

A MISLEADING ADDITION TO THE STATE FLORAS
OF NEW ENGLAND.

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A THOROUGHLY reliable regional list, such as we have for Mt. Desert¹, Vermont², the Metropolitan Park System of Boston³, Nantucket⁴, Connecticut⁵, southern New Jersey⁶ and numerous other areas, is an indispensable part of the working equipment of the students of a flora, and it is unfortunate that we lack such presentations of the floras of many interesting areas. A regional list to be of any value (models like those above cited) must be based exclusively upon accurately determined specimens and discriminatingly viséed records; and, since such exacting and scholarly work requires much time as well as extreme patience and accurate knowledge of plants, it is natural that such reliable publications are unusual. Many of them are in the course of preparation but, from their nature and the standards of their authors, they cannot be simply compiled from miscellaneous sources without critical inspection of each item and, consequently, they are slow in reaching completion. In the meantime lists prepared by those who do not realize the confusion created by inaccurate publication are being finished, and, singularly enough, although the painstaking and authoritative works which it has taken years to complete are often kept from publication owing to the lack of financial support, there seems to be money readily available for the publication and distribution of inaccurate lists.

The latest addition to the list of state floras⁷ of New England was published with laudible zeal but, unfortunately, without clear understanding of the difficulties of accurately preparing such a list. Some (but by no means all) of the recently recorded Rhode Island stations published in RHODORA and elsewhere have been compiled and an attempt made to translate the names used in Bennett's *Plants of Rhode Island* (1888) into a more modern nomenclature. Even such a method, as every experienced systematist knows, requires the ut-

¹ Rand and Redfield, Flora of Mount Desert Island, Maine. 1894.

² Brainerd, Jones and Eggleston, Flora of Vermont. 1900; Flora of Vermont,—Vt. Agric. Expt. Sta. Bull. no. 187. 1915.

³ Deane, Flora of the Blue Hills, Middlesex Fells, Stony Brook and Beaver Brook Reservations. 1896.

⁴ Bicknell, The Ferns and Flowering Plants of Nantucket,—Bull. Torr. Bot. Cl. xxxv. 49-62 (1908) and in succeeding instalments to *ibid*, xlv. 423-440 (1919).

⁵ Graves and others, Catalogue of the Flowering Plants and Ferns of Connecticut. 1910.

⁶ Stone, Plants of Southern New Jersey. 1911.

⁷ The Ferns, Fern Allies and Flowering Plants of Rhode Island. A Revision of the first fifty-eight pages of James L. Bennett's "Plants of Rhode Island" published by the Providence Franklin Society in 1888. Published by the Providence Franklin Society, 1920.

most care and constant reference to and exact understanding of the specimens; but the list before us seems to have been prepared without sufficient realization of these requirements and too often without accurately determined material. The present writer has long refrained from the unpleasant task of reviewing this new state flora; but recently several careful workers upon the flora of New England have convinced him that it is important to issue a warning, lest those who are not so situated as to realize the uncritical character of the list may be misled by it into perpetuating errors which its publication has spread broadcast. For instance, Bennett's list, following the usage of his time, enumerated *Eriophorum polystachion* and *Carex adusta*, but it was long since pointed out that the plant of southern New England which formerly passed as *E. polystachion* is *E. viridi-carinatum*¹, while the other American species which has passed as *E. polystachion* is *E. angustifolium*, known in New England only from the state of Maine². The new list, although citing these papers, enumerates both *E. viridi-carinatum* and *E. angustifolium*. Similarly the name *Carex adusta* was used in Bennett's time in an inclusive sense, covering *C. foenea* and *C. aenea*, but true *C. adusta*, as understood by all recent students³ of the group, is a northern species known in New England only from Maine. All three plants, however, are credited to Rhode Island in the new list, although *C. foenea*, var. *perplexa* is probably the only one of them in the state. Again, the references cited in the new list as the bases for Rhode Island records have been too often misunderstood or carelessly compiled. For example, on p. 19 *Carex Crawei* is listed as occurring in Rhode Island on the basis of the present reviewer's Preliminary List of New England Carices⁴, but reference to the latter list is sufficient to show that *C. Crawei* is there credited only to Maine, although it was then suggested (p. 228) that this calcicolous species of the St. Lawrence basin should be sought in Vermont. These few illustrations indicate the unfortunate nature of the compilation upon which the new Rhode Island list was based; and we regret the necessity of stating that much of the wholly new matter in the list cannot be accepted at its face value. When the list first came to his attention the reviewer wrote the Providence Franklin Society asking to see specimens of many of the species which, it is quite safe to say, do not occur in Rhode Island. Members of the Society have most generously sought for such specimens but have been able to supply only two, the vouchers for *Solidago Boottii* and *Centaurea americana*. These vouchers prove to be characteristic specimens of *Solidago nemoralis* and *Centaurea nigra*,

¹ See Fernald, RHODORA, vii. 89 (1905).

