

The Great Sagebrush Sparrow Hunt



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Natural History Museum
of Los Angeles County

With a big assist from **Andy Birch**, who provided his artwork and in-depth research on the field identification of Sagebrush and Bell's Sparrows



“Sage Sparrow” plate by Allan Brooks from Dawson’s Birds of California



General Outline

History of the species and subspecies

Current taxonomy

Phenotypic traits [“field marks”] of the subject taxa

Genetic studies of the main groups

Vocalizations of the groups

Status in Los Angeles County and vicinity

Bell’s Sparrow (*belli*, *canescens*, *clementeae*)

Sagebrush Sparrow

Where, how to search for Sagebrush Sparrows



Piute Ponds, L. A. Co. 10 Nov 2020
Larry Sansone

Undiagnosable?

A distinct species?

Or something inbetween?

Summary of taxonomic history

Emberiza belli J. Cassin, 1850 (near Sonoma, CA)

Poospiza bellii var. *nevadensis* R. Ridgway, 1874 (W. Humboldt Mtns., NV)

Amphispiza belli cinerea C. H. Townsend, 1890 (Bahia de Ballenas, Baja CA)

Amphispiza belli clementeae R. Ridgway, 1898 (San Clemente I., CA)

Amphispiza belli canescens J. Grinnell, 1905 (Mt. Pinos, Ventura Co., CA)

Not currently recognized:

Amphispiza belli campicola Oberholser (n. range of *nevadensis*)

Amphispiza belli xerophilus (Baja, between ranges of *belli* and *cinerea*)

Treatment by the AOU Check-lists and Supplements

1st ed. (1886) *Amphispiza belli* [no trinomials used in this edition]
Amphispiza belli nevadensis

2nd ed. (1895) *Amphispiza belli* [no trinomials used in this edition]
Amphispiza belli nevadensis (Great Basin)
Amphispiza belli cinerea (Lower CA)

3rd ed. (1910) *Amphispiza belli*
Amphispiza nevadensis nevadensis
Amphispiza nevadensis cinerea (Lower CA)
Amphispiza nevadensis canescens

4th ed. (1931) *Amphispiza belli belli* "Bell's Sparrow"
Amphispiza belli cinerea "Gray Sage Sparrow"
Amphispiza nevadensis nevadensis "Northern Sage Sparrow"
Amphispiza nevadensis canescens "California Sage Sparrow"

Treatment by the AOU Check-lists and Supplements

5th ed. (1957) *Amphispiza belli nevadensis*

Amphispiza belli canescens

Amphispiza belli belli

Amphispiza belli clementeae

Amphispiza belli cinerea

6th ed. (1983) Same, but subspecies not discussed

7th ed. (1998) Same, but two subspecies groups (*belli* and *nevadensis*) are discussed, with *canescens* included with *belli*

53rd Supplement (2012): New genus *Artemisiospiza* for “Sage Sparrow”

54th Supplement (2013): Split into two species, Bell’s (*A. belli*) and Sagebrush (*A. nevadensis*)

What genus?

Emberiza (when *belli* was first described in 1850)

Poospiza (a Neotropical genus of tanagers known as warbling-finches)

Amphispiza Coues, 1874 (*bilineata* is type species)

