

First North America Record of Red-backed Shrike (*Lanius collurio*) at Gambell, Alaska

PAUL E. LEHMAN • 11192 PORTOBELLO DRIVE, SAN DIEGO, CA 92124 • LEHMAN.PAUL@VERIZON.NET

PETER PYLE • THE INSTITUTE FOR BIRD POPULATIONS, P. O. BOX 1346, POINT REYES STATION, CA 94956 • PPYLE@BIRDPOP.ORG

NIAL MOORES • BIRDS KOREA, 1010, SAMIK TOWER 3-DONG, NAMCHEON 2 DONG, BUSAN, REPUBLIC OF KOREA • NIAL.MOORES@BIRDSKOREA.ORG

JULIAN HOUGH • 80 SEA STREET, NEW HAVEN, CT 06519 • WWW.NATURESCAPEIMAGES.WORDPRESS.COM

GARY H. ROSENBERG • P. O. BOX 91856, TUCSON, AZ 85752 • GHROSENBERG@COMCAST.NET

Abstract

We document the first record for Alaska and the Western Hemisphere of a Red-backed Shrike (*Lanius collurio*), a first-fall bird present at Gambell, St. Lawrence Island 3–22 October 2017. It was primarily in juvenile feathering but showed evidence that the preformative body-feather molt had commenced. Based on details of structure and plumage and following review of a series of images and specimens by those with experience of potential confusion species, all other Old World shrikes—including Brown Shrike (*L. cristatus*) and Turkestan Shrike (*L. phoenicuroides*)—were eliminated from consideration, the former primarily by wing and tail morphology and the latter by plumage features among juveniles. Red-backed Shrike is a long-distance migrant that breeds no closer to North America than western Siberia

and winters primarily in southern Africa. We speculate that it may have reached Gambell via misorientation in an approximately 180° opposite direction from normal migratory paths. A bird identified after an extensive review as a hybrid Red-backed × Turkestan Shrike had occurred previously in Mendocino County, California, in March–April 2015; but the Gambell shrike showed no evidence of hybridization.

Introduction

Herein we document the first North American record of a Red-backed Shrike (*Lanius collurio*), at Gambell, St. Lawrence Island, Alaska, 3–22 October 2017 (fig. 1). On 3 October, Sue Bryer, Paul Lehman, and Gary Rosenberg were birding in the “far boneyard” at Gambell, St. Lawrence Island, Alaska. The several boneyards at Gambell are midden sites

that provide exposed, rich soil, some degree of protection from the wind, and (by late summer and early autumn) a relatively lush growth of two species of *Artemisia*. Known colloquially as wormwood or sage, this vegetation grows to a height of approximately a half-meter or more. The food and cover provided by the middens are attractive to both Asian and North American landbird migrants, including many vagrant species. Rosenberg flushed a mid-size brownish passerine out of a digging pit immediately in front of him; the bird then perched very close by on the rim of the pit for a second or two before flushing again and flying a long distance away. As it departed, he yelled “Brown Shrike!” Bryer and Lehman turned to see the bird flying away. It then perched for an extended period of time on a fence some 100–125 yards distant. It indeed resembled a Brown Shrike (*L. cristatus*) in general features but was much



Figure 1. The Gambell, Alaska, Red-backed Shrike photographed on 10 Oct 2017. Photo by © Sue Bryer.

too far away to be studied in any detail with binoculars. Bryer and Rosenberg took photographs, despite the great distance. The bird then flew even farther away, disappeared, and could not be found again the remainder of the day. Studying the maximally enlarged photos confirmed that the bird had the general appearance of a Brown Shrike, a species which had been recorded at Gambell six times previously.

Three days later, on 6 October, a shrike which was assumed to be the same individual was re-found in the village's "near boneyard," a half-kilometer away from the original sighting. The bird was very skittish, not allowing close approach and quickly flying off, low to the ground, for relatively long distances before landing out of sight. Some Brown Shrikes at Gambell in previous years were similarly wide-ranging, shy, and furtive. Due to this bird's behavior, the observers' in-field views with binoculars were frustratingly limited in quality and duration. A few additional photos, still of marginal quality, were obtained by Gambell resident and bird photographer Clarence Irrigoo Jr. Given the limited detail visible in the photos, as well as the "conventional wisdom" that Brown Shrike was *the* expected Asian shrike to occur in western Alaska, it was logical to assume the bird was indeed a Brown Shrike.

On 8 October, Lehman circulated a single photo of the shrike, taken by Irrigoo the previous day, as part of his on-going effort to share a variety of rarity photos taken at Gambell during the season. He received a message from Julian Hough of Connecticut and formerly of the United Kingdom: "That shrike, in that image, is quite Red-backed-like in color/tone and bill.... but [I] wouldn't want to see [the bird] that briefly!" Lehman then asked the two bird photographers present at Gambell—Bryer and Irrigoo—to do all they could to take additional photos. Irrigoo was able to obtain such later in the day on 8 October. Upon detailed examination of the photos, Lehman believed that Hough was indeed correct and that the bird had the potential to be a Red-backed Shrike. Several of the best photos were dispatched to experts for additional comments. Hough and several others, including Moores, wrote back that the bird showed multiple characters of Red-backed Shrike. Hough took the best available photo and added annotations to it, which explained which characters he was using to arrive at that identification (fig. 2). He also urged Lehman to try and note whether the bird lacked the noticeably short and narrow outer rectrices of

Brown Shrike, which would help confirm or rule out that species from contention. Better-quality images were obtained and circulated. Consensus built rapidly that this bird looked like a Red-backed Shrike. The images were examined by Pyle and Moores. Based on their experience identifying a hybrid Red-backed Shrike × Turkestan Shrike (*L. phoenicuroides*), a taxon also known as Red-tailed Shrike (Gill and Donsker 2017), in California (Pyle et al. 2015), they believed that the Gambell bird's wing and tail morphology appeared to be outside of the range of Brown Shrike but typical of Red-backed Shrike.

