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5th Floor, Hunt Library
Carnegie Mellon University
4909 Frew Street
Pittsburgh, PA 15213-3890
Telephone: 412-268-2434
Email: huntinst@andrew.cmu.edu
Web site: www.huntbotanical.org

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Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

9.

Cachidaceae Lindl.

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Key to the Genera.

Flowers solitary, lip inflated or saccate.

Leaf basal, solitary. Cytherea.

Leaves borne on the stem, 2 to several.

Cypripedium.

Flowers racemose or spicate, lip not inflated or saccate.

Flowers spurless.

Leaves reticulated.

Peramium.

Leaves not reticulated.

Leaves several. Gyrostachys.

Leaves one or two.

Lip entire.

Achroanthus.

Lip retuse or deeply cleft.

Listera.

Flowers spurred.

Leaves reduced to sheathing scales.

Corallorhiza.Leaves present, ~~the basal ones at least not~~
~~reduced to scales.~~

Stem leafy.

Lip entire.

Limnorchis.

Lip toothed or serrate at the apex.

Lip longer than the spur.

Coeloglossum.

Lip shorter than the spur.

Orchis.

Stem scapiform.

Basal leaves 2.

Lysias.

Basal leaf 1.

Lip lobed.

Lip entire.

Lysiclla.

Cytherea Salisb.

Scapose herb with a solid bulb, the scape sheathed by 2 or 3 scales to near its center; the solitary basal leaf petioled. A monotypic genus of the north temperate zone.

Cytherea bulbosa (L.) Wight.

Cypripedium bulbosum L. Sp. Pl. 2: 951, 1753.

Calypto bulbosa Reichenb. Ic. Fl. Germ. 13: 158, t. 137, 1851.

Leaf oval or ovate, 4-6 cm. long; scape 5 to 15 cm. high; flower variegated, pink, purple and yellow; petals and sepals linear, the lip ~~some~~ ~~what~~ ~~saccate~~ large, about 2 cm. long. Coniferous forests in the vicinity of Sitka, thence ranging eastward to Labrador and south to Maine, Michigan, California and Arizona. It occurs also in Scandinavia, northern Russia and Siberia, ^{there being the localities from which it} ~~and~~ was originally described from the last two localities.

Southeastern Alaska. - Island in Sitka Harbor, F. A. Walpole, 1920 (No. 1047).

7.

Cypripedium L.

Herbs with fibrous roots and glandular-pubescent foliage; leaves many nerved; flowers in Alaskan species solitary, conspicuous. About 40 species widely distributed from Mexico and northern India northward in both hemispheres to the northern part of the temperate zone.

Key to the Species.

Foliage leaves commonly 2, rarely 3, near the center of the stem; lip white spotted with brown-purple. *C. guttatum*.

Foliage leaves commonly several, scattered along the stem; lip white or nearly so. *C. passerinum*

Cypripedium guttatum Sw.

Cypripedium guttatum Sw. Kaulf. Det. Acad. Handb. II. 21: 251, 1800.

Foliage leaves lanceolate to oval or ovate, acute; sepals commonly brown, the lateral ones united beneath the lip, the latter 20 to 25 mm. long. Grassy hillsides from Kodiak Island and the mainland opposite throughout the Alutian chain. Also occurs in the upper Yukon valley

5.

and is reported in the Old World from central Russia eastward to Kamchatka. It was originally described from "E. Siberia".

The typical form of this species is that from the interior which like that from the interior of Siberia, has ~~smaller flowers~~ narrower leaves and smaller flowers than specimens from the Alaskan coast and islands.

Upper Yukon Valley. - Near Sixty Mile Creek, J. B. Tarleton, 1899 (No. 170). Slide back of Dawson, R. S. Williams ^{June 16,} 1899 (No. Selwyn River, M. W. Looman, 1899 (No. 1051).

Alaska Peninsula. - ^{Kukak Bay} Canille ~~and~~ Kearney (No. 1641).

Kodiak Island. - W. H. Evans, 1877 (No. 436), W. J. Fisher July 14, 1874, F. A. Walpole, 1900 (No. 1163).

