PETERSON FIELD GUIDES

Birds



Roger Tory Peterson

$egin{aligned} ext{A Field Guide to} \ ext{Western Birds} \end{aligned}$

North America west of the 100th meridian, with a section on the birds of the Hawaiian Islands

Roger Tory Peterson



Second Edition

Sponsored by the National Audubon Society and the National Wildlife Federation

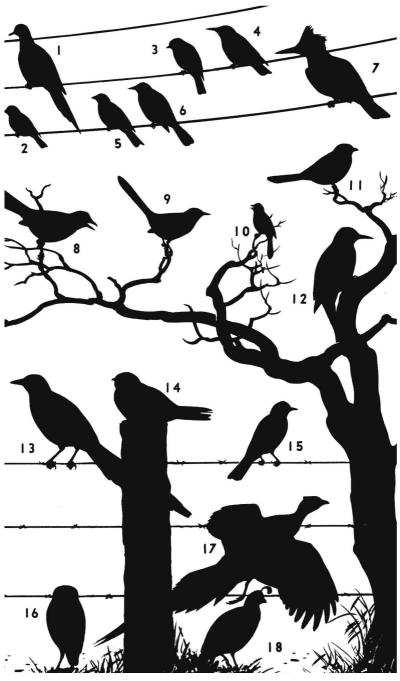
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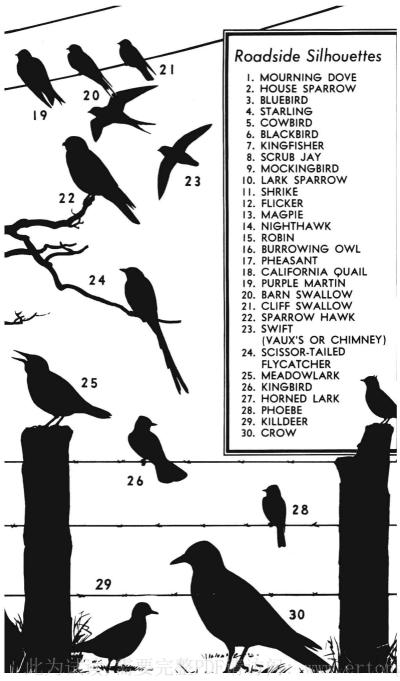
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A Field Guide to Western Birds

THE PETERSON FIELD GUIDE SERIES Edited by Roger Tory Peterson

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Preface

In 1934 my first Field Guide was published, covering the birds east of the 100th meridian in North America. This book was designed so that live birds could be run down by their field marks without resorting to the anatomical differences and measurements that the old-time collector used. The "Peterson System," as it is now called, is based on patternistic drawings that indicate the key field marks with arrows. These and the comparisons between similar species are the core of the system. This practical method has enjoyed universal acceptance not only in this country but also in Europe, where Field Guides now exist in eight languages.

Years ago, Clinton G. Abbott, then director of the Natural History Museum at San Diego, asked why I didn't do a Field Guide for the West. I dismissed the idea at first, thinking that although the plan worked out well for eastern North America, it would be almost impossible to do the same thing for the West, where the situation was, it seemed to me, much more complicated. However, after constant prompting by Guy Emerson, then president of the National Audubon Society, I decided to give it a try. After tussling with a few of the problems, I came to the conclusion that field identification was no more difficult in the West than in the East, and that most publications made things look more involved than they were. There was already one excellent handbook in use — Hoffmann's Birds of the Pacific States — but this covered only the states of Washington, Oregon, and California, whereas there was hardly a thing that was adequate for most other parts of the West.

The entire manuscript of my first edition was critically read by Guy Emerson, Frank Watson, and Laidlaw Williams. Ludlow Griscom of Harvard University, who was regarded as the dean of field ornithologists and who brought the science of field identification to its greatest perfection, also examined the complete manuscript. Mr. Francis H. Allen, veteran editor of many widely known ornithological works, gave the text a complete editorial polishing. Portions of the manuscript were also sent to the following experts: L. Irby Davis (Texan and Mexican species), Charles W. Lockerbie (Rocky Mountain birds), Dr. Alden Miller (owls, flycatchers, thrashers, juncos, etc.), James Moffitt (ducks and geese), Dr. Robert Cushman Murphy (oceanic birds), Robert J. Niedrach (Rocky Mountain and Great Plains species), Dr. Robert T. Orr (shorebirds), and Dr. George Miksch Sutton (Mexican and southwestern birds).