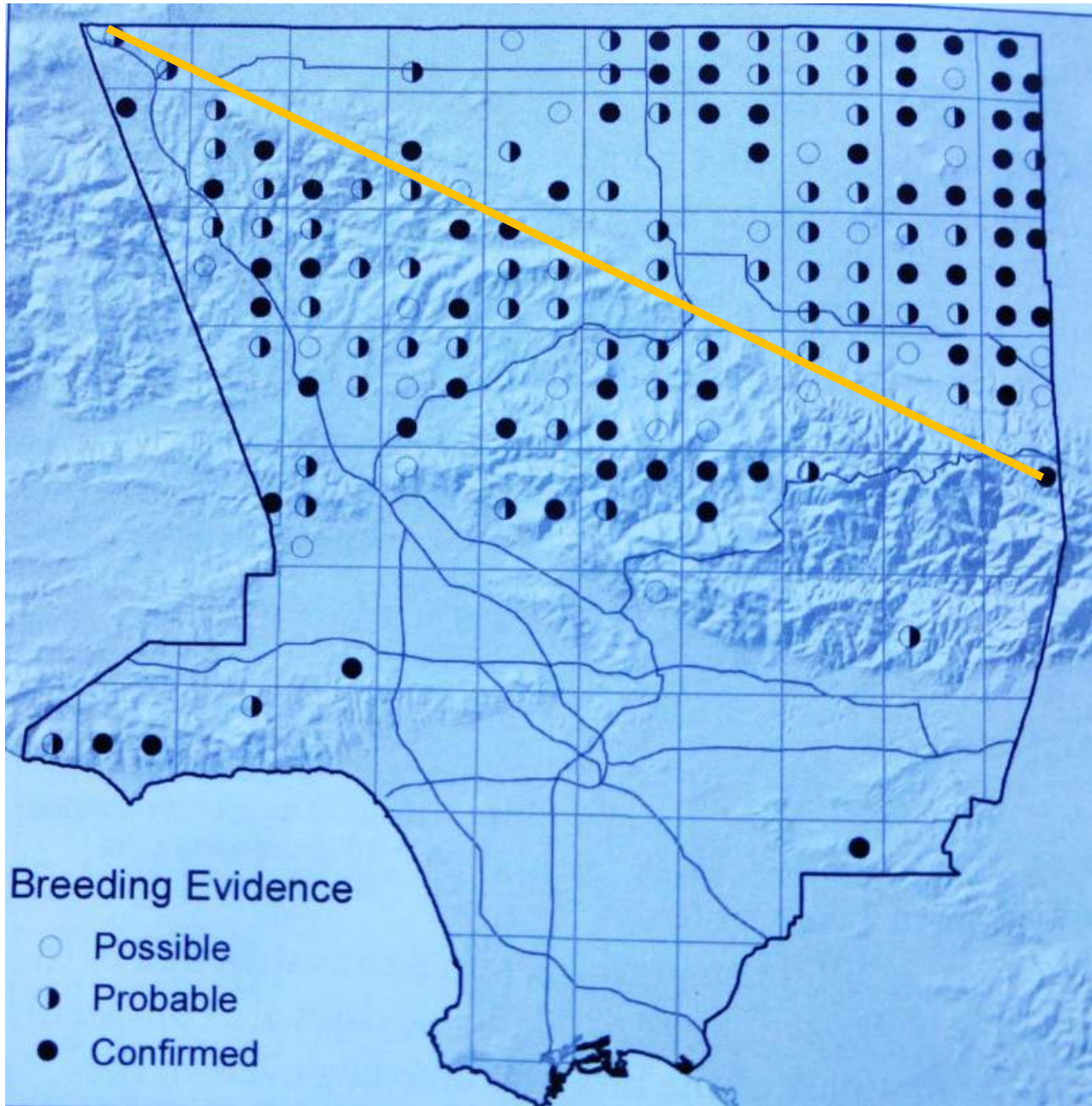
[*Amphispiza* merged into *Aimophila* by Phillips, Marshall and Monson (1964)]

Artemisospiza (improperly proposed by Klicka and Spellman)