Alutian chain. - Chisai Islands, Dall 1874. Shumagin Islands, Kinkaid July 25 1879, 1899. Unalaska, Mo. Gray 1896, J. M. Macoun July 25, 1871, L. M. Turner, July 17, 1878, Canille & Kearney (No. 1765), Lane & Prentiss, 1895 (No. 143), B. W. Evermann, 1892 (No. 79), C. Hart Merriam July 26, 1891. Amaknak Island, B. W. Evermann, 1892 (No. 153).

Cypripedium passerinum Richards.

Cypripedium passerinum Richards. Frankl. Journ. App. 1d. 2.
34.

Leaves lanceolate, rarely oblanceolate or obovate,
acute; sepals green or slightly tinged with brown,
the lateral ones ^{free} ~~not united beneath the lip~~, lip about
15 mm. long. Upper Yukon Valley ~~and eastward~~
to the Mackenzie, ~~thence~~ ^{and} south ~~ward~~ to Montana.

Upper Yukon Valley. - Forty Mile Creek, Frederick
Funston, 1873 (No. 12), Mountain side near Slide,
Dawson, ^{Dr. Williams} July 14, 1879. Above Fort Selkirk, J. B. Tarleton,
1879 (No. 56.c), East of Lake Lebarge, J. B. Tarleton, 1879
(No. 56.b.).

Peraminium Salisb.

Herbs with thick fibrous roots; leaves basal or nearly so, sometimes blotched with white; spikes somewhat lax; flowers greenish white or with a purplish tinge; lateral sepals free, the upper one united with the petals; lip entire, broadly ovate, shorter than the sepals. About 25 species widely distributed in temperate and tropical regions of both hemispheres.

Key to the Species.

Leaves ~~commonly~~ ^{rarely} lanceolate, the blade 1 to 3 cm. long.

P. repens.

Leaves ~~narrowly~~ oval or lanceolate, the blade 4 to 6 cm. long.

P. decipiens.

Peraminium repens (L.) Salisb.

Cataglyphis repens L. Sp. Pl. 2: 945, 1753.

Peraminium repens Salisb. Trans. Hort. Soc. Lund, 1: 301, 1872.
^{or rarely 20 cm.}

About 15 cm. high. Leaves rather abruptly tapering to a petiole; ^{acute or obtuse at the apex} flowers 5 to 6 mm. long.

Collected at Cook's Barlet and in the upper Yukon Valley thence it ranges eastward to Nova Scotia and south to Massachusetts and Colorado. It occurs also in central and

northern Europe and in northern Asia, these being the localities from which it was originally described.

Cook. Inlet. — Kasilof, W. H. Evans, 1898 (No. 751).

Upper Yukon Valley. — Three miles above Selkirk River, J. B. Tarleton, 1879 (No. 136).

Paramium decipiens (Hook.) Wight.

Spiranthes decipiens Hook, Fl. Bor. Am. 2: 203, 5, 204, 1839.

Gaultheria mongiei Lindl. Gen. & Sp. Arch. 492, 1840.

Paramium mongiei Morong, Minn. Terr. Club 5: 124, 1874.

Stems 20-40 cm. high; leaves attenuate at the base, acute or attenuate at the apex; spike about 10 cm. long; the flowers 7-9 mm. long. South-eastern Alaska and eastward to Quebec, south to New York, Minnesota, California and Arizona.

There seems to be no reason why the older name should not be retained for this plant. Lindley cites it as a synonym and there can be no question as to its identity as the species is well described and figured by Hooker.

It was originally described from "Lake Huron," "Lake Michigan and near the sources of the Columbia River," "Fort Vancouver and Straits of De Fuca."

5.

Santhiasium Alaska, - M. Vintura, Siberia,
Mrs. E. V. Commons Aug. 1899, Loring, Grace E. Cook,
July 21, 1899.

Egrostachys Pers.

Fibrous or tuberous-rooted herbs with
mostly basal leaves and rather densely
spicate inflorescence; flowers white or
greenish, the sepals free or more or less coher-
ent. About 80 species in temperate and
tropical regions of the northern hemisphere
and in South America southward to Chili.

Egrostachys romanzoffiana (Cham.) Mac M.
Spiranthes romanzoffiana Cham. Linnaea 3: 32, 1828.
Egrostachys romanzoffiana Mac M. Mit. Min. Vol.
171. 1892.

Egrostachys stricta Rydb. Mun. M. G. Bot. Gard. 1: 107.
1900.

