New Combinations in the Genus Hebe.

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INTRODUCTION.

THOUGH H. H. Allan and I have transferred from *Veronica* to *Hebe* all the groups of individuals assigned to *Veronica* which belong to the New Zealand indigenous flora that we consider valid species or varieties (*Trans. N.Z. Inst.* 57 (1926), pp. 11-47) we did not transfer to *Hebe* "species" based on hybrid material, on cultigens of unknown origin, or on insufficient or faulty evidence generally. Thus the name *Veronica Barkeri* Ckn. had been given to an individual cultigen of unknown origin, and that of *Veronica albicans* Petrie to two plants, *by no means identical,* collected hap-hazard from two different hybrid swarms; yet both* "species" are common garden plants, recognizable at a glance, and, being reproduced vegetatively, constant in form. For these, and many kindred examples, authoritative names are just as necessary as in the case of wild plants. This statement is emphasized by the fact that in his forthcoming book treating of the garden plants of North America, Professor L. H. Bailey is separating *Hebe* from *Veronica,* and he has suggested that I publish, as soon as possible, the missing combinations.

A fundamental difference is met with, however, when dealing with the horticultural flora as compared with the indigenous flora, in that *the status of a binomial group matters little or nothing* in the former but is *all in all* in the latter. In the indigenous flora species, varieties, and hybrids must be distinguished but in the horticultural flora, so far as classification is concerned, neither the origin of a group, nor the method by which it is propagated, is of more than passing moment, the essential point being its *constancy,* such depending again and again on its always being reproduced vegetatively, as is so frequent in the case of forms of *Hebe.* In other words, horticulture (including agriculture and forestry) must have a name for every distinct group, no matter whether such be a true botanical species, a botanical variety, a wild hybrid—there may be dozens from the same swarm, each with a different valid horticultural name—or, what is so very common, a garden hybrid. Horticulture, also, requires finer distinctions for its entities than does the most critical flora, and binomials are used for groups extremely close to one another—the jordanon being really the species so far as horticulture is concerned, and comparatively minute differences are often important for garden purposes.

*The garden plant is the one collected by F. G. Gibbs on Mount Cobb (North-western bot. district).

Further, the hybrid sign and the term " var." are generally neglected. In fact, a horticultural nomenclature has come by degrees into existence which is independent of the laws of botanical nomenclature—though nominally dependent thereon—and based, not on rigid rules, but on general usage, convenience, elasticity of application, and common sense. Theoretically, so far as concerns wild* species horticulture is supposed to follow the Botanical Rules—if that which is not truly fixed can be definitely followed—but in certain instances it purposely does not do so, for horticulture is not only an art but in large part a business concern, and so cannot permit changes in nomenclature which would lead to confusion and unwarranted expense. Thus the law of priority—fundamental though it may be for taxonomic botany—is never accepted to the full in horticulture and any change of name will only come into use with extreme slowness and, in no few instances, will never be generally accepted. For example, to change the name *Phormium Colensoi* to *Phormium tenax* —the universal name for that highly-important economic plant—would never be tolerated yet, according to the *Rules of Botanical Nomenclature,* such an action could probably be justified. At the recent Empire Forestry Conference held in Australia and New Zealand, not one of the overseas' visitors used the combination *Pinus radiata*—at present the correct botanical name—instead of *Pinus insignis* and, were the former name generally accepted, the latter—its meaning gone—would still persist in the popular name " Insignis pine."† So, too, it will be a very long time before the binomial *Larix europaea* is replaced by *Larix decidua.* In considering the imposition of hard and fast rules for horticultural nomenclature it must not be forgotten that all those concerned in one way or another with economic botany, using this term in a wide sense, far and away outnumber taxonomic botanists but, so far, they have had very little to do in regard to the " Rules," which to them are not an academic matter but, in no small degree, one of business. Horticulture also knows that changes in the names of plants have been made, again and again, only to be reversed, or once more altered, and that so far the highly-laudable attempt of botany to supply a stable nomenclature has been far from successful.