On 8 October, the Gambell shrike started to "calm down" somewhat. Although it was still shy and wary, it would occasionally pose fairly well, albeit briefly—perching on wormwood, bones, or on the ground. Both Bryer and Irrigoo were able to acquire an extensive series of excellent photographs over the ensuing days (fig. 1-5). Lehman departed the island on 12 October. Alaska birder Brad Benter arrived for a short, 24-hour visit on 19 October, and he supplemented the number of high-quality photos obtained (fig 6).

During its stay, the shrike was observed on several occasions to drop to the ground to feed on what presumably were insects. It was not observed chasing any small passerines. During this period, weather conditions at Gambell ranged from overcast with light

showers to partly cloudy, calm to very windy, and the temperatures were between 1-6° C (34-44° F). Insect life was still relatively plentiful in the boneyards. However, beginning on 19 October, the weather quickly began to deteriorate, with a prolonged, multi-day period of sub-freezing temperatures, strong winds, and frozen precipitation. During this time, the shrike was observed by Irrigoo mostly just perched in protected areas, including on or in a bird-box erected on the side of his house, where it was thought that it might be roosting. It was last seen on 22 October, during continued poor weather conditions. Attempts by Irrigoo to find a carcass, or even individual feathers, in the bird-box or elsewhere nearby were unsuccessful.

Description

During its relatively long stay, the Gambell shrike never became tame or confiding. Thus, many of the finer details of its appearance were gleaned from photos obtained, rather than from field observations. No vocalizations were heard, at least not with any certainty.

• **SIZE, SHAPE, AND SOFT PARTS:** A shrike in overall shape, proportions, and bill (fig. 1-6), but small in comparison to e.g., Northern Shrike (*L. borealis*). The head appeared somewhat rounded rather than blocky. The bill appeared noticeably slighter



Figure 2. This enlarged image of the Gambell shrike, taken on 8 October 2017, was the first higher quality photo obtained of the bird. Upon receipt of this photo, Hough added the annotations seen here, explaining many of the reasons he believed the bird was, in fact, a Red-backed Shrike. Photo by © Clarence Irrigoo Jr.

than in most Brown Shrikes, having a narrower base and with the lower mandible appearing straight rather than convex, and showing an extensive dull yellowish or pinkish color to the base of both mandibles. The legs were pale gray.

• **PLUMAGE:** The Gambell shrike was primarily in juvenile plumage (see below). As shown in fig 1-6, the crown, mantle, and rump were a warm, rusty brown. The upper surface of the tail was also largely warm brown, but the central rectrices appeared a darker and cooler brown (fig 3 and 6). The crown and back showed patches of thin, dark, mostly crescent-shaped vermiculations (fig 1, 3, 4, and 6). Although their distinctive-

Figure 3. In this photo of the Gambell shrike, taken 10 Oct 2017, note the darker central rectrices, a feature that favors Red-backed over Brown shrike. Note also the brighter and unbarred rufous crown feathers, scapulars, and lesser coverts, signs that the preformative molt of body feathers had commenced. Otherwise, the extensively barred upper- and underpart feathers and patterned and pale-fringed wing coverts are juvenile and, along with the pale yellowish base to the bill, indicate a first-fall bird. Note also the blackish flecks in the auriculars, along with darker remiges and brighter and unbarred replaced upperpart feathers, possibly indicating a male. *Photo by © Sue Bryer*

ness varied with the views and from photo to photo, they were always clearly present if the bird was seen well. The nape region was contrastingly grayer, and without vermiculations (fig 1, 4, and 6). This grayer, plainer nape was a characteristic noticed often in the field, though its boldness varied somewhat with the angle, lighting, and pose. The rump and uppertail coverts showed some limited, incomplete dark barring or vermiculations (fig 3), mostly toward the sides. The upper surface of the tail was largely plain, and in addition to the darker central rectrices noted above, it also showed a distinct, thin, whitish outer edge to the outer rectrices, and a less distinct, not always apparent, pale tip to the entire tail (fig 3 and 6).

There was a fairly distinct pale supercilium present, but it was often visible only behind the eye, although in some photos it shows weakly in front of the eye as well. The eye appeared dark brownish. The dark mask through and behind the eye was a warm, medium-brown color, in some lights showing strong rust tones (especially to the rear), not dark brown or blackish, and thus of relatively low contrast. The exact color and boldness varied depending on the angle and lighting—in some views, the darkness of the mask ap-

peared to include the lores, but at other times the lores appeared mostly pale, though with some darkening toward the bill base.

Many of the scapulars and lesser and median wing-coverts showed thin pale tips and dull, dark subterminal bars or crescents. The tertials, secondaries, and greater coverts were dark-brown or perhaps blackish-brown centered with broad warm-buff fringes and whitish tips. The primaries and primary coverts were blackish with distinct, sharp, pale tips to each of the visible feathers.

The underparts were off-white, with a faint buff wash visible ventrally and on the flanks, perhaps more obvious in shade or overcast conditions than in bright light (fig 1). The bird lacked any other buff, ochre, or darkish tones below and, depending on the view or photo, showed thin dark barring, crescents, or vermiculations—varying in boldness—from the lowermost auriculars down the entire sides of the breast through to the lower flanks. The pale-buffy undertail coverts were unmarked (fig 7D). The underside of the tail was mostly a dull brown or grayish-brown.