Stem 10 to 30 cm. high; leaves 2 to 10 cm. long,
linear-lanceolate to lanceolate or oblanceolate;
raceme 2 to 8 cm. long; bracts lanceolate, usu-
ally shorter than the flowers; sepals and petals
united to near the apex (free portion about 2 mm.
long), lip contracted below the crisped apex.
Alaska, the type locality, to southeastern Alaska
and in the upper Yukon valley. flowers at

ranges eastward to Newfoundland and south to Maine, Pennsylvania, Minnesota, Colorado and California. The type locality of *E. stricta* is the Rocky Mountains of Montana and Yellowstone Park.

There seems to be no difference in floral structure between specimens from Alaska and those from the Rocky Mountains or the eastern part of America. The spikes of the two specimens seen from Alaska are shorter than some of the eastern specimens being from 2 to 3.5 cm. long but not shorter than all. The species was originally described as having a spike from less than an inch to an inch and a half and longer in the larger specimens not 1 to 2 cm. as described by Rydberg in the Flora of Montana and in Britton's Manual. Specimens from southeastern Alaska and from the interior have quite as long spikes as is commonly found with the plant from the Rocky Mountains and the east. ~~The range~~ *E. stricta* is therefore given as a synonym of *E. camanoffiana*.

Alaska. - W. H. Evans, 1877 (No. 517). M. W. Harrington 1871-72.

Southeastern Alaska. - Shush Bay, M. W. Gorman, 1895 (No. 143).

Upper Yukon Valley. - South bank of Forts Mile Creek, Frederick Funston, 1878 (No. 127). ~~Chis a Mile Creek, Ft. Carleton, 1878.~~

Achroanthus Raf.

Rather low, small flowered herbs from a solid bulb; the Alaskan species 2-leaved, the leaves sheathing at the base. About 40 species, natives of temperate and tropical regions in both hemispheres.

Achroanthus diphyllus (Cham.) Wight.
Malaxis diphyllus Cham. Linnaea 3: 34, 1828.

Microstylis diphyllus Lindl. Em. & Sp. Orch. 19, 1830.

About 15 cm. high; leaves about 8 cm. long, the ^{lower and sheathing} exterior one ovate or obovate, the upper and interior one lanceolate; racemes rather narrow, 4 to 5 cm. long; flowers white, pedicels 2 to 4 mm. long, lateral sepals lanceolate, upper one ovate, petals narrowly linear or filiform, lip lanceolate. Unalaska, the type locality, to Behm Canal; apparently rare.

Kodiak. - W.H. Evans, 1897 (No. 357).

Behm Canal. - Back Bay, M. W. Gorman, 1895 (No. 127).

Listera

Rather small perennial herbs with fibrous roots and a pair of opposite leaves near the middle of the stem; ~~flowers in a terminal raceme.~~ About 12 species, natives of the north temperate and arctic zones in both hemispheres.

Key to the Species.

Pedicels glabrous; ^{lip} labellum cleft to the middle or beyond, the lobes narrowly linear and acute ~~or~~ or setaceous. L. nephrophylla.

Pedicels glandular; ^{lip} labellum not cleft to the middle, the lobes obtuse, 1.5 to 2 mm. broad.
^{lip} Labellum oblong, auriculate at the base, L. borealis

^{lip} Labellum wedge-shaped, not auriculate at the base. ^{lip}

Ovary glandular; labellum abruptly contracted at the base into a short stalk, L. convallarioides.

Ovary glabrous; ^{lip} labellum sessile, L. caurina.

Listera nephrophylla Rydb.

Listera nephrophylla Rydb. Mum. N. Y. Bot. Gard. 1:
108, 1900.

Stems 10 to 20 cm. high; leaves detoid to nearly
uniform; flowers greenish or brownish purple.
Among mosses in deep spruce forests or in open
meads from Atka, one of the Aleutian islands,
to the southern boundary, thence southward to
Oregon, Idaho and Colorado. The original description
was based on material from various localities ^{in its range}
~~Alaska to the southern terminus range to the south,~~

Aleutian chain. - Atka Island, L. M. Turner, 1879
(No. 1252). Unalaska, B. W. Evermann, 1892 (No. 50),
C. Hart Merriam Aug. 1891.

Kodiak Island. - Kodiak, Coville & Kearney (No.
2346). Without special locality, W. H. Evans 1897, Kellogg,
1867 (No. 229).

