tepals. Although Hagström (1916) considered these plants from Uppland to be *P. acutifolius* × *P. compressus*, they do not appear to be identical with the actual hybrid of these two species from southern Sweden. The flowers of the Uppland specimens have mostly 2 carpels and also vegetatively these plants are very similar to normal *P. compressus* as they have typical long leaves (up to 135 mm), old leaves are clearly 5-veined, and also the general appearance and the branching pattern are *P. compressus*-like. Similar plants recently collected in the same area proved to be pure *P. compressus* and not a hybrid (Kaplan & Fehrer unpubl., details will be published in a separate paper).

96. "*Potamogeton zosteræfolius* Schum. Forma *typica* Tis."

Potamogeton zosteræfolius f. *typicus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 95 & 96. 1895, *nom. inval.* ("typica") [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Södermanland, Vingåker, Säfstaholm in fossis, 59°3' latit. bor., 45 met. s. m., 7/8 1891, leg. *E. P. Vrang*" (BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton compressus*].

NOTE: In contrast to the collection no. 95, these specimens are fertile and with all characteristic features of ordinary *P. compressus*, morphologically indeed "typical" plants of this species.

97. "*Potamogeton zosteræfolius* Schum. Forma *magna* Tis."

Potamogeton zosterifolius f. *magnus* Tiselius, Potamog. Suec. Exs., fasc. 2: [sched.] no. 97. 1895 ("magna"). — TYPE: "Suecia: in provincia Jemtland, Hellesjö in lacu Barrsjön, 62°55' latit. bor., 259 met. s. m., 25/8 1881, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton compressus*].

98. "*Potamogeton acutifolius* Link"

[= *Potamogeton acutifolius*].

99. "*Potamogeton obtusifolius* M. K."

[= *Potamogeton obtusifolius*].

100. "*Potamogeton mucronatus* Schrad."

[= *Potamogeton friesii*].

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101. "*Potamogeton mucronatus* Schrad. Forma *minor* Tis."

Potamogeton mucronatus f. *minor* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 101. 1897, *nom. nud.* — AUTHENTIC SPECIMENS: "Suecia: in provincia Upland, Ryd, in rivulo Tranbygge, 59°27' latit. bor., 12 met. s. m., 21/7 1881, leg. *Gustaf Tiselius*" (BM, BP, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton friesii*].

102. "*Potamogeton pusillus* L. α *vulgaris* Reich."

[= *Potamogeton berchtoldii*].

103. "*Potamogeton pusillus* L. β *tenuissimus* Koch"

[= *Potamogeton berchtoldii*].

104. "*Potamogeton rutilus* Wolfg."

[= *Potamogeton rutilus*].

105. "*Potamogeton rutilus* Wolfg. Forma *simplicissima* Tis."

Potamogeton rutilus f. *simplicissimus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 105 & 106, notulae p. 5. 1897 ("simplicissima"). — TYPE: "Suecia: in provincia Upland, Närtuna, in laculo Trehörningen, 59°43' latit. bor., 23 met. s. m., 24/6 1896, leg. *Gustaf Tiselius*" (syntypes: BM, BP 4321, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton rutilus*].

NOTE: The name *P. rutilus* f. *simplicissimus* Tiselius was based on two syntype gatherings,

namely collections no. 105 and 106. For lectotypification *see* under no. 106.

106. "***Potamogeton rutilus* Wolfg. Forma simplicissima Tis.**"

Potamogeton rutilus f. *simplicissimus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 105 & 106, notulae p. 5. 1897 ("*simplicissima*"). — TYPE: "Suecia: in provincia Upland, Närtuna, in laculo Trehörningen, 59°43' latit. bor., 23 met. s. m., 16/8 1895, leg. *Johan Wedberg et Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP 4320, 570579, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton rutilus*].

107. "***Potamogeton vaginatus* Turcz. Forma tenuior Tis.**"

Potamogeton filiformis subvar. *tenuior* Tiselius ex Aschers. & Graebn., Synops. Mitteleur. Fl. ed. 2. 1: 545. 1913. — TYPE: "Suecia: in provincia Södermanland, Wermdön, Bo, in sinu maris Rörsundsvik, 59°18'30'' latit. bor., 2/7 1896, leg. *Gustaf Tiselius*" (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia vaginata*].

NOTE: This collection is one of two syntype gatherings of *P. filiformis* subvar. *tenuior* Aschers. & Graebn. For lectotypification of this name and synonyms *see* under no. 108.