During my field work I received constant cooperation from

numerous well-known bird students. Among those who unselfishly put their time and knowledge at my disposal were Amelia Allen, Edward Chalif, H. M. Dubois, Garrett Eddy, Frank Gander, Harold S. Gilbert, W. Hagenstein, C. A. Harwell, H. W. Higman, L. M. Huey, Randolph Jenks, Junea Kelly, Mr. and Mrs. Charles Lockerbie, Charles Michael, Vincent Mowbray, James Murdock, Commander H. E. Parmenter, Helen Pratt, Dorothy Dean Sheldon, Dr. James Stevenson, Dr. Charles Vorhies, Thomas Waddell, Lewis Wayne Walker, Frank Watson, Laidlaw Williams, and Dr. A. M. Woodburv.

Dr. Arthur A. Allen and Charles Brand of Cornell University spent days with me in their sound laboratory playing off all the recordings they had made on their trips west. In this way I was able to make a final check on some of the more puzzling bird voices and compare closely related species that could not always

be compared conveniently in the field.

In addition to the foregoing, I was also indebted to the following for notes, suggestions, and other aid in the preparation of the first edition: R. P. Allen, H. H. Axtell, J. H. Baker, H. C. Blanchard, Margaret Brooks, Paul Brooks, Brighton Cain, Dr. Clarence Cottam, David Lloyd Garrison, Dr. W. T. Helmuth, J. J. Hickey, Richard Johnson, J. O. Larson, Sigrid Lee, D. Lehrmann, J. N. McDonald, L. N. Nichols, Dr. H. C. Oberholser, Charles O'Brien, R. H. Pough, Dr. William Sargent, Charles Shell, Alexander Sprunt, Jr., Mrs. A. H. Stephens, Wendell Taber, Lovell Thompson, Mrs. Whiting Washington, Dr. Alexander Wetmore, Dr. J. T. Zimmer, and especially Mildred Busse, who assisted me with much of the research and detail work on the manuscript.

With the advent of this greatly enlarged edition (1961) I believe this book has come of age. The changes are extensive. All the illustrations are new. There is 6 times as much color; black and white is used mostly when it is of more aid in identification than color would be. The cross references between plates and text will make the book easier to use, as will the capsule field marks for each species on the key pages opposite the illustrations. The sections entitled Similar species will be particularly useful to the observer who invariably asks "What else could it be?" Accidentals (birds recorded less than 20 times in western North America west of the 100th meridian) are relegated to an appendix. Subspecies are omitted; exceptions are those few easily identified in the field. Family statements have been expanded to include notes on Food, Range (world), and Number of species. The section on range (Where found) is extended to include general range, western range, habitat, and nest. Whereas the earlier edition covered only the western U.S. and stopped precisely at the Canadian border, this revision includes not only western Canada and Alaska but also salutes the 50th state of the U.S. with a section on Hawaiian birds.

This new book has had the advantage of experience gained in the preparation of 3 other Field Guides: the 2nd revised edition of A Field Guide to the Birds (1947); its European counterpart, A Field Guide to the Birds of Britain and Europe (1954; with Guy Mountfort and P. A. D. Hollom); and A Field Guide to the Birds of Texas (published in 1960 for the Texas Game and Fish Commis-

sion by Houghton Mifflin Company).

I shall not list again the mass of ornithological literature digested in the preparation of the 1st edition of this guide, nor the regional works, checklists, papers, and periodicals that went into the compilation of this revision. Assiduously I consulted them all and intentionally ignored none. Nor shall I list again the 200 collaborators who contributed to the Eastern guide and its revisions, nor the 60 who made the Texas Field Guide possible. However, much of that material (particularly in the Texas adaptation) has been applicable to this book as well.