Prince William Sound. - Port Wills, Coville &
Kearney (No. 1255).

Southeastern Alaska. - Point Gustavus, Glacier
Bay, Coville & Kearney (No. 727). Farragut Bay, Coville
& Kearney (Nos. 450, 462). Ys Bay, M. W. Parman, 1895
(No. 65). Hawkan, W. H. Evans, 1897 (No. 116). Helm Bay,
Cleveland Peninsula, J. B. Flett, 1901 (No. 2003).

Listra borealis Morong.

Listra borealis Morong, Bull. Torr. Bot. Club 20, 31, 1898.

Stems 10 to 15 cm. high; leaves obtuse, ovate, oval or elliptical, 2 to 3 cm. long. ~~habitus finely ciliate~~ Upper Yukon Valley southward to Great Slave River, the type locality, thence southward to Colorado.

Upper Yukon. - Coal Creek Hill, Fairbanks, 1893 (No. 91). Fine Finger Rapids, J. B. Tarleton, 1899 (No. 67).

Listra convallarioides (Sw.) ~~W.~~ Torr.

Leptopactis convallarioides Sw. ^{Kunze} Bot. Acad. Handl.
Stockh. 21: 232. 1800.

Listra convallarioides Torr. Comp. Fl. 320. 1826.

Stems 10 to 25 cm. high; leaves obtuse or ovate and somewhat spiculate, ovate to nearly rotund, 2.5 to 3 cm. long. Collected at Unalaska and reported from Birnie Island. It occurs in British Columbia and ranges southward to California and eastward to Michigan, Vermont and Nova Scotia. Originally described from
"to ^{Nova Amer. sept.} Unalaska. - W. H. Evans, 1897 (No. 531).

Listera caurina Piper.

Listera caurina Piper, *Erythraea* 6: 32, 1898.
Listera retusa Sukodoff, *Deutsche Bot. Monat.*
 18: 155, 1900.

Stems 15 to 30 cm. high; leaves ovate,
 3 to 5 or even 7 cm. long, commonly acute or
 acutish; lip about 6 mm. long. Southeastern
 Alaska southward to Oregon and Idaho.
 Originally described from specimens collected
 in the Cascade mountains of Oregon, the Olympic
 mountains of Washington and the Cedar moun-
 tains of Idaho. Type locality of Listera retusa,
 Skamania County, Washington.

Southeastern Alaska. - Port Chester, C. S.
 Townsend 1890. Spacious Bay, M. W. Gorman,
 1895 (No. 134).

Corallorhiza Chatelainii

Herbs with coralloid roots, saprophytes or root parasites; ^{flowers greenish or purplish,} petals about equaling the sepals, spur more or less adnate to the summit of the ovary. About 15 species in the north temperate zone.

Key to the Species.

Column one half or two-thirds the length of the sepals and petals; spur inconspicuous or scarcely apparent.

C. corallorhiza.

Column equaling the sepals and petals; spur conspicuous, about 2 mm. long.

C. mertensiana.

and ranging from the Upper Yukon Valley to eastward to Nova Scotia and southward to Georgia, Nebraska and Washington. It occurs also in Europe where it was originally described, and in Asia.

Mushagak. - C. L. McKay June 28, 1881.

Upper Yukon valley. - Coal Creek Hill, Fudovich
Lunston, 1873 (No. 74). Ft. Selkirk, M. W. Forman, 1879 (Nos.
1019, 1041). Abasco Ft. Selkirk, J. B. Tarleton, 1879 (No. 314).
White Horse Rapids, J. B. Tarleton, 1879 (No. 314).

Corallorhiza mertensiana Bang.

Corallorhiza mertensiana Bang. Mum. Acad. Petersb. II.
Math. & Nat. 2: 165, 1831.

Commonly 20 to 30 cm. high; racemes 3 to 10 cm. long; flowers reddish purple; sepals and petals about 8 mm. long, linear, lip broadly oblong with a small tooth on either side near the center. Pitka, the type locality, south to northern California.

South eastern Alaska. — Mt. Varstovia, Pitka,
 Mrs. E. T. Emmons Aug. 1899, Tatosh Islands, ~~1900~~
 J. B. Flett, 1901 (No. 2005).

Linum Rydb.