108. "***Potamogeton vaginatus* Turcz. Forma tenuior Tis.**"

Potamogeton vaginatus f. *tenuior* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 107 & 108. 1897, *nom. nud.* — *Potamogeton filiformis* subvar. *tenuior* Tiselius ex Aschers. & Graebn., Synops. Mitteleur. Fl. ed. 2. 1: 545. 1913. — *Potamogeton vaginatus* f. *tenuior* (Tiselius ex Aschers. & Graebn.) Hagstr., Kungl. Svenska Vetenskapskad. Handl. 55(5): 35. 1916. — TYPE: "Suecia: in provincia Södermanland, Wermdön, Bo, in sinu maris Rörsundsvik, 59°18'30'' latit. bor., 24/9 1882, leg. *Gustaf Tiselius*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z, ZT).

[= *Stuckenia vaginata*].

109. "***Potamogeton vaginatus* Turcz. Forma validior Tis.**"

Potamogeton vaginatus f. *validior* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 109 & 110. 1897. — TYPE: "Suecia: in provincia Ångermanland, Själevad, Nötbolandet, in sinu maris Deckarsjöfjärden, non procul ab oppido Örnsköldsvik,

63°18' latit. bor., 2/7 1896, leg. *Karl Aulin*" (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia vaginata*].

NOTE: This collection is one of two syntype gatherings of *P. vaginatus* f. *validior* Tiselius. For lectotypification of this name and synonyms *see* under no. 110.

110. "***Potamogeton vaginatus* Turcz. Forma validior Tis.**"

Potamogeton vaginatus f. *validior* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 109 & 110. 1897. — *Potamogeton pectinatus* subvar. *validior* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 125. 1907. — *Potamogeton filiformis* subvar. *validior* (Tiselius) Aschers. & Graebn., Synops. Mitteleur. Fl. ed. 2. 1: 545. 1913. — TYPE: "Suecia: in provincia Ångermanland, Själevad, Nötbolandet, in sinu maris Deckarsjöfjärden, non procul ab oppido Örnsköldsvik, 63°18' latit. bor., 17/8 1896, leg. *Gertrud Blomqvist et Carolina Lundberg*" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia vaginata*].

111. "***Potamogeton filiformis* Pers. Forma vulgaris Tis.**"

Potamogeton filiformis f. *vulgaris* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 111 & 112. 1897, *nom. inval.* [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Södermanland, in sinu maris ad Utö, 58°57' latit. bor., 28/6 1896, leg. *Gustaf Tiselius*" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia filiformis*].

112. "***Potamogeton filiformis* Pers. Forma vulgaris Tis.**"

Potamogeton filiformis f. *vulgaris* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 111 & 112. 1897, *nom. inval.* [Vienna ICBN Art. 24.3; McNeill *et al.* 2006]. — AUTHENTIC SPECIMENS: "Suecia: in provincia Södermanland, in sinu maris ad Utö, 58°57' latit. bor., 16/8 1896, leg. *Gustaf Tiselius*" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia filiformis*].

113. "***Potamogeton filiformis* Pers. Forma minor Tis.**"

Potamogeton filiformis f. *minor* Tiselius, Potamog. Suec.

Exs., fasc. 3: [sched.] no. 113. 1897, *nom. nud.* — AUTHENTIC SPECIMENS: “Suecia: in provincia Södermanland, Dalarö in mari, 59°9′ latit. bor., 28/6 1896, leg. *Gustaf Tiselius*” (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia filiformis*].

114. “*Potamogeton filiformis* Pers. Forma *major (prima)* Tis.”

Potamogeton filiformis f. *major* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 114 & 115, notulae p. 5. 1897. — TYPE: “Suecia: in provincia Jemtland, Refsund, in sinu Mälgåsviken lacus Refsundssjön, 62°50′ latit. bor., 288 met. s. m., 28/8 1884, leg. *Gustaf Tiselius*” (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia filiformis*].

NOTE: This collection is one of two syntype gatherings of *P. filiformis* f. *major* Tiselius. For lectotypification of this name *see* under no. 115.

115. “*Potamogeton filiformis* Pers. Forma *major (secunda)* Tis.”

Potamogeton filiformis f. *major* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 114 & 115, notulae p. 5. 1897. — TYPE: “Suecia: in provincia Jemtland, Hällesjö, in sinu Örsviken lacus Holmsjön, 62°25′ latit. bor., 141 met. s. m., 21/8 1884, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia filiformis*].