• **WING AND TAIL MORPHOLOGY:** The primary projection was long, with photos showing six to eight exposed primary tips





Figure 4. This photo of the Gambell Red-backed Shrike on 14 Oct 2017 captures many important characters: a low-contrast, rusty mask, distinct and extensive dark vermiculations both above and below, and a pale gray nape. Photo by © Clarence Irrigoo Jr.

past the tertials—not including the outmost two primaries (p9 and p10) that have tips falling beneath the others. This count depended on how spread the wing was. The shrike often sat with partially-spread wings (fig 1, 3, and 6) showing eight exposed tips (p1–p8), but when the wing was fully folded it appeared that six (p3–p8) or seven (p2–p8) tips fell beyond the tertials (fig 4). Due to variation in the wing spread in situ and the intrinsic length of the longest tertial (s7) among individuals, and due to wear and molt, a better means of assessing wing morphology is through the relative lengths of the outer primaries. Important to the identification of Eurasian shrikes is the length of p9 relative to those of the other primaries. Several images clearly show the tip of p9 to fall about even with that of p6, those taken from behind showing it slightly shorter (fig 3) but those taken perpendicular to the wing angle showing the tips of p9 and p6 almost exactly even in length (fig 1 and 6).

Although actual distances between primary tips are difficult or impossible to ascertain from photos, ratios may be more reliable as they rely less on the angle of the wing relative to the plane of the image. Pyle et al. (2015) found the ratio (length of p8 to p9) ÷ (length of p9 to the tips of the primary coverts) to discriminate Red-backed Shrike from Turkestan and Brown shrikes (Pyle et al. 2015). This ratio could be calculated from four images of the Gambell shrike as 0.126, 0.127, 0.131, and 0.149 (fig 7A–B), with a mean of 0.133. Another feature of primary morphology that differs among these shrikes is the number of primaries showing emargination. Examination of several images indicates that p7–p9 were emarginated but that p6 did not appear emarginated (fig 3, 5, and 7B), although we believe such determination from the photos should be deemed tentative.

The relative lengths and widths of the tail feathers, in particular, that of the outer rectrix (r6), also differ between Red-backed,

Turkestan, and Brown shrikes. Again, the intrinsic length of r6, or the distance between it and the tail tip, can be difficult to calculate from photographs, but ratios can produce better results. The ratio (length between r5 and r6) ÷ (length between r6 and the insertion point of the rectrices or tail base) has been found useful (Pyle et al. 2015). In the Gambell shrike, ratios of 0.096, 0.132, 0.148, 0.149, 0.153, and 0.161 were calculated (fig 7C–D), with a mean of 0.140. The width of r6 also appeared to be similar to or slightly narrower than that of r5, with a somewhat broad tip (fig 7C–D).

Age and Sex

Proper aging and sexing of the shrikes in this complex is a very important first step



Figure 5. The Gambell Red-backed Shrike in flight, 10 Oct 2017. Note the wing and tail morphology including un-emarginated p6 and relatively long and broad outer rectrix, as compared with that of Brown Shrike. See Figure 7C, right, for details. Photo by © Sue Bryer

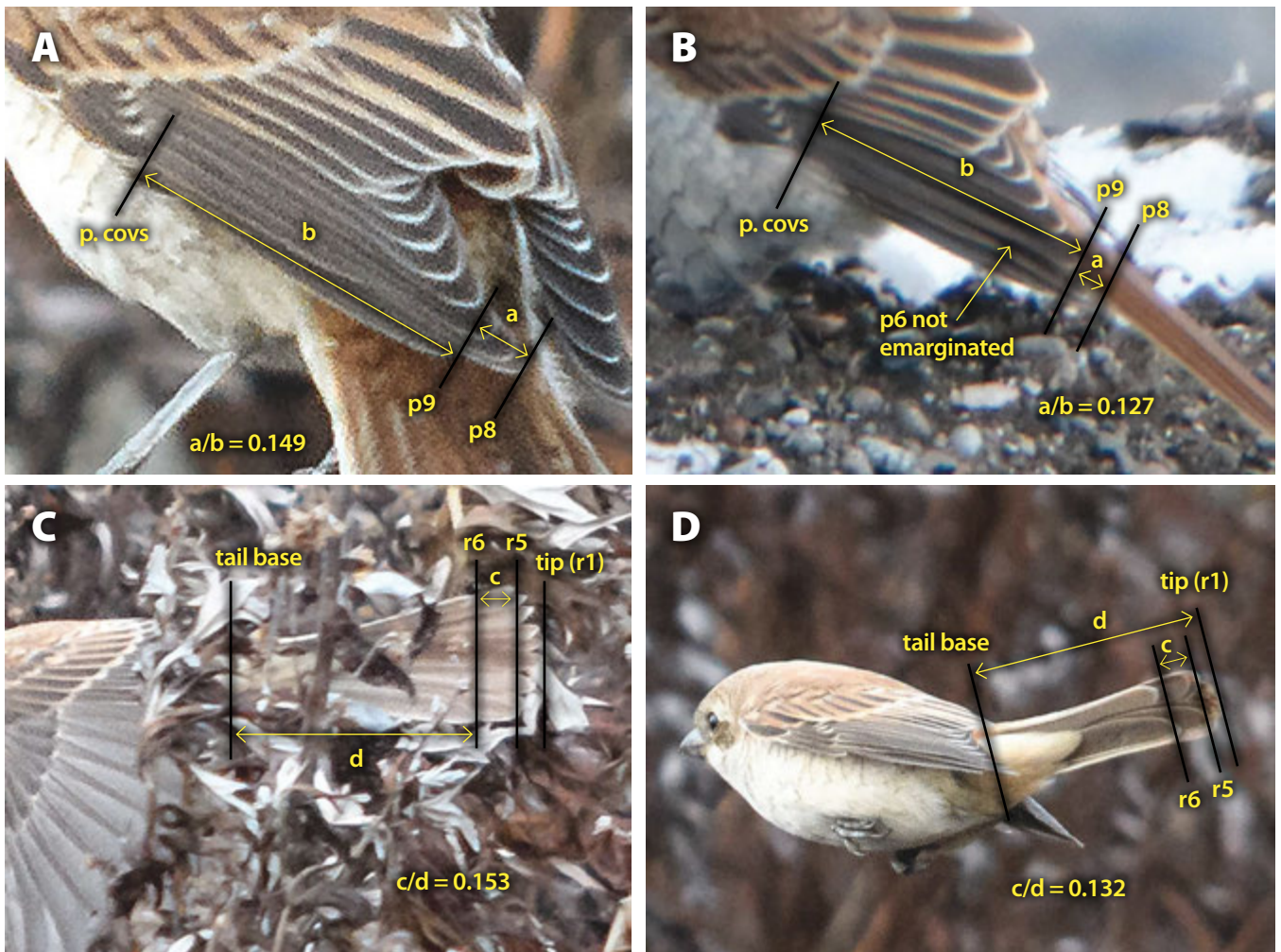
the pale yellowish to pinkish bill base of the Gambell shrike clearly indicated that it was a first-fall bird. Careful scrutiny of the images indicated that the bird was still largely in juvenile plumage but with scattered newer formative feathers present in the crown, scapular tract, and among the lesser coverts (fig 1, 3, 4, and 6). These formative feathers were reddish-brown and either lacked or showed very indistinct barring, contrasting with the more worn and heavily barred juvenile feathers. Some newer white formative feathers, without barring, may also have been present in the supercilium, malar region, throat, and breast, while some new blackish feathers may have been present in the lores and auriculars. The preformative molt in these shrikes can begin on the summer grounds, suspend for migration, and continue at stop-over locations (Pyle et al. 2015), and it appears that this bird had replaced some juvenile feathers before reaching Gambell.