Stems with thick, fleshy roots and greenish or white flowers; sepals and petals five, spreading. About 25 species, natives of North America.

Key to the Species.

Lip dilated at the base.

Flowers green or greenish purple; lip slightly dilated at the base. *L. brachypetala*.

Flowers white; lip conspicuously dilated at the base.

Lower leaves lanceolate; spur clavate, about $\frac{1}{4}$ longer than the lip.

L. graminifolia.

Lip not dilated at the base.

Spur nearly twice the length of the lip.
~~Being Island does not belong to *L. behringiana*,
 to *L. alberta* one of Commander Islands.~~

Spur shorter than or very little exceeding the lip.

Lip oblong to lanceolate.

L. viridiflora.

Lip linear or nearly so.

Flowers greenish or purplish; spur shorter than the lip.

L. stricta.

Flowers white or nearly so; spur about equaling the lip.

L. gracile.

Limnorchis brachypetala Rydb.

Limnorchis brachypetala Rydb., Bull. N. Y. Bot. Gard. 2:
161, 1901.

Fifteen to thirty cm. high; lower leaves usually oblong, obtuse, about 3 cm. long, middle leaves lanceolate, 5 to 8 cm. long; spike rather narrow; flowers small, lip about 4 mm. long, spur slightly shorter. Upper Yukon valley, type collected at Bennett City.

Upper Yukon Valley. — Above Ft. Selkirk, J. B. Sarsland, 1879 (No. 116).

Limnorchis dilatata (Pursh) Rydb.

Orchis dilatata Pursh, Fl. 2: 588, 1814.

Limnorchis dilatata Rydb. in Britton, Mem. 294, 1901.

Usually taller than the preceding; leaves 5 to 17 cm. long, the lower sometimes obtuse, the upper usually attenuate and acute at the apex; spike 1.5 to 2 cm. broad, 3 to 10 cm. long; lip 5 to 9 mm. long, spur slightly longer. The Alutian chain and southeastern Alaska, thence ^{across the continent to Labrador, the type locality, and} Newfoundland, ~~and~~ south to Nebraska and New York. Collected also in the Commanche Islands, Liberia.

Although Dr. Rydberg ~~refers~~ does not credit Rydb. Bull. Torr. Bot. Club 28: 505, 1901.

Alaska with this species but refers instead at least some of the species cited below to *L. leucostachys* it is by no means clear that he was correct.

doing. It will be noticed that in his key Dr. Rydberg places L. dilatata under the sub-heading "spur about equalling or only slightly exceeding the lip" while L. leucostachys is placed under the caption "spur from $\frac{1}{4}$ to $\frac{2}{3}$ longer than the lip" but in the portion of the key which distinguishes L. leucostachys from the other species under the same sub-heading it is described as "spur scarcely longer than the lip". Turning to the description of the species it is there described as ~~spur filiform, scarcely clavate,~~ "about half longer than the lip" and it is figured perhaps a third longer. The specimen cited from Alaska ~~however~~ ^{in the other hand} has the spur scarcely ~~longer~~ if any longer than the lip. ~~There would appear~~ It would appear therefore that there must have been some confusion in Mr. Rydberg's mind as to just what this species was. Since ~~there~~ ^{is some variation} in no case is the ~~spur~~ in the specimens cited below is there such a difference in the length of the spur and lip as figured by Dr. Rydberg or as described by Lindley and since they all agree very well with eastern specimens of L. dilatata, they are referred to that species.

Real Islands - Mrs. Bryant 1875.

Alutian Chain. - Unalaska, Lane & Painter's, 1883 (No. 122),
C. H. Merriam Aug. 12, 1871, Caville & Kearney (No. 1710),

Kinkaid Pass, Shumagin Islands, Kinkaid July 8 to 19, 1899.
Humboldt Harbor, Shumagin Islands, C. H. Townsend July 31, 1888.

Kodiak Island. - Kodiak, Caville & Kearney (No. 1487)
Karluk River, T. H. Bean, without date. Without special locality,
W. H. Evans, 1897 (No. 344), Kellogg, 1867 (No. 132, in part).

Alaska Peninsula. - Uktavak Bay, Palache July
8 to 19, 1899. Kukak Bay, Caville & Kearney (No. 1619)

Gakutat Bay. - Near Ankan River, Frederick Funston,
1892 (No. 52).

