

6-2011

## Botteri's Sparrow (*Peucaea botterii*) occurs in Northern Coahuila, Mexico

Paul van Els

*University of Nevada, Las Vegas*


Ricardo Canales-del-Castillo

*Universidad Autonoma de Nuevo Leon*

John Klicka

*University of Nevada, Las Vegas, [klicka@unlv.nevada.edu](mailto:klicka@unlv.nevada.edu)*

Follow this and additional works at: [https://digitalscholarship.unlv.edu/hrc\\_ornithology](https://digitalscholarship.unlv.edu/hrc_ornithology)

 Part of the [Ornithology Commons](#), and the [Population Biology Commons](#)

### Repository Citation

van Els, P., Canales-del-Castillo, R., Klicka, J. (2011). Botteri's Sparrow (*Peucaea botterii*) occurs in Northern Coahuila, Mexico. *Wilson Journal of Ornithology*, 123(2), 414-416.

**Available at:** [https://digitalscholarship.unlv.edu/hrc\\_ornithology/6](https://digitalscholarship.unlv.edu/hrc_ornithology/6)

This Article is brought to you for free and open access by the Harry Reid Center for Environmental Studies at Digital Scholarship@UNLV. It has been accepted for inclusion in Ornithology Program (HRC) by an authorized administrator of Digital Scholarship@UNLV. For more information, please contact [digitalscholarship@unlv.edu](mailto:digitalscholarship@unlv.edu).

*The Wilson Journal of Ornithology* 123(2):414–416, 2011

## Botteri's Sparrow (*Peucaea botterii*) Occurs in Northern Coahuila, Mexico

Paul van Els,<sup>1,3</sup> Ricardo Canales-del-Castillo,<sup>2</sup> and John Klicka<sup>1</sup>

**ABSTRACT.**—Botteri's Sparrow (*Peucaea botterii*) occurs widely in the shrub-grasslands of southern North America. We report a breeding population of the species in the Sierra de la Encantada of northern Coahuila, Mexico, ~80 km from the Big Bend area of Texas and >300 km from the nearest previously known breeding range in southern Coahuila and central Chihuahua. We captured three individuals, which show a mostly gray dorsal coloration, suggestive of the *texana* subspecies, occurring from southern Texas to northern Veracruz. The exact affinity of the northern Coahuila population still needs to be ascertained. The presence of Botteri's Sparrow in northern Coahuila may have been overlooked previously or may be part of a (temporary) range expansion. More work is needed to map the occurrence of Botteri's Sparrow in northcentral Mexico grasslands. Received 20 October 2010. Accepted 9 December 2010.

Botteri's Sparrow (*Peucaea botterii*) occurs from southeastern Arizona through western Mexico to Nicaragua and from southern Texas to the Yucatán; the species also breeds in southern Coahuila (Howell and Webb 1995). The authors of the Coahuila State bird list mention Botteri's Sparrow only as a migrant (Garza de León et al. 2007). Occurrence in much of the northern part of the species' range is discontinuous because of fragmentation of natural shrub-grasslands due to overgrazing and agricultural conversion (Ripley 1949, Webb 1985). However, despite expansion of intensive agriculture and ranching (Ceballos et al. 2010), there are still pockets of intact grasslands in northern Mexico that may hold populations of Botteri's Sparrow. Our objective is to describe a previously unknown population in northern Coahuila, Mexico.

<sup>1</sup>Marjorie Barrick Museum of Natural History, University of Nevada Las Vegas, 4505 Maryland Parkway, Box 454012, Las Vegas, NV 89154, USA.

<sup>2</sup>Laboratorio de Biología de la Conservación, Facultad de Ciencias Biológicas, Universidad Autónoma de Nuevo León, A. P. 25-F, Cd. Universitaria, San Nicolás de los Garza, Nuevo León 66451, México.

<sup>3</sup>Corresponding author; e-mail:paulvanel@yahoo.com

## OBSERVATIONS

We surveyed the Valle Colombia ranch in the Sierra de la Encantada of northwestern Coahuila (28° 39' 7.31" N, 101° 20' 16.407" W) on 24–26 June 2010. We found several singing male Botteri's Sparrows, as well as young lacking tail feathers, a strong indication of local breeding. The Valle de Colombia area consists of lightly grazed montane (1,350 m) native grasslands interspersed with *Prosopis* spp. (Fabaceae), *Koerberlinia spinosa* (Koerberlinaceae), *Flourensia cernua* (Asteraceae), *Berberis trifoliolata* (Berberidaceae), and local stands of *Yucca* spp. (Agavaceae). Winter shrub cover ( $\bar{x} \pm \text{SD}$ ) varied locally from  $1.28 \pm 1.12$  to  $6.68 \pm 5.48\%$  (January 2010). Sparrows were most frequently observed singing from the tops of *Prosopis* spp. We were able to capture three individuals, two males and a female. Birds were dissected to establish gender. Body mass ( $\bar{x} \pm \text{SD}$ ) was  $19.8 \pm 2.5$  g, tarsal length was  $20.5 \pm 1.6$  mm, wing length was  $62.0 \pm 0.6$  mm, tail length was  $60.6 \pm 0.6$  mm, bill length was  $10.9 \pm 0.4$  mm, bill width was  $5.8 \pm 0.2$  mm, and bill depth was  $5.3 \pm 0.1$  mm. Dorsal coloration, the most variable character within the species (Webster 1959), was mostly gray with a profusion of rufous streaks. We deposited a sound recording of a male song from the Sierra de la Encantada in xeno-canto ([www.xeno-canto.org](http://www.xeno-canto.org), accession number XC57103).

