

The New Mexico Botanist

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September 19, 2012

A Newsletter for the flora
of New Mexico, from the
Range Science Herbarium and
Cooperative Extension
Service, College of
Agricultural, Consumer, and
Environmental Sciences, New
Mexico State University.

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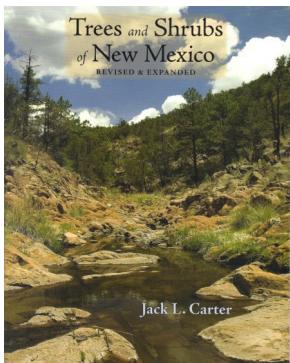
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A New Mexico Botanist Review of Recent Botanical Books

When I first came to New Mexico in the fall of 1979 (beginning in California, thence to Utah, thence to Texas, thence to New York, and thence to here), I found that to identify the plants of New Mexico, I could do one of two things: either scrounge around for a copy of Wooton & Standley's 1915 *Flora of New Mexico* (badly obsolete), or, sit at a table (preferably facing north) with a copy of Kearney & Peebles's *Arizona Flora* to my left, Welsh's *A Utah Flora* to my upper left, Weber's *Colorado Flora* straight ahead, and Correll & Johnston's *A Manual of the Vascular Plants of Texas* to my right (all frustratingly out of range). I was excited the following year when the first volume of Martin and Hutchins's *A Flora of New Mexico* appeared, which was followed in 1981 by volume 2.

We now suffer an embarrassment of riches, not only of state-wide resources, but extending to the southwestern regions and beyond. Each month (it seems) brings forth another field guide, manual, or monograph, sapping our purse strings and sagging our bookshelves.

We take the opportunity herein to review and announce some of the recent offerings, without any pretense to completeness or totality.



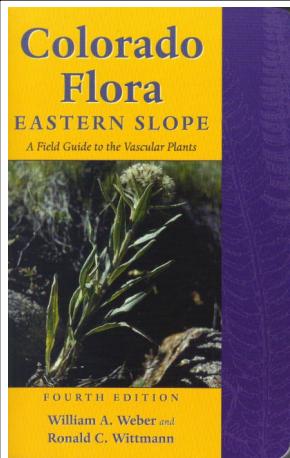
Trees and Shrubs of New Mexico, revised & expanded, by Jack L. Carter. Mimbres Publishing, PO Box 1244, Silver City, NM 88062. ISBN-10: 0-9658404-4-1, ISBN-13: 978-0-9658404-4-6. 2012. xii + 524 pp.

[from the blurb on the back cover] “This fully revised and expanded edition of the 1997 *Trees and Shrubs of New Mexico* is designed to assist the educated layperson interested in identifying the New Mexico flora. This new edition includes the following:

- Over 500 stunning full-color photographs that not only aid in identification but demonstrate the beauty of the native flora.
- Over 450 finely detailed illustrations that highlight the important characteristics of each species.
- Descriptions of 496 species, 21 more than the previous edition. This edition continues to help the reader identify the common cultivated and introduced species.
- Colorful county maps that show each species' distribution in New Mexico and in border counties of surrounding states.
- Updated nomenclature and taxonomic information, with synonyms where these can help with identification.
- Biographical sketches of noted botanists, which provide historical context.
- Landscaping tips for using native species, and suggestions for plants that are and are not appropriate for the New Mexico climate.”

I cannot quibble or disagree with any of the preceding, taken from the blurb on the back cover. Carter's revised edition is indeed expanded, stunning, detailed, colorful, updated, and loaded with useful tips, guides and helps for identification, interesting ecological comments, and obscure but fascinating tidbits of information. Beginning botanists will find the superb photos and line drawings indispensable to their initiation to the wonders of New Mexico's woody plants; experienced users will rely a bit more on the detailed keys. But beware, the presentation and content are so entertaining, that one will find their evenings disappearing as they sit comfortably in an armchair entranced by a delightful tour of our native flora. Resist this urge, and get up and get out! And take this book with you!