Sexing of birds in this plumage is not recommended. The darker juvenile remiges may indicate a male (L. Svensson in

Figure 6. The photo below of the Gambell Red-backed Shrike, taken 19 Oct 2017, shows many of the important characters used in its identification: thinner bill than Brown Shrike and with more extensive pale coloration to the base, extensive dark vermiculations to the mantle, sides, and flanks, a low-contrast face-mask, a contrasty grayish nape, long primary extension, and a distinct pale outer edge to the outer rectrix. Note also the brighter and unbarred formative scapulars and lesser coverts. Photo by © Brad Benter

in correct identifications. Molt strategies and age determination in this group have been discussed by Svensson (1992), Cramp and Perrins (1993), and Panov et al. (2011), and they were summarized by Pyle et al. (2015). The extensive barring to the upperparts and underparts and





litt.) and the unbarred formative upperpart feathers and blackish feathers of the lores and auriculars may also support its being a male. Most of the tertials appear to be dark brown or blackish-brown in the Gambell bird rather than the more expected rufous-brown (fig 1-3 and 6). At least three juvenile Red-backed Shrikes from Korea studied by Moores showed similar-looking tertials. It may be that some juvenile male Red-backed Shrikes show darker than typical tertials.

Identification

Here we provide a detailed analysis of the plumage and wing and tail morphology of the Gambell shrike, confirming our identification as Red-backed Shrike. Most authorities recognize Red-backed, Turkestan, Isabelline (*L. isabellinus*), and Brown shrikes as four separate species within an assemblage (Pyle et al. 2015). Red-backed and Turkestan shrikes are often considered monotypic or

with weakly separate subspecies. Isabelline and Brown shrikes are polytypic, with the nominate northern subspecies in each case being most similar to Red-backed Shrike and most likely to reach Alaska. Our analysis incorporates differences among these taxa for birds in mostly juvenile body feathering and with juvenile flight feathers. Seminal works that deal with the identification of these taxa include Svensson (1992), Cramp and Perrins (1993), Worfolk (2000), Panov et al. (2011), and Pyle et al. (2015), and these sources were relied upon heavily in our identification. Additional helpful sources include Message (2001; first-year Turkestan Shrike) and McKee (2017; Brown Shrike).

The Gambell bird was clearly a member of this species assemblage. Two other Asian shrikes, Bull-headed Shrike (*L. bucephalus*) and Tiger Shrike (*L. tigrinus*) are larger headed and have obviously shorter primary projections. Bull-headed Shrike has a lon-

Figures 7A–D. Various calculations of wing and tail morphology ratios have been shown to be useful in the identification of Eurasian shrikes. These images and annotations indicate some of the morphological characteristics and measurements that were considered. These ratios—particularly in combination—clearly eliminated Brown Shrike and better fit Red-backed than Turkestan Shrike. Also note the light buff wash to the undertail coverts—particularly visible in 7D—a feature shown by many young Red-backed Shrikes. Full images of the bird in A are shown in Figure 3, and of C in Figure 5. Photos by © Sue Bryer (A, C, and D) and © Brad Benter (B)

ger and thinner tail, and no plumage shows flanks as pale as the Gambell bird. Juvenile Tiger Shrikes do not have a mask as strongly defined as the Gambell bird, lack blackish centers to the tertials, and the underparts are saturated with yellow.

- **BROWN SHRIKE:** Four subspecies of Brown Shrike have been recognized, of which the nominate, northern-breeding subspecies (*L. c. cristatus*) is the only one confirmed



Figure 8. A first-year Brown Shrike, South Korea, 3 September 2003, showing typical features of the nominate subspecies. Compared to first-fall Red-backed Shrikes and the Gambell bird, note the shorter primary projection (six primary tips visible on a partially opened wing), lack of gray in the nape, the bolder, blacker face-mask, and the grayish base to the bill. Photos by © Nial Moores



Figure 9. The sixth fall record, and seventh overall, of Brown Shrike at Gambell was established by this individual on 20 September 2018. In comparison to Red-backed Shrike, it shows a larger, thicker-based bill with a grayish (rather than yellowish) base and slightly convex lower mandible, as well as a blackish (rather than rusty-brown) auricular patch. Photo by © Michael Schall

for Alaska and North America (Gibson and Withrow 2015, Pyle et al. 2015). As summarized by Worfolk (2000), Brown Shrikes “show the longest and deepest bill, the shortest wing, and the longest, narrowest, and most graduated tail,” (fig 8) in combination creating a different impression than that shown by the Gambell shrike. Brown Shrike appears to show a larger head and longer- and narrower-tail than does Red-backed Shrike, and often (but not always) they have an obviously shorter primary projection beyond the longest tertial. They have a subtly deeper-based bill, often with a somewhat convex rather than straight lower mandible, and grayer coloration at the base (fig 8).

