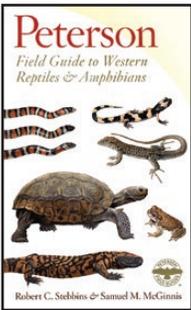


BOOK REVIEWS

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Peterson Field Guide to Western Reptiles & Amphibians, 4th edition

Samuel M. McGinnis and Robert C. Stebbins. 2018. Houghton Mifflin Harcourt, Boston, Massachusetts (www.hmhco.com). xii + 560 pp. Softcover. US \$24.99. ISBN 978-1-328-71550-0. E-Book: ISBN 978-1-328-508010.



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Classic books outlive their authors, and revising them is a task that is not for the faint of heart. By the time of its third edition (2003), Robert Stebbins's western North American reptile and amphibian handbook in the Peterson series had long since become an icon. The second edition (1985) featured 12 new plates and accounts for 37 new species (including the herpetofauna of Baja California), while the third edition covered 36 more new species (143 new paintings in 13 new plates, with others revised) and 50 sharp photos. Fifteen years later we have a fourth edition with 43 new species (Table 1), no new paintings, only two new maps, and a completely different set of 138 photos.

At 559 pages, the new volume is only 26 pages longer than the third (which was 197 pages longer than the second edition), which certainly says something. The plates (formerly grouped at the front of the book) are now dispersed to lead into each major taxonomic division, and the range maps (formerly grouped at the end) are now uniformly reduced to half-page width and inserted into or near each species account. The keys to species (unchanged) remain in the front of the book and the section on amphibian eggs and larvae (names updated, otherwise unchanged) remains at the rear with a glossary and an updated and useful index.

The introductory material has been reshuffled and slightly revised, with major changes made to the former sections 2 and 3, Making Captures and Field Study and Protection. Readers are now advised that capture information previously provided was misused, and we should just look but not touch and try to take photos to see diagnostic characters. While one does not need to capture every individual, many sightings will go into the unidentified bin simply as a consequence of the escape behavior of the animals. I suggest that this shift represents a disservice that further isolates young people from nature, substituting 'don't do it' for 'learn how to do it responsibly.' Field herpetology cannot be (and should not be) reduced to birdwatching. Also,

while Bob Stebbins's classic paper field notes served for almost a century, we are now supposed to go electronic, where your records will last until you drop your device in the creek or lose it. Permanence is unfortunately not a strong suit with electronic devices when used in the field. Go ahead and take digital notes, but print them out frequently and put them in a safe place. All of us with decades of written notes know how often we have been able to simply resolve an uncertainty long after even the best memory has faded away. The section on protection and conservation is updated and suitably bleak, citing laws that protect animals individually but seldom effectively prevent habitat destruction and are powerless against climate change and emerging infectious diseases. This is all the more reason to keep and preserve detailed notes.

The bulk of the book consists of the plates and species accounts set in smaller type than in the third edition. The plates have been re-photographed and are sharp, but duller than the renditions in the third edition. As a graduate student I had the opportunity to watch Stebbins create some of these illustrations, and I feel that the brightness of the third edition plates is a more accurate representation. One of the best features of Bob's skill was his gift with lighting, and this is now poorly served. The species accounts are virtually unchanged except where taxa have been partitioned. These new species accounts are clearly a key part of the revision, but they are substantially inadequate. In many cases, the new account gives the common and scientific names, but notes that there is neither a photograph nor plate of the species discussed (account labeled "Not Shown"). One is supposed to identify the species by looking at the range map of its nearly identical sister taxon and recognize it solely on the basis of range. If there is information given on diet, reproduction or other life history information (as for *Phrynosoma goodei*), it is duplicated from the sister taxon's account rather than by having been documented for the new taxon independently. Also, the accounts for *Batrachoseps relictus* and *B. simatus* were not edited to extract the habitat and distributional information that applies to *B. bramei*, and are thus misleading. As in previous editions, only taxa occurring on the mainland of the Baja California peninsula and its Pacific Coast islands are included, although some but not all taxa that also occur on islands in the Gulf of California are shown on the maps.

A major shortcoming in my view is that of 138 new photos in this edition, exactly two show species newly included (*Ascapthus montanus* and *Rena dissecta*); the rest of the newly included species simply are not illustrated. There are many superb photographers working with western North American herpetofauna who would be very proud to have some of their work in the holy book. Truly, this was an opportunity lost and inexplicably so given the shabby quality of some of the new photos, as addressed below.

I have never understood why Stebbins grouped genera by families but then arranged the included genera and species in

TABLE 1. Nomenclatural changes between third and fourth editions, species proposed but not accepted, and established exotics not included in the fourth edition.