Yukon Territory
~~Southwestern Alaska~~. - ~~G. L. Patton~~ vicinity of
Summit and Middle Lakes, A. L. Bolton 1898.

Linnorchis gracimifolia Rydb.

Linnorchis gracimifolia Rydb. Bull. Torr. Bot. Club
28: 627, 1901,

Usually 25 to 40 cm. tall, very slender; leaves 5 to 10 cm. long, 3 to 9 mm. broad; spike somewhat lax, 1 to 1.5 cm. broad, 5 to 8 cm. long; flowers closely resembling the preceding but somewhat smaller, lip 4 to 7 mm. long, spur about $\frac{1}{4}$ longer. Kodiak to the southern boundary, described by Dr. Rydberg from specimens collected at Douglas Island, Barman's Lake and the mouth of Kiviere du Roup.

Kodiak Island. — Dr. G. Kellogg 1867 (No. 132 in part).
Southeastern Alaska. — Douglas Island, Grace E. Cook, July 25, 1891.

Barman's Lake, M. W. Barman, 1893 (No. 74), Ketchikan, J. B. Klett, 1901 (No. 2006).

Linnorchis viridiflora (Cham.) Rydb.

Habenaria borealis viridiflora Cham. Linnaea 3: 28, 1828,
Linnorchis viridiflora Rydb. Bull. Torr. Bot. Club 28:
616, 1901,

Usually somewhat stoutish, 15 to 60 cm. high; leaves 5 to 15 cm. long, usually 1 to 3 or sometimes even 4 cm. broad, the lower sometimes oblong and obtuse, the upper lanceolate, acute; spikes usually rather densely flowered, 4 to 15 cm. long; lip 4 to 7 mm. long, spur clavate about as long as the lip. Variation common and

Southeastern Alaska and Southward to Nebraska and Colorado. Originally described from Unalaska.

Alutian chain. — Attu Island, W.S.E. Jacobs July, 1894, Unalaska, B.W. Euermann, 1892 (No. 57)²⁵, Caville & Kearney (Nos 174)¹⁴⁵, J.B. Flitt, 1920 (No. 1801), W.H. Evans, 1897 (No. 540), M.W. Harrington 1871-72, C.H. Merriam July 26, 1871, Admiral Island, C.H. Townsend, ~~1871~~ Aug. 31, 1873, Popof, Shumagin Islands, Kirkaid July, 1879.

Kodiak Island. — Kodiak, Caville & Kearney (No. 1437)

Alaska Peninsula. — Stepanak Bay, Potoshe July 85, 1879.

Cook Inlet. — Kaslof, W.H. Evans, 1898 (No. 671)

Southeastern Alaska. — Hiddlem Glacier, Russell Fiord, Caville & Kearney (No. 974), New Metlakatla, Annette Island, Caville & Kearney (No. 354).

Limnorchis stricta Rydb.
Platanthera stricta Lindb., *Gen. & Sp. Orch.* 258, 1893.
Limnorchis stricta Rydb., *Conn. N. Y. Bot. Gard.* 11155, 1900.

More slender than the preceding, 20 to 60 cm. high. Leaves oblong and obtuse to lanceolate or linear lanceolate ^{and} acute, 5 to 10 cm. long, 7 to 25 ~~mm.~~ ^{mm.} broad; ~~leaf~~ ^{spike} usually somewhat lax; lip 6 to 8 mm. long. Alaska Peninsula, ~~and thence~~ to the southern boundary, Washington, Montana and Colorado. Originally described from Northwest America.

Alaska Peninsula. — Herendun Bay, H. C. Fassett July, 1870. Kukak Bay, Caville & Kearney (No. 1646).

Prince William Sound. — Area, Caville & Kearney (No. 1313)

Gakutat Bay, — six miles above mouth of Ankwau River, Frederick Funston, 1872 (No. 64).

Southeastern Alaska. — Sitka, Caville & Kearney (No. 866), Mt. Verstanica, Sitka, B. W. Evermann, 1872 (No. 236). New Metlakatla, Annette Island, Caville & Kearney (No. 369).

Limnorchis gracilis (Lindl.) Rydb.

Platanthera gracilis Lindl., *Gen. & Sp. Orch.* 288, 1835.

Limnorchis gracilis Rydb., *Bull. Torr. Bot. Club* 28: 627, 1901.

