

LINNÆA BOREALIS, GRONOVII. LINNÆA OR TWIN-FLOWER. NATURAL ORDER: CAPRIFOLIACEÆ.

A small trailing evergreen, with slender wiry stems and opposite shortly petiolate leaves, which are roundish, with a few crenate notches on the margin. Peduncles erect, bearing two shortly-pedicellate flowers; corolla gamopetalous, campanulate, five-lobed, skin-coloured externally, more rosy and hairy within; stamens four, two rather shorter than the other two. Flowers in June.

*Linnaea borealis*, Gronovius. Linnæi Flora Lapponica, ed. Smith, p. 214. tab. 12 (native name *Windgræs*). Persoon's Synopsis, vol. i. p. 136. Hook Fl. B. Am. vol. i. p. 285. Torrey and Gray's N. American Flora, vol. ii. p. 3. Gray's Manual, 2 ed. p. 164. *Campanula serpyllifolia*, Bauhin; also *Nummularia norvegica* and *N. major* of old authors.

The *Linnaea borealis* is one of the prettiest wild flowers of our Nova Scotian woods. It grows on shaded banks and in mossy swamps, and especially around old stumps, which it festoons with its neat trailing shoots and delicate nodding flowers. About Halifax it is especially abundant: in the woods around the North West Arm, on the banks of the Sackville River at Lucyfield, and in many other localities it is common. This is the "little northern plant, long overlooked, depressed, abject, flowering early," which Linnæus, the great Swedish naturalist, selected to transmit his own name to posterity, and it was accordingly named *Linnaea* by his friend Dr. J. F. Gronovius. It is not rare in Scandinavia and other countries of Northern Europe, where it was first discovered; it grows also in Scotland in several remote localities, having been first found in 1795 by Prof. James Beattie, jun., at Inglismaldie. In England it is known at only one place (in Northumberland) where it was found by Miss Emma Trevelyan. It is in North America, and especially in the British possessions that this plant is most abundant and most beautiful. Besides being common in Nova Scotia, it is general throughout Upper and Lower Canada, New Brunswick, Newfoundland, Labrador, on the mountain ranges of the Atlantic States, the Rocky Mountains, in the Aleutian Islands and at Kotzebue sound. The American plant is usually rather more robust and more hairy than the European one. In Nova Scotia the *Linnaea* flowers more profusely than anywhere else where I have seen it growing.

(To be Continued.) G. L.

APRIL CHERRIES.—The first cherries of the season, May Dukes, appeared in the San Francisco market this year on 29th April, and were sold for \$1.75 per lb. The market lists of April contain gooseberries and strawberries.

### ON SOME AMERICAN OAKS, BEECH, AND CHESTNUT.

On looking over the recent volume of DeCandolle's Prodomus, treating of the Cupuliferae, I think the learned author is mistaken in several matters relating to some American trees; and as I gather from an expression in one of your notes, that American trees interest many of your readers, I take the opportunity to point out the errors in question.

*Quercus heterophylla*, Mc., is classed as a variety of *Q. aquatica*, Walt.; but its proper alliance is with *Q. Phellos*, L.—Dried specimens of *heterophylla* have, by reason of their polymorphism, a strong resemblance to *Q. aquatica*, but the living plants show clear distinctions. In reference to *Q. aquatica*, his "propter folia perennia" deserves more weight than it receives. The leaves of the *heterophylla* fall at once with *Q. Phellos*; but in this latitude the leaves of *Q. aquatica* stay on green till near Christmas—Of course this alone would be no specific distinction, but it is one of many. No person seeing them growing within a few miles of each other, but would decide at once the affinity was with *Q. Phellos*. DeCandolle says of *Q. heterophylla*, "Unica arbor olim in fundo Bartrami prope Philadelphiam;" but of late years it has been found by Dr. Joseph Leidy, Edward Tatnal, and other eminent botanists, in New Jersey and other places, and by myself in Delaware. But the most satisfactory proof of all is that of two seedlings from the original tree (the old tree being many years dead); one is a perfect *Phellos*, the other (now in the garden of the Marshall family—Humphrey Marshall, the author of the first work on American trees—"Arbutum Americanum"), a true *Q. heterophylla*.

*Quercus Lecana*, Nutt, is retained as a good species. I have not been able to get living specimens, but the prevailing impression is that this also is but a variety of *Q. Phellos* or *Q. imbricaria*, which two often run pretty near each other.

*Quercus tinctoria*, Bartram, is reduced to a variety of *Q. coccinea*, Waugh.—Many of the characters given by authors as marking each kind, are certainly common to both; but there are some which permanently distinguish them not often noticed. The scales of the cup in *Q. tinctoria* are free at the apex, giving the cupule a burry appearance. In *Q. coccinea* the scales are closely appressed, and the cup has a smooth, polished, mahogany appearance. The colour of the flesh of the nut of *Q. tinctoria* is of a deep orange colour; in the *Q. coccinea* it is white, or very faintly tinged with yellow. These are constant specific differences. Practically, the trees cannot well be confounded. The bark of the Scarlet Oak is clear and smooth, resembling, often exactly, *Q.*

*rubra*. That of *Q. tinctoria* is extremely rugose, often more so than any American Oak; the timber, too, is very distinct.

Referring to *Fagus*, M. DeCandolle retains *F. ferruginea*, Ait., distinct from *F. sylvatica*, L., rather, as it would seem, in deference to the views of the late Dr. Bromfield: for when he comes to Castanea, where the relative differences between the European and American forms are precisely the same, he reduces *C. americana* to a variety of *C. vulgaris*, Lam.

You did me the honour, several years ago, to reprint from the Proceedings of the Academy of Natural Sciences a paper on the relative differences between allied species of American and European trees (see vol. for 1862, p. 666). These distinctions are particularly well marked in the cases of the Chestnuts and Beeches. The relative differences, as there pointed out, are so strongly marked, and so constant, that I am sure, when understood, no American tree, so far as at present known, will be classed otherwise than as having a distinct organisation of its own. The singular uniformity of these differences is surprising. Having described how the American species of *Fagus* differs from its ally of Europe, the same characters exactly describe the differences between the Planes, Lindens, Oaks, Ashes, Beeches, and all other genera that have representatives on either side of the Atlantic. When one understands this difference in one case—say, for instance, between *Fagus ferruginea* and *Fagus sylvatica*, he can tell at once the American from the European allied species, in all cases, where he has had before no experience, even though the name and order of the plants should be quite unknown to him.—T. M., Germantown, near Philadelphia, in *Gardeners' Chronicle*.

MR. JARDINE.—We have to notice with regret the death of Mr. Robert Jardine, of St. John, New Brunswick, who not only occupied a high position in public affairs in that province, but was favorably known far beyond it as an agriculturist and horticulturist. He had a fine herd of pure Ayrshire cattle; and his orchard house was the most successful one we have seen on this continent. The *Colonist* observes: "We learn with regret of the sudden and unexpected death on Saturday night last, of Robert Jardine, Esq., formerly Chief Commissioner of the E. & N. A. Railway, who for the last three years has been partially disabled by an attack of paralysis. Mr. Jardine was an active and successful merchant, a leading promoter of public improvements, and a good citizen. His loss will be deeply felt by the business community and by a large circle of friends."