New species names			
<i>Batrachoseps altasierrae</i>	<i>Chelonia agassizii</i>	<i>Anniella alexanderae</i>	<i>Heterodon kennerlyi</i>
<i>Batrachoseps bramei</i>	<i>Hemidactylus garnoti</i>	<i>Anniella campi</i>	<i>Hypsiglena chlorophaea</i>
<i>Plethodon asupak</i>	<i>Tarentola annularis</i>	<i>Anniella grinnelli</i>	<i>Hypsiglena jani</i>
<i>Plethodon stormi</i>	<i>Tarentola mauritanica</i>	<i>Anniella stebbinsi</i>	<i>Hypsiglena ochrorhyncha</i>
<i>Ensatina klauberi</i>	<i>Xantusia arizonae</i>	<i>Rena dissecta</i>	<i>Lampropeltis multifasciata</i>
<i>Ascaphus montanus</i>	<i>Xantusia bezyi</i>	<i>Indotyphlops braminus</i>	<i>Trimorphodon lambda</i>
<i>Pseudacris maculata</i>	<i>Xantusia gracilis</i>	<i>Charina umbratica</i>	<i>Trimorphodon lyrophanes</i>
<i>Rana draytonii</i>	<i>Xantusia sierrae</i>	<i>Lichanura orcutti</i>	<i>Trimorphodon wilkinsonii</i>
<i>Rana sierrae</i>	<i>Xantusia wigginsi</i>	<i>Arizona pacata</i>	<i>Crotalus cerberus</i>
<i>Kinosternon arizonae</i>	<i>Phrynosoma goodei</i>	<i>Chilomeniscus stramineus</i>	<i>Crotalus oreganus</i>
<i>Gopherus morafkai</i>	<i>Podarcis sicula</i>	<i>Contia longicauda</i>	<i>Crotalus stephensi</i>

Generic and species name changes	Species proposed but not accepted	Exotics not included
<i>Incilius</i> for <i>Bufo alvarius</i>	<i>Taricha sierrae</i>	<i>Eleutherodactylus coqui</i>
<i>Anaxyrus</i> for all other <i>Bufo</i> spp.	<i>Anaxyrus baxteri</i>	<i>Cyrtopodion scabrum</i>
<i>Pseudacris maculata</i> for <i>P. triseriata</i>	<i>Pseudacris hypochondriaca</i>	<i>Anolis carolinensis</i>
<i>Smilisca</i> for <i>Pternohyla fodiens</i>	<i>Pseudacris sierra</i>	<i>Anolis sagrei</i>
<i>Lithobates</i> for eastern <i>Rana</i>	<i>Sceloporus bimaculosus</i>	<i>Trioceros jacksoni</i>
<i>Rana</i> retained (except <i>R. tarahumarae</i>)	<i>Sceloporus consobrinus</i>	
<i>Actinemys</i> for <i>Clemmys marmorata</i>	<i>Sceloporus cowlesi</i>	
<i>Apalone</i> for <i>Trionyx</i> spp.	<i>Sceloporus uniformis</i>	
<i>Phyllodactylus xanti</i> for <i>P. nocticolus</i>	<i>Uta stejnegeri</i>	
<i>Sauromalus ater</i> for <i>S. obesus</i>	<i>Chionactis annulata</i>	
<i>Phrynosoma blainvillii</i> for <i>P. coronatum</i>	<i>Coluber fuliginosus</i>	
<i>Plestiodon</i> for <i>Eumeces</i> spp.	<i>Lampropeltis gentilis</i>	
<i>Aspidoscelis</i> for <i>Cnemidophorus</i> spp.		
<i>Rena</i> for <i>Leptotyphlops</i> spp.		
<i>Coluber</i> for <i>Masticophis</i> spp.		
<i>Pantherophis</i> for <i>Elaphe guttata</i>		
<i>Hypsiglena</i> for <i>Eridiphas slevini</i>		

essentially random order rather than alphabetically. The revision follows suit. For a large genus like *Batrachoseps*, this gives the sequence *wrighti-campi-robustus* (okay, the subgenus *Plethopsis*), but then *stebbinsi-simatus-bramei-nigriventris-gregarius-pacificus-major-gabrieli-gavilanensis-luciae-minor-incognitus-regius-kawia-relictus-altasierrae-diabolicus-attenuatus*. That's the worst case, but it certainly does not help the casual user.