116. “*Potamogeton filiformis* Pers. Forma *fasciculata* Wolfg.”

[= *Stuckenia filiformis*].

117. “*Potamogeton pectinatus* L. / *Potamogeton filiformis* × *pectinatus* Almq. (*Primus*)”

[= *Stuckenia* × *suecica* = *S. filiformis* × *S. pectinata*].

118. “*Potamogeton pectinatus* L. / *Potamogeton filiformis* × *pectinatus* Almq. (*Secundus*)”

[= *Stuckenia* × *suecica* = *S. filiformis* × *S. pectinata*].

119. “*Potamogeton pectinatus* L. / *Potamogeton filiformis* × *pectinatus* Almq. (*Tertius*)”

[= *Stuckenia* × *suecica* = *S. filiformis* × *S. pectinata*].

120. “*Potamogeton pectinatus* L. Forma *laxa* Tis. (*Primus*)”

Potamogeton pectinatus f. *laxus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 120–122, notulae p. 5. 1897 (“*laxa*”). — TYPE: “Suecia: in provincia Södermanland, Wermdön, Bo, in sinu maris Rörsundsvik, 59°18′30″ latit. bor., 2/7 1896, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

121. “*Potamogeton pectinatus* L. Forma *laxa* Tis. (*Secundus*)”

Potamogeton pectinatus f. *laxus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 120–122, notulae p. 5. 1897 (“*laxa*”). — TYPE: “Suecia: in provincia Södermanland, Wermdön, Bo, in sinu maris Rörsundsvik, 59°18′30″ latit. bor., 14/8 1896, leg. *Karl et Gustaf Tiselius*” (syntypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

NOTE: This collection is one of three syntypes of *P. pectinatus* f. *laxus* Tiselius. For lectotypification of this name and synonyms *see* under no. 120.

122. “*Potamogeton pectinatus* L. Forma *laxa* Tis. (*Tertius*)”

Potamogeton pectinatus f. *laxus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 120–122, notulae p. 5. 1897 (“*laxa*”). — TYPE: “Suecia: in provincia Södermanland, Wermdön, Bo, in sinu maris Rörsundsvik, 59°18′30″ latit. bor., 1/8 1891, leg. *Gustaf Tiselius*” (syntypes: BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

NOTE: This collection is one of three syntypes of *P. pectinatus* f. *laxus* Tiselius. For lectotypification of this name and synonyms *see* under no. 120.

123. “*Potamogeton pectinatus* L., *Potamogeton zosteraceus* Fr? (*Primus*)”

[= *Stuckenia pectinata*].

124. “*Potamogeton pectinatus* L., *Potamogeton zosteraceus* Fr? (*Secundus*)”

[= *Stuckenia pectinata*].

125. "*Potamogeton pectinatus* L., *Potamogeton zosteraceus* Fr? (*Tertius*)"

[= *Stuckenia pectinata*].

126. "*Potamogeton pectinatus* L. Forma *pinguis* Tis."

Potamogeton pectinatus f. *pinguis* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 126. 1897, *nom. nud.* — *Potamogeton pectinatus* f. *pinguis* Tiselius ex Hagstr. in Neuman, Sverig. Fl. 795. 1901. — TYPE: "Suecia: in provincia Södermanland, Vesterljung, in rivulo Tunsäter, 58°54' latit. bor., 17/8 1896, leg. Axel Torssander" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

127. "*Potamogeton pectinatus* L. Forma *spissa* Tis."

Potamogeton pectinatus f. *spissus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 127. 1897, *nom. nud.* ("*spissa*"). — *Potamogeton pectinatus* f. *spissus* Tiselius ex Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 48. 1916. — TYPE: "Suecia: in provincia Södermanland, Wermdön, Bo, in Maden, palude maris, 59°18'30" latit. bor., 1/8 1891, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

128. "*Potamogeton pectinatus* L. Forma *incrustata* Tis."

Potamogeton pectinatus f. *incrustatus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 128. 1897, *nom. nud.* ("*incrustata*"). — AUTHENTIC SPECIMENS: "Suecia: in provincia Södermanland, in sinu maris Igelstaviken, non procul ab oppido Södertelje, 59°28' latit. bor., 29/7 1893, leg. Oskar Hagström et Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

129. "*Potamogeton pectinatus* L. β *protensus* Wallr.?"