Botanice est Scientia Naturalis quae Vegetabilium cognitorem tradit.
— Linnaeus



Colorado Flora, Eastern Slope, A Field Guide to the Vascular Plants, 4th edition, by William A. Weber & Ronald C. Wittmann. University Press of Colorado, Boulder. ISBN 978-1-60732-140-8. 2012. *li* + 555 pp.
Colorado Flora, Western Slope, A Field Guide to the Vascular Plants, 4th edition, by William A. Weber & Ronald C. Wittmann. University Press of Colorado, Boulder. ISBN 978-1-60732-142-2. 2012. *xlix* + 532 pp.

[from the blurbs on the back covers] “*Colorado Flora, Eastern and Western Slopes*, depict the remarkable flora of the state, distinctive in its altitudinal range, microhabitats, and ancient and rare plants. Together, the two volumes will educate local amateurs, students, researchers, professionals, and hikers in the recognition of vascular plant species, and encourage informed stewardship of our biological heritage. This thoroughly revised fourth edition reflects current taxonomic knowledge, replacing the now outdated previous editions. Each volume contains discussions of this unique botanical region and its mountain ranges, basins, and plains, and includes details on historical plant geography, habitat, distribution, and ecology. The keys recount intriguing anecdotes and introductions to plant families. The book is rounded out with historical background of botanical work in the state, suggested readings, glossary, index to scientific and common names, references, and many illustrations.”

The preceding description of these books, taken from the blurbs on their back covers, gives an accurate account of the contents and usefulness of these volumes. But what it does not convey is the personality and extraordinary expertise of their authors. These fourth editions, more so than any of the previous three (and more so than any other plant manual that I know), are written in the first person singular of William A. Weber. Not to diminish in any way the obvious and excellent contribution of

the junior author (and I have experienced Ron’s field expertise first-hand), Weber makes it clear in the extensive and intensely interesting introductory pages that he has something to say about North American botany, and his 66 years as a practicing Colorado botanist give him the perspective and authority to say it. These volumes present not only the flora of Colorado through the eyes of Weber, but also his view of the current state of affairs of phylogenetics, classification, nomenclature, biological sciences in general, and practical botany in particular. He is a patron of the amateur botanist, clearly trumpeting their contributions past, present, and future. He also champions his right as an individual botanist to hold somewhat radical botanical views, and not only to publish and promulgate them, but also to proselytize others to his cause (I suppose I am a convert, to some extent). In addition, he is a formidable foe to the popular practice of inventing English “common” names in such a way as to create a totally unnecessary hierarchy of common name classification. (For example, *Erigeron* is fleabane, and all species of *Erigeron* must then be some sort of fleabane, such as bitter fleabane, silver fleabane, Bigelow’s fleabane, tufted fleabane, hoary fleabane, spreading fleabane, tall fleabane, beautiful fleabane, subalpine fleabane, large-flower fleabane, black-head fleabane, etc. etc. Never mind that no one actually calls all these species these names, and in many cases folks call them something else, and never mind that the English names are simply translations of the Latinized scientific name—common names we must have and common names we will get.)

Weber and Wittmann clearly know their Colorado plants, and this is the greatest accomplishment of their work. You may differ with their classification and nomenclature (and you will), but you will rarely argue with how they lead you to identify a plant or where to find it. The keys contain numerous features that are field-worthy and not just herbarium-worthy; they tell us what we might expect to see when we encounter the plant in the meadow or on the slope, oftentimes features that disappear upon collecting, pressing, and mounting for the herbarium. This level of expertise comes to one only after long years of study and experience. We are the beneficiaries of their sharing it.

You will not only use these books, you will enjoy them.

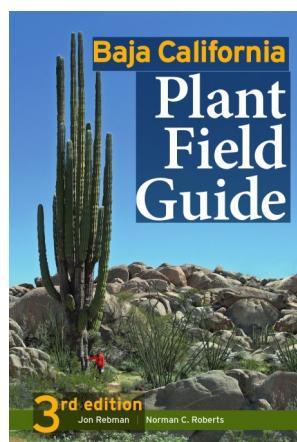
Botanical Literature of Interest

Aedo, C. 2012. **Revision of *Geranium* (Geraniaceae) in the New World**. *Syst. Bot. Monogr.* 95:1-550.
Egger, J.M. 2012. **The status of *Castilleja tomentosa* A. Gray (Orobanchaceae) and first records for this species from the United States**. *Phytoneuron* 2012-72:1-7.
Marsh, J. (ed.) 2011. **John Howard Redfield: In Search of *Shortia*, with Asa Gray in North Carolina**. ISBN: 978-0-9852199-0-1. Order from jmarsh9@verizon.net. \$18.95. [This is a transcription of Redfield’s journal as he traveled with Asa Gray in search of *Shortia*. We know Redfield from *Redfieldia flexuosa*, like *Shortia*, an illusive and almost unknown grass in New Mexico.]