So, the species accounts are not significantly revised—how about the distribution maps? In the third edition, the maps went to full color and were of variable size, usually reflecting the size or complexity of the range or ranges being shown, and only once (*Uma* spp.) being larger than needed simply to complete filling a page. Of the 209 maps in the third edition, 14 are full-page and 39 are half-page in height. The typical map is 45 mm wide, and most pages have 4–7 maps. Where pale colors (yellow, orange) are used, there is a fine black outline making the map edges clear. This convention has been dropped, and ranges rendered in yellow are nearly impossible to resolve. For the fourth edition, the maps have all, save one, been shrunken to 42 mm width and set within a heavy black border, and then inserted into the text near or in the relevant species account. As many as eight taxa (e.g., *Pituophis*

catenifer ssp.) are crammed together along with the legend. There are only two new maps—for introduced geckos and lacertids.

So many people put so much effort into reviewing Stebbins's maps for the second (70 names acknowledged) and third editions (40 names), and each of us knows how important getting it current and right was to Bob. My grad student office was next door to his while he worked on the second edition, and hardly a day passed when he didn't ask for help in confirming a locality or about moving a line to reflect topography or vegetation. This was long before any mapping help like Google Earth existed, and he did it the hard way. In the 15 years leading up to the fourth edition, I suppose there have been hundreds of mappable range extensions reported in *Herpetological Review* alone, and I am really unhappy to find that not a single one of them has changed a thing on these maps. Some maps have had sections recolored to reflect changed taxonomy, but that's all. This amounts to McGinnis thumbing his nose at the entire community, and if it were the only flaw in this edition, it would be sufficient reason to boycott this book.

The full-page *Batrachoseps* map is copied directly from the third edition, with two colored blobs now labelled as *B.*

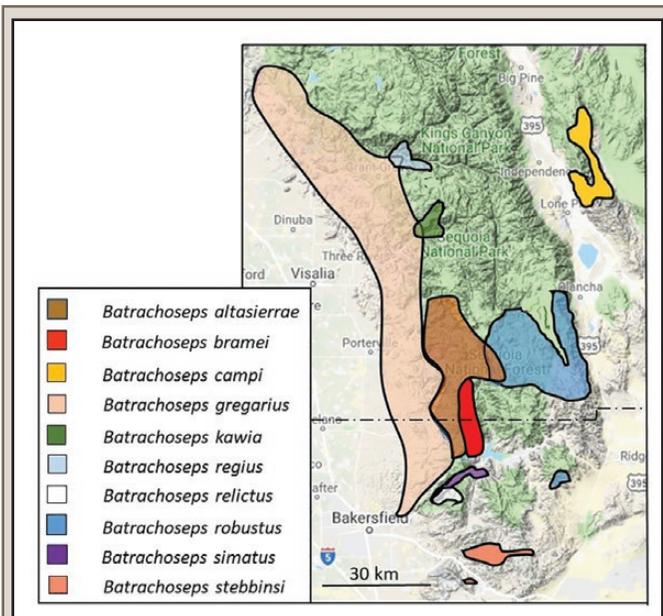


FIG. 1. Ranges of 10 species of *Batrachoseps* native to the southern Sierra Nevada and Inyo Mountains of California, intended to replace the inset map on p. 100. The distributions shown are based on maps in Jockusch et al. (1998, 2012) and Wake et al. (2002), with updates from Robert W. Hansen and Christopher J. Evelyn (pers. com. 2018).

altasierrae and *B. bramei*, names in press when the third edition was finished. There are several problems with the main map in central and southern California that any of a dozen people could have repaired if asked, and the enlarged view is almost entirely fictional, lacking any geographical reference points except Owens Lake. Adding the Kern River and Lake Isabella would show that nearly all the claimed distributions are incorrectly placed with reference to each other, and grossly distorted in relative sizes. As it is, the map plus editing errors in the text will make it nearly impossible to identify any *Batrachoseps* from the southern half of the Sierra Nevada. Accordingly, I have drawn a new map (Fig. 1) for the 10 *Batrachoseps* species occurring in the southern Sierra region that can be copied and pasted over the map on p. 100.

The 138 new photos in the book include 49 attributed to others, all of good to excellent quality, and 89 that are not attributed and are presumably by the co-author. These appear to be old 35 mm slides that have been scanned, and about 20 of them are of poor quality – dark, out-of-focus, poorly-framed or all three. To me, the photo of *Crotalus pricei* appears to be of a posed dead snake with a crushed head. One of the better photos, of a metamorphosing larva said to be *Ambystoma macrodactylum croceum*, is clearly an *Ambystoma californiense*. Even worse, the photo of *Crotalus scutulatus* mislabeled as *C. atrox* is repeated, still wrong, from the much-criticized California field guide (Stebbins and McGinnis 2012). This level of carelessness is an insult to the Peterson series and to Stebbins's legacy. Again, the fact that no opportunity was taken to secure good photos of species that are not illustrated here is a serious shortcoming.