² See Fernald, RHODORA, x. 136, 138, 141 (1908).

³ See Fernald, Proc. Am. Acad. xxxvii. 481 (1902), RHODORA, iv. 218 (1902); Robinson & Fernald in Gray, Man. ed. 7, 222 (1908); Mackenzie in Britton & Brown Ill. Fl. ed. 2, i. 386 (1913).

⁴ RHODORA, IV. 219 (1902).

respectively, and the northeastern limit of *S. Boottii* still remains Virginia and of *C. americana*, Missouri.

Without prolonged discussion, it seems important to publish the following enumeration of plants, accredited to Rhode Island in the recently published list, which, until unquestionable specimens are found, cannot be accepted as occurring in the state:

- p. 4 *Equisetum hyemale*. Undoubtedly var. *affine*.
Lycopodium complanatum. Undoubtedly var. *flabelliforme*.
- p. 5 *Picea canadensis*. If in Rhode Island cultivated and possibly escaped.
Abies balsamea. If in Rhode Island cultivated and possibly escaped.
Thuja occidentalis. If in Rhode Island cultivated and possibly escaped.
- p. 6 *Juniperus horizontalis*. Although listed by Bennett, as *J. Sabina*, var. *procumbens*, the species is not well vouched for from south of Maine and Vermont.
Sparganium simplex. The Rhode Island records belong to *S. americanum*. See RHODORA, ix. 86-89 (1907).
Potamogeton perfoliatus. The Rhode Island plant is *P. bupleuroides*.
- p. 7 *Triglochin palustris*. Listed by Bennett, but no authentic stations known from south of Maine.
Sagittaria heterophylla, var. *angustifolia*. Based upon Bennett's *S. variabilis*, var. *angustifolia*, which was the slender-leaved *S. latifolia* (See J. G. Smith, N. A. Sp. *Sagittaria* and *Lophotocarpus*, 9, 12).
- p. 8 *Paspalum laeve*. Presumably not *P. laeve*. Bennett's record may have been based on either *P. pubescens*, *P. Muhlenbergii* or *P. psammophilum*, all of which occur in Rhode Island, although not included in the new list.
Panicum philadelphicum. Said to have been reported, as *P. minus*, by Mr. Walter Deane in RHODORA, vi. 151. This paper by Deane deals exclusively with *Polemoniaceae* and *Hydrophyllaceae* and no grass is mentioned. *P. minus* was recorded from Rhode Island by Fernald, RHODORA, viii. 220, but that plant has proved to be *P. Tuckermanni*, RHODORA, xxi. 113.
- p. 9 *Panicum xalapense*. A southern species not known in New England. The record was based on Bennett's *P. laxiflorum*, a name used by him to cover plants now included under *P. spretum*, *P. Lindheimeri* and vars. (See RHODORA, xxiii. 226-228), *P. meridionale*, *P. albemarlense*, *P. tsugetorum*, *P. columbianum*, *P. oricola* and *P. sphaerocarpum*, all of which are known from Rhode Island and most of them recorded in papers cited in the bibliography, though not included in the new list.
P. oligosanthos. Based on Bennett's *P. pauciflorum* which was *P. Scribnerianum*, a species common in Rhode Island.
- p. 11 *Danthonia sericea*. Based upon Bennett's record, but there is no satisfactory evidence of the species in New England. *D. compressa*, which is common throughout most of Massachusetts and Connecticut and is doubtless in Rhode Island, is not included in either list and the record of *D. sericea* was presumably based upon that species.
- p. 13 *Glyceria fluitans*. Based upon Bennett's record and doubtless referring to either *G. septentrionalis* or *G. borealis*.
- p. 14 *Elymus canadensis*. Based on Bennett's record, which belongs to *E. riparius* Wiegand, RHODORA, xx. 84, a species properly included in the list.
Cyperus flavescens. Based merely on Bennett's record, which did not belong to *C. flavescens* (See RHODORA, x. 139).