The boldness of the mask and the darkness of the lores are both highly variable in Brown Shrike, with the assumption that males tend to show more extensive and blacker face-masks and lores than do females (cf. fig 8). In only a few, exceptional individuals, however, does this mask show rusty tones, as obviously shown by the Gambell bird (fig 1–6 and 10A). As shown in fig 8, Brown Shrikes lack the contrasting grayish nape typically shown by Red-backed and the Gambell bird. Typically, the underparts of juvenile Brown Shrikes are washed with light buff (including on the central breast and belly), unlike the Gambell bird. First-fall Brown Shrikes showing many of these characters have been seen previously at Gambell (fig 9 and 10B). Many of the single first-fall plumage characters shown by the Gambell Red-backed Shrike could be shown by some Brown Shrikes, but the combination of all these characters is outside the range of most or all Brown Shrikes.

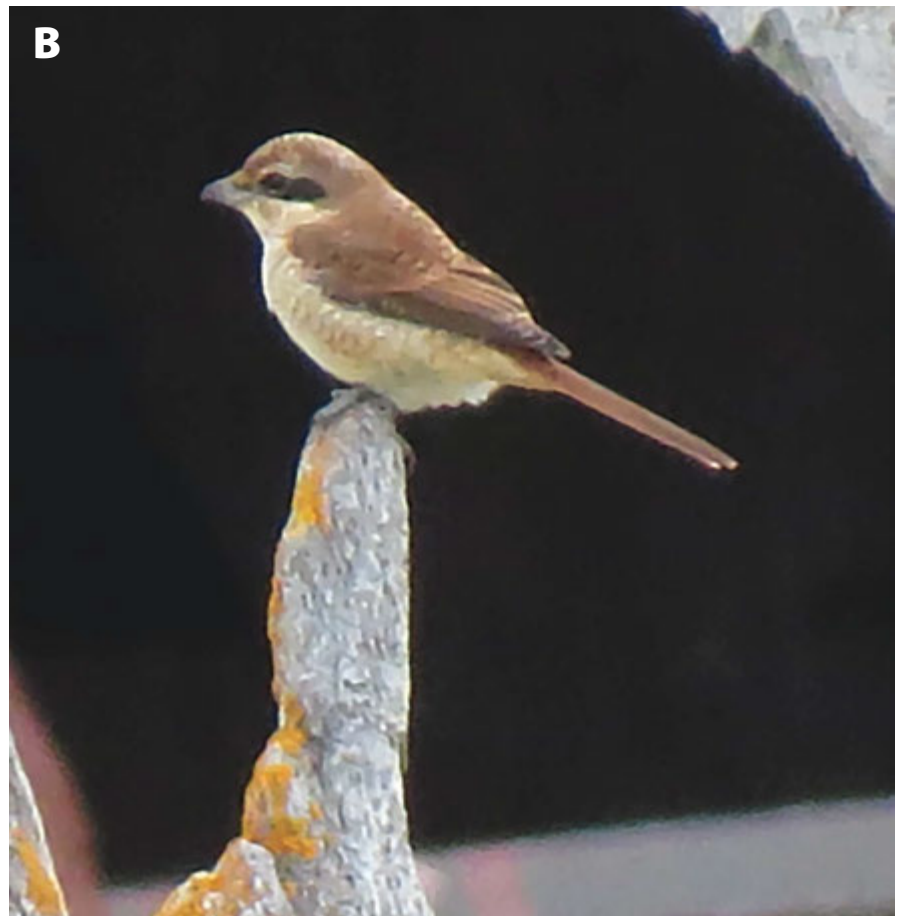
Brown Shrikes have a shorter primary projection, typically showing ca. four or five visible primary tips on the closed wing and six on the partially open wing (fig 8), whereas Red-backed—and the Gambell bird—typically show six or seven tips on the closed wing and up to eight when the wing is partially open (fig 1-4 and 6-7). The tip of p9 falls between those of p4 and p5 in Brown Shrike, whereas that tip is clearly longer in the Gambell shrike, falling about equidistant with the tip of p6 (fig 7A-B). The ratio of p8-p9/p9-primary coverts ranges from 0.233–0.313 in nominate *cristatus* Brown Shrike and this ratio ranges from 0.090–0.155 in Red-backed Shrike (Pyle et al. 2015). This ratio varied from 0.126–0.149 (mean 0.133) in four images of the Gambell bird, nicely within the range of Red-backed Shrike but well outside that of Brown Shrike.

The tail is also more graduated in Brown Shrike (fig 8) than in Red-backed Shrike. They have an obviously shorter outer rectrix (r6), which is also thinner than other rectrices, whereas in Red-backed Shrike and the Gambell bird the outermost rectrix is broader (Svensson 1992; fig 5 and 7D) and its tip falls closer to those of the longest tail feathers (fig 3, 5, 6, and 7D). The ratio of r5–r6/r6 to the tail base shows a range of 0.248–0.364 in Brown Shrike and 0.091–0.157 in Red-backed Shrike (Pyle et al. 2015). In the Gambell bird, these ratios showed a range of 0.096–0.161 (mean 0.140) in six images (e.g., fig 7C–D), again matching Red-backed Shrike and outside the range of Brown Shrike. As shown in fig 8, many Brown Shrikes do not show as clear a pale edge to the outer rectrix, as that edge is thinner and tinged with buff or pale-brown rather than the broader, whiter edge of Red-backed Shrike and the Gambell bird (fig 3, 5, 6, and 7B). However, such differences in outer rectrix coloration may be only slight in some individuals.