At the end of the book, there is a Glossary that is very similar (often with the exact wording) to that in the third edition. The Bibliography has been updated somewhat, but there are glaring omissions (Ernst and Ernst 2003; Pianka and Vitt 2003; Lannoo 2005; Jones and Lovich 2009; Dodd 2013), among others, that should have been included in any general bibliography of North

American herpetofauna. In addition, certain important web sites (AmphibiaWeb, The Reptile Database) are not mentioned, nor is the Canadian Herpetological Society or The Herpetologists' League.

Production values are reasonable, with the only misspellings I saw attributable to carelessness by the co-author (*Pseudacris sierrae* for *P. sierra*, and *P. hypochondrica* for *P. hypochondriaca*). The binding on my review copy has already begun to split and separate, whereas my paperback copies of the second and third editions remain tightly bound despite much more use.

Comparisons with the fourth edition of the eastern field guide in the Peterson series (Powell et al. 2016) are inevitable, and flat-out tragic. The eastern guide has taken a major step forward with each edition, now enhanced by Travis Taggart's splendid maps (he obviously reads *Herpetological Review*), whereas the western guide has fallen down badly.

I am left with one final comment. The front and back covers of this fourth edition list the authors as Robert C. Stebbins and Samuel M. McGinnis, but if you go to the Library of Congress cataloging data the sequence of authorship is reversed, which is the formal attribution. McGinnis did not earn this honor. I urge everyone to boycott this insult to Bob Stebbins's legacy. Assign the third edition in your classes.

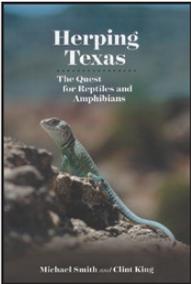
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Herping Texas: The Quest for Reptiles and Amphibians

Michael Smith and Clint King. 2018. Texas A&M University Press, College Station, Texas (<https://www.tamupress.com>). 326 pp. Flexbound. US \$30.00. ISBN: 978-1-62349-664-7.



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Some years ago, a colleague of mine hired a field technician that covered the bird component of his ecosystem-scale study. Being a closet bird lover, I thought it would be a nice change of pace to discuss the birder's passion. After hearing the guy jabber for 20 minutes listing every bird he saw in each of Florida's 67 counties, I tried to redirect the conversation. I asked him why, in an evolutionary sense, and how, in the step-by-step, generational, Darwinian sense, did birds come to migrate? It's a good question, one I thought of long ago pondering North American birds wintering in Panama. Why would they ever leave the tropics? I have since sought the answers and they're not as easy as you'd expect and there's still no good explanation for how an Arctic Tern should up and decide, in microevolutionary increments, to circumnavigate the planet every year. The birder pondered my question and, after a few bites of pizza, he reactivated his county listing: "I've seen most of the Neotropical migrants in Wakulla County. I had a banded tit-thrush, mottled bee prodder, Mexican wood dotterel, chestnut-hooded tody-shrike, regent trunk-driller, pheasant-bellied cuckoo-rail, tawny-naped dew-slurper, paramount mud turner..."

This brings me to *Herping Texas*, the new book published by Texas A&M University Press by Michael Smith and Clint King, two admittedly non-academic "field herpers." The subtitle "the *Quest for Reptiles and Amphibians*" and its introductory chapters reveal that the book aims to convey the adventure of herping to a lay audience, perhaps inspiring a new generation of field herpers to get out there in the field and find herps. Fistfuls of kingsnakes. Forty copperheads in one night. Legions of colorful milksnakes. Maybe a salamander or two.

Somebody who writes a book intended for a narrow audience walks a tightrope. If the book is not interesting enough, its intended reader—who has probably already accumulated some knowledge on the topic—will be bored stiff. On the other hand, how well does the book attempt or succeed in interesting a larger readership? And, if it can't interest a person with a passing interest in the topic or someone who is obsessed with the topic, who is the book for?

I'll start by saying nice things about *Herping Texas*. It's organized into introductory chapters and then the book takes you on a regional tour of Texas. The authors tell herping stories about subtropical south Texas, the eastern woodlands, Hill Country, Plains, and Trans-Pecos deserts and mountains. Each author has about the same number of anecdotes. There is a final chapter with basic info about getting started followed by the book's nicest chapter, a touching afterword by King.