Duplicating his feat with the Texas manuscript, in fact, outdoing his previous efforts, Edgar Kincaid gave this revision as scholarly a combing as ever a manuscript has had. His forte is detecting the flaws in the sweeping statement. However, if any "unsanitary" statements still remain, the responsibility is mine. Dr. Howard Cogswell, whose field skill is second to none, gave his critical attention to such difficult groups as the gulls, shearwaters, hummingbirds, flycatchers, and sparrows, Dr. Arnold Small, whose fine field work is legendary in California, gave the pelagic birds his editorial penciling. The improved analysis of adult gulls owes much to the suggestions of Dudley Ross.

My first redraft of the ranges (Where found) was based on the A.O.U. Check-list of North American Birds (5th ed., 1957) and was altered after consulting all regional publications (including the useful Audubon Field Notes). Over 30 sets of rough drafts were then circulated to key people for their scrutiny. To these ornithologists who materially modified the original statements the book owes one of its most important contributions: Dr. Clifford Carl and C. J. Guiguet (British Columbia); Dr. W. Ray Salt (Alberta); Dr. Robert Nero and Dr. C. Stuart Houston (Saskatchewan); Dr. Gordon Alcorn, Garrett Eddy, Lynn LaFave, W. A. Hall, Harry Higman, and Dr. Thomas Rogers (Washington); Dr. Thomas D. Burleigh, Dr. Malcolm Jollie, and Dr. Earl Larrison (Idaho); Dr. Clifford Davis (Montana); David Marshall (Oregon); Dr. William Behle and Charles Lockerbie (Utah); Dr. Oliver Scott (Wyoming); Dr. Howard Cogswell, Dr. Thomas R. Howell, and Dr. Arnold Small (California); Dr. Ned Johnson and Dr. Frank Richardson (Nevada); Dr. Alfred Bailey, Dennis Carter, Margaret and John Douglass, Robert Niedrach, Dr. Ronald A. Ryder, Don Thatcher, and Dr. Terry Vaughan (Colorado); Dr. Gale Monson and Mrs. Florence Thornberg (Arizona); Dr. Stokely Ligon and Dr. Dale Zimmerman (New Mexico); Edgar Kincaid, and others (Texas); Guy Emerson, Dr. Herbert Friedmann, and Dudley Ross (general).

In addition to the range material, anywhere from one or two

suggestions to 100 or more were offered by the following people: Dr. Gordon Alcorn, Dr. Dean Amadon, A. V. Arlton, Don Bleitz, D. H. Braithewaite, Shirley Briggs, J. Calunby, G. Carlton, Dr. Howard Cogswell, A. L. Curl, L. Irby Davis, Mrs. Paul DeDecker, Margaret Douglass, Merritt Dunlap, Whitney and Karen Eastman, Garrett Eddy, Eugene Eisenmann, J. R. M. Fadyen, Earle R. Greene, G. W. Gullion, Dr. J. J. Hickey, Mrs. A. W. Hood, V. H. Housholder, Dr. Stuart Houston, Dr. Phillip Humphrey, Junea Kelly, Karl Kenyon, O. A. Knorr, Levon Lee, D. T. Lees-Smith, Seymour Levy, Stokely Ligon, Charles Lockerbie, Dr. R. M. Lockwood, Donald McHenry, Dr. Locke Mackenzie, Thompson Marsh, David B. Marshall, James A. Murdock, Dr. Robert Nero, Ralph O'Reilly, Fred Packard, George Perry, Dr. A. Phillips, G. H. Potts, R. H. Pough, Dr. I. W. Preston, Dudley Ross, J. R. Sams, Zella Schultz, Dr. Oliver Scott, Dr. Arnold Small, Lieut. Col. C. H. Snyder, Mildred O. Snyder, Murray Spiers, Dr. Walter Spofford, Alexander Sprunt III, Kenn Stott, Dr. George Sutton, Wendell Taber, Don Thatcher, Mrs. R. J. Thornburg, Oakleigh Thorne II, Dr. Harrison Tordoff, Isabel Wasson, Dr. George Williams, Laidlaw Williams, Dr. Leonard Wing, Bryce Wood, Mr. and Mrs. K. J. Wright, and Dr. Dale Zimmerman.