## DISCUSSION

Botteri's Sparrow occurs rarely in southwestern Texas (Bryan 2002), and breeding of the species in northwestern Coahuila constitutes a northward shift in the central part of the known range of the species by >300 km. Northern Coahuila is poorly sampled ornithologically and our records of Botteri's Sparrow in the Sierra de la Encantada may only represent a fraction of the species' population in the region. Suitable, intact grassland habitat may be present elsewhere in this area, including potentially Texas, only 80 km from the current population. The occurrence of a small, now possibly extinct population in central Chi-

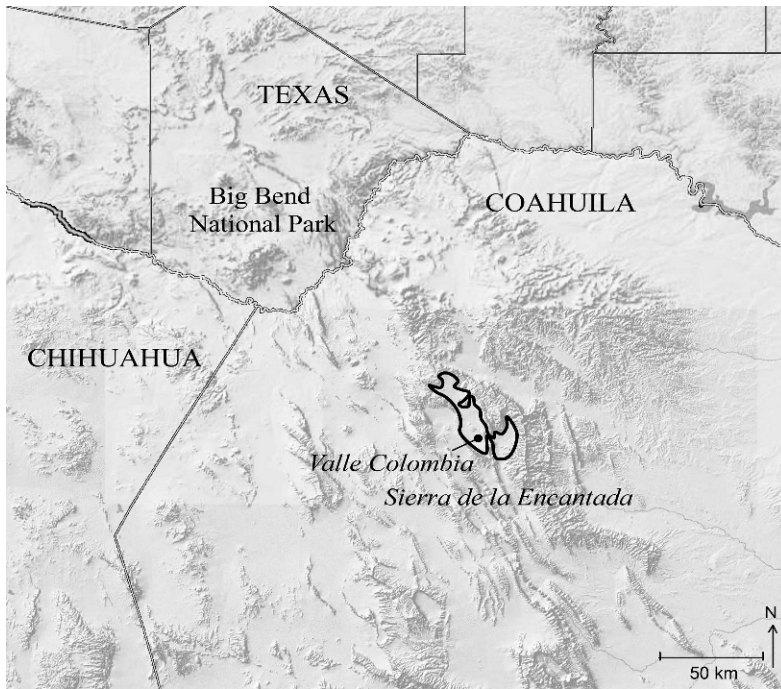


FIG. 1. Survey area (thick black lines) in Sierra de la Encantada, Coahuila, Mexico.

huahua (Meents 1979), may be an indication that Botteri's Sparrow is, at least locally, more widespread in northern Mexico than thought. Alternatively, the lack of earlier records of the species may indicate Botteri's Sparrow occurrence in northern Coahuila is part of a range extension. More work in the region is needed to ascertain whether the Sierra de la Encantada birds represent an isolated population or whether they are part of a discontinuous, but more widespread occurrence in the area.

The dorsal coloration of birds from the Sierra de la Encantada is suggestive of the *texana* subspecies, which ranges from southern Texas to northern Veracruz. The *arizonae* subspecies is distributed from Arizona south to Durango, and presumably includes the central Chihuahuan population. Birds from northern Coahuila may as well belong to the *arizonae* group due to geographical proximity and subtlety in plumage differences between subspecies. It is also possible the Sierra de la Encantada population represents an undescribed subspecies. Morphometrics of our birds provided no information for assigning subspecies; male tail length was within the range of both the *texana* and the *arizonae* subspecies and male wing length was

typical for *arizonae* and only slightly smaller than for *texana* (Webster 1959). We know of no known consistent vocal differences between subspecies (Webb and Bock 1996).

#### ACKNOWLEDGMENTS

We thank Octavio Bermúdez Finan and the staff of Rancho Hacienda Valle Colombia for providing accommodations and hospitality.

#### LITERATURE CITED

- BRYAN, K. B. 2002. Birds of the Trans-Pecos: a field checklist. Natural Resources Program, Texas Parks and Wildlife, Austin, USA.
- CEBALLOS, G., A. DAVIDSON, R. LIST, J. PACHECO, P. MANZANO-FISCHER, G. SANTOS-BARRERA, AND J. CRUZADO. 2010. Rapid decline of a grassland system and its ecological and conservation implications. PLoS ONE 5:e8562.
- GARZA DE LEÓN, A., I. MORÁN, F. VALDÉS, AND R. TINAJERO. 2007. Coahuila. Pages 98–136 in *Avifaunas estatales de México* (R. Ortiz-Pulido, A. Navarro Sigüenza, H. Gómez de Silva, O. Rojas-Soto, and A. T. Peterson, Editors). Cipamex, Pachuca, Hidalgo, Mexico.
- HOWELL, S. N. G. AND S. WEBB. 1995. A guide to the birds of Mexico and northern Central America. Oxford University Press, Oxford, United Kingdom.

- MEENTS, J. K. 1979. Avian community structure in Chihuahuan desert grasslands. Dissertation. New Mexico State University, Las Cruces, USA.
- RIPLEY, S. D. 1949. Texas habitat of Botteri's Sparrow and Gulf Coast records of wintering sparrows. *Wilson Bulletin* 61:112–113.
- WEBB, E. A. 1985. Distribution, habitat and breeding biology of the Botteri's Sparrow (*Aimophila botterii arizonae*). Thesis. University of Colorado, Boulder, USA.
- WEBB, E. A. AND C. E. BOCK. 1996. Botteri's Sparrow (*Aimophila botterii*). *The birds of North America*. Number 216.
- WEBSTER, J. D. 1959. A revision of the Botteri Sparrow. *Condor* 61:136–146.