I like that they used the word "herping" in the title. Some disagree and think that because of its unfortunately similar ring to a sexually transmitted disease we should whisper the name of our activity behind closed doors. I argue that we should use it and use it often, appropriating it until it is mainstream. It's becoming mainstream. The word herping was used in a major car commercial. Mammalogists shouldn't shy from using their handle because some swarthy 13-year old snickers when he hears it, teasing, "you said mammary." So kudos to Smith and King for defining and using it in the title and throughout the book.

I like that both authors strive to inspire ethical herping. They explain Texas game laws and go further, advocating admiration of herps in the field instead of in a cage, by simply taking pictures and leaving them alone. If their book is successful, it will hopefully rub off on certain members of the keeper crowd. In terms of grammar, typos, style, and accuracy, the book is fine. There should be more books about herping, and it's good to see that a university press took a chance on this one. The problem with *Herping Texas* is that nothing happens in it.

Smith's stories especially follow the standard formula: "We went to this place, and I'll now describe it to you in as florid prose as I can muster. We found species X there. Now I will describe this species in as turgid prose as I can muster, and then tell you a few natural history nuggets about it. We were happy. We went home." I suspected, with few exceptions, that every one of his stories was transcribed directly from his field journal for that day. My suspicion was confirmed on p. 275 when he quoted directly from his field notes. The prose is indistinguishable from the rest of his passages.

One of the ways to make things more interesting for a general reader is to write effectively about the animal's ecology, natural history, or evolutionary history. This is where perhaps having a better command of the literature would have served the authors well. For example, when discussing the Hill Country, they barely mention the spring and cave dwelling *Eurycea* species endemic to the region. For a book about Texas herps this was an enormous omission. Why are they there? What are their adaptations?

King's stories are better, as he attempts to bring a little humor, suspense, or quirkiness to his stories. I would have better enjoyed a solo-authored book by King. But his interesting stories are outnumbered by his boring ones. And if you think his herping stories are boring, you're really going to hate his bug stories.

When you hang out with herpers, what stories do you tell? I cannot remember a single story about a friend finding some herp. We all tell stories about herps where nothing really happens but that we find the thing. We pick up field knowledge this way but I can't remember who I heard the stories from and none of them really stand out. But I can remember several field stories that weren't really about the herps. The time somebody parked their university's vehicle on what they thought were abandoned railroad tracks only to find they were still quite cataclysmically in use. The time a friend fell three stories down a sandstone cliff and everyone thought he was dead. Once on the way to find some herps (doesn't really matter what, but it was Alligator Snapping Turtles), we got pulled over by cops from about 12 municipal, state, and federal jurisdictions because we matched the description of a crazed Florida man who ran three highway patrol cars off the road. What was remarkable is that we matched the vehicle's description despite having a canoe strapped to our truck and our driver and the maniac were both named Geoff.

I'll bet Smith and King tell these kinds of stories and these should have been included in the book. Where's the story about

getting hassled by Border Patrol in the Trans-Pecos? Where are the leering, toothless locals of the piney woods? How many times have they been shot at? How about their close calls with serial killers? What about the time they hiked the desert without enough water and nearly died? I've only lived in Texas for five years and I could already tell you some whoppers. They spent a lifetime in the blood meridian and there's hardly a whiff of a good story here.

And finally, what is the point of all this? The field herping? They describe the thousands of miles driving all over Texas, the hundreds of dollars spent on gasoline and hotel rooms, to find... a new lifer? I complained about this in a blog post ("Nobody Cares About Your Lifers: How to Make your Herping Count") that went viral because field herpers exploded in anger and resentment. I pointed out that there are too few people interested in herps and too many endangered herps for experienced field herpers to waste their time and effort canvassing the country collecting lifers and shaving down their bucket lists. It only makes them feel good and perhaps worse yet, makes them feel like they're good at it. It's not a sport. We can't assume that a growing appreciation for herps will ultimately save them. More importantly, we need bodies out there doing conservation research and restoration. We need to harness the energy of people like Smith and King and their intended audience. Making your herping count for something should enter the pantheon of ethical herping.

I'm being awfully hard on Smith and King and I hope it's unwarranted. I'm an academic and I know this stuff already so I didn't find the book interesting. To be honest, I skipped the two middle chapters. I'm not the intended audience and I'll probably be accused of punching down because I tried to write interesting stories in my snake book. There are places in my book where I made the same mistakes and Smith and King's book is helping me see this.

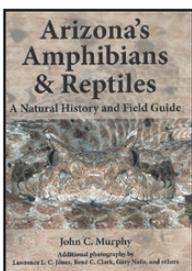
I tried to put myself in a beginning herpetologist's mind set and I don't really know if *Herping Texas* would be interesting or useful to a beginner or to an expert. Instead, I couldn't help but remember that afternoon with the obsessed birder, uncontrollably listing the stamps he collected:

"...black-and-white screwbill, flightless mud wren, Bottingham's sparrow, tangerine-faced mockingrook, upside-down dump-crane, cacophonous flat-face..."

