

# The Grass Manual

Newsletter 11

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## Manual—FNA Collaboration

At its October meeting, the editorial committee of *Flora North America* (FNA) agreed to adopt the *Manual* treatment for its treatment of the Poaceae. This recommendation included acceptance of the *Manual's* layout, treatments, and criteria for inclusion, in all of which the two projects differ.

As a result of the agreement, the *Manual* will be published first as volumes 24 and 25 of *Flora North America*. This does not preclude publication by the *Floristic Foundation* (see p. 3.) of a modified version of the manuscript. For instance, we see a continuing need for a single volume edition, and a potential value in regional treatments.

The good news for contributors is that they will not be asked to rewrite their treatments in a different format, nor to modify their keys to eliminate the ornamental species and those that were collected once, but have not persisted, in the region.

Some contributors will regret the loss of an opportunity to present a longer version of their treatment than permitted by the *Manual's* length restrictions. Others will rejoice that they will not be asked to expand their treatment.

The good news for the *Manual* is that it is no longer necessary to explain why the *Manual* project exists. This has made it much easier to approach potential funding sources.

Another advantage is that we can approach FNA's regional editors for help in developing the distribution maps and for comments on the treatments. Several individuals, including some who are not part of FNA, have offered to help us in this regard.

We shall start sending out treatments for review early next year. Anyone interested in helping in this manner should write or Email Barkworth (for contact information, see p. 4)

## Last Treatment Received!

The last generic treatment for the *Manual* was received on August 3, 1999. It was a great day for the author, and for us.

The *Manual* now includes 247 genera, 1,393 species, and 257 additional infraspecific taxa.

These numbers are still subject to modification. A change in the taxonomic treatment of a group can cause either an increase or decrease in the three numbers. Discoveries, whether they represent newly recognized taxa

or the first discovery of a taxon within the region, will lead to an increase in at least one of the numbers.

The two generic keys are currently being tested by students taught by Drs. Tina Ayers and Jerry Davis, of Northern Arizona and Cornell Universities, respectively. We have also received several excellent suggestions for improving the synoptic keys from Dr. Ken Chambers of Oregon State University.



Cynosurus

FNA cannot offer the *Manual* project any direct financial support. Both projects will, however, benefit from the collaboration. More importantly, so will the individuals that both projects are designed to serve—those wanting to know more about North America's plants.

We shall make the keys available over the Web in PDF format once we have modified them to reflect the comments received from these individuals.

At some stage we shall have to 'close the books' on taxonomic changes, but that time has not arrived yet, so—

**Please keep us informed of new discoveries and taxonomic changes!**

## Highlights

- All generic treatments have been received and undergone general editing.
- All *Manual* files have been converted to Windows-based formats.
- Nomenclatural section is nearly ready for publication.
- Generic keys are being tested.
- Preparation of the illustrations is underway.
- Mapping files are being converted to ArcView.

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## Distribution of the

**Funding: Current Status and Prospects****FUNDING SUMMARY**

FUNDING SUMMARY		
<b>Past Funding</b>		
USDA-ARS	\$173,000	10 yr
Utah AES	\$48,890	8 yr
Private	\$40,000	2 yr
<b>New Funding</b>		
USFS-Range	\$100,000	3 yr
BLM-Reveg	\$10,000	1 yr
Utah AES	\$18,000	3 yr
<b>Still Needed \$330,000</b>		

The above figures exclude Barkworth's salary. A number of requests are still being considered. Donations always welcome!

**Current Status.** On June 30, 1998, the *Manual's* main funding, that from the U.S.D.A.'s Agricultural Research Service (ARS) ended. The project has survived since then on funding from the Utah Agricultural Experiment Station (\$6,000 per year) and private funding.

The private funding will also end shortly. Moreover, it cannot provide sufficient support to complete the project, let alone complete it in a timely fashion. One consequence of this situation is that Barkworth has devoted considerable time this past fall to fund raising.

The three areas for which we

need major support are editing, illustrations, and preparation of distribution maps.

'Editing' in this context covers a multitude of activities, from ensuring consistency within and between manuscripts, testing keys, verifying citations, and communicating with contributors to maintaining the records, both scientific and administrative, associated with the project. It also includes most of the Web development.

The other two areas needing support, illustrations and distribution maps, are discussed elsewhere in this Newsletter.

**Prospects.** Our first

approaches have been to units of various federal agencies. Everyone has been supportive of the project, and glad to hear of the collaboration with FNA. We have received promises of \$110,000, spread over the next three years, and some units are still considering our request.