- **TURKESTAN SHRIKE:** Juvenile Turkestan (fig 11A–B) and Isabelline shrikes show a much duller, gray-brown to grayish head and mantle compared to Red-backed Shrikes (fig 11C–D) and the Gambell bird, lacking the latter's warm tones. The mantle is plainer, lacking vermiculations or having fainter (narrower and finer) and more restricted barring. There is typically a distinct contrast between the grayer upperparts and warmer-colored tail in Turkestan Shrike, whereas Red-backed Shrike and the Gambell bird show no such obvious contrast (fig 3, 6, and 11A–D). Juvenile Turkestan Shrikes do not show a contrasting grayish nape, and the mask typically lacks the rufous tones shown by many juvenile Red-backed Shrikes and the Gambell bird. The flanks in juvenile Turkestan Shrike are whitish or cream, rather than pale buff as in some Red-backed Shrikes and the Gambell bird. In Turkestan Shrike, the preformative molt on summer grounds often includes most body feathers, upperwing coverts, and tertials, befitting a shorter-distance migrant, being more extensive than shown by the Gambell bird, although caution is warranted in applying molt locations and extents to identification (Pyle et al. 2015).

Turkestan Shrike has a long primary projection, although not quite as long as Red-backed, with the tip of p9 falling between p5 and p6 and a ratio of p8–p9/p9–primary coverts being 0.136–0.230 (Pyle et al.

Figures 10A–B. These two photos show more typical field views of the Gambell Red-backed Shrike on 7 Oct 2017 (A) and of a first-fall Brown Shrike at Gambell on 29 Aug 2014 (B). Compared to the Red-backed Shrike, the Brown Shrike lacks a gray nape, has a thicker bill, weaker vermiculations above, a blacker face-mask, and shows slightly shorter primary projection. This photo of the Gambell Red-backed Shrike was the first distributed off-island by Lehman and is the image which first alerted Hough that a Red-backed Shrike rather than a Brown Shrike might be involved. Photos by © Clarence Irrigoo Jr. (A) and © Paul E. Lehman (B)



2015). The outer rectrix is also intermediate in relative length between that of Brown and Red-backed shrikes, with a ratio of r5–r6/r6 to the tail base being 0.113–0.181 mm. These ratios on the Gambell bird (see above), though better for Red-backed Shrike, could also apply to Turkestan Shrike. As shown in fig 11, the outer rectrix of Turkestan Shrike also does not show

the distinct pale outer edge shown by Red-backed and the Gambell shrike.

- **ISABELLINE SHRIKE:** In Isabelline Shrike of the nominate subspecies, wing and tail morphology is similar to that of Turkestan Shrike, averaging shorter than that of Red-backed and the Gambell shrike. In juveniles and first-fall birds, the upperparts are a paler,

sandy-gray-brown color than shown by either Turkestan or Red-backed shrikes—not warm rusty-brown as in the Gambell bird—and they are often unmarked, including the crown as well as the rump and uppertail coverts. Like Turkestan Shrike, there is often contrast between the duller upperparts and warmer-colored tail in Isabelline, although the contrast is less distinct. Isabelline Shrike typically shows a weaker face pattern than does Turkestan and Red-backed shrikes, and it lacks a contrasting gray nape. The sides and flanks, and sometimes the auriculars, are variably washed in buff or orange-buff, whether or not they are vermiculated on the sides. If vermiculations are present, they tend to be a weaker warm-brown to pale rufous, not dark brown or dark gray.

• **HYBRIDS:** These four species of shrikes are known to hybridize, most extensively between Red-backed and Turkestan shrikes (Pyle et al. 2015). During review of the images, all the authors and external reviewers (e.g., C. Gooddie, L. Svensson, in litt.) concluded that the Gambell shrike showed no features that indicate a hybrid origin. Importantly, we have concluded that wing and tail morphology are perfectly typical of Red-backed Shrike and clearly eliminate Brown Shrike whereas differences in juvenile and first-fall plumages are again typical of Red-backed Shrike but clearly eliminate Turkestan and Isabelline shrikes. We see no reason to suspect genetic influence from any species other than Red-backed Shrike in the Gambell bird. See Pyle et al. (2015) for an extensive discussion on hybrid shrikes including several images each of Red-backed × Turkestan and Red-backed × Brown shrike hybrids.

Range and Vagrancy

All four species treated in detail here are

long-distance migrants. Information on the core ranges, below, are largely from Worfolk (2000), Slack (2009), Dickinson and Christidis (2014), and Pyle et al. (2015). These shrikes have had a somewhat complex taxonomic history, treated variously since the 1950s as just one, two, three, or the current four species (Worfolk 2000, Slack 2009, Panov et al. 2011, Pyle et al. 2015).

Red-backed Shrike breeds from western Europe east to the Altai region of central Russia, northern Kazakhstan, and northwest China (Xinjiang), between 85 and 90 °E. It winters primarily in southern Africa. As a vagrant, Red-backed has occurred northward to Iceland and eastward to Japan (at least six records; OSJ 2012, Y. Odaya in litt.), Korea (four or five acceptable records involving six birds, all in late September and early October; *Birds Korea* archives), and Hong Kong (first in 2008; N. Moores in litt.).

