

A NEW COMBINATION IN *LAGOTIS* (PLANTAGINACEAE)

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ABSTRACT

Lagotis glauca Gaertn. subsp. ***lanceolata*** (Hultén) D.F. Murray & Elven stat. nov. is published.

RESUMEN

Se publica *Lagotis glauca* Gaertn. subsp. ***lanceolata*** (Hultén) D.F. Murray & Elven stat. nov.

The mainly Asian genus *Lagotis* is represented in North America by *L. glauca* Gaertn., in which there are three taxa, the diploid subsp. *glauca* in the areas surrounding the northern Pacific coasts, the tetraploid subsp. *minor* (Willd.) Hultén (based on *Gymnandra minor* Willd.) in northeastern European Russia and northwestern Asia east to northern Yakutia (the Sakha Republic), and a diploid taxon in northeastern Asia and northwestern North America for which we publish the new combination subsp. ***lanceolata*** (Hultén) D.F. Murray & Elven (based on *Lagotis glauca* var. *lanceolata* Hultén). Each subspecies is distinct in its main range.

In North America, subsp. *glauca* occurs along the coastline of the Aleutian Islands, Alaska Peninsula, Kodiak Island, the Pribilof Islands, St. Matthew Island, and intermittently north along the mainland coast to Cape Prince of Wales, Seward Peninsula.

Subspecies *lanceolata* in North America occurs farther north and eastward along the Arctic Coastal Plain, Arctic Foothills, and Brooks Range southward to the mountain ranges of interior Alaska, arctic and interior Yukon, and westernmost N.W.T. However, there is a narrow zone along the coast of the Bering Sea where transitional forms occur north to the Seward Peninsula, and thus the rank of subspecies has been chosen. In Asia, this subspecies occurs in Chukotka westward to the Kolyma River and southward to Karaginsky Island, northern Kamtchatka, and the mountains northwest of the Okhotsk Sea.

The two North American subspecies can be distinguished in the following key.

1. Basal leaf blades broadly obovate-oblongate, apex rounded or obtuse, sometimes subacute, margins crenate-dentate; filaments ca 1.5 mm or shorter **1a. *Lagotis glauca* subsp. *glauca***
1. Basal leaf blades narrowly oblongate, apex obtuse or subacute, sometimes acute, margins entire or distantly dentate to serrate; filaments 2 mm or longer **1b. *Lagotis glauca* subsp. *lanceolata***

Two names have been applied to the northern, amphi-Beringian plant in the last 50 years: *Lagotis glauca* subsp. *minor* or *L. minor* (e.g., Hultén 1968a, 1968b; Petrovsky 1980; Ivanina 1991; Cody 1996) and subsp. *stelleri* or *L. stelleri* (e.g., Gjørevoll 1967; Porsild & Cody 1980). The application of *L. minor* and subsp. *minor* is erroneous as this name belongs to the European and Asian tetraploid. The names based on *Gymnandra stelleri* which may apply to this plant are problematic for other reasons.

The name *Gymnandra stelleri* has been published twice, but probably based on the same type. Sprengel (1825: 773), when publishing *Gymnandra stelleri* Ledeb. ex Spreng., referred to a collection from "Kamtchatka" but one almost certainly collected in southeastern Siberia, "Sibiria inter Lenam et Oceanum [the Okhotsk

Sea],” by G.W. Steller, probably in 1740–1741. This collection has not been located, and the diagnosis is not sufficient to identify the plant in question as the Beringian taxon. Chamisso & Schlechtendal (1827: 563), when publishing their own *Gymnandra stelleri*, referred to the Steller collection but not back to the Sprengel publication. Their diagnosis is also not sufficient to identify the plant in question. In addition, they cited three previously published names, among them *Gymnandra minor* Willdenow from 1811, making their name doubly illegitimate. Gjørevoll’s (1967), combination “*Lagotis glauca* subsp. *stelleri* Gjørevoll” is of course not validly published as he did not provide a complete reference to the replaced synonym *Gymnandra stelleri* Cham. & Schltdl., *Linnaea* 2:563. 1827.

This means that there is no validly published name for the amphi-Beringian subspecies, and the names published at other ranks are dubious substitutes for the reasons cited above, with one exception. The exception is *Lagotis glauca* var. *lanceolata* Hultén (Hultén 1930), based on plants from northern Kamchatka and Karaginsky Island, with a diagnosis unambiguously referring to the northern amphi-Beringian plant (“Foliis radicalibus lanceolatis vel ovato-lanceolatis sparse serratis vel crenato-serratis; filamenta vulgo quam in forma typica longiora sed labio superiore distincte breviora”) and with a clear reference to several specimens from three specified sites: the Klutchevskaja volcano (five collections, Sedanka—Jelova (one collection), and Karaginsk Island (two collections).

For our treatment of *Lagotis* in volume 17 of *Flora of North America*, we require a valid combination. We base the combination on Hultén’s unambiguous, valid, and legitimate name.

Lagotis glauca* subsp. *lanceolata (Hultén) D.F. Murray & Elven stat. nov. *Lagotis glauca* var. *lanceolata* Hultén, Fl. Kamtsch. 4:105. 1930.

REFERENCES

- VON CHAMISSE, A.L. AND D.F.L. VON SCHLECHTENDAL. 1827. De plantis in expeditione speculatoria Romanzoffiana observatis rationem dicunt, 2(4). *Linnaea* 2:541–611.
- CODY, W.J. 1996. *Flora of the Yukon Territory*. NCR Research Press, Ottawa.
- GJØREVOLL, O. 1967. Botanical investigations in Central Alaska, especially in the White Mountains. III. Sympetalae. *Skr. Kongl. Norske Vidensk. Selsk.* 10:1–63.
- HULTÉN, E. 1930. *Flora of Kamtchatka and the adjacent islands*, 4. *Handl. Kungl. Svenska Vetensk.-akad., ser. 3*, 8, 2:1–358.
- HULTÉN, E. 1968. *Flora of Alaska and neighboring territories. A manual of the vascular plants*. Stanford Univ. Press, Stanford.
- HULTÉN, E. 1967. Comments on the flora of Alaska and Yukon. *Ark. Bot.*, ser. 2, 7, 1:1–147.
- IVANINA, L.I. 1991. Scrophulariaceae Juss. In: Kharkevich, S.S., ed. *Plantae vasculares Orientis Extremi Sovietici*, 5:287–371.
- PETROVSKY, V.V. 1980. *Lagotis* Gaertn. In: Tolmachev, A.I. and B.A. Yurtsev, eds. *Flora Arctica URSS. VIII. Geraniaceae–Scrophulariaceae*. Pp. 267–269.
- PORSILD, A.E. AND W.J. CODY. 1980. *Vascular plants of continental Northwest Territories, Canada*. Natl. Mus. Nat. Sci., Natl. Mus. Canada, Ottawa.
- SPRENGEL, K.P.J. 1825. *Systema vegetabilium* (ed. 16) [Sprengel] 2. *Librariae Dieterichianae*, Göttingen.



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