

ALLAN PHILLIPS AND THE FLAMMULATED OWL

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ABSTRACT.—Geographic variation in *Otus flammeolus* is discussed. Size decreases steadily from north to south (although the type of *idahoensis* Merriam from the north is a runty misfit). Color varies enormously with geography but also has unrepentant individual variation. The blackest, most heavily marked, least red population is *frontalis* Hekstra of the Great Basin and Rocky mountains. North and west from there the subspecies *idahoensis* is finely marked and gray. South through Mexico fine markings also prevail and red increasingly dominates the plumage of these flame-owlets of the subspecies *flammeolus* Kaup. Superfluous names are *borealis* Hekstra and *rarus* Griscom, both synonyms of *idahoensis*; and *meridionalis* Hekstra, a synonym of *flammeolus*.

Allan Phillips (1942) was the first to emphasize migration in the Flammulated Owl (*Otus flammeolus*). He discovered a new race of it in the Hualpai Mountains of northwestern Arizona in 1951 by calling up fresh-plumaged birds during their resumption of singing at full moon in September, after the fall molt. Six out of seven of these gorgeous birds (color plate, second and third from left) showed the coarse black streaking and minimal red color later found to define the entire population of the eastern Great Basin and southern Rocky Mountains. The black streaks on the flanks and sides of the chest are so broad as to be almost square. Birds bearing these colors were later named *Otus flammeolus frontalis* by Hekstra (1982).

Concerning the subspecific taxonomy of *Otus flammeolus*, all authors save one have emphasized the overweening individual variation never sorted into two distinct color phases. [Griscom (1935) and Moore and Peters (1939) do babble on about a gray phase and an “intermediate phase” while groping for color characters that might have a shred of geographic significance.]

The one writer who magnifies subspecies to the point of naming every individual variant of course can discern subspecies in *Otus flammeolus*. He is Garrit P. Hekstra, who in a bizarre outburst (1982), recognizes six. Three of these the taxonomic sleight-of-hand magician pulls like white rabbits out of a hat, de novo. Hekstra’s paper is so loaded with mistakes that it appears frivolous, in line with the dissertation, of which it is an abstract, that bears the subtitle “But I don’t give a hoot!” The errors in museums and museum numbers of specimens have made it extremely difficult for curators to find the type-specimens (Browning 1989). Hekstra is notorious for putting taxa of owls into the wrong species, and sometimes the wrong genus. But what is particularly galling to me is the knee-jerk response curators have to new descriptions, Hekstra’s included, which causes them to change the name on the label of the type, thereby blotting out the scent for anyone attempting to find in what species the type-specimen was originally identified! Claudia Wilds kindly photographed some problematic types in the British Museum for me, which may allow me to identify some of Hekstra’s types to the proper species.

Hekstra was a bull in the China shop at the British Museum, having won *carte blanche* from Derek Goodwin to arrange taxa at his pleasure. [Because Derek thought the “Drs.” title for a graduate student meant “Doctor.”] Hekstra put *Pyrroglaux podargina* as a subspecies into the trays of *Otus spilocephalus*. When I finally found the original tray for *Pyrroglaux* I was confronted with a label stating that the British Museum has no specimen of that genus. A brief scan of the paper “Description of twenty four new subspecies of American *Otus* (Aves, Strigidae)” by Hekstra (1982) turns up some of the more obvious of the numerous misplaced taxa: *Otus huberi* (the earlier name for *Otus petersoni*)

is placed in *Otus guatemalae* instead of in *Otus huberi*; the type of *Otus guatemalae pacificus* is really *Otus roboratus pacificus* as pointed out by Johnson and Jones (1990); the type of *Otus trichopsis inexpectatus* is really a clipped-wing, pet store specimen of a red-phase *Otus guatemalae* and it is in the National Museum of Natural History, not the Field Museum, as noted by Browning (1989); Maria Koepecke's mountain-top owl has nothing to do with lowland *Otus choliba*; and the type of *Otus atricapillus ater* is an example of *Otus watsonii*. I can add that the subspecies *marshalli* belongs in *Otus huberi*, *lambi* in *Otus cooperi* with which it intergrades, *pintoii* in *Otus sanctaecatrinae*, *roboratus* in *Otus roboratus* (Johnson and Jones 1990), *usta* in *Otus watsonii*, and *clarkii* in *Otus clarkii*. These are not capricious determinations; they are made by persons acquainted with the various populations in the field; whereas, Hekstra's cabinet research seeks only the one criterion of plumage similarity—notoriously ineffectual in bark-colored birds such as owls and nightjars because of parallelism and convergence.