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Arizona's Amphibians & Reptiles: A Natural History and Field Guide

John C. Murphy. 2018. Book Services (www.BookServices.us). xii + 316 pp. Softcover – US \$35.95. ISBN 978-1-64255-483-0. Hardcover – US \$46.95. ISBN 978-1-64255-484-7.



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Amateur and professional naturalists alike can consult an array of guides to the herpetofauna of the Southwest. There are field guides encompassing the western USA (e.g., Stebbins

2003), individual states including Arizona (Brennan and Holycross 2006), California (Stebbins and McGinnis 2012) and New Mexico (Degenhardt et al. 1996), and any number of smaller areas (e.g., mere counties—see Lemm 2006). Can an area have too many guides to its herpetofauna? My inclination is to allow the author of any new contribution to make their case. Although Murphy briefly notes the availability of these numerous field guides to amphibians and reptiles of Arizona and the greater Southwest, he fails to make clear how his book improves upon or replaces any of the earlier works. He does outline what he hopes to accomplish (p. vii): "This volume attempts to provide the reader with an overview of the Arizona herpetofauna, provide the information necessary to identify the state's amphibians and reptiles, and to summarize some of what is known about their natural history."

Murphy's book is arranged taxonomically, with species accounts constituting 95% of the volume, and each account occupied by at least one photograph and one range map, giving the distinct impression of a large format field guide. Two small sections, an introduction (pp. 1–13) and six short appendices (line drawings; pp. 292–299), bookend two larger sections constituting the bulk of the volume: amphibian (pp. 14–70) and reptile (turtles, pp. 71–90; squamates, pp. 91–291) species accounts. Following these four sections are brief references (not necessarily citations, pp. 300–309) and a short index (taxa only, largely duplicating the table of contents; pp. 310–314). One indicator this volume is more than a field guide is its size—over 300 pages occupy a rectangle 175 mm × 250 mm (25 mm thick). If it is intended as a field guide, the large size is an obstacle. I prefer a glossy finish to enhance photographs and range maps, but presumably cost precluded this option; nonetheless, the volume is one of the more expensive field guides to Southwest herpetofauna available in 2018 (> \$35 US).

In his introduction to the biogeography of Arizona, Murphy includes material absent from virtually all other field guides to date: pages 3–5 are devoted to the "deep history" of the area, outlining biogeography of the Southwest over the past 100 million years. I applaud any effort to inform readers of the evolutionary history of various groups, especially if the referenced molecular clock estimates are documented with great confidence, but unfortunately, absence of consistency in providing citations precludes independent assessment. The treatment of this area is patchy, however: times of divergence are provided for some taxa, but not for others, leaving one wondering if the information is available but uncited. Additionally, this section gives the distinct impression that all speciation is the result of vicariant events dividing populations.

The introduction closes by addressing conservation in general, anuran call nomenclature, and an outline of the ecoregions of Arizona. The ecoregion classification system was a poor choice for a guide to a single state, especially relative to the biotic communities (= biomes; Brown 1982) approach typical of many recent guides (e.g., Brennan and Holycross 2006). Most ecologists would agree that the Great Basin Desert is the second largest desert community in Arizona (greater than the Mohave or Chihuahuan). This cold desert is lost in the ecoregion approach (it becomes "Steppe", absent in Arizona), forcing Murphy to conclude that only three of the four North American deserts occur in Arizona (p. 106). Grasslands of northern and southern Arizona are largely ignored in the ecoregion map, and the various "biogeographic barriers" discussed by Murphy prior (pp. 4–5) are better depicted—via breaks in plant communities—with the biome classification approach. Confusion continues when Murphy appears to adopt the biome framework in some species

accounts (e.g., p. 133: *Sceloporus graciosus*) when describing herpetofauna occurring in grassland and desert communities of northern Arizona (presumably, the latter is Great Basin Desert). Finally, pages 11–13 provide highly detailed descriptions of anuran call types that are then ignored for virtually all species, largely because Arizona frogs and toads do not manifest the complexity in vocalizations of tropical forms. Overall, the brief introductory material seems unevenly integrated with the natural history of Arizona's herpetofauna—some issues are not touched on again throughout the remainder of the book.

What about the bulk of this guide—the species accounts? The author provides an important caveat in the introduction (p. 9): “I have tried to avoid the rigid field guide formats by not following a specific outline for each account and by adding historical, scientific, and personal observations to accounts.” Perhaps Murphy intended to distinguish his book from the other field guides by avoiding highly structured, repetitive prose. A matter of preference, certainly, but one can more easily find and extract information when it is consistently available precisely where one expects it. Any field guide that forgoes consistency in organization does so at the risk of frustrating the reader.

