

COURSE REVIEW

Learning California Bird Sounds, 4th edition, by Sylvia Ranney Gallagher. 2016. Sea & Sage Audubon Society. Includes flash drive with introductory and practice sounds covering 89 species, worksheets, and other printed documentation. \$39.00 (plus 6.75 shipping and handling). Available from Sea & Sage Audubon Bookstore, P.O. Box 5447, Irvine, CA 92616; www.seaandsageaudubon.org/AudubonHouse/natureshop.htm. Additional species are covered by Gallagher's companion works: *Learning MORE California Bird Songs*, *Learning (Western) Mountain Bird Songs*, and *Learning Desert Bird Sounds* (each priced identically to LCBS).

Bird sounds are a conspicuous part of the natural world that delight the ear, mark the changing seasons, pique our curiosity, and provide the background music to daily life. Besides bringing us simple pleasure, the study of bird sounds can open us to an entirely new world as we learn new languages that allow us to identify species and eavesdrop on their communications sight unseen. Anyone who has spent any time in the field knows how important it is to master the basic songs and calls of birds given how many individuals are heard only rather than seen. Knowledge of bird songs is also vital to conservation work, as detecting population trends of species, from the rarest to the most common, often depends on surveys that require aural identification (e.g., Breeding Bird Survey). When I began birding in the 1970s, there were few resources for learning bird songs other than some basic recordings available on LP record albums (including vocal recreations of bird calls, e.g., Big Jake's *Calls the Waders*; www.discogs.com/Big-Jake-Calls-The-Waders-/release/7763703), verbal descriptions of songs and calls in field guides and other books, and field outings with more accomplished companions. Today, after the dawn and maturation of the digital age, there is a dizzying array of sources, including online access to world-class sound-recording collections, such as Cornell Lab of Ornithology's Macaulay Library (www.macaulaylibrary.org) or Xeno-canto (www.xeno-canto.org/), recent field guides devoted entirely to bird song (e.g., Nathan Pieplow's 2019 *Peterson Field Guide to Bird Sounds of Western North America*, Houghton Mifflin Harcourt), and various smartphone apps. Yet, many novices may find the detail and complexity contained in such sources daunting and may seek guidance from other introductory or regionally focused materials.

The present work is a set of materials honed over many years as the foundation for a 10-week in-person workshop (and accompanying field trips) on Learning California Bird Songs, held in Huntington Beach in southern California and sponsored by Sea & Sage Audubon. Essential to the workshop is a flash drive with 1607 sound files, organized by eight bird-sound groups, in 18 folders, and totaling 3.44 gigabytes of disk space. These recordings, captured by shotgun microphone, cover 89 species of year-round or summer resident birds (primarily landbirds) of lowland, cismontane California. Hard-copy materials include four pages of introductory information (Introduction, How to Use the Sounds and Worksheets, What the Workshop Covers, and Equipment and How to Use It). The core of the printed (photocopied) matter includes 121 pages of worksheets (two pages per one side only of an 8.5 × 11 sheet), organized by eight sound groups, plus an index by species. Additional materials include Sources of Introductory Sounds (18 pp.), which has descriptions of the type of sound, location and date of recording, and the location on the original tape; comparable information (44 pp.) is provided for recordings that are the answers to Home Practice Sounds. A single sheet summarizes ways of describing bird songs, including various objective characteristics (e.g., pitch, inflection, tone quality, cadence, rhythmic pattern), intuitive ways (e.g., putting words to a song, making up sound-alike words, or comparing to a familiar sound), and drawing a crude sonogram. Gallagher also emphasizes the use of free Raven Lite software for

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making sonograms (www.store.birds.cornell.edu/Raven_Lite_p/ravenlite.htm) as an aid to visualizing bird sounds. As well as getting out in the field a lot, using both your eyes and ears and searching down vocalizing birds you cannot see.

The recordings and worksheets are meant to be used closely together. The user is instructed to listen to the sounds, starting with the first sound group, and to fill in blanks in the worksheet, referring constantly to the printed Sources of Introductory Sounds. Information in the worksheets is arranged by species within each sound group and usually discusses the recordings of a wide variety of sounds ranging from typical songs and call notes to more specific sounds such as pre-dawn and aerial courtship songs, and flight, aggressive, scolding, copulatory, and begging calls. Comparisons are made between similar-sounding species, between males and females, between juveniles and adults of the same species, and sometimes among songs of different subspecies of a single species (e.g., three subspecies of the White-crowned Sparrow, *Zonotrichia leucophrys*). The user is also asked to answer many stimulating questions about the sounds heard and discussed. After filling out the worksheets, the user is instructed to play all the sounds through several times, and to test his or her identifications on random segments, which is facilitated by the species name being announced *after* the last of its sounds. Once the user is fairly confident of having learned the sounds, the next step is a self-test on the practice sound recordings for that group. Following the practice sounds by group are many sounds from the eight groups combined, most of which are mixtures of sounds “some close, some distant, some familiar, and some unfamiliar—just as you would hear them in the field.” These recordings also include segments with individuals apparently mimicking songs or calls of several other species. Overall, the depth and variety of the material in the paired sound recordings and worksheets is impressive.

Gallagher cautions that although one can learn a great deal by using the sounds and worksheets yourself, attendance at the in-person workshop will greatly enhance the experience. Hence, for the many unable to attend a workshop, these materials might appeal the most to self-directed learners, those seeking materials complementary to some they already have, or someone designing his or her own bird-sound classes. Regardless, almost anyone except the most advanced bird-sound expert is likely to learn a great deal from the trove of information contained in the carefully paired recordings and printed materials.

If future editions are contemplated, or if others want to design their own course by building on this foundation, it would be valuable if all materials were available online (or if printed material is maintained, to print double-sided to reduce environmental cost) and to expand the offering to seamlessly include materials discussed at in-person lectures but not now covered in the printed materials. Such additions I would recommend are the differences between songs and calls, how sounds are affected by habitat and distance, the context in which various sounds are used, and how birds learn to sing. If you are considering offering a course in bird-sound identification, I highly recommend you consider adopting Gallagher's structured approach, adapting it as needed to a different area or to emphasize particular themes.

W. David Shuford