All-in-all, considering these obstacles to a scientific understanding of the taxonomy of screech-owls in general and of Flammulated Owls in particular, the paper of Hekstra (1982) richly deserves to be removed from the list of viable taxonomic papers in zoology, from the standpoint of the international standards of nomenclature.

At any rate, the six subspecies that Hekstra (1982) espouses for *Otus flammeolus* are *borealis* Hekstra from British Columbia, *idahoensis* Merriam from Idaho, *frontalis* Hekstra from the easternmost Rocky Mountains, *flammeolus* Kaup from Mexico, *meridionalis* Hekstra from Guerrero, and *rarus* Griscom from Guatemala. He does not realize that his *borealis* is the same as *idahoensis*, that the type of *rarus* (gray, medium fine, wing chord 137 mm) is a wintering example of *idahoensis* (Marshall 1978), that the species does not nest in Guatemala, and that it remains to be proven that there is a breeding population in Guerrero, late August W. W. Brown specimens in the Museum of Vertebrate Zoology notwithstanding. That knocks out *borealis*, *meridionalis*, and *rarus*, leaving us with three names, of which *frontalis* should have been named for Allan Phillips in view of the wide publicity Marshall (1967, 1981:70) gave the “as yet unnamed” black population in connection with Phillips' fall explorations in the Hualpai Mountains.

Although “*Otus flammeolus frontalis*” does stand for a real taxonomic entity commensurate with subspecies as rated by the likes of Harry Oberholser, Robert T. Moore, Alden H. Miller, Adrian van Rossem, and Allan R. Phillips, nevertheless it does not measure up in subspecific stature alongside the entities that Marshall (1967) does recognize at the 100% level of distinction. Most, but not all, of those migrant or wintering birds with huge black ventral streaks can be deemed as emanating from the southern Rockies and adjacent Great Basin ranges farther west. “Not all” is the stickler here. Look at the color plate for the two middle specimens taken by Allan Phillips in September 1951 in the Hualpai Mountains. They are from the same population, yet one (left) is like *flammeolus*, the other (to its right) is typical *frontalis*. The one presentation I want to cite in support of this argument is unfortunately most dreadfully flawed. Marshall (1967:49, fig. 9) forgot to put the racial characters into the four categories supposed to represent different phenotypes. Thus he wound up with a figure 9 that had the same designations for both the x and the y axes! For this lapsus I now apologize profoundly (profundamente) and hope to atone by way of the following correction: Across the top of the figure, reading horizontally from left to right, are the four categories 1) gray, fine pattern; 2) black, least red, coarsest pattern ventrally; 3) lots of red; 4) still more red. Reading down the left margin we have A) *idahoensis* of the Pacific States and Idaho with five gray fine pattern specimens and one “still more red”; B) *frontalis* (reluctantly) of the Great Basin and southern Rockies with six black, least red, coarsest, one between that and gray fine, and two “lots of red”; C) *flammeolus* of the southern border of USA and northern Mexico with one gray fine,

two black least red coarse, ten “lots of red,” and one between that and black least red coarse; and finally D) “*rarus*”—change it to “no name”—from Mexico south of Tropic of Cancer with three specimens of the “still more red” phenotypic category.

The specimens that would spoil attempted allocation of migrants are the one “still redder” *idahoensis* from Trinity County, California (Museum of Vertebrate Zoology 87453), the two Great Basin and Rocky Mountains birds colored like *flammeolus* (one of Phillips’ seven from the Hualpai Mountains, color plate second from left, Delaware Museum 24000; another from Apache County, Arizona, National Museum of Natural History 79788), and the two *flammeolus* that are colored like *frontalis* (my specimens 4123 and 5694 both from the Santa Catalina Mountains of southern Arizona either at Western Foundation of Vertebrate Zoology, University of Arizona, or Louisiana State University!).

The upshot of this graph (Marshall 1967:49, fig. 9) is that the three major populations are too variable to allow for 100% correct determination of the source of migrants. The graph, notice, is of fresh-plumaged birds taken in fall on or close to their breeding grounds. Their plumage differences show up to the greatest advantage because the feathers are brand new. They represent the quintessential Phillipsian collecting aspiration: Thou shalt obtain specimens in fall that can render meaningful color determinations because their feathers are entire and not yet abraded and faded by the year’s exposure to the sun and elements. And in conclusion, one can say of the subspecific variation in *Otus flammeolus* simply that by conventional standards [the least amount of geographic variation that can be discerned by an expert] the species shows decreasing size from north to south and increasing red, that the populations are so variable in color that we can define only a central race, *frontalis* (black, least red, coarsest pattern ventrally) within a mish-mash of finer-patterned, grayer or redder peripheral populations that might be gathered together under the name *Otus flammeolus flammeolus*.