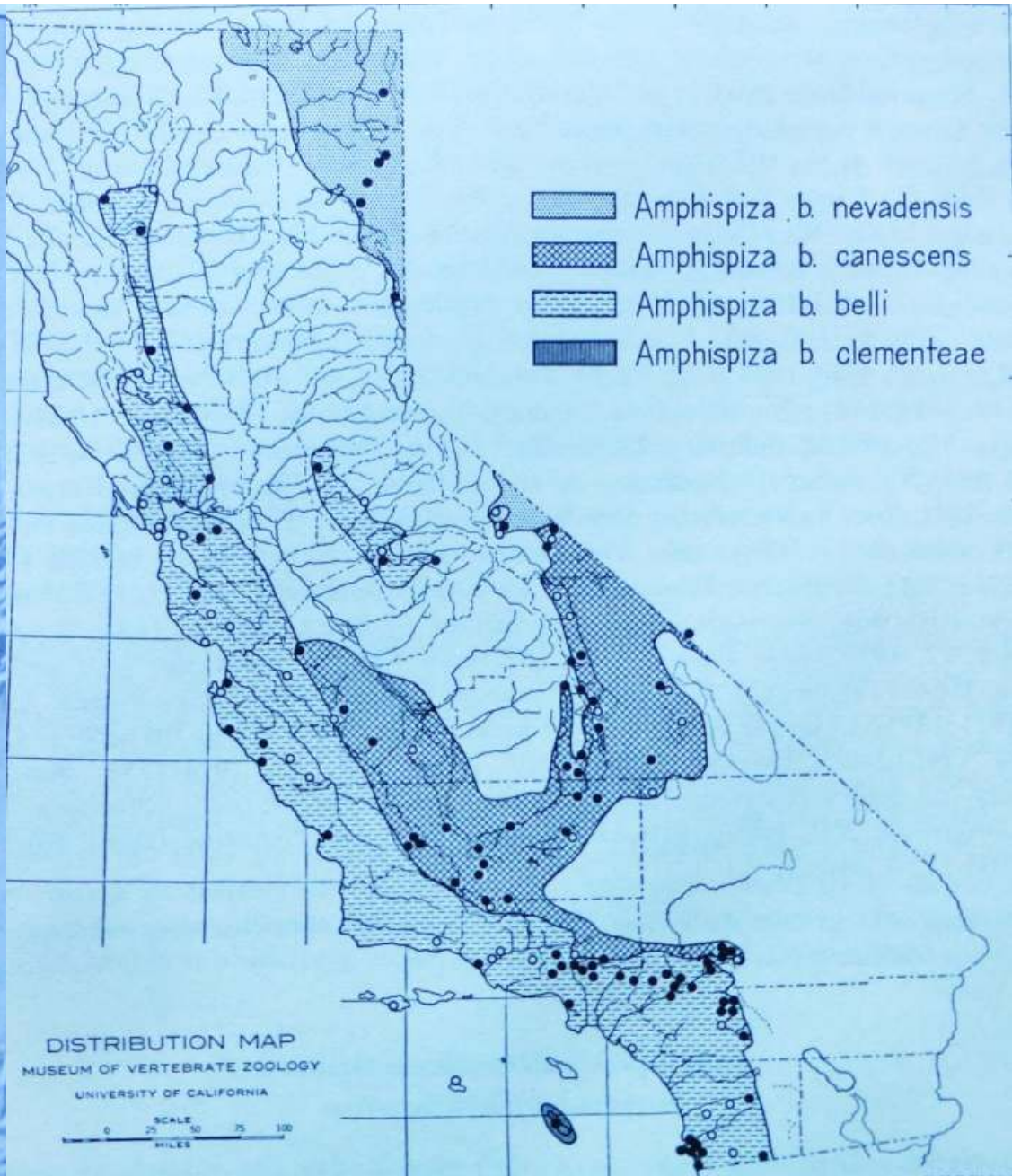
Artemisiospiza (published in 2011 by Klicka and Banks)



Allen et al. 2016 (L. A. Co. Breeding Bird Atlas)