Edgar Kincaid with his usual persuasiveness convinced me that Hawaii should be included in this new edition and he generously gave me full use of his Hawaiian files. In addition to Mr. Kincaid, Dr. Dean Amadon, Dr. Paul Baldwin, Mr. and Mrs. Robert Baldwin, Paul Breese, Dr. E. H. Bryan, Dr. Howard Cogswell, William Dunmire, Eugene Eisenmann, Dr. H. Johnson, Joseph E. King, Robert Pyle, Dr. Frank Richardson, Chandler Robbins, Dr. M. D. F. Udvardy, Ron Walker, William V. Ward, and David Woodside all went over my first draft and bolstered my own

limited knowledge of Hawaiian birds.

Before completing the manuscript I had another session with the tape recordings of western birds at Cornell's Laboratory of Ornithology. To those pioneers of sound recording, Dr. Peter Paul

Kellogg and Dr. Arthur A. Allen, I am much in debt.

For specimen material I made use of the extensive collections at the American Museum of Natural History in New York, the Peabody Museum of Natural History in New Haven, and the Smithsonian Institution in Washington. The staffs of these fine old institutions have been most kind and helpful during my many visits.

I would like to express my gratitude to Dorothy E. Umberger for her secretarial labors, to G. W. Cottrell, Jr., for assistance during my absence from the country, and to my wife, Barbara, who took care of a mountain of correspondence and typed and retyped the manuscript several times. Those of the staff of Houghton Mifflin Company who wrestled with the involved problems of actual publication were Morton Baker, Katharine Bernard, Paul Brooks, Lovell Thompson, Benjamin Tilghman, and especially Helen Phillips, who is a marvel of editorial thoroughness.

An Appreciation

It can be truly said that this manual is written not only for the bird watchers of America but by them. The number of people who contributed in some tangible way runs into the hundreds, many of whom I have acknowledged in the previous pages.

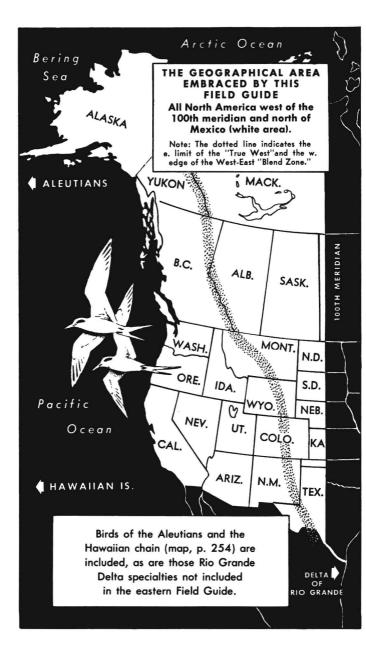
Four in particular I would like to name, for without them this book would not know its present form.

Ludlow Griscom, "the virtuoso of field identification," who taught me the fundamentals of field recognition.

Guy Emerson, my constant spur and friendly critic, who urged me to apply my Field Guide system to the West.

Edgar Kincaid, who sharpened my critical approach and also insisted that I include the Hawaiian Islands.

Barbara, my wife, who, doubling as secretary, virtually became an ornithological widow when I was in the field. She took in stride the months of pressure when her husband found it expedient to work around the clock. To her, more than to any other, I owe the completion of this book.



How to Use This Book

VETERANS who have watched birds for years will know how to use this book. Beginners, however, should spend a few moments becoming familiar, in a general way, with the illustrations: ducks, it will be seen, do not resemble loons; gulls are readily distinguishable from terns. The needlelike bills of the warblers immediately differentiate them from the seed-cracking bills of the sparrows. Birds that could be confused are here grouped together when easy comparison is possible. Thus, when a bird has been seen the observer can turn to the picture most resembling it and feel confident that he has reduced the possibilities to the few species in it.