Birds believed to be hybrids between Red-backed and Brown, Turkestan, and Isabelline shrikes have been found on the breeding grounds in the Altai region and on the winter grounds in Africa, the Middle East, and southeast Asia (Kryukov and Gureev 1997, Panov et al. 2011, Pyle et al. 2015). Hybridization between Red-backed and Turkestan shrikes appears to be relatively extensive in the breeding-range overlap zone—between the Caspian Sea and Altai region—and some authors suggest that those two taxa are, in fact, one biological species (cf. Panov et al. 2011). Hybrids between Red-backed and Isabelline Shrikes on the breeding grounds are less common, and those of Red-backed × Brown are thought to be rare (Pyle et al. 2015). Concerning records of shrike hybrids without a specimen, Worfolk (2000) notes that “the situation is extremely complicated and open to differing interpretations,” and “the temptation should be resisted to label a ‘difficult bird’ a hybrid if

a definite identification cannot be achieved.”

Brown Shrike breeds as close to Alaska as the western Anadyr River basin in north-east Russia, then west and south to north-eastern China, northern Korea, and northern Mongolia. It winters from Southeast Asia, the Philippines, and Borneo west to India. There are four recognized subspecies. Nominate *cristatus* is the most northerly, from the Anadyr south to Kamchatka and Mongolia, and it winters in Southeast Asia. Subspecies *L. c. lucionensis* breeds in eastern China and very locally Korea, perhaps still in southern Japan, and it winters from southern Southeast Asia to the Philippines, Borneo, and the Moluccas. *L. c. confusus*, which some authorities (e.g., Worfolk 2000, Moores 2015) believe might be an intergrade between nominate *cristatus* and *lucionensis* (and in some areas, with *superciliosus*), nests in southeast Russia, northeast China, and northeast Korea, and it winters in southern Southeast Asia to the Philippines and Borneo. Subspecies *L. c. superciliosus* nests in coastal Russian Far East (e.g., Sakhalin, Kuriles) and northern Japan and winters primarily in the Greater and Lesser Sundas. Overall, Brown Shrike is a very rare to casual visitor in both spring and (mostly) fall to western Alaska islands and is a casual vagrant from mainland Alaska south to California in fall and winter. There is also one late-fall record from Nova Scotia. Records from North America most likely involve nominate *cristatus*, and the only individuals to be identified with certainty to subspecies there are two specimens from Alaska, which are indeed *cristatus* (Gibson and Withrow 2015). Brown Shrike is a casual vagrant westward as far as the U. K. (Slack 2009, www.tarsiger.com, www.netfugl.com, <https://waarneming.nl>), where there are almost 25 records.

Turkestan Shrike, split from Isabelline Shrike by some authorities (e.g., Gill and Donsker 2017), breeds from Iran and southwest Pakistan to southern Kazakhstan, extreme northwest China, and the southern Altai region of Russia at about 85 °E. It is believed to winter largely in eastern Africa, although both its and Isabelline’s non-breeding ranges are incompletely known (Worfolk 2000). (See Isabelline Shrike, below, for vagrancy in Turkestan Shrike.)

Isabelline Shrike nests from the Altai region and Mongolia to north-central China, and it winters from the Arabian Peninsula and eastern Africa east to western India. Nominate *isabellinus* (“Daurian Shrike”) nests from central Russia to Mongolia and northern China,

Noted Palearctic authority Lars Svensson, upon viewing several photos of the Gambell shrike, stated that “...one important character to note [that is] typical for Red-backed is the rufous-tinged ear-coverts (rear part of the mask). The other related shrikes have dark grey or blackish ear-coverts. So, this is a good sign of being a pure Red-backed. Also, the long primary projection with seemingly only p3–p4 [European numbering system for primaries] emarginated is a sure sign for Red-backed. Turkestan Shrike has invariably subtly shorter primary projection than this, and p3–p5 are emarginated. Lastly, the greyish tinge to the nape and sides of the neck is typical only of Red-backed. So, there you are, all traits point unanimously at Red-backed.”



Figures 11A–D. Typical juvenile or first-fall Turkestan Shrikes (A, Khazakistan, 18 June 2013; and B, Israel, September 2014) and Red-backed Shrikes (C, Bulgaria, 22 September 2004; and D, South Korea, 30 September 2009). Note the much grayer backs of the Turkestan Shrikes, lacking contrast with the nape and crown but including a distinct contrast with the redder tail. Red-backed Shrikes, by contrast, show a slightly grayer nape, contrasting with the crown and back, but show little contrast between the back and tail. Note also the less distinct dark vermiculations to the back and the lack of reddish in the auriculars of the juvenile and first-fall Turkestan Shrikes, at odds with typical Red-backed Shrikes and the Gambell bird. Photos by © Altay Zhatkanbayev (A), © Yosef Kiat (B), © C. J. Wormwell (C), and © Nial Moores (D)

and it winters in southern Arabia and eastern Africa. Subspecies *arenarius* and *tsaidamensis* are relatively short-distance migrants that breed in northwestern and north-central China and winter in Pakistan and India—and thus are unlikely to be involved in records of vagrants far out of range. Vagrant Isabelline Shrikes have turned up eastward to Japan (no more than three records; OSJ 2012), as well as westward through Europe to the U. K., where several individuals are typically found annually, and once to Iceland; many of these vagrants have not been identified to taxon, although approximately twenty of each have been identified as nominate *isabellinus* and as Turkestan Shrike (Slack 2009, www.tarsiger.com, www.netfugl.com, <https://waarneming.nl>).

Bull-headed Shrike is largely a short-range migrant, endemic as a breeding species to East Asia, with birds breeding in Korea, Japan, and eastern China north to eastern Russia, and wintering south to southern China (BirdLife International 2017).

Tiger Shrike breeds in Korea and China east and north to the Russian Far East and Japan (where very locally distributed), wintering throughout much of Southeast Asia south to Indonesia and Borneo (BirdLife International 2017).