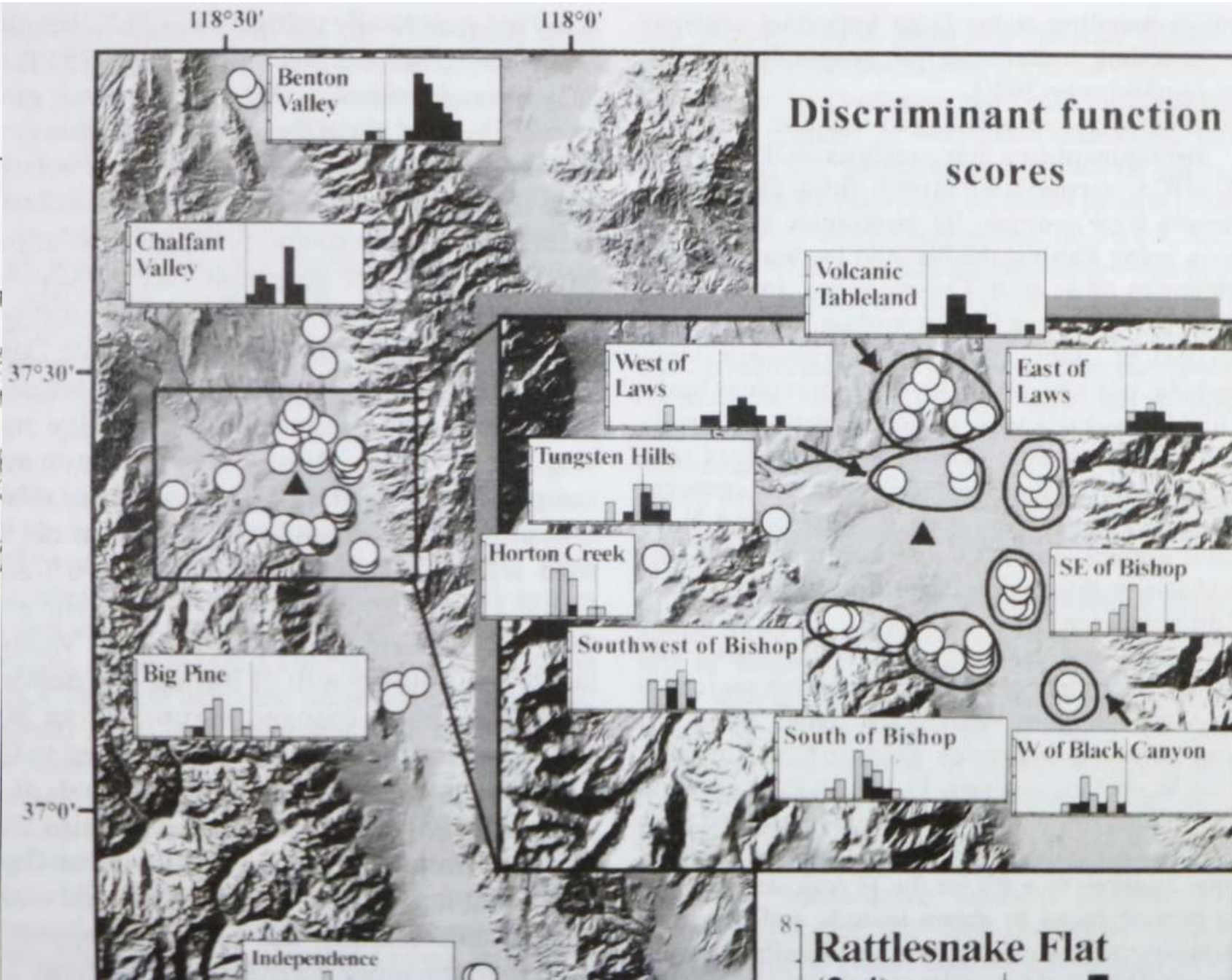