In most me are sthe pictures and their legend pages tell the story without help from the main text. The arrows point to outstanding field marks, briefly explained on the page opposite. In every case it is well to check identifications by referring to the text. The plates give visual field marks; the text gives aids such as manner of flight, range, season, habitat and not visually portrayable, and under a separate heading discuss the species that might

confused.

One need only take a trip with an expert to realize the possibility of identifying almost any bird, with amazing certainty virtually at the snap of a finger. Most of the "rare finds" are made by people who are alive to the possibilities and know just what field marks to look for. It is the discovery of rarities that give adding all the elements of a sport. When we become more point we may attempt to list as many birds as we can in a day and them up on the widely used small white checklists. The big day" or "century run," taken at the peak of the spring migration, is the apogee of this sort of thing.

In the basic part of this book 583 species are treated. An additional 104 species have been noted fewer than 20 times west of the 100th meridian in North America or are "marginal," flirting with the 100th meridian. These are described briefly in an appendix, page 277. Hawaii (p. 255) adds at least another 60 species, making a grand total of 747 on the western list. This does

not include subspecies.

Subspecies: Subspecies have no definite entity, but merely represent subdivisions within the geographic range of a species. They are races, usually determined by morphological characteristics such as slight differences in measurements, shades of color, etc. These subdivisions, generally discernible only by comparison

of museum series, are seldom apparent in the field and should not concern the field observer. To illustrate: the Mockingbirds of the West (*Mimus polyglottos leucopterus*) differ very slightly from those in the East (*M. p. polyglottos*) and are given a different subspecific name. No one but an expert comparing specimens would detect the difference.

So forget about subspecies. It is a challenge, however, to be able to identify some of the more well-marked races. In this book subspecies are ignored unless field distinctions are fairly obvious. There are not many such inclusions. Advanced students, us skins in a good museum, might work out ways of telling others, but a too thorough treatment in these pages would lead to many errors in the field.

Make This Guide a Personal Thing: It is gratifying to see a Field Guide marked on every page, for I know it has been well used. Although the covers are waterproofed, I have seen copies with homemade oilcloth jackets; others are jacketed in plastic envelopes, obtainable in bookstores. I have seen copies reorganized and rebound to suit the owner's taste; local checklists, and even illustrations from other books, have been bound in. Many have been tabbed with index tabs on the margins, or fitted with flaps or envelopes to hold daily checklists. In this book I have included a checklist, to be used in making up a "life list," so that the owner need not mark up the index.

The Illustrations: The plates and line cuts throughout the text are intended as diagrams, arranged for quick comparison of the species most resembling each other. As they are not intended to be pictures or portraits, modeling of form and feathering is often subordinated to simple contour and pattern. Some birds are better adapted than others to this simplified handling, hence the variation in treatment. In many of the water birds pattern is more important than color; therefore many of the diagrams are in black and white.

Range: The area covered by this book is North America west of the 100th meridian. Nevertheless, in order that the user may have an over-all concept of each bird's distribution, I have under the heading Where found first given a capsule statement of the bird's general range (if widespread) and then, under West, described how it fits into the western picture. Note: General statements in the descriptions and habitats apply only to the area covered by this book.

For convenience, biologists usually separate East and West along the 100th meridian. This slices through the Edwards Plateau in Texas and follows precisely the eastern edge of the Texas panhandle. To the north it severs the panhandle of Oklahoma and the western part of Kansas; it divides the state of Nebraska, and also the Dakotas. The invisible line continues just east of the Saskatchewan border and cuts through the Northwest

Territories to the Arctic Ocean just east of Victoria Island. The True West actually starts at the eastern edge of the Rockies. The broad belt between 100° and the mountains is a blend zone, or twilight zone, where many eastern forms overlap those of the West. In a general way, the eastern birds penetrate westward along the river valleys, while western species pioneer the arid outcroppings on the Plains. Although the Rockies define the "True West" there are outlying ranges and foothills farther east that are basically western in their avifauna. Notable outliers are the siypress Hills (se. Alberta, sw. Saskatchewan), the Black Hills are South Dakota), and the Edwards Plateau (c. Texas).

The Great Plains (or Plains) occupy most of the wide twilight belt east of the Rockies. They form a great ecological barrier.