Nesom, G.L. 2012. **Taxonomy of *Polytaenia* (Apiaceae): *P. nuttallii* and *P. texana***. *Phytoneuron* 2012-66:1-12.
Nesom, G.L. 2012. **Taxonomy of *Eurytaenia* (Apiaceae)**. *Phytoneuron* 2012-67: 1-7.
Snow, N. and P.M. Peterson. 2012. **Nomenclatural notes on *Dinebra*, *Diplachne*, *Disakisperma*, and *Leptochloa* (Poaceae: Chloridoideae)**. *Phytoneuron* 2012-71:1-2.
Van Buren, R., J.G. Cooper, L.M. Shultz, & K.T. Harper. 2011. **Woody Plants of Utah: A Field Guide with identification Keys to Native and Naturalized Trees, Shrubs, Cacti, and Vines**. Utah State University Press. 528 pp.

Botany is the natural science that transmits the knowledge of plants.

— *Cinnæus*



Baja California Plant Field Guide, 3rd Edition

ISBN: 978-0-916251-18-5

Year: 2012.

Publisher: San Diego Natural History Museum with Sunbelt Publications

Book Specifications: Flex-bound ; 6" x 9"; 448 Pages

Book Price: \$34.95

[from a news release] "Over 715 different plants in more than 350 genera in 111 families are

described in the third and newest edition of *Baja California Plant Field Guide*. Authored by the 2011 San Diego Horticulturist of the Year, Jon P. Rebman, the book offers tribute to the late Norman C. Roberts, author of the first two editions. As the definitive work on the plants of Baja California, this title will be of great interest not only to botanists in the peninsula, but also to plant enthusiasts in southern California, as 50% of the species listed are also found in southern California and the Sonora desert.

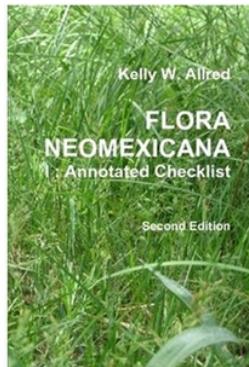
"Jon P. Rebman, who holds the Mary and Dallas Clark Endowed Chair and has been the Curator of Botany at the San Diego Natural History Museum since 1996, says of his work, "The desert regions of Baja California and southern California satisfy my need for scientific adventure while providing a sense of excitement towards botany, reverence for nature and its unaltered beauty, appreciation for the complexity of natural history, and an overall feeling of peace and purpose."

"The third edition is updated with three hundred additional plant species and the names are given in both English and Spanish. Ethnobotanical information describing the cultural uses of plants has been expanded in this edition. For example, the leaves of California Juniper are used in tea and natives used to eat its bitter berries after drying and grinding them.

"The guide also accounts intriguing and unusual species, including a parasitic plant that dwells inside of other plants and can only be observed when its flowers sprout through the host plant's stem, and another species of plant that is pollinated exclusively by blood-sucking wasps.

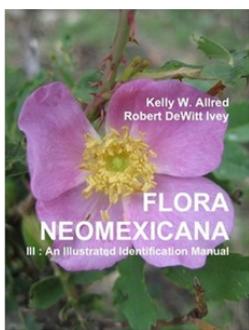
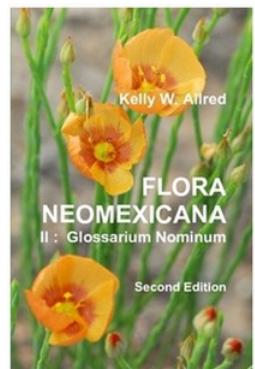
"Dr. Rebman is also the director of the San Diego County Plant Atlas Project and he photographs plants in his free time. Almost all of his photos are available and searchable online at the Museum's botanical websites: bajaflora.org and sdplantatlas.org."