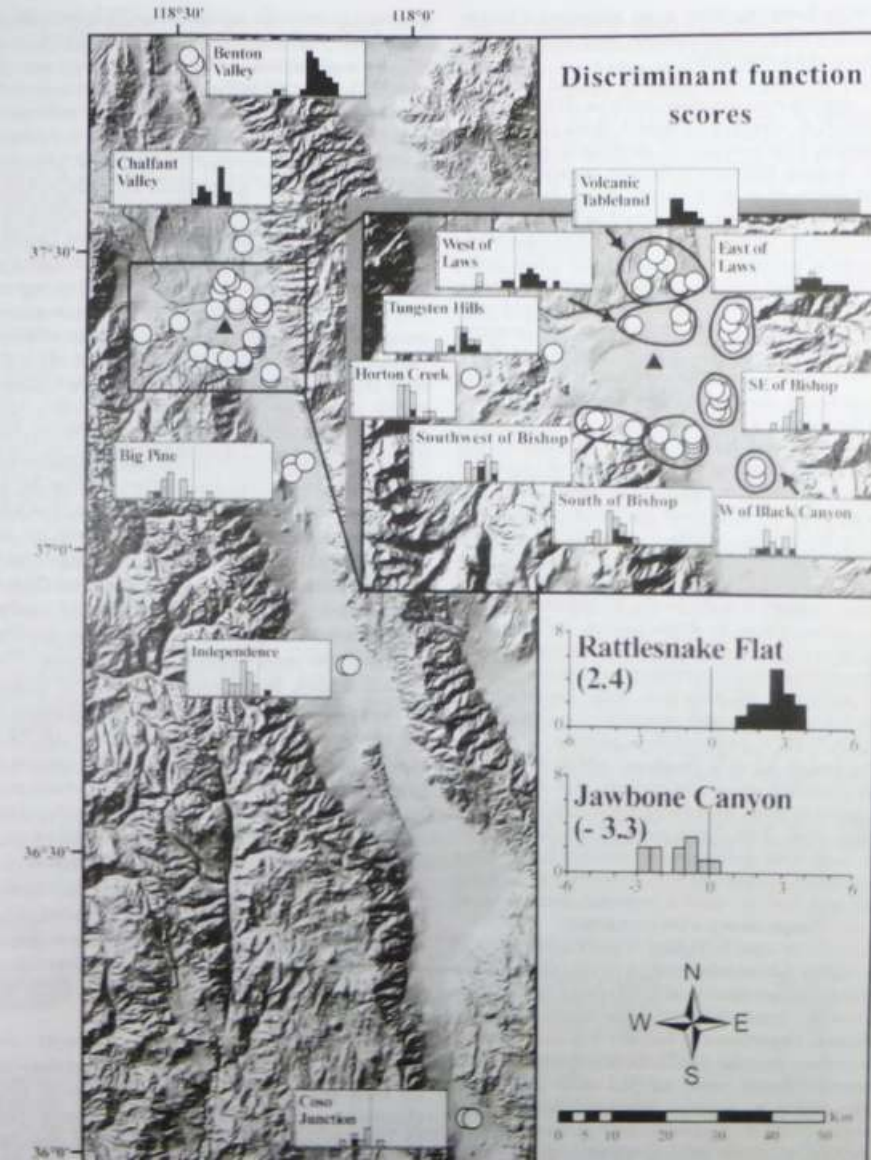