[= *Stuckenia pectinata*].

130. "*Potamogeton pectinatus* L. α *scoparius* Wallr.?"

[= *Stuckenia pectinata*].

131. "*Potamogeton pectinatus* L. Forma *longipedunculata* Tis."

Potamogeton pectinatus f. *longipedunculatus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 131. 1897 ("*longipedunculata*"). — TYPE: "Suecia: in provincia Södermanland, Dalarö, in sinu maris ad Korsön, 59°9' latit. bor., 2/9 1883, leg. G. Ad. et Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

132. "*Potamogeton pectinatus* L. γ . *dichotomus* Wallr.?"

[= *Stuckenia pectinata*].

133. "*Potamogeton pectinatus* L. Forma *notabilis* Tis."

Potamogeton pectinatus f. *notabilis* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 133, notulae p. 6. 1897. — TYPE: "Suecia: in provincia Upland, in sinu maris ad oppidum Norrtelje, 59°40' latit. bor., 3/8 1882, leg. Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, K, LE, PRC, S, UPS, WU, Z).

[= *Stuckenia pectinata*].

134. "*Potamogeton natans* L. Forma *fluviatilis* Fr."

[= *Potamogeton natans*].

135. "*Potamogeton sparganifolius* Læst."

[= *Potamogeton* × *sparganifolius* = *P. gramineus* × *P. natans*].

136. "*Potamogeton alpinus* Balb. Forma *brevifolia* Tis."

Potamogeton alpinus f. *brevifolius* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 136. 1897 ("*brevifolia*"). — *Potamogeton alpinus* subvar. *brevifolius* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 73. 1907 ("*brevifolia*"). — TYPE: "Suecia: in provincia Södermanland, Brännkyrka, in lacu Magelungen, 59°14' latit. bor., 21 met. s. m., 17/8 1896, leg. John Jakobsson" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton alpinus*].

137. "***Potamogeton gramineus* L. Forma marina Tis.**"

Potamogeton gramineus f. *marinus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 137. 1897 ("marina"). — *Potamogeton gramineus* subvar. *marinus* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 86. 1907. — TYPE: "Suecia: Stockholmia, in sinu maris ad Djurgården, 59°19' latit. bor., 13/8 1896, leg. John Jakobsson et Gustaf Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z). [= *Potamogeton gramineus*].

138. "***Potamogeton gramineus* L. Forma ovatifolia Tis.**"

Potamogeton gramineus f. *ovatifolius* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 138. 1897, *nom. nud.* ("ovatifolia"). — AUTHENTIC SPECIMENS: "Suecia: in provincia Småland, Ålem, Strömsrum in fluvio Alsterån ad Thorsrum, 56°53' latit. bor., 3 met. s. m., 27/7 1896, leg. Carl et Christopher Rappe" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z). [= *Potamogeton gramineus*].

139. "***Potamogeton gramineus* L. Forma lanceolatifolia Tis.**"

Potamogeton gramineus f. *lanceolatifolius* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 139, notulae p. 6. 1897. — *Potamogeton gramineus* subvar. *lanceolatifolius* (Tiselius) Graebn. in Engl., Pflanzenr. 31 (IV.11): 88. 1907. — *Potamogeton* × *seemenii* subvar. *lanceolatifolius* (Tiselius) Aschers. & Graebn., Synops. Mitteleur. Fl. ed. 2. 1: 512. 1913. — *Potamogeton* × *seemenii* f. *lanceolatifolius* (Tiselius) Hagstr., Kungl. Svenska Vetenskapskad. Handl. 55(5): 231. 1916. — *Potamogeton* × *seemenii* var. *lanceolatifolius* (Tiselius) Hagstr. in Holmb., Skand. Fl. 1: 95. 1922. — *Potamogeton* × *lanceolatifolius* (Tiselius) C. D. Preston, Watsonia 16: 437. 1987. — TYPE: "Suecia: in provincia Småland, Ålem, Strömsrum in fluvio Alsterån, 56°53' latit. bor., 1½ met. s. m., 27/7 1896, leg. Henric Rappe et Hugo Tiselius" (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z, ZT).

[= *Potamogeton* × *lanceolatifolius* = *P. gramineus* × *P. nodosus*].