Slender, 25 to 40 cm. high; leaves mostly narrowly lanceolate to linear, acute or the lower ~~ones~~ obtuse, 4 to 8 cm. long; spike slender and lax, 10 to 12 cm. long; lip about 6 mm. long, closely resembling some of the narrow leaved forms of the preceding. ^{in British Columbia} Southeastern Alaska south to Observatory Inlet, the ^{type} locality being and the coast of Northwest America being the localities from which it was originally described. Reported ~~also~~ also from "subarctic America."

Southeastern Alaska. - New Melakutta, Grace E. Casley Aug. 16, 1891. Hawkan, W. H. Evans, 1897 (No. 131). Ketchikan, J. B. Lott, # 1901 (No. 2007). Back Bay, M. W. Farman, 1895 (No. 52).

Caeloglossum Harton.

Tuberous rooted herbs with leafy stems and conspicuously bracted, rather compact spikes; flowers greenish, lip oblong or cuneate, blunt. Two or three species in the ~~north~~ temperate regions of the northern hemisphere.

Caeloglossum bracteatum (Muhl.) Parl.

Orchis bracteata Muhl.; Willd., *Sp. Pl.* 41: 34, 1805.

Caeloglossum bracteatum Parl. *Fl. Ital.* 2: 409.

Stems 10 to ~~20~~²⁵ cm. high; lower leaves obovate or oval, commonly obtuse, middle and upper leaves oval or oblong to lanceolate, commonly acute; spike 2 to 8 cm. long, lower bracts two or three times as long, ~~as the ovaries~~ upper about equaling the ovaries; lip about 8 mm. long, ~~It~~ closely resembling the European *C. viride* but ~~the~~ with shorter and broader teeth at the apex of the lip and a less prominent middle tooth than that species.

C. bracteatum ranges from Alaska to Juneau and has been collected in the vicinity of Port Clarence but is nowhere common.

It extends from British Columbia to New Brunswick and southward to Nebraska and North Carolina. It was originally described from Pennsylvania.

Port Clarence. - Along Mission Creek, Teller Reindeer Station, F. A. Walpole, 1901 (No. 1772).

Kodiak Island. - W. H. Evans, 1897 (No. 426).

Gakutat Bay. - Disenchantment Bay, Frederick Lanston, 1892 (No. 112). Egg Island, Caville & Kearney (No. 1014). Without special locality, Caville & Kearney (No. 1132).

Orchis L.

Herbs with globose, ovoid or palmate tubers and racemose or spike-like ~~flowers~~ inflorescences; sepals and petals ascending or the lateral sepals spreading, lip entire or three lobed. About 50 species, natives of the north temperate zone, mainly of the Old World.

Orchis beeringiana (Cham.) Wight.

Orchis latifolia beeringiana Cham. Linnaea 3: 26, 1828.

Orchis aristata Lich.; Lindl. Gen. & Sp. Orch. 262, 1833.

A rather succulent glabrous herb 10 to 35 cm.

high; leaves with occasional brownish spots, the lower ones obovate to oblanceolate, obtuse or obtusish, upper leaves lanceolate, acute; raceme conspicuously bracted; flowers red-purple, sepals and petals acuminate, lip broadly obovate, the outer margin inconspicuously serrate, spur about 10 mm. long. Grassy hillsides often with Cypripedium guttatum from Prince William Sound westward throughout the Alutian chain where it occurs near sea level. It was originally described from Kamchatka and Alaska.

Alutian chain.—Atka Island, L. M. Turner, 1879
(No. 1263). Adakh Island, C. H. Townsend July 1, 1873.
Attu Island, J. M. Macoun Aug. 26, 1891. Unalaska,
C. H. Townsend July, 1888, June 29, 1893, Tane & Brun-
tis, 1875 (No. 114), B. W. Cuernmann, 1892 (No. 27),
J. B. Flett, 1900 (No. 1800), A. J. Collier 1900, Canille &
Kearney (No. 1773), C. H. Merriam July 26, 1891, M. 10.
Harrington, 1871-72, Pofsof, Shamagin Islands, Kinkaid,
July 8 to 19, 1899. Chirichi Islands, Dall 1874.

Kodiak.—Canille & Kearney (No. 430), W. H. Evans,
1897 (No. 346), B. J. Butcherlan 1894.

