

UNDESCRIBED SUBSPECIES OF RED-TAILED HAWK  
FROM BAJA CALIFORNIA

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The red-tailed hawk (*Buteo jamaicensis*) is a widespread and generally common species in North and Middle America. Preston and Beane (1993) have most recently reviewed the polytypy and distribution of the species.

Subspecific allocation of populations of the species in Baja California have apparently not been critically examined since Brewster's (1902) treatment of a series of specimens collected by M. Abbott Frazar in the Cape region in 1887. R. Ridgway (in Baird et al., 1874) described *B. lucasanus* from a specimen from Cape San Lucas, taken 15 September 1859, as similar to "... the normal plumage of var. *calurus* but upper parts more uniformly blackish, the upper tail-coverts and tail uniform rufous, the latter without a trace of a black bar. . . ." Lack of a tail bar was the only diagnostic character, but that is found among individuals of both *B. j. calurus* and *B. j. borealis*. The type is richly colored ventrally, but is lightly streaked and thus appears intermediate between typical *B. j. calurus* and *B. j. fuertesi*, which is nearly white ventrally with streakings reduced or absent. The type specimen of *B. j. lucasanus* is large compared to the nesting population of the Cape region described beyond, as are specimens of *B. j. calurus* and *B. j. fuertesi*, which, in contrast with a suggestion by Behle (1985), appear to be similar (Table 1).

Brewster (1902) found that the characters upon which *B. j. lucasanus* was described were matched in series of birds of the western subspecies *B. j. calurus*, and Coues (1903) noted that the "alleged characters" were only an "individual peculiarity." I concur and consider *B. j. lucasanus* to be a synonym of *B. j. calurus*. Brewster found Frazar's series to average only a "trifling" smaller than series of northern *B. j. calurus* (Table 1). Unfortunately, Brewster did not separate specimens by

season, which might have given him the clue needed to properly resolve the situation. Nesting birds from the Cape region are still not represented in the Museum of Vertebrate Zoology at the University of California. Thus, Grinnell (1928) followed Brewster (as have subsequent authors) in considering all red-tailed hawks from Baja California to be the widespread subspecies *B. j. calurus*.

When curating the species in the American Museum of Natural History (AMNH), I measured specimens collected during the nesting season by W. W. Brown, Jr. in the Sierra de la Laguna of the Cape region taken between 6 and 24 June in 1912 and 1913. These birds were so small that they prompted me to measure a large series of normal-phased, nesting season *B. j. calurus* for comparison. Then, at the Museum of Comparative Zoology (MCZ) at Harvard University, I reassembled 18 of the 19 adults for which Brewster presented measurements (1902). The measurements of the five nesting-season specimens matched those of Brown's four adults. I compared the ventral color and pattern of these nesting birds to the small, non-nesting season specimens from the Sierra de la Laguna and to series of *B. j. calurus* available at the MCZ, from California, New Mexico and Colorado. I also measured the latter. The small-sized, non-nesting season specimens were similar in color and pattern to the nesting birds. One of the Baja California birds approached *B. j. calurus* in ventral striping, and only one *B. j. calurus* from Kern Co., California was as lightly striped as the Sierra de la Laguna series. Based on these comparisons, I concluded that the nesting population of red-tailed hawks from the Cape region of Baja California was an undescribed form. It was inadvertently and prematurely described as "*B. j. suttoni*"

TABLE 1—Means ( $\pm SD$ ) and ranges of measurements (mm) of adult red-tailed hawks from western United States and Baja California.