We are also approaching various private funding sources. In some cases, we are asking for funding that will not only help complete the *Manual* but also enhance the resources we can make available for identifying grasses in North America. The primary focus, however, is always on completion of the manuscript required for print publication.

*"If I could remember the names of all these subatomic particles, I could have been a botanist."*

—*Enrico Fermi*

**Nomenclatural Treatment**

The nomenclatural portion of the *Manual* is essentially complete. It is about 300 pages long and contains over 13,700 entries. It will be included in the *Manual* on a compact disk. In addition, at the request of many taxonomists and libraries, a print version will also be made available. The print version will be published sometime in 2000.

The nomenclatural treatment shows all the names that have been applied in North American publications to the taxa included

in the *Manual*, plus many of the names that have been used in other parts of the world.

The nomenclatural information is presented using internationally recognized abbreviations for authorities, books, and journals.

The printed version will contain a number of valuable enhancements. For instance, to make the volume self-contained, the meaning of all abbreviations, and of the Latin phrases used, is presented in an appendix. The volume's value will be further

enhanced by the inclusion of a chapter on botanical nomenclature designed to help novices of all ages understand the information presented.

Changes and corrections that are made after the printed version is sent for publication will be incorporated in the compact disk version included in *Manual*. The compact disk will also be sold separately.



**Phalaris**

**Illustrations**

For many people it will be the illustrations that sell the *Manual*. The samples in this Newsletter help demonstrate why.

Vorobik is the primary artist, but she is being assisted by four other illustrators: Karen Klitz, Analiese Miller, Hana Pazdirikova, and Ceceila Freeman.

Each illustration is compared with representative specimens and the identification keys. This ensures that they are both

scientifically accurate and useful aids to identification.

Whenever possible, the specimens used have been those chosen or annotated by the contributor of the treatment involved.

The remaining specimens have been selected, and their identification checked, by Barkworth. For introduced weeds, particularly those not (yet) established in the *Manual*

region, we have asked taxonomists in other countries to assist us. The response has been great.

A major problem with illustrating grasses is preparing a good habit sketch. These can most easily be prepared from photographs that show the habit. If you have suitable photographs that you would be willing to share with the project, please contact Barkworth.



## Distribution Maps

Preparing distribution maps is enormously time-consuming. We asked contributors to provide maps, but many could not do so. Consequently we started to develop a geographic database for use as a backup.

This database contains two kinds of records: locality data (aka dot data) and, for the 48 contiguous states, county level data. It is now rather substantial, containing 61,170 locality records and 258,456 county records. The coverage is, however, uneven, as is shown by the map on the right.

Our database is built primarily from secondary sources. This is

a concern, as is the fact that the distribution of many species, particularly weedy species, is poorly represented in herbaria.

We shall address these concerns first by asking contributors to identify and follow up on records that seem improbable. Some discrepancies reflect taxonomic differences; others may reflect misidentifications.

We will soon begin posting treatments to the Web, together with the maps generated by the database. We shall then invite anyone interested to send us additional data, or suggest records that should be questioned.

The maps in the *Manual* will reflect information from all these sources, but they will be submitted to the contributor before publication.

Data sent to us should be based on herbarium specimens so that the identifications can be verified. We prefer locality data, both because of its precision and because we can store the specimen information with each record. BUT, we would rather have county-level data than no data.

We record the source of all our data in a master file and will acknowledge all sources on the Web site and in any publication.



**Coverage of County Level Records**  
Darker colors correspond to more records. The shapes correspond to county boundaries. In general, counties in the eastern U.S. are smaller than those in the west.

## The Manual on the Web

We shall be making the *Manual* available on the Web at two sites, the FNA site and a *Manual* site being developed at Utah State University. Why two sites? Because we would like to allow for some enhancements to the information presented.

One enhancement will be access to the longer, more detailed manuscripts that were submitted by some contributors. Other ideas include addition of color images, of sound files giving

common pronunciations (note the plural) of scientific names, and provision of all the nomenclatural information in searchable format. There are other ideas that, because they would involve substantial work, must remain dreams for now.

We plan to use the Web site to improve our distributional data, as explained above. Our ultimate goal in this regard, however, is to provide an easy mechanism by which herbaria can easily share

in providing distribution maps linked to individual specimens.

Our primary goal is to complete the manuscript for the print version of the *Manual*. All time spent on the Web sites, and on other *Manual*-related activities, has to be evaluated in terms of its ability to contribute to achievement of this goal. At present, the inability to hire any student assistance seriously impacts the time available for editing.