Grinnell and Miller (1944)



Cicero and Johnson (2007)

CONTACT ZONE OF DESERT SAGE SPARROWS IN OWENS VALLEY, CALIFORNIA



Peter Pyle's analysis based on MVZ specimens (2013)

<http://www.sibleyguides.com/wp-content/uploads/On-separating-Sagebrush-and-Bells-Sparrows.pdf>

Andy Birch's analysis and artwork on Surfbirds.com (2017)

http://www.surfbirds.com/Features/Bells_Sparrow/identification.html

Bell's Sparrow
canescens



Bell's Sparrow
canescens



Sagebrush Sparrow



Sagebrush Sparrow



Bell's Sparrow
belli



Bell's and Sagebrush Sparrows, by Andy Birch

L to R: Sagebrush, *canescens*, nominate *belli*





A. nevadensis

LACM 9499 San Fernando
Valley, LA 01 Nov
LACM 18252 Cajon Wash,
SBE 14 Jan
LACM 23704, Carlsbad, NM
05 Jan

A. b. canescens

LACM 23701 Lytle Creek,
SBE 07 Sep
LACM 105262 Piute Ponds,
LA 12 Sep
LACM 122166 Juniper Hills,
LA 20 Aug



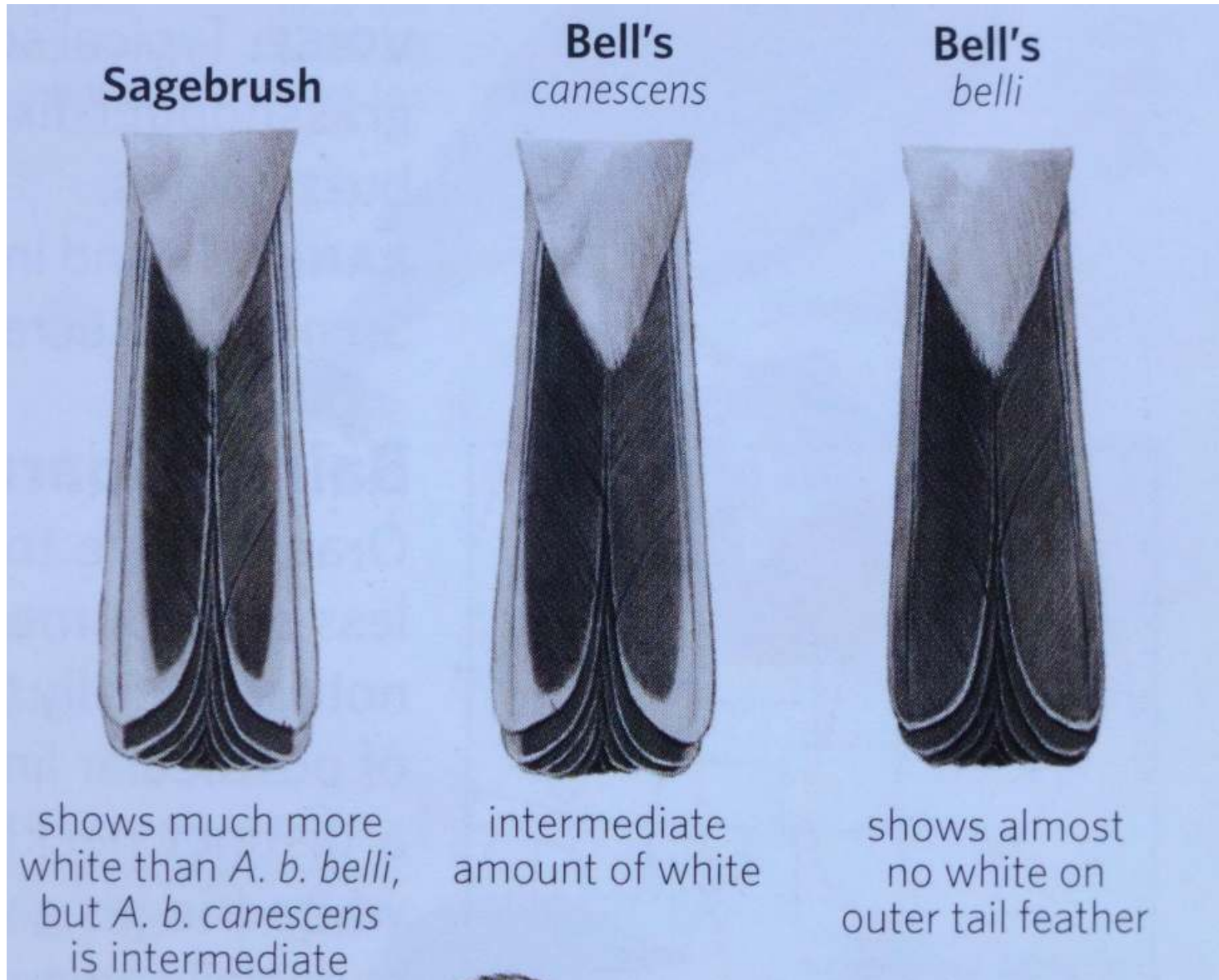
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Tail patterns from NGS guide



Tail patterns usually hard to assess

Subject to wear (white becomes reduced)

Nominate Bell's shows almost no white

Sagebrush averages more white on outer tail feather than *canescens*, according to NGS guide; but Wright (2019) suggests the opposite

Conclusion: probably of no use in distinguishing Sagebrush from *canescens*

Near Laws, Inyo Co. 7 Dec 2019
Jon L. Dunn



Horton Creek, Inyo Co. 14 Dec 2019
Jon L. Dunn



Bell's Sparrow
A. b. canescens

Horton Creek, Inyo Co.
14 Dec 2014
Jon L. Dunn





Near Laws, Inyo Co. 7 Dec 2019
Jon L. Dunn

Sagebrush Sparrow
A. nevadensis



IDENTIFICATION REVIEW: Sagebrush vs. *canescens* Bell's and *belli* Bell's

STREAKING IN CENTER OF BACK:

Distinct and evident in Sagebrush

Absent or weak and inconspicuous in *canescens*

Absent in *belli*

MALAR:

Weak in Sagebrush; does not reach bill

Stronger, more continuous in *canescens*

Stronger, very thick at rear in *belli*

OVERALL HEAD AND BACK COLOR

Pale gray head, browner back in Sagebrush

Gray head, grayer back in *canescens*

Much darker gray-brown head and back in *belli*

IDENTIFICATION REVIEW: Sagebrush vs. *canescens* Bell's and *belli* Bell's

PRIMARY EXTENSION

A bit longer in Sagebrush

Shorter in all Bell's subspecies

MEASUREMENTS

Bill, wings, tail measure longer in Sagebrush

A. b. canescens intermediate in measurements

Nominate *belli* smallest

VOCALIZATIONS

Songs of Sagebrush and Bell's are distinctly different, but variations on the same theme

Sagebrush lower pitched, more mechanical, more buzzes

Bell's choppy, more complex, almost warbling (Blue Grosbeak) quality