|                                    | Males    |                               |          |                              | Females  |                               |          |                              |
|------------------------------------|----------|-------------------------------|----------|------------------------------|----------|-------------------------------|----------|------------------------------|
|                                    | <i>n</i> | Wing chord                    | <i>n</i> | Tail                         | <i>n</i> | Wing chord                    | <i>n</i> | Tail                         |
| <i>B. j. fuertesi</i> <sup>1</sup> | 10       | 393.2<br>(385–402)            | 10       | 212.1<br>(205–224)           | 10       | 427.0<br>(425–436)            | 10       | 224.1<br>(220–228)           |
| <i>B. j. calurus</i> <sup>2</sup>  | 18       | 398.9 $\pm$ 13.2<br>(379–424) | 14       | 219.1 $\pm$ 5.6<br>(210–230) | 24       | 419.5 $\pm$ 11.0<br>(407–448) | 24       | 227.2 $\pm$ 7.1<br>(212–244) |
| Brewster <sup>3,4</sup>            | 9        | 399.3                         | 9        | 230.0 <sup>5</sup>           | 10       | 429.5                         | 10       | 243.1                        |
| Type of <i>B. "lucasanus"</i>      |          | 395                           |          | 211                          |          |                               |          |                              |
| Sierra San Pedro                   | 2        | 375–376                       | 2        | 190–204                      | 9        | 428.4 $\pm$ 9.2<br>(412–442)  | 8        | 230.0 $\pm$ 9.0<br>(221–250) |
| Martir <sup>6</sup>                |          |                               |          |                              |          |                               |          |                              |
| <i>B. j. suttoni</i>               | 16       | 376.4 $\pm$ 5.2<br>(367–383)  | 16       | 203.6 $\pm$ 4.8<br>(198–216) | 7        | 403.0 $\pm$ 7.0<br>(393–413)  | 7        | 214.6 $\pm$ 5.7<br>(206–221) |

<sup>1</sup> Ten or more specimens, Oberholser (1974).

<sup>2</sup> Nesting season specimens, Arizona, California, Colorado, Idaho, New Mexico, Utah, and Wyoming.

<sup>3</sup> Brewster (1902), all specimens from Arizona.

<sup>4</sup> Converted from measurements in inches.

<sup>5</sup> Tail measurements made differently and not comparable.

<sup>6</sup> Nesting season specimens.

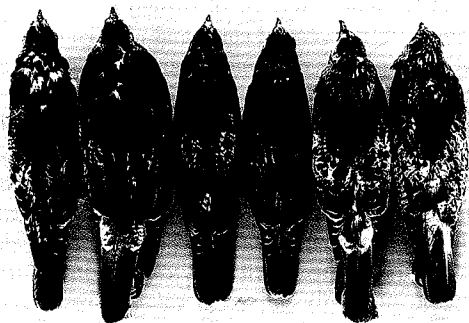
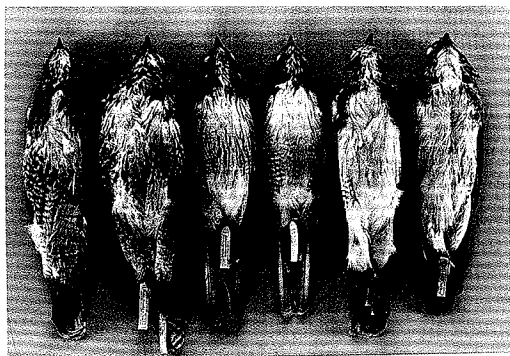


FIG. 1—Ventral and dorsal views of nesting season red-tailed hawks from the southwest and Baja California. Left to right *B. j. calurus* (AMNH 750230, 51586); *B. j. suttoni* (AMNH 352491 type, 352490) and *B. j. fuertesi* (80696, 750225).

based on a personal communication from me in Preston and Beane (1993). Thus the citation for the new subspecies must be as follows:

*Buteo jamaicensis suttoni* Dickerman in Preston and Beane 1993.

*Holotype*—AMNH 352491, adult female from Sierra de (la) Laguna, "Low. Calif." (=Baja California Sur), Mexico. Collected 24 June 1913 by W. W. Brown, Jr.