- p. 16 *Scirpus Eriophorum*. Based on Bennett's record which belonged to *S. cyperinus* or *S. atrocinctus*.
Eriophorum angustifolium. See above (p. 97).
Carex Crawfordii. Based upon Bennett's enumeration of *C. scoparia*, var. *minor*, a probable misidentification.
- p. 17 *C. adusta*. See above (p. 97).
- p. 18 *C. albicans*. Based on Bennett's record of *C. Emmonsii*, var. *elliptica*. Bennett's plant was *C. varia* (See RHODORA, iv. 223).
C. novae-angliae. Based only on Bennett's record. Very doubtful.
C. plantaginea. Based only on Bennett's record of *Carex laxiflora*, var. *plantaginea* which is *C. anceps* Muhl. (*C. laxiflora*, var. *patulifolia*).
- p. 19 *C. Crawei*. See above (p. 97).
C. debilis. Based on Bennett's record which belongs to var. *Rudgei*.
C. Pseudo-Cyperus. Based on Bennett's record which belongs to *C. comosa*.
- p. 21 *Xyris montana*. Based upon Rhode Island plants which have been correctly referred in the list to *X. flexuosa* (*X. torta* Sm.).
Juncus scirpoides. Based merely on Bennett's record. The species is unknown in New England (See RHODORA, vi. 41).
- p. 25 *Spiranthes Romanzoffiana*. Very doubtful. Not seen by Ames (Orchid. i. 140) from south of Berkshire Co., Mass., and northern Litchfield Co., Conn.
Epipactis repens. Based on Bennett's *Goodyera repens*, which presumably was *G. tessellata*.
- p. 26 *Salix amygdaloides*. Based upon a Bennett record. Very doubtful.
S. longifolia. Based upon a Bennett record. Very doubtful.
- p. 27 *Carya laciniosa*. Based upon Bennett's record of *C. sulcata*. Surely not indigenous.
Betula nigra. Based solely on Bennett's record, which should be carefully verified since the tree is not generally recognized as indigenous between Long Island and northeastern Massachusetts.
- p. 28 *Quercus falcata*. Based only on Bennett's report of *Q. rubra*, var. *runcinata*. The identity of the latter is wholly questionable. Alphonse de Candolle described it from a single small-fruited tree found growing near St. Louis by Engelmann, who thought it was a hybrid. The foliage was said to be exactly that of *Q. rubra* (in the long-accepted sense). The indiscriminating entry of this name by Bennett is an insecure basis for *Q. falcata* from Rhode Island.
- p. 33 *Stellaria pubera*. Needs most careful verification.
- p. 34 *Nymphaea rubrodisca*. Based on Bennett's record of *N. odorata*, var. *minor*, which is identical with the plant called in the new list *Castalia odorata*, forma *rosea*. See RHODORA, xxiii. 162 (1921).
- p. 38 *Cardamine hirsuta*. Retained on the basis of Bennett's list. Bennett's plant, of course, was *C. pennsylvanica*, which is correctly listed.
- p. 42 *Rubus canadensis*. Surely not true *R. canadensis*. The record is derived from old sources and, of course, referred to some of the dewberries.
Rosa acicularis. Very doubtful, unless a garden escape.
- Prunus pumila*. Based on Bennett's *P. pumila* which was *P. cuneata*.
- p. 45 *Phaseolus polystachyus*. Based on Bennett's record of *P. diversifolia* which, of course, belonged to the common *Strophostyles helvola*.
- p. 48 *Vitis cordifolia*. Based only on Bennett's record, which doubtless referred to some other species.
- p. 56 *Gaylussacia dumosa*, var. *hirtella*. The New England shrub erroneously referred in the past to var. *hirtella* is var. *Bigeloviana* Fernald. See RHODORA, xiii. 96-99 (1911).

- p. 61 *Stachys cordata*. Based upon Bennett's record. Surely an error.
- p. 62 *Lycopus lucidus*, var. *americanus*. Surely not this northwestern plant. Based on a record by Bennett, who may have had *L. sessilifolius*, a Rhode Island species not included in either list.
- Physalis viscosa*, and others. The entries based solely on Bennett's names are wholly indefinite unless his plants can be found and properly identified.
- p. 65 *Utricularia vulgaris*. The Rhode Island plant is var. *americana* which is properly listed.
- p. 66 *Houstonia tenuifolia*. Based upon Bennett's record which belonged to *H. longifolia*.
- Lonicera oblongifolia*. Surely an error of determination.
- p. 69 *Solidago racemosa*. Surely an error of determination.
- S. racemosa*, var. *Gillmani*. Surely an error of determination.
- S. decumbens*. Surely an error of determination.
- S. stricta*. Surely an error of determination.
- S. boottii*. The plant so recorded is *S. nemoralis* (See p. 97).
- S. tortifolia*. Surely an error of determination.
- p. 70 *Aster sagittifolius*. Surely an error of determination.
- p. 74 *Centaurea americana*. Record based on a specimen of *C. nigra* (See p. 97).

These are by no means all the misleading entries, for, although citing many recent revisions (for example, of *Sabatia* and *Puccinellia*) published in RHODORA, the compilers stopped with the citations and failed to derive the Rhode Island data from the papers: that *Sabatia dodecandra* does not occur in the state but there is represented by *S. Kennedyana* and that *Puccinellia fasciculata* is a Rhode Island plant. Enough, however, has been here recorded to indicate that the list cannot be used with safety by anyone not intimate with the sources of the data. It is certainly to be regretted that at the untimely death of Mr. Noble, who originally undertook the work with clear understanding of its complexity, his tentative and unverified manuscript fell into the hands of those wholly unequipped for the task. It is also to be regretted that the zeal of these compilers could not have been led by an experienced and sympathetic guide into safer and less complicated channels.

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