

CORRECTION

The isotypes of *Opuntia beacockae* (Sida 10(3):207–210. 1984) cited for CSU and POM should be CS and POM. Gerald K. Arp.

REVIEW

NATIONAL LIST OF SCIENTIFIC PLANT NAMES. Volume 1—List of Plant Names. 416 pp.; Volume 2—Synonymy. 438 pp. Soil Conservation Service, United States Department of Agriculture, Washington, DC, 1982. Price not given; "available through an interactive terminal from the . . . SCS Integrated Resource Information Systems Staff, Lanham, Md."

North America now has another checklist—the third in 4 years—of plants of a major part of the continent. First was Shetler & Skog, *A Provisional Checklist of Species for Flora North America* (1978). Then came Kartesz & Kartesz, *A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland* (1980). Now appears a ghost-written, two-volume, updated *National List of Scientific Plant Names* (NLSPN) developed by the "Smithsonian Institution" for the Soil Conservation Service, USDA.

The previous (1971) edition of NLSPN has been useful, according to the preface of the new version, for preparers of "technical guides, handbooks, and soil surveys," for abstracters of "research documents," and for coordinators of "plant testing programs among states and regions." The present NLSPN is presumably intended for these persons, too, although the audience at which the work is aimed is nowhere unequivocally stated. The implication is, however, that among this audience are people with limited botanical backgrounds. These persons must find, as I have found, parts of NLSPN difficult or inexplicable.

Volume I: Brief introductory material explains how the two-volume system works and how this list is an expansion of the previous one by the SCS. The user is left guessing as to who at the "Smithsonian" was responsible for developing the work—authorship is not stated although about 220 "taxonomic consultants, reviewers, and contributors" are listed along with names of the taxa for which they are said to have provided data. Further, geographic parameters of the work are not, it seems to me, clearly defined. The word "national" in the title implies the United States, yet on page 5 a map shows the "regions" of North America north of Mexico, including Greenland (region G) and Canada (divided into five regions). On page i of volume 1 is written: "The revised NLSPN differs from the previous list in that it has been divided into three lists of accepted names, one each for the Caribbean region, Hawaii, and the 49 continental United States and

Canada." From this statement I wondered if NLSPN includes all Canadian plants or only those represented also in the United States. Noting no basic Canadian works among the "source manuals" the consultants used, I checked NLSPN to determine if it lists any Canadian species that do *not* get into the United States. Apparently not.

On pages 2 and 3 is a list of about 50 "source manuals," mostly checklists and floras. None of these is from the 1980s; most are from the 1970s; a few date back to the 1920s and 1930s (including the 1936 Hitchcock West Indian grass manual—the U. S. manual is not listed). *No taxonomic monographs* and only a few journal articles are represented; even the Shetler & Skog and Kartesz & Kartesz checklists are absent. And yet these "source manuals" are said to be "*all major sources that the consultants used*" [emphasis mine]. I find it impossible to believe that an accurate and up-to-date checklist of the US flora could be compiled from such a data base.

Most of the volume is given over to lists of taxa that constitute the flora of each of the work's three sections. The data for each infrageneric taxon include: a four- to six-character nameber (e.g., EPVI2 for *Epifagus virginiana*); the scientific name and authority(ies); the "source manuals"; habit (i.e., whether annual, biennial, submersed, succulent, grasslike, tree, native, introduced, etc.); distribution (by numbers of the 20 regions outlined in the map on page 5); and family name and number.

On pages 7 through 20 is a "Guide to Family Numbers" used in the work, i.e., an alphabetical list of genera, each name followed by its family number. The listing is not of "accepted" names only but includes synonyms as well. The synonyms must be sought in volume 2, the synonymy volume, but the listing provides no way to distinguish synonyms from "accepted" names. Thus, the seeker of a name—for example, *Moluchia*—must first look up the name in the "Guide," which refers him to family 198, Sterculiaceae. Then he must look through the three sections of volume 1 and, that being fruitless, must then turn to volume 2 to learn what *Moluchia* is a synonym of.