*Diagnosis*—Size small (Table 1), and ventral stripes weak to obsolete, thus more similar to *B. j. fuertesi*; however, the venter in *B. j. suttoni* is more rufescent than in *B. j. fuertesi*, and thus somewhat more like *B. j. calurus*. In addition, barring of the thighs of *B. j. suttoni* is paler and less pronounced than in *B. j. calurus*; the crown and sides of the head of *B. j. suttoni* average darker, more sooty and more concolor than in *B. j. calurus* and *B. j. fuertesi*, in which those areas are somewhat warmer and more variegated (Fig. 1).

*Measurements of holotype* (mm)—Wing chord, 393; tail, 206; tarsus, 82; culmen from cere, 26.9

*Distribution*—Known as a nesting bird only from the Sierra de la Laguna of the Cape region of Baja California.

*Etymology*—It is very satisfying to describe a markedly differentiated new subspecies from such a supposedly well-known region as Baja California and to be able to name it after Dr. George

M. Sutton. Now both of North America's pre-eminent 20th century avian artists are commemorated by populations of this much-loved and wide-ranging North American raptor.

*Remarks*—One could argue whether *B. j. suttoni* is closer to *B. j. calurus* or *B. j. fuertesi*, as it is smaller than either with a combination of color and pattern of the two.

The single immature *B. j. suttoni* at AMNH was compared with three specimens of *B. j. calurus* in similar fresh immature plumage. The former is more lightly spotted on the breast band and barring on the thighs is narrower and paler. Unfortunately, Brown, like some other older (and even some current) collectors, shoved the legs far forward, well inside the body, when he finished preparing a specimen. This strengthens the leg, but in some specimens completely obscures the color and pattern of the thighs, which are important characters in many taxa. K. C. Parkes (in litt.) informs me that an immature male taken at San Jose del Carbo (CMNH 20164) is small (wing  $359 \pm$ , tail  $210 +$ ), differs from the above description in being similar to comparably aged *B. j. calurus* in ventral streakings, and has denser, more conspicuous thigh barring. This again indicates the reduced value of the immature plumage in this species in subspecific studies.

A reviewer suggested that *B. j. suttoni* be compared to "each of several *calurus* populations approaching Baja." Unfortunately, this is not possible. Few populations (certainly not that of the type locality of *B. j. calurus* in southwestern New Mexico, nor even from all of the highland areas of the state) are represented by adequate series of nesting-season birds to permit such an analysis.

Specimens from the nesting population of red-tailed hawks in the Sierra San Pedro Martir are intermediate in size; males are small like *B. j. suttoni*, while females average even larger than *B. j. calurus* (Table 1), thus ruling out a cline decreasing in size. In spite of the much smaller size of *B. j. suttoni*, the bill (not measured) appears no smaller than in *B. j. calurus* when compared sex-for-sex in series. Furthermore, although dark-phased birds are common in populations of *B. j. calurus* (3 of 11 nesting season specimens from the San Pedro Martir region of Baja California are dark), none of the 25 immature or adult plumaged specimens of *B. j. suttoni* (AMNH, MCZ, CMNH, WFVZ) is of the dark phase. It should be noted that *B. j. fuertesi* also does not have a dark phase (Behle 1985).

An adult female from El Rosario, south of the San Pedro Martir, on the Pacific coast (CMNH 20610) taken 12 May 1887, is intermediate in size (wing chord 420, tail 219) and coloration. It has much-reduced ventral markings, but is essentially white ventrally (probably in part from wear), and has a dark throat.

This distinctive subspecies joins the list of taxa confined to the mountains of the Cape region: *Buteo jamaicensis suttoni*, *Columba facitata vioscae*, *Contopus sordidulus peninsulae*, *Sitta carolinensis lagunae*, *Turdus confinus*, *Vireo huttoni cognatus*, *Vireo solitarius lucasanus*, *Junco bairdi*. See Grinnell for an extended list of taxa "believed to have been differentiated" within the Cape region of Baja California.

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