Misorientation in an approximately 180° opposite direction from normal migratory paths, over northern regions on a great-circle route, may account for the occurrence of many Old World vagrants to Alaska and elsewhere in North America. Such a path would take the average vagrant Red-backed Shrike directly through western Alaska, with a range in vectors fully encompassing the state (Pyle et al. 2015), and we speculate that this is the most likely path for the Red-backed Shrike reaching Gambell. As Red-backed Shrikes are long-distance migrants, wintering primarily in southern Africa, their migration distance would easily take them at least as far as Alaska. Such 180° misorientation theory may explain vagrant North American records of a number of other central Asian species, such as Greater Sand-Plover (*Charadrius leschenaultii*), Blyth's Reed Warbler (*Acrocephalus dumetorum*), Sedge Warbler (*A. schoenobaenus*), Lesser Whitethroat (*Sylvia curruca*), Spotted Flycatcher (*Muscicapa striata*), and Common Redstart (*Phoenicurus phoenicurus*) (cf. Pyle et al. 2015), as well as at least one other long-distance vagrant that reached Gambell during the fall of 2017, River Warbler (*Locustella fluviatilis*) (Lehman 2018).

Conclusion

In a remarkable fall for Asian vagrants at Gambell which also saw first North American records of Thick-billed Warbler (*Iduna aedon*; Rosenberg et al. 2018) and River Warbler, the Red-backed Shrike became the first record for the continent when it was accepted by both the Alaska and ABA checklist committees. Identification as a Red-backed Shrike was based on the following features:

- Tail morphology (shorter than Brown Shrike, and with broader, longer outer rectrix);
- Long primary extension beyond the tertials, with the tip of p6 falling roughly equidistant with p9;
- Slimmer bill than Brown Shrike;
- Low-contrast face-mask with rusty tones;
- Grayish nape, unique to Red-backed Shrike;
- Extensive vermiculations on the upperparts and flanks;
- Reddish tones to the upperparts, typical of Red-backed Shrike;
- Darker central tail feathers unique among these taxa to Red-backed;
- Pale underparts, lacking the saturated tones expected in Brown, Turkestan, and especially Isabelline shrikes.

The 2017 Gambell bird's appearance and measurements based on field observation and, especially, on an extensive series of photographs, is entirely consistent with a Red-backed Shrike. Brown Shrike is eliminated based on several plumage features and on the wing and tail morphology. Turkestan and Isabelline Shrikes are also eliminated based on both structure and on plumage. Those two species seem more separable in mostly juvenile plumage than in, for example, formative male plumage, such as that shown by the hybrid bird from Mendocino County, California.

Acknowledgments

Special thanks are due to Brad Benter and, especially, Sue Bryer and Clarence Irrigoo Jr. for their superb efforts in obtaining a series of excellent photos of the Gambell shrike, critical in the proper diagnosis of species.

Valuable input on the identification of the Gambell shrike and on the occurrence of various vagrant shrikes was received from Louis R. Bevier, Brian E. Daniels, Doug Gochfeld, Chris Gooddie, Neil Hayward, Lars Svensson, and Thede G. Tobish.

Helpful comments on drafts of the manuscript were provided by Sue Bryer and Chris Gooddie.

Literature Cited

- BirdLife International. 2017. IUCN Red List for birds. Downloaded from <http://www.birdlife.org> on 15 December 2017.
- Cramp, S., and Perrins, C. M. (eds.) 1993. *The Birds of the Western Palearctic. Volume 7*. Oxford University Press, Oxford.
- Dickinson, E. C., and Christidis, L. (Eds.). 2014. *The Howard & Moore Complete Checklist of the Birds of the World*, 4th ed., vol. 2. Aves Press, Eastbourne.
- Gibson, D. D., and Withrow, J. J. 2015. Inventory of the species and subspecies of Alaska birds, 2nd ed. *Western Birds* 46(2):94–185.
- Gill, F., and D. Donsker (Eds.). 2017. IOC World Bird List (v 7.3). doi: 10.14344/IOC.ML.7.3.
- Kryukov, A. P., and Gureev, S. P. 1997. New data on interrelations of Red-backed and Brown shrikes (*Lanius collurio* and *L. cristatus*, Aves) in the zone of sympatry. *Russian Journal of Zoology* 4:537–544.
- Lehman, P. E. 2018. River Warbler (*Locustella fluviatilis*) at Gambell, Alaska: First record for North America. *Western Birds* 49:136–141.
- McKee, M. 2017. Brown Shrike, Out Skerries, Shetland, October 2016. In: French, P. The Carl Zeiss Award 2017. *British Birds* 110:474–475.
- Message, S. 2001. The Turkestan Shrike in Kent. *Birding World* 14(10):432–434.
- Moores, N. 2015. Brown Shrikes and the annual thorny identification challenge! Online article accessed in December 2017 at <http://www.birdskoreablog.org/?p=15752>
- Ornithological Society of Japan. 2012. *Checklist of Japanese Birds*, 7th revised edition. The Ornithological Society of Japan, Sanda.
- Panov, E. N., Cade, T. J., and Woods, C. P. 2011. *The True Shrikes (Laniidae) of the World: Ecology, Behavior and Evolution*. Pensoft Publishers, Sofia, Bulgaria.
- Pyle, P., Keiffer, R. J., Dunn, J. L., and Moores, N. 2015. The Mendocino shrike: Red-backed Shrike (*Lanius collurio*) × Turkestan Shrike (*L. phoenicuroides*) hybrid. *North American Birds* 69(1):4–35.
- Rosenberg, G. H., Lehman, P. E., Lang, A., Stoll, V., and Stoll R. 2018. Thick-billed Warbler (*Iduna aedon*) at Gambell, Alaska: First record for North America. *Western Birds* 49(3) 226–230.
- Slack, R. 2009. *Rare Birds Where and When: An Analysis of Status and Distribution in Britain and Ireland*. Russel Slack Rare Birds Books, York.
- Svensson, L. 1992. *Identification Guide to European Passerines*, 4th ed. Distributed by British Trust for Ornithology, Thetford.
- Worfolk, T. 2000. Identification of Red-backed, Isabelline, and Brown shrikes. *Dutch Birding* 22:323–362. 🌐