Among the puzzling parts of the volume are the listed names of plants that I believe are not known to occur, either native or naturalized, in the United States, e.g., in Meliaceae (*Aphanamixis grandifolia*, *Entandrophragma delevoiyi*, *Khaya nyasica*, *Khaya senegalensis*, *Toona ciliata* var. *australis*), Fagaceae (*Quercus suber*), Malpighiaceae (*Hiraea faginea*), and Proteaceae (*Macadamia ternifolia*) (distributional data are not given for many of these taxa, an omission [?] that is not explained). No documented records exist, to my knowledge, of such plants growing in the United States outside of cultivation. Another example: NLSPN lists 55 species under *Digitaria* (Hitchcock includes only 20; Shetler & Skog, 24; Kartesz & Kartesz, 35); at least one-third of these are not known to me as native or naturalized plants in our flora. Does this mean that NLSPN also includes some cultivated plants?

The literature search on which NLSPN was based seems to have been somewhat casual—a number of published and easily accessible records for the US flora were missed. Among these are: *Amphibromus scabrivalvis*, *Arctostaphylos luciana*, *A. purissima*, *Blyxa aubertii*, *Brodiaea elegans* ssp. *booveri*, *Clinopodium gracile*, *Cyperus grayioides*, *C. louisianensis*, *Fatoua villosa*, *Gisekia pharnacioides*, *Glandularia chiricahensis*, *G. vercunda*, *Lilium fairchildii*, *Limnophila* X *ludoviciana*, *Lindera melissifolium*, *Lysimachia japonica*, *Oxypholis greenmanii*, *Physalis lagascae*, *Rumex obovatus*, *R. paraguayensis*, *Salsola soda*, *Scutellaria thieretii*, and *Striga gesnerioides*.

The author citations used in the work essentially follow existing floras with some modifications. On page 2 under "Author," the following is stated: "An asterisk following an author means that the Smithsonian Institution studied the original description fully enough to confirm that it is accurately cited. . . ." However, there are some asterisked—and thus "studied"—citations where "zoological style" and not botanical style of authorship is presented—e.g., "*Cirsium griseum* (Rydb.)*," *Cirsium quercetorum* var. "*walkeranum* (Petrak)*," and *Rudbeckia fulgida* var. "*spathulata* (Michx.)*." Far worse is the listing of infraspecific entries in which the epithet is given as ssp. *genuinum* or as var. *genuinum*, both with an author citation, e.g., *Polemonium viscosum* ssp. *genuinum* Wherry and *Sicyos laciniatus* var. *genuinum* Cogn.

Perhaps the most significant botanical blunder is the double entries in both nomenclatural and taxonomic synonyms, with more of the former than the latter. Although I have casually examined only about half of volume 1, I found many such entries, each of the two synonyms appearing as an "accepted name." A sample of the nomenclatural synonyms follows: *Baptisia australis* var. *minor* & *B. minor*, *Calamagrostis gigantea* & *Calamovilfa gigantea*, *Castilleja gleasonii* & *C. pruinosa* ssp. *gleasonii*, *Cercocarpus betuloides* var. *macrourus* & *C. montanus* var. *macrourus*, *Cleome isomeris* & *Isomeris arborea*, *Cryptantha grandiflora* & *C. intermedia* var. *grandiflora*, *Cymbalaria muralis* & *Linaria cymbalaria*, *Elymus hirtiflorus* & *Agroelymus hirtiflorus*, *Elymus piperi* & *Elyhordeum piperi*, *Krameria glandulosa* & *K. parvifolia* var. *glandulosa*, *Micropyxis pumila* & *Anagallis pumila*, *Panicum tuckermanii* & *P. philadelphicum* var. *tuckermanii*, and *Sphenopholis pensylvanica* & *Trisetum pensylvanicum*.

No less embarrassing than double entries are alternative spellings of the same specific epithet in different "accepted" taxa—e.g., *Gelsemium rankii* Small treated as distinct from *Gelsemium rankinii* Small and *Lycopus virginicus* L. treated as distinct from *Lycopus virginiana* L. One also finds the same binomials credited to different authors and listed separately—e.g., *Cleome speciosa* H.B.K. non Raf. and *Cleome speciosa* Raf.; *Rhynchospora*

pusilla Chapm. ex M. A. Curt. and *R. pusilla* (Swartz) Griseb. non Chapm. ex M. A. Curtis (both names with an asterisk!); and *Hyptis americana* Aubl. and *Hyptis americana* (Poir.) Briq. Also included are a number of binomials that have never been validly published (e.g., in *Eriogonum*); these are presented without any indication of "ined."

