A Field Guide to Nevada Shrubs. By Barry L. Perryman. 2014. Indigenous Rangeland Management Press. 26 Foothills Lane. Lander, WY. USA. 82520. (775-624-1296 or 307-438-1052) 247 p. US\$39.95. ISBN 978-1-889243-71-9.

Field biologists and resource managers who need to identify the common and ecologically important shrubs on Nevada's rangelands will appreciate *A Field Guide to Nevada Shrubs*. This excellent field guide is particularly applicable to individuals who lack an extensive background in plant taxonomy but need or want to know the shrubs they are most likely to encounter across Nevada, and into neighboring states.

A Field Guide to Nevada Shrubs includes 115 species and typically those common enough to have appeared in the Natural Resource Conservation Service's Technical Field Guides for Ecological Sites. Most if not all of the species in *A Field Guide to Nevada Shrubs* also occur in one or more adjacent states, which makes the field guide widely applicable beyond Nevada.

This book is equally valuable to a highly skilled taxonomist or to a layman with little or no taxonomic training. The book uses a combination of text and high-quality photos to aid species identification. Similar to the approach the author used for his *Field Guide to Nevada Grasses*, the first delineation used for plant identification occurs in the table of contents. All 115 species are classified into one of four geographic regions (112 species) or a separate category titled introduced species (3 species). The result is 14 species widespread across the entire state; 32 species largely limited to the hot desert valleys of southern and west-central Nevada; 29 species typically from the cold desert valleys and mesas of central and northern Nevada; and 37 species largely found in Nevada's mountains, which rise above the hot and cold desert valleys. Non-taxonomists only need to determine their general geographic location to start the identification process. Once the reader identifies their geographic area of interest they can move from page to page and compare any plant samples they are looking at with the high-quality photos in the field guide. Within a geographic region, all plants are listed in alphabetical order by genus/species. Commonly accepted scientific names are included, as are any recent changes based on genetic analysis.

The field guide uses a consistent identification approach throughout the book. All species descriptions and photos occur on pages that face one another. Users of *A Field Guide to Nevada Shrubs* will never have to read text on one page and turn to another page to review the accompanying photo. Pages only need to be turned to compare one species with another or use the glossary to clarify a taxonomic term used in the text. The left-hand pages always present the text used to describe a species, and always uses a two-paragraph format. The first paragraph provides the taxonomic description and largely uses the taxonomic language common to the eight-volume Intermountain Flora series. The second paragraph provides ecological and distribution information, which may include counties in which the species is known to occur, common associated plant species, landforms inhabited, typical soil depth, type of parent material, soil chemistry, precipitation range, elevation range, and percent slope. All taxonomic measurements use the metric system, while ecological information uses English units (e.g., feet, inches). Below each taxonomic description there is a metric ruler (mm and cm) to aid with field measurements of specific plant parts.

The page opposite the text typically includes five to six clear photos tiled together to help with species identification. The general format has the upper half of the photo area showing the species in a typical habitat setting, often with a wide enough view to show the general landscape. This photo always shows the entire plant so the reader can see its general size, morphology, and branching pattern. The other photos typically show specific plant parts (leaves, branches, flowers, fruits, etc.) that aid with species identification. These pictures are clear and large enough to see important diagnostic features such as leaflet number, opposite or alternate branching, leaf venation, the shape of leaf margins, bark color, and even stem and leaf glands. The photos have clarity similar to line diagrams used in popular taxonomy books, but have the advantages of showing subtle differences in color. The font throughout the book is larger and easier to read than typically found in taxonomy books.

A Field Guide to Nevada Shrubs has a 10-page glossary that contains 241 terms printed in large bold letters. Each term is followed by a short, clear description, which almost always is shorter than one line of text. Non-taxonomists will appreciate the clear brevity of the glossary. There is an extensive index that includes both common and scientific names in alphabetical order, as independent entries. The common names are printed in a bold font, which helps separate them from the scientific names and aids the search for a specific species.

This field guide has good overall construction, with a soft cover and sewn and glued binding. The pages measure 6 inches by 9 inches and are printed on high quality relatively thick glossy paper that does not easily tear. Field guides should be built to withstand punishment and this one should endure well in the field. *A Field Guide to Nevada Shrubs* will be a useful tool for anyone wanting to identify and become familiar with the more common shrub species on Nevada's rangelands.

Brad Schultz is an extension educator with the University of Nevada Cooperative Extension with programming in grazing management, vegetation and habitat management, and noxious and invasive weeds. schultzb@unce.unr.edu. ♦