Murphy incorporates the latest taxonomic revisions throughout his accounts, largely following the SSAR's guide to scientific and standard English names (Crother et al. 2017). One exception is his use of “Mojave” rather than the recommended “Mohave.” Both are acceptable spellings, but Spanish speakers (e.g., explorers of the 1700s) consistently used a “j” while English speakers (e.g., map-makers and explorers of the early 1800s) used an “h” when attempting to translate the name associated with the indigenous people along the Colorado River in western Arizona. Given its long availability, “Mohave” is the better choice for an English language contribution, as noted by Crother et al. (2017). Nonetheless, for those readers desiring the latest taxonomic revisions, Murphy's book exceeds all current competitors.

Murphy offers an abundance of natural history tidbits for most species, but this is variable, with exceptional detail for some, and little for others—I was left with a sense of haphazard selections with no guiding hand. He generally offers enough detail to allow a novice to use his guide to identify most amphibians or reptiles from Arizona. That said, errors are distressingly frequent, including a number in the first few dozen pages for the amphibians: for *Spea bombifrons* habitat preferences and elevational limits provided do not apply to populations in Arizona, and the two call types (“fast calling” and “slow calling”) found in the state are ignored (call is a “quack” not a “snore” in the southeastern part of the state); “pale throat” (p. 32) is listed as an identifying feature of *Anaxyrus woodhousii* (it is dark throughout the Southwest); the call of *Dryophytes wrightorum* is described as “low pitched metallic trill” (p. 39) when it is a rapidly pulsed “quack” and this treefrog is listed as “green” (p. 41) when it can be green or brown as an adult.

The reptile accounts are plagued by similar issues: there is considerable confusion concerning use of standard English names of Desert Tortoises (p. 88). Following acceptance of “Mohave Desert Tortoise,” Murphy uses “Agassiz's Desert Tortoise” followed by “Sonoran Desert Tortoise” within a few sentences (i.e., all within the Mohave species account). In the account for *Uta stansburiana*, clutch size and clutch frequency data are given twice in separate paragraphs (without explanation), and numbers are not congruent (1–8 vs. 1–12 for clutch size, 1–3 vs. 1–7 for annual clutch frequency; p. 147). Stripe number, a key identification feature for whiptails, is confused for two species (p. 153), presumably because he recognizes one polytypic species

and one former subspecies as a species. For whipsnakes, he appears to embrace the adoption of *Coluber* for all representatives but inexplicably uses *Masticophis flagellum* repeatedly (pp. 211–215). For *Crotalus molossus*, he states (p. 275) it does not occur in southwestern desert areas, but his range map (and my experience) clearly contradicts this assertion. In isolation each of these mistakes is relatively minor, but taken together they do not inspire confidence in the information available for taxa less well known to this reviewer; they also reflect poorly on the thoroughness of the editing.

Species accounts of field guides are only as good as their illustrations (or photographs) and range maps. For Murphy, there are some outstanding images, but others are poor to average with depth of field issues, especially in large format (e.g., *Urosaurus ornatus*, p. 144; see also p. 288, a caged snake). Many images are reduced in size, and for a number of species, important features are not easily discerned, nor identified via text or notations (e.g., many anurans). The range (dot) maps were generated from only two databases, and this was acceptable for many species with ample documentation (e.g., *Anaxyrus punctatus*). For others, however, including *Anaxyrus microscaphus*, *Gopherus morafkai* and *Pseudacris triseriata*, sampling was inadequate, yielding entire counties without apparent occupation, giving an impression of species that exhibit a highly restricted distribution when a number of publications and field guides provide ample evidence of much wider occurrence. Issues with range maps are especially problematic for taxa restricted to particular habitats within the state (e.g., *Anaxyrus retiformis*, *Pseudacris triseriata*). Another issue concerns polytypic forms that have been revised taxonomically over the past few decades (e.g., *Lithobates pipiens*, p. 52). Use of these databases was ill-advised without careful scrutiny to avoid dots inappropriately depicting records for more recently described taxa previously placed within widespread polytypic forms (e.g., confusion results for a handful of phrynosomatid subspecies now recognized as species).