FLORA NEOMEXICANA



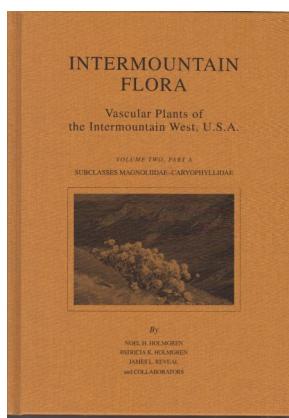
Volume I : Annotated Checklist, 2nd edition, 2012. by Kelly W. Allred. The 3783 species (and 4204 total taxa) of vascular plants occurring in the wild in New Mexico are listed, with synonymy, common names, whether native or exotic, references, and a complete accounting of all names that have been reported for New Mexico. Also included is an introduction to the climate, geologic history, soils, ecoregions, vegetation types, botanical history, and endemic, exotic, and noxious plants of the state. Available in paper- and hardbound versions; 6 x 9 inches; 603 pages.

Volume II : Glossarium Nominum, 2nd edition, 2012. by Kelly W. Allred. The etymology, definition, and usage of each of the scientific names of New Mexico vascular plants are explained. Available in paper- and hardbound versions; 6 x 9 inches; 151 pages.



Volume III : An Illustrated Identification Manual, 1st edition, 2012. by Kelly W. Allred & Robert DeWitt Ivey (Eugene Jercinovic, editor). Identification keys are provided for the 3783 species (and 4204 total taxa) of vascular plants found in New Mexico. Approximately 1600 species are illustrated. A glossary of terms, and notes on habitat, distribution, and ecology are provided for each species. Available in paper- and hardbound versions; 8.5 x 11 inches; 719 pages.

Available at lulu.com



Intermountain Flora, Vascular Plants of the Intermountain West, U.S.A., Vol. 2, Part A: Subclasses Magnoliidae-Caryophyllidae

by Noel H. Holmgren, Patricia K. Holmgren, James L. Reveal, and Collaborators. The New York Botanical Garden Press, Bronx. ISBN 978-0-89327-520-4. 2012. 731 pp.

[from the Introduction] "Volume 2, Part A, of *Intermountain Flora*, treating Cronquist's subclasses Magnoliidae, Hamamelididae, and Caryophyllidae, concludes the taxonomic treatments for the series. A small Supplement, including a key to all families, a cumulative index, and a brief history of the *Intermountain Flora* project, will be published within the coming year.

"The eight volumes of *Intermountain Flora* include descriptions of 146 vascular plant families, 898 genera, 3847 species, and 1571 varieties. An additional 426 cultivated species and 551 extralimital taxa are treated in keys and/or discussions. The five largest families are Asteraceae, Poaceae, Fabaceae, Brassicaceae, and Scrophulariaceae. The five largest genera are *Astragalus*, *Eriogonum*, *Penstemon*, *Carex*, and *Erigeron*."

And so, the *Intermountain Flora* comes to a close, pending the aforementioned Supplement. First published in 1972, with Volume 1, the series now reaches its completion 40 years later, with six numbered volumes comprising eight separate books (volumes two and three each with two parts). How to best describe and review, not only this concluding volume, but the entire series? Presentation, quality of production and layout, and artistic rendition are best described by the words astounding, impressive, magnificent, lavish, and enormously useful. Description of the scholarly work must include complete, detailed, exact, monographic, accurate, and trustworthy. General descriptors for the whole will include major contribution, most important, can't-do-without, invaluable, and spend-your-money-on-this. Indeed, this is the standard bearer for all future floristic works.

Why the rave review? Content alone provides much of the answer. Treatments of families, genera, and species include detailed morphologic descriptions; relevant comment on classification, nomenclature, distribution, variation, biology, and economic utility; pertinent references; well-designed indented keys (away with those clumsy and confusing bracketed keys!) to families, genera, species, and varieties; complete synonymy, citing types and localities; statements of geographic distribution, not only within the Intermountain Region, but throughout the range of the species; and perhaps most useful, detailed and accurate line drawings of every species and many varieties or forms. And, all of this is done expertly, accurately, completely, and scientifically.