*How rapidly the Web site develops, indeed, how rapidly the whole project develops, depends on the funding available.*

## The Floristic Foundation

I am convinced that the *Manual* could be a source of funding for floristic research. That is one reason why ownership of the manuscript needs to be clarified.

The project has received direct support from four 'institutions', the U.S. federal government, Utah Agricultural Experiment Station, Utah State University, and a private donor. But it will reach fruition only because of the time, effort, and financial

support that has been donated to it by numerous taxonomists and herbaria.

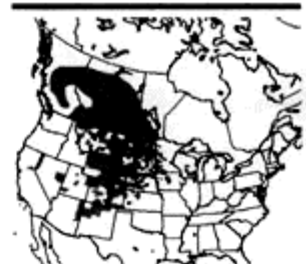
I am establishing a non-profit organization, the Floristic Foundation, that will become the owner, or co-owner, of the *Manual's* components. The foundation's purpose will be to support floristic and taxonomic research in North America.

We stand by our commitment to make the *Manual* available, free

of charge, on the Web. It will also be published as part of FNA. The Foundation will not seek to duplicate these publications, but to use the *Manual's* components, and enhancements to them, in developing additional, marketable, products.

Full information on the Floristic Foundation will be published on the Web as soon as it is established.

Mary Barkworth



**Distribution of *Nassella viridula***

# The Grass Manual

## Newsletter I I

### For Contributors

**Nomenclature.** All of you should by now have received, proof-read, and returned the nomenclatural treatment for your treatments. We are still resolving a few problems, with assistance from Drs. K. Gandhi, R. Brummit, and D. Nicolson. If you are one of the few contributors who has not replied to Kathleen yet, please do so, **NOW**. She will send you an additional copy if necessary.

**Treatments.** Early next year we shall begin sending you your generic treatments for review, together with the associated distribution maps.

We are keeping to the length guidelines that were set when the *Manual* was being designed as a single, undoubtedly large, volume. If you have sent us a

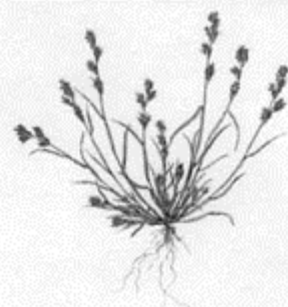
longer treatment and would like a revised version of it placed on our Web site, please let us know. If you wish to put it on your own Web site, please let us know the URL so that we can provide a link to it.

If you sent us distribution maps, you will receive two sets of maps, those that you submitted and those generated from the database. If there are differences between the two, we shall attach notes asking for your comments. We know there are flaws in the maps generated from the database, but some of the differences between the maps it generated and those we were sent do seem to reflect the greater access that we have to distribution data compared to some contributors.

**Illustrations.** Vorobik will be sending pencil drawings to the appropriate contributor(s) for review before they are inked. Please check these drawings carefully. They should show the features used in the keys, to the extent this is feasible. Do not forget to check the accuracy and the spelling in the labels.

**External Review.** We shall be sending approved treatments out for additional review, partly for review of the manuscript but also for review of the maps. We shall let authors know of any questions or concerns that are raised concerning their treatments.

**Web.** As work is approved, it will be placed on the Web, as rapidly as our financial resources permit.



*Orcuttia californica*

### Publication details

**Newsletter.** The publication date of this newsletter is November 16, 1999. It will be distributed to all contributors and many other interested individuals. **Unlike previous newsletters, this one is copyrighted.** Anyone wishing to make more than five copies of any part of it should contact Barkworth. Any or all of the five copies may be placed in an institutional or herbarium library.

**The Manual.** The *Manual* will be published as two volumes of *Flora North America* but will have two title pages, one reading "The *Manual of North America Grasses*, M.E. Barkworth, K.M. Capels, and L.A. Vorobik, Editors", and the other "*Flora North America*, volumes 24 and 25, M.E. Barkworth, K.M. Capels, and L.A. Vorobik, Taxon Editors".

This arrangement is similar to that used for the *Regnum Vegetabile* series, a series that includes the various versions of the 'International Code of Botanical Nomenclature' and 'Index Herbariorum', to mention a few of its better known volumes.

**Related Publications.** These are, at present, vaporware, so far as Barkworth, Capels, and Vorobik are concerned. If anyone is interested in using some of the material developed for the *Manual* in connection with some other publication, they should contact Barkworth. If it relates to a single genus, she will also provide the name of the contributor.

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*Grasses: Ubiquitous, Useful, Glorious!*