Murphy makes clear that the natural history provided in species accounts is derived from a variety of sources. Unfortunately, for those wishing to follow up on some tidbit, a number of manuscripts cited in the text are absent from the references (e.g., Myers et al. 2016; Tinkle et al. 1993; Wood et al. 2012), and some that are never cited are included (the latter is reasonable, assuming they are a list of recommended references to aid the reader). Given the addition of so much natural history information for so many taxa, consistency in citing supporting reference material would have been helpful. After considerable effort, I concluded that information for some forms was taken from a single comment in grey literature reports or websites (e.g., estimates of survivorship of larvae of *Anaxyrus microscaphus*, p. 29), while other inclusions were based a number of peer-reviewed studies over many years. Does the reader deserve some help regarding the confidence the author has in such information? I believe so. A related issue concerns natural history summarized for populations occurring in other states. Murphy explicitly discussed some of these studies, alerting the reader to the geographic disjunction on some occasions, but not others. I recognized that some information in some accounts was taken from studies conducted entirely outside of Arizona without any acknowledgement of this fact. One of a number of problematic examples: for *Lampropeltis californiae* (p. 232) most of the natural history provided is a summary of a single radio-tracking study of this species in coastal California. The inference from this study that these snakes tolerate (“thrive in”) habitats fragmented by

development in a relatively mesic Mediterranean climate almost certainly does not apply to this species in most of Arizona. In the Sonoran Desert, surveys have documented that *L. californiae* is a much less abundant member of snake communities on the urban fringe than in southern California (Sullivan et al. 2017).

Overall, I have many concerns with this book. It gives the impression of a rushed production, lacking critical review by experts with local experience that might have allowed the author to improve range maps and refine the natural history contributions. Diligent copy editing would have helped remove redundancy in accounts and, especially, improved consistency throughout the volume. If there were no other choices for field guides and detailed accounts of natural history of amphibians and reptiles of Arizona and the Southwest, I might be more forgiving. As it stands, I cannot recommend this book over any of the available guides to the herpetofauna of the Southwest that include coverage for Arizona.

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PUBLICATIONS RECEIVED

Frogs and other Amphibians of Russia—Atlas and Field Guide

E. A. Dunaev. 2018. Fiton XXI Publishers, Moscow (available from Edition Chimaira, Frankfurt-am-Main, <http://www.chimaira.de>). 143 pp., 147 color photos. Hardcover. € 19.90 (ca. US \$22.50). ISBN: 978-5-906811-51-6.



Frogs and other Amphibians of Russia—Atlas and Field Guide covers 32 amphibian species found within Russia. As with Dunaev's previous guides to Russian herpetofauna (*Amphibians and Reptiles—Atlas and Determination; Snakes—The Species of the Russian Fauna*), each taxonomic group has a short introduction defining the taxa, whether by Class, Family, or Genus. The bulk of the book is composed of 1–2 page species accounts with short bullet points of information on taxonomy, distribution, and

life history. There are no maps. Accounts are accompanied by several good color photographs, usually dorsally and ventrally of the salamander or frog, often with frontal head shots. Several accounts have photos showing foot patterns and toe-webbing, and accounts frequently have photos of larvae, tadpoles, and eggs. Unlike previous guides, habitat photos are not included with each species account, but only for a few of the salamanders. Following the species accounts is a 25-page section covering general amphibian biology, including skeletal structure, other morphological aspects, calling, reproduction, larval biology, and behavior. The book ends with a six-page key, a glossary, and a Latin species index; additional references are not provided. The book is entirely in Russian and Latin names do not accompany the photographs. *Frogs and other Amphibians of Russia—Atlas*

and *Field Guide* is intended for Russian-speaking naturalists and amateurs rather than for a more specialized audience.

Boelen's Pythons: Serpents in the Clouds

Ari R. Flagle and Danny Gunalen. 2018. Forgotten Times/Russ Gurley, Ada, Oklahoma (russgurley@cableone.net). vii+157 pp. Softcover. US \$50.00 (includes shipping within USA). ISBN: 978-1-938850-57-8.

Ari Flagle's passion for Boelen's Pythons (*Simalia boeleni*) has revealed itself in numerous (mostly popular) articles, a book, and multiple field trips to New Guinea to search for and study one of the least known—but most spectacular—species of pythons. His most recent effort, in collaboration with Indonesian zoologist Danny Gunalen, is filled with numerous photos and interesting stories that are sure to stir the imaginations of readers. Boelen's Pythons are endemic to New Guinea, and live in high-elevation cloud forests, mostly in places where inquisitive herpetologists have great difficulty in locating them. This book, however, is about much more than a rare python, as the authors devote many pages to descriptions, customs, and folklore of the Dani people of New Guinea's Central Highlands. The book also includes contributed chapters by Mark O'Shea (taxonomic history) and Keith McPeck (captive husbandry). Readers with an interest in the people or pythons of New Guinea will want to add this book to their library.