Users will want to know that volume 2A includes the fol-

lowing families: Nymphaeaceae, Saururaceae, Magnoliaceae, Ceratophyllaceae, Papaveraceae, Fumariaceae, Berberidaceae, Ranunculaceae, Platanaceae, Altingiaceae, Ulmaceae, Cannabaceae, Moraceae, Urticaceae, Fagaceae, Juglandaceae, Betulaceae, Plumbaginaceae, Polygonaceae, Caryophyllaceae, Chenopodiaceae, Amaranthaceae, Aizoaceae, Sarcobataceae, Nyctaginaceae (by our friend Richard Spellenberg), Molluginaceae, montiaceae, Portulacaceae, and Cactaceae.

Comparison of the *Intermountain Flora* region with the flora of New Mexico yields the following: families IMF 146, NM 158; genera IMF 898, NM 1057; species IMF 3847, NM 3783; total taxa IMF 5418, NM 4204.

What's not to like? Well, nothing! I can think of no criticisms of this impressive series. But, there are consequences of such an encyclopedic endeavor of which a New Mexico botanist will want to be aware: 1) Size and weight. You can't put these in your backpack and take them along on a trip into the Pecos Wilderness. Volume 2A alone weighs approximately five pounds; the entire series is over 20 pounds. These are reference books designed for the lab and workbench. 2) Price. The most recent volume 2A is listed at \$150; the entire series will go for \$640 (but NYBG Press will sell it for \$520). It's not that they are not worth that amount, they definitely are. It's simply one of the consequences to be aware of. I say, spend the money! 3) Coverage. The geographic limits of the Intermountain Region *per se* do not extend into New Mexico. Nevertheless, many of the plants do. But if you venture too far from the northwest quarter of the state, the books become less and less useful, because the chances that you are looking at something not in the book increases dramatically. 4) Age. The series began as I commenced my junior year as an undergraduate. The intervening 40 years have brought many and significant changes to the theory and practice of taxonomy and classification, as well as actual floristic content of the Intermountain Region. The early books are dated, in this regard. However, their value in identification is scarcely altered; one must simply be aware of changes in (mostly) family, genus, and species disposition. 5) Mass of work. This is a once-in-a-lifetime endeavor. There will be no updates, no corrections, no revisions, no second editions. More plants will be found in the region, classification and nomenclature (which are extremely important) will change, identification features will be clarified. (Not to worry—you and I will be long gone before these books sit on the shelf unused.) As good as *Intermountain Flora* is, the most useful floristic works for a local botanist are always the most local, mostly because they can be corrected and updated. *A Utah Flora* is in its 3rd edition; *Colorado Flora* is in its 4th edition; *Guide to the Flora of the Jornada Plain* is in its 7th edition; and *Flora Neomexicana* vols. I & II already have 2nd editions, and the 2nd edition of vol. III is anticipated within 10 years.

Despite the above consequences and limitations, these are very useful books for New Mexico botanists. Their consultation will uplift the quality of our work. Their example will inspire our own efforts. If you are interested in the Intermountain flora, go get your copies. You will be astounded. They are that good.



Publication and Subscription Information

"The New Mexico Botanist" is published irregularly (as information accrues), and distributed as a pdf file via email. You may be placed on the mailing list by sending us your name and email address:

Kelly Allred
Email: kallred@nmsu.edu
or

The New Mexico Botanist
Email: kbustos@nmsu.edu

Available on-line at <http://aces.nmsu.edu/academics/rangescienceherbarium/>

Kelly Allred, editor



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Las Cruces, NM 88003

Plant Distribution Reports

New records and significant distribution reports for New Mexico plants should be documented by complete collection information and disposition of a specimen (herbarium). Exotic taxa are indicated by an asterisk (*), endemic taxa by a cross (+). Comments [in brackets] are the editor's.

— Richard Worthington [PO Box 13331, El Paso, TX 79913]
***Prunus mahaleb** Linnaeus (Rosaceae, St. Lucie cherry): Otero County:
 Sacramento Mts, Karr Canyon along FSR 63 at the lowest road closure gate, about 30 m west of the gate, N32° 54.384'

W105° 48.81', a tree 8 m high with multiple trunks and seedlings along canyon channel bank for 50 m, 7525 ft, 16 May 2012, R. Worthington 36533 (NMC, NMCR, SRSC, UNM, UTEP) (det by J.R. Rohrer). [first report for NM]