NOTE: Hagström (1916) correctly identified a hybrid origin of the plants from this collection, and based on detailed morphological investigation interpreted them as a hybrid *P. gramineus* × *P. polygonifolius*. Because the type of the name *P. × seemenii* previously used for this hybrid almost certainly belonged to *P. gramineus*, Pres-

ton (1987) replaced it with the binomial *P. × lanceolatifolius*. The original hybrid clone of *P. × lanceolatifolius* is still growing at its site where it was recorded in 1896. Molecular and cytological investigation demonstrated that one of the parental species was not *P. polygonifolius* as believed so far but morphologically and anatomically similar *P. nodosus* (Kaplan & Fehrer unpubl., details will be published in a separate paper).

140. "***Potamogeton gramineus* L. Forma terrestris Tis.**"

[= *Potamogeton gramineus*].

NOTE: Tiselius used the name *P. gramineus* f. *terrestris* Tiselius already on labels of no. 26 and 27 but never validly published it.

141. "***Potamogeton nitens* Web? Forma comparanda Tis.**"

Potamogeton nitens f. *comparandus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 141. 1897, *nom. nud.* ("comparanda"). — AUTHENTIC SPECIMENS: "Suecia: in provincia Småland, Westrum, Helgerum in fluvio, 57°40' latit. bor., 2 met. s. m., 17/7 1896, leg. Ivar Holmqvist et Gustaf Tiselius" (BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

142. "***Potamogeton nitens* Web? Forma terrestris Tis. (major)**"

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

NOTE: For the previous use of the name *P. nitens* f. *terrestris* by Tiselius see under no. 44.

143. "***Potamogeton nitens* Web? Forma terrestris (alia) Tis.**"

[= *Potamogeton* × *nitens* = *P. gramineus* × *P. perfoliatus*].

144. "***Potamogeton lucens* L. γ longipetiolatus Tis.**"

Potamogeton × *zizii* f. *pulcherrimus* Hagstr., Kungl. Svenska Vetenskapskad. Handl. 55(5): 214. 1916. — TYPE: "Suecia: in provincia Småland, Westrum, in fluvio ad Helgerum, 57°40' latit. bor., 2 met. s. m., 16/7 1896, leg. Ivar Holmqvist

et *Gustaf Tiselius*) (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton* × *angustifolius* = *P. gramineus* × *P. lucens*].

NOTE: Although Tiselius used the epithet “longipetiolatus” in two collections, Hagström (1916) based his name *P. × zizii* f. *pulcherrimus* explicitly on the collection “*P. lucens* γ *longipetiolatus* Tis., Pot. succ. exs., no. 144, non no. 60”.

145. “*Potamogeton perfoliatus* L. Forma *simplex* Tis.”

Potamogeton perfoliatus f. *simplex* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 145. 1897, *nom. nud.* — *Potamogeton perfoliatus* f. *simplex* Tiselius ex Hagstr., Kungl. Svenska Vetenskapsakad. Handl. 55(5): 254. 1916. — TYPE: “Suecia: in provincia Södermanland, Wermdön, Bo, Rörsundsvik in sinu maris, 59°18'30" latit. bor., 26/6 1883, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], C [herb. Baagöe], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton perfoliatus*].

146. “*Potamogeton perfoliatus* L. Forma *longifolia* Tis.”

Potamogeton perfoliatus f. *longifolius* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 146. 1897 (“*longifolia*”). — TYPE: “Suecia: in provincia Wermland, Grafva ad Hult, in flumine Klarelfven, 59°30' latit. bor., 45 met. s. m., 15/6 1896, leg. *Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, C [folio herb.], E, G, H, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton perfoliatus*].

147. “*Potamogeton densus* L.”

[= *Groenlandia densa*].

148. “*Potamogeton trichoides* Cham.”

[= *Potamogeton trichoides*].

149. “*Potamogeton obtusifolius* M. K.”

[= *Potamogeton obtusifolius*].

150. “*Potamogeton obtusifolius* M. K. Forma *insolita* Tis.”

Potamogeton obtusifolius f. *insolitus* Tiselius, Potamog. Suec. Exs., fasc. 3: [sched.] no. 150. 1897 (“*insolita*”). —

TYPE: “Suecia: in provincia Upland, Närtuna in laculo Trehörningen, 59°42' latit. bor., 20 met. s. m., 16/8 1895, leg. *Johan Wedberg et Gustaf Tiselius*” (lectotype: S, designated here; isolectotypes: BM, BP, BR, C [folio herb.], C [herb. Baagöe], CGE, E, G, H, K, LD, LE, PRC, S, UPS, WU, Z).

[= *Potamogeton obtusifolius*].

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