Alaska Peninsula.—Kakak Bay, Canille &
Kearney (No. 1644).

Prince William Sound.—Virgin Bay, Trevor
Kinkaid June 27, 1899.

Lysias Balisb.

Tuberous or fleshy rooted herbs with short-petioled, basal leaves and rather loose, several to many flowered racemes. About 6 species, natives of the north temperate zone in both hemispheres.

Lysias orbiculata (Pursh) Rydb.

Arctis orbiculata Pursh, Fl. 2: 588, 1814.

Lysias orbiculata Rydb. in Britton, Man. 294, 1901.

Leaves orbicular to oval, 6 to 11 cm. long; scape bracted, 20 to 30 cm. high; bracts of the raceme about half the length of the ovary; flowers greenish-white very similar to *Lin. morchii* ^{lateral sepals falcate-ovate}, lip linear lanceolate, spur slightly clavate, as long or longer than the ovary, ~~lateral sepals falcate~~ Southeastern Alaska eastward to Newfoundland and south to British Columbia, Minnesota and North Carolina. Originally described from Hudson Bay.

The leaves of Alaskan specimens are less rotund than the usual form of the leaves of eastern plants and the scape has fewer bracts.

Southeastern Alaska - Port Chisno, C. K. Townsend July 1889, Helen Bay, Cleveland Peninsula, J. B. Lett 1901 (No. 2294).

Archiea rotundifolia Pursh.

Archiea rotundifolia Pursh. Fl. 2: 588. 1814

Leaf ^{varying} from nearly orbicular to oval, ovate or even lanceolate; scape 8 to 20 ~~cm.~~ ^{in.} high or sometimes even 25 ^{in.} high, 2 to 6 flowered; bracts lanceolate, shorter than the flowers; lateral sepals oblong, obtuse, about 6 mm. long, upper sepal oblong or oval, obtuse, petals oblong, obtuse, slightly shorter than the sepals, lip 2-lobed below the middle, dilated and notched or 2-lobed at the apex, spur 4 to 5 mm. long, slender. Upper Yukon Valley and across the continent eastward to Greenland, south to Minnesota, New York and Maine. Originally described from Hudson Bay.

Upper Yukon Valley. — Forty Mile Creek, Frederick Funston, 1893 (No. 111). Dalton trail, M. W. Gorman, 1899 (No. 1122). Foot of Lake Laberge, J. B. Tarleton, 1899 (No. 58).

Lysicella Rydb.

A monotypic genus closely resembling
Lysichiton.

Lysicella obtusata (Pursh) Rydb.

Archia obtusata Pursh, Fl. 2: 588, 1814,

Lysicella obtusata Rydb. in Britton, Man. 295, 1901.

Leaf ~~obovate~~ ^{or oblanceolate}, ~~scape~~ its petiole and
~~the base of the scape surrounded by a sheath~~
~~surrounded~~ ^{by} at the base by 1 or 2 sheathing bracts
or scales; scape commonly 10 to 20 cm,
high; raceme usually lax, few to many
flowered, flowers greenish yellow, lip
linear lanceolate, ~~shorter than the slender~~
~~about~~ as long as the slender spur.

From the valley of Alabna river south-
eastward to the upper Yukon valley,
and from Mushagak and the Shumagin
Islands to south eastern Alaska, thence
eastward to Newfoundland and Labrador
and south to British Columbia, Colorado,
New York and Maine. Originally described
from Hudson Bay. Occurs also in
Norway.

Valley of Alabona River. - Help-me-Jack Creek
near camp above Beaver City, W.C. Mendenhall July
26, 1901.

Upper Yukon Valley. - Coal Creek Hill, Luederick
Funston, 1893 (No. 73), Above Ft. Selkirk, ^{J. B. Tarleton,} 1879
(No. 57.b). Foot of Lake Libarge, J. B. Tarleton, 1899
(No. 57.a).

Bristol Bay. - Mushagak, C. L. Mc Kay June 28, 1899.

Alutian Chain. - ~~Admiralty Islands~~

Admiralty Islands. - Papey Island, Kirkald July
1899.

Cook Inlet. - Kaslof, W. H. Evans, 1898 (No.
700)

Southeastern Alaska. - Skagway, Wm M. Canby,
1897 (No. 278).