Nowhere in the volume have I noted a "typical" variety or subspecies indicated by a repetition of the specific epithet with no author citation. For example, the names in the two-line listing of *Calamovilfa longifolia* are:

C. LONGIFOLIA (Hook.) Scribn.
[var.] MAGNA Scribn. & Merrill

From the indicated distribution of these taxa it is evident that "*C. longifolia* (Hook.) Scribn." is meant to be "*C. longifolia* var. *longifolia*." Then there are similar entries in which no distributional data at all are given for the taxon under which appear infraspecific names, e.g., *Arabis hirsuta*, *Carex lasiocarpa*, *Juncus acutus*, and *Polygonum meisnerianum*. This indicates that the "typical" variety or subspecies is not in the geographic area covered by NLSPN, a subtlety of format that may be confusing to users of this work who have limited botanical backgrounds.

Another kind of problem can be seen in the Verbenaceae, where NLSPN inexplicably segregates only a single species of *Glandularia* from *Verbena* when indeed a number of additional species should be split therefrom if one recognizes *Glandularia*. A similar situation exists—i.e., the incomplete removal of species from an inclusive to a segregate genus—for *Mahonia* and *Berberis*, *Desmodium* and *Meibomia*, and others.

Volume 2: The synonymy volume lists, in alphabetical order, "names . . . that have been incorrectly used," indicating after each name the "accepted" (or "preferred") name under which the taxon is entered in volume 1. Much of the synonymy is straightforward, but the going gets rough with certain of the eight different symbols that are used to "clarify further the relationship of plant names and their synonyms." I for one am left bewildered by these and can not imagine how the originators of NLSPN could possibly expect range biologists and soil survey workers—and others whose forte is not nomenclature—to understand them.

For example, under *Cyanococcus liparus*, three of the eight symbols are represented. These three are explained thus (page 2):

N—Some sources or consultants believe the name above the sign has been misapplied to the name after it.

>—One or more sources have used the name above the sign to include plants covered by other sources' descriptions for the name following the sign.

(—The name above this symbol has a type that is included in the descrip-

tion of the following name. A name preceding this sign cannot be an accepted name.

Under *Cyanococcus liparus* the following appears:

CYANOCOCCUS LIPARUS

- N > *Vaccinium caesariense*
- N > *Vaccinium corymbosum*
- (*Vaccinium pallidum*

The three *Vaccinium* names are treated as distinct species in volume 1, while I still am wondering what to do with *C. liparus*.

Further puzzlement in the synonymy volume is provided by the including therein, without species under them, of generic names that are the correct names, e.g., *Limnobia*, *Limnophila*, *Liparis*, *Lipocarpha*, *Liquidambar*, *Liriodendron*, *Lithophila*, and *Litsea*, to mention just a few among the Ls. The names appear again in volume 1, both in the "Guide to family numbers" and in at least one of the three regional lists. I cannot explain this repetitive listing.

The user of NLSPN, noting such examples as above described and struggling to decide where careless or enigmatic work ends and careful, lucid work begins, is left to wonder what went wrong. The poorly done parts of NLSPN cast a shadow of a doubt, of course, on the well done parts.

Comparison of NLSPN with Kartesz & Kartesz (KK) is inevitable (Shetler & Skog contains no synonymy and is thus in a class by itself). Between NLSPN and KK, my choice is unhesitatingly KK, which is easier to use—only one volume, with synonyms listed immediately after each correct name—and is a more carefully prepared and thus more reliable work. However, one point in favor of NLSPN is that one can tell from it whether a species occurs in continental U.S. or the Caribbean Region or Hawaii; such cannot be determined from KK, which includes these plus Canada but does not distinguish among them.

The review copy is already falling apart (a perfect binding for an imperfect product).—John W. Thieret, Northern Kentucky University, Highland Heights, KY 41076, U.S.A.



Thieret, John W. 1984. "Review of National List of Scientific Plant Names. Volume 1—List of Plant Names. Volume 2—Synonymy." *SIDA, contributions to botany* 10, 328–332.

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