As Bailey (*Manual of Cultivated Plants,* 1924, p. 10) puts it, horticulture needs " a special application of nomenclature." That the needs of the great army of gardeners and garden-lovers generally should not be unduly subordinated to those of the small company of professional taxonomists seems reasonable enough. Indeed, both groups have the same end in view—the establishment of a consistent and settled usage in nomenclature, some of the difficulties in attaining which have been outlined above. The efforts of the American Joint

*It seems to me quite reasonable to call a true-breeding plant, raised by artificial cross-breeding, a " garden species," and a hybrid plant kept pure by vegetative increase is to all intents and purposes likewise a " garden species," and such, in order to distinguish them from species proper, might in their original description be designated as " sp. hort." or some other abbreviation.

†So even in New Zealand where the official name of the State Forest Service is *Pinus radiata.*

Committee on Horticultural Nomenclature, resulting in the publication of *Standardized Plant Names* (Salem, 1924), deserve the sympathetic consideration of the taxonomist. The spirit in which the work was undertaken may be gauged from these remarks in their preface: "The Committee has been at the greatest pains to inform itself concerning the usage of the best authorities, and it has in most cases followed the usage of such authorities. In a few cases, and for reasons deemed adequate, departure from such usage has occurred . . . . . What the Committee seeks to do is not to hamper the progressive correction and improvement of botanical nomenclature, and least of all the freedom of research, publication, and discussion among taxonomic botanists; but rather to provide a convenient and practicable means for bringing the matured results of such scientific research into use in the horticultural trades without damage and by agreement at different periods." A five or ten year interval is suggested between successive revisions of the list. With the battles of the codes still dragging wearily and inconclusively on, this attitude seems generous enough.

Speaking both as a botanist, who has tried to adhere scrupulously to the "International Rules," and as a gardener, no one welcomed more than myself the principle of *genera conservanda,* and to have also a list for each botanical region of *species conservandae* would be welcomed with delight by all who grow plants, by plant-ecologists and probably by many writers of monographs and floras who now have to waste much time in delving for forgotten names which would best remain in obscurity.

To me it seems the height of absurdity that a species which has been known universally by a definite name for one hundred years should have that name altered because of the finding of an earlier name—possibly by the merest accident, whereas it seems common sense that any specific name in general use for fifty years should retain that name, and a rule to this effect could be made retrospective without doing any harm. Why, for example—to cite a few New Zealand cases—should not the binomial *Uncinia australis* (1807) be restored—it is still in common use and accepted in the *Manual of the New Zealand Flora* (1925)—and *Uncinia uncinata* (1909 only, but the specific name 1781) be cast aside? Then, too, it does not seem wise to accept *Myosotidium Hortensia* (1891, but the specific name 1846) for the appropriate *Myosotidium nobile* (1859). And what gardener or forester will dream of rejecting the binomials *Metrosideros tomentosa* and *Metrosideros lucida* (both 1832) because these species once bore respectively, when they were hardly known, the specific names *excelsa* (1788) and *umbellata* (1795), but these were unknown generally until last year.

Many more examples could be given, to some of which I plead guilty owing to my rigid adherence to the Rules rather than to any belief in their infallibility. But, for the future, should I stumble upon an ancient specific name, so far as I am concerned it will remain buried until perchance some botanical Frankenstein shall rashly breathe life into the inert and harmless body.

The New Combinations.

It must be said at once that though most of the names given below are to be met with in gardens, they are generally used with little regard to uniformity, the same name frequently being applied to different plants and in no few instances certain species, etc., the names of which are common enough in gardens, are not in cultivation, while others may be in cultivation and correctly named, but this no one can prove, since the types are in no herbaria. Even well-known species are constantly misnamed in gardens. The following list, then, merely transfers a number of groups, up till now included in *Veronica,* to *Hebe,* but, in a good many cases, horticulture will be little the wiser. Concerning some of the forms dealt with a few notes are given which may be of some service.

1. **Hebe acutiflora** (Benth.) Ckn. comb. nov. = *Veronica acutiflora* Benth. in *D.C. Prod.* 10 (1846) 460.

The type is most likely one of a polymorphic hybrid swarm. There is a *Hebe* under this name in cultivation but that it came from the original locality—the only one known for the " species "—is unlikely, and that it matches such most unlikely, since *H. acutiflora* being probably one of a hybrid swarm may never be exactly matched again.

2. **Hebe albicans** (Petrie) Ckn. sp. hort. = *Veronica albicans* Petrie in *Trans. N.Z. Inst.* 49 (1917), 53.

So far as the plant cultivated in New Zealand gardens is concerned, this is the one mentioned by Petrie as being collected by F. G. Gibbs on Mount Cobb and cultivated in his garden. From this cultivated plant—probably a hybrid—Petrie collected the specimens now in his herbarium and these I select as the type of my horticultural species. From this cultivated plant of Gibbs's all those now in cultivation have been derived vegetatively.

3. **Hebe anomala** (J. F. Armstg.) Ckn. = *Veronica anomala* J. F. Armstg. in *Trans. N.Z. Inst.* 4 (1872), 29.

This is extremely common in cultivation and on account of its habit and brownish, narrow leaves can be recognized at a glance. It is apparently a form of the polymorphic, compound species, *H. buxifolia.*

4. **Hebe Andersonii** (Lindl. et Paxt.) Ckn. sp. hort. = *Veronica Andersonii* in *Flower Garden,* 3 (1863).

This is an artificial hybrid between *H. salicifolia* and *H. speciosa* which is extremely common in cultivation. There is a variegated form designated var. *variegata.*

5. **Hebe Balfouriana** (Hook f.) Ckn. sp. hort. = *Veronica Balfouriana* Hook. f. in *Bot. Mag.* (1879) t. 7556.

6. **Hebe Barkeri** Ckn. = *Veronica Barkeri* in *Trans. N.Z. Inst.* 31 (1899), 421.

This was described from a cultivated plant which has not been seen wild. It is extremely common in cultivation and can be recognized at a glance, since all its progeny has been raised vegetatively.

7. **Hebe Biggarii** Ckn. = *Veronica Biggarii* Ckn. in *Trans. N.Z. Inst.* 48 (1916), 199.

Subsequently to Cockayne and Allan expressing uncertainty as to the status of the type (*loc. cit.*, p. 36) sufficient evidence has been supplied by J. Simpson and J. S. Thomson to prove that this is a jordanon but there appear to be other jordanons which are best united with the type thus making the species a compound one. The species then may be included in the flora.

8. **Hebe carnosula** (Hook. f.) Ckn. = *Veronica carnosula* Hook. f. in *Handbk. N.Z. Flora* (1864) 210.

The name "*carnosula*" is applied in gardens to several different plants but that any of these match any of the specimens—apparently taken from two plants coming from rather distant localities, so there is no type—on which Hooker founded his species seems unlikely. In New Zealand gardens the plant usually named *V. carnosula* has a pubescent capsule and so belongs to the *Hebe pinguifolia* group. For a full discussion of this case of *Hebe carnosula,* see Cockayne and Allan, *loc. cit.*, pp. 34-35.

9. **Hebe Carsei** (Petrie) Ckn. = *Veronica Carsei* Petrie in *Trans. N.Z. Inst.* 55 (1924), 96.

This is one or more (but only those greatly resembling one another) of the many hybrids which make up the group × *H. laevisala* Ckn. et Allan. I have not yet seen the so-called "*Veronica Carsei*" of New Zealand gardens, but it may quite well not be one of the × *H. laevisala* group.

10. **Hebe cassinioides** (H. J. Matthews ex Petrie) Ckn. sp. hort. = *Veronica cassinioides* H. J. Matthews ex Petrie in *Trans. N.Z. Inst.* 47 (1915), 52.

This "species" consists of 2 hybrids which are probably of different parentage, but both are some form of *Hebe buxifolia* × a whipcord hebe. The one in cultivation, to which I am applying the name, has been grown for many years and its offspring kept true by means of cuttings. If the other plant comes into cultivation it will require a different name.

11. **Hebe Colensoi** (Hook. f.) Ckn. = *Veronica Colensoi* Hook. f. in *Handb. N.Z. Flora* (1864) 209.

Cheeseman selected from the compound species called by the above name as the type *Hebe Hillii* Col. (see below) and apparently this is in cultivation in New Zealand. But, prior to Cheeseman's action, a different plant had been figured in the *Botanical Magazine* (t. 7296) and this surely should be considered the type. In that case the plant cultivated in Great Britain would be *H. Colensoi* and that cultivated here *H. Hillii.*

12. **Hebe Coxiana** (T. Kirk) Ckn. = *Veronica Coxiana* T. Kirk in *Trans. N.Z. Inst.* 28 (1896), 529.

According to Cheeseman (*Man. N.Z. Flora,* ed. 2, p. 794), *Hebe chathamica*—of which he considered *H. Coxiana* a variety— is " a well-marked species." Yet, so long ago as 1902, from observations in Chatham Island I had shown that the species was polymorphic, notwithstanding that " the life conditions to which *V. chathamica* is exposed might well be expected to have produced an invariable species." For this polymorphy the reason is now clear enough since, from information generously supplied by Mr. W. Martin, the species crosses with *Hebe Dorrien-Smithii* and *H. Dieffenbachii,* so that for garden purposes many distinct plants are available, amongst which *H. Coxiana* will be included, i.e. unless the type is a hybrid which will never be matched again.

13. **Hebe Dartoni** (Petrie) Ckn. sp. hort. = *Veronica Dartoni* Petrie in *Trans. N.Z.* Inst. 55 (1924) 98.

Probably this is *H. pimeleoides* × *salicifolia,* but in New Zealand gardens it is a well-marked garden species kept true by means of cuttings.

14. **Hebe Darwiniana** (Col.) Ckn. = *Veronica Darwiniana* Col. in *Trans. N.Z. Inst.* 25 (1893), 332.

A plant is cultivated under this name in New Zealand gardens and so, too, is *Hebe glaucophylla* with which, and a number of other glaucous hebes, Cheeseman unites it, but whether the garden plant is Colenso's species or not I cannot say.

15. **Hebe divergens** (Cheesem.) Ckn. = *Veronica divergens* Cheesem. in *Man. N.Z. Flora,* ed. 1 (1906), 502.

This is a common garden species in New Zealand kept true by means of cuttings but it is possibly *H. elliptica* × *salicifolia,* though this may not be so, since it differs greatly from any form of × *H. ellipsala.*

16. **Hebe erecta** (T. Kirk) Ckn. sp. hort. = *Veronica erecta* T. Kirk in *Trans. N.Z. Inst.* 28 (1896), 517.

This was at one time cultivated in the nursery garden of the late Mr. W. Martin. Kirk said it was believed to have been found wild on Mount Bonpland, and Cheeseman includes it as a valid species in the *Manual.* On the contrary, I have always understood that it was either an artificial or spontaneous garden hybrid with *H. Lavandiana,* or perhaps *H. Hulkeana,* as one of its parents.

17. **Hebe formosa** (Br.) Ckn. = *Veronica formosa* Br. in *Flora Austral.* 4 (1869), 506.

This extremely common garden plant in New Zealand is not indigenous, but a native of Tasmania and South-eastern Australia.

18. **Hebe glauca-caerulea** (J. B. Armstg.) Ckn. = *Veronica glauca-caerulea* J. B. Armstg. in *N.Z. Country Journal* 3 (1879), 57.
This easily-recognized plant is extremely common in cultivation, and all in cultivation are descended vegetatively from the original plant which possibly may never be matched again by a wild form.

19. **Hebe glaucophylla** Ckn. = *Veronica glaucophylla* Ckn. in *Trans. N.Z. Inst.* 31 (1899), 422.
The type is in my herbarium and, as No. 8037, should be in the Herbaria of Cheeseman and Petrie. A plant identical, or almost so, is common in New Zealand gardens under the name *Veronica Colensoi* var. *glauca*—a name given to it, but not published, by J. B. Armstrong nearly 50 years ago! This illustrates most forcibly how a *nomen nudum* may be the name of a garden species for a very long time, notwithstanding the plant possessing a valid published name.

20. **Hebe Godfroyana** (Carr.) Ckn. sp. hort. = *Veronica Godfroyana* Carr. in *Revue Hort.* (1888) 455.
Plants raised from seed collected from this plant in the Royal Botanical Garden, Edinburgh, are growing in my garden and come into the conception of *Hebe obovata*. For fuller particulars see Cockayne and Allan, *loc. cit.*, p. 31.

21. **Hebe Greyi** (J. B. Armstg.) Ckn. sp. hort. = *Veronica Greyi* J. B. Armstg. in *N.Z. Country Journ.* 3 (1879), 57.
This, as far as I remember, was extremely close to *Hebe vernicosa*, judging from plants so labelled by J. B. Armstrong in the Christchurch Botanic Garden. I think it may still be met with in certain New Zealand nursery gardens, dating back for nearly 50 years when J. B. Armstrong sent out a named collection of shrubby veronicas to the Invercargill public garden and elsewhere. As already mentioned, *Veronica Colensoi* var. *glauca* was one of such, and var. *viridis* (= *Hebe subalpina*) another, the last name still appearing in certain nursery garden catalogues.

22. **Hebe imperialis** (Bonch.) Ckn. sp. hort. = *Veronica speciosa* R. Cunn. var. *imperialis* Bonch. in *Flore des Serres* 22, t. 2317.
A form of *Hebe speciosa* with purplish-crimson, very showy flowers.

23. **Hebe longiracemosa** (Petrie) Ckn. = *Veronica longiracemosa* Petrie in *Trans. N.Z. Inst.* 49 (1917), 52.
This appears to be either equivalent to *Hebe salicifolia* var. *paludosa* or one of the × *H. leiosala* group.

24. **Hebe Matthewsii** (Cheesem.) Ckn. sp. hort. = *Veronica Matthewsii* Cheesem. in *Man. N.Z. Flora*, ed. 1 (1906), 517.
This is extremely common in New Zealand gardens. It was first distributed by J. B. Armstrong under the name *V. Traversii*, and is even yet sold as such in certain nursery gardens. I only know it as a cultivated plant.

25. **Hebe myrtifolia** (Banks et Sol. ex Benth.) = *Veronica myrtifolia* Banks et Sol. ex Benth. in *D.C. Prodr.* 10 (1846), 460.
This is one of the forms included in the compound species, *Hebe macrocarpa* (Vahl) Ckn. et Allan.

26. **Hebe obovata** (T. Kirk) Ckn. = *Veronica obovata* T. Kirk in *Trans. N.Z. Inst.* 9 (1877), 502.
This may be a valid species, or it may be one of a hybrid group with perhaps a form of *H. montana* (a linneon) as one of the parents.

27. **Hebe odora** (Hook. f.) Ckn. = *Veronica odora* Hook. f. in *Fl. Antarc.* 1 (1844), 62.
See remarks by Cockayne and Allan (*loc. cit.*, p. 33).

28. **Hebe Parkinsoniana** (Col.) Ckn. = *Veronica Parkinsoniana* Col. in *Trans. N.Z. Inst.* 21 (1889), 97.
One of the many forms of *H. salicifolia.*

29. **Hebe rakaiensis** (J. B. Armstg.) Ckn. = *Veronica rakaiensis* J. B. Armstg. in *Trans. N.Z. Inst.* 13 (1881), 356.
This appears to be identical with *H. Traversii* var. *elegans.* Both the latter and *H. rakaiensis* are names to be seen in Nurserymen's lists.

30. **Hebe rotundata** (T. Kirk) Ckn. sp. hort. = *Veronica rotundata* T. Kirk in *Trans. N.Z. Inst.* 28 (1896), 530.
This is almost certainly an artificial garden hybrid with *H. salicifolia* as one parent; it is common in cultivation.

31. **Hebe trisepala** (Col.) Ckn. = *Veronica trisepala* Col. in *Trans. N.Z. Inst.* 15 (1883), 324.
This is apparently a form of *Hebe diosmaefolia.*

32. **Hebe venustula** (Col.) Ckn. = *Veronica venustula* Col. in *Trans. N.Z. Inst.* 32 (1895), 393.
See remarks by Cockayne and Allan (*loc. cit.*, 25).