But as pointed out in Marshall (1967), I am not using conventional standards for subspecies and never have. My subspecies are one-hundred percent recognizable and they can be identified in the field. They are the units that should receive the scientific trinomial and they are the units that enable us to plot the summer, migration, and winter distributions of those species with spectacular racial variations, without even having to handle the birds.

Now for the part of this paper wherein I show off my own sleight-of-hand with “heads I win, tails you lose.” How do I know that the 32 fall specimens are not migrants from more northern populations? After all, Russell Balda has netted dozens of migrant Flammulated Owls at Flagstaff, Arizona, in September (Balda et al. 1975). But the owls in my fall premium quality assembly of 32 were territorial. They were hooting spontaneously or were called up by imitated hoots so as to cause a territorial antagonistic response. I think I am justified to expect that they were still on their nesting grounds. Mockingbirds (*Mimus polyglottos*) do this after the molt, so does Bicknell’s Thrush (*Catharus minimus bicknelli*), unlike all its northern *Catharus* relatives.

Next: How can I positively identify a northern migrant to Guatemala after having disparaged the very idea of doing that, on account of excessive individual variation in each population? Well, look at the graph again. [By now you could have drawn your own from the above data and you need not order my monograph.] The excellent plumages of the fall series of 32 on their breeding grounds definitely show that plumages are becoming redder and redder to the south, especially south of the Tropic of Cancer on the Mexican Plateau. If the species did indeed breed in Guatemala, we would expect the population there to be “still more red.” So what is the chance that a long-winged, gray, fine-patterned bird in Guatemala in the winter should NOT be from Idaho? Go figure. I would say nil,

zilch, nada, zero. As in several other migrant species, the farthest north population goes the farthest south for winter. And I rest my case.

ADDENDUM

Because Phillips and I had different conceptions of the subspecies, as outlined above, you can well imagine the exhilarating arguments and shouting contests that enlivened the field trips we took together. Our most productive and enjoyable hikes and pack trips were those into the mountains of eastern Sonora, reached in his little Telephone Company panel truck. "Is that what they taught you at Berkeley?" and "Hey, what kind of science do you call that, from Cornell?" might convey the gist of these exhortations dealing with subspecies. Which brings me to the subject of my field work in the company of Allan R. Phillips. This was one of the two most enjoyable ornithological adventures in my entire life, to be put alongside my trips accompanying Ben F. King into the mountains of Thailand. Both these men represent the highest quality of ornithological expertise for their respective regions and it was an inspiration to me to watch and assist them, let alone to partake of their good humor and high spirits. My recollections of Phillips include his plucking watercress for salad from Sonoran waters that used to run clear, his singing entire Gilbert and Sullivan operettas while skinning or working around camp, and then of course the episode of the Sinaloa Martin (*Progne sinaloae*) that marked the beginning of the end for what Phillips joyously called "the funny book," the "Distributional check-list of the birds of Mexico part 2" (Miller et al. 1957). At Nacori Chico in eastern Sonora we awoke to the tune of Purple Martins, *Progne subis*. Then we spent the day ascending the Sierra Madre on horseback up the Camino del Doctor (named for the first rider of it, Dr. Carl Lumholtz). By evening we were pitching steeply down to the Rio Zatachi, a gorgeous mountain stream, stream-lined with tall *Populus monticola*. Phillips was so tired that I expected any moment for him to lose his grip and slide over the neck and head of his horse. Then a rich, liquid sound bubbled through the tulgey wood and Phillips was galvanized. He leapt from his horse, grabbed his .22 shot, and raced down the steep hill to the nearest pond, whence we heard "blam" and Allan was in seventh heaven holding up a small, adult male Sinaloa Martin with pure white belly sharply marked off from the purple vest in a V. And the rest is history, for the authors of the Mexican Checklist, without ever examining the specimen, nevertheless repudiated Zimmer's evaluation of it as a species alongside *subis* down below (Miller et al. 1957:108).

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Flammulated Owl, *Otus flammeolus*, Delaware Museum
 Fresh colors for 3 conventional races Farthest S nesting



mm wing chord
125 ♂

128 ♂

134 ♂

130 ♀

12376 Sinaloa
SE "*flammeolus*"

24000 Hualpai
NW "*idahoensis*"

23997 Hualpai
Rocky Mts. "*frontalis*"

52886 Las Vigas, Ver.
with 3 eggs, 4 Apr 1939

Joe Marshall 29 May 1988