The Great Basin, lying between the Rockies and the Cascade-Sierra ranges, is another great highway for some of the waterfowl and shorebirds that also use the Great Plains or Pacific routes. The Lower Colorado River is part of this flyway.

The Central Valley, or Great Valley, of California, which includes the Sacramento and San Joaquin Valleys, is also a major highway and wintering ground for water birds. It frequently acts as a barrier, marking the limits of certain upland species.

The Northwest coast belt, frequently referred to in this book, is roughly the humid belt from San Francisco bay to se. coastal Alaska, west of the Sacramento Valley and the Cascades.

The Cascade-Sierra divide is one of the major divisions affecting the avifauna of the West. Basically dry to the eastward, wet on the seaward slope, it sharply limits many species.

The boreal forest of Canada swings west past the northern end of the Plains and through it many "eastern" woodland species extend almost to 120° W. at the approaches of the Rockies.

The Arctic, roughly speaking, is the far North beyond tree limit where the subsoil is permanently frozen. However, many areas along the Alaskan coast have an arctic bird life and are treeless, but might be called Subarctic because the subsoil is not permanently frozen. Arctic conditions also extend far southward along the mountain tops (usually referred to as alpine).

Definitions of Terms and Symbols: 3 is the symbol for male; 2 means female.

Accidentals, on the continental level, are defined as species that have been recorded less than 20 times west of the 100th meridian in North America (including Aleutians, but not Hawaii). These are relegated to an appendix (p. 277). On the state or provincial level an accidental is a bird that has appeared but once, or perhaps more than once, but is so far out of its normal range that it might not be reasonably expected again.

Casual means from one to several records in a decade in a state or province—a bird to be looked for again. It implies greater rarity than rare (rare means seldom seen but of regular occurrence).

I have also used the term *casual* for those species recorded but once or twice in states immediately adjacent to their normal range.

Question mark: A question mark (?) after a locality means

"probable, not certain; needs confirmation."

Resident means the same as permanent resident; the bird is

found throughout the year.

Migrant means a bird of passage, a bird whose stay is brief while en route between its summer and winter homes. Breeds and winters are self-evident terms, but some of the birds recorded within the areas thus outlined may actually be birds in passage, not yet on their summering or wintering grounds.

Anatomical and plumage terms: See the diagram on page 2. Names of Birds: The names of all birds are those officially designated by the A.O.U. Check-list of North American Birds, 5th edition. When the names differ from those in earlier editions of the Field Guides, I have also given the previous official name in parentheses. If a name within the parentheses appears in quotes, it has never been official (sanctioned by the A.O.U.) but has attained wide popular use because of its adoption in Richard Pough's Audubon Bird Guides. I have seldom listed other unofficial vernacular names; their perpetuation in most instances would serve no useful purpose.

Number of Birds: The comparative numbers of species in families will interest students. The world numbers follow the appraisal of Ernst Mayr and Dean Amadon (American Museum Novitates for Apr. 2, 1951). When Josselyn Van Tyne and Andrew J. Berger (Fundamentals of Ornithology, 1959) differ notably, I have usually given both figures. The North American figures are based on the A.O.U. Check-list of North American Birds, 5th edition.

Habitat: One looks for meadowlarks in meadows, thrushes in woods. Therefore, those of the field-glass fraternity out to run up a list do not work only one environment. The experienced birder can look at a woodland, a piece of brush, a prairie, or a marsh and predict almost exactly what he will find there.

Each bird's preferred environment is indicated briefly under *Habitat*, but do not be surprised if your bird is not always where it is supposed to be, particularly in migration. At coastal points, islands, city parks, and desert oases, birds in passage will often

be found in an untypical environment.

Nest: Nest location and nest form are noted very briefly (but only if the species breeds within the area covered by the book). Only the merest mention of egg numbers and appearance is given. The more usual clutch sizes are given, with exceptional clutches indicated thus: 3-5; 9. When eggs are spotted, ground color is mentioned only when it is obvious, not whitish or near-white. To go into the more subtle distinctions between nests and eggs of various species would require a book in itself. The main reason for including these data at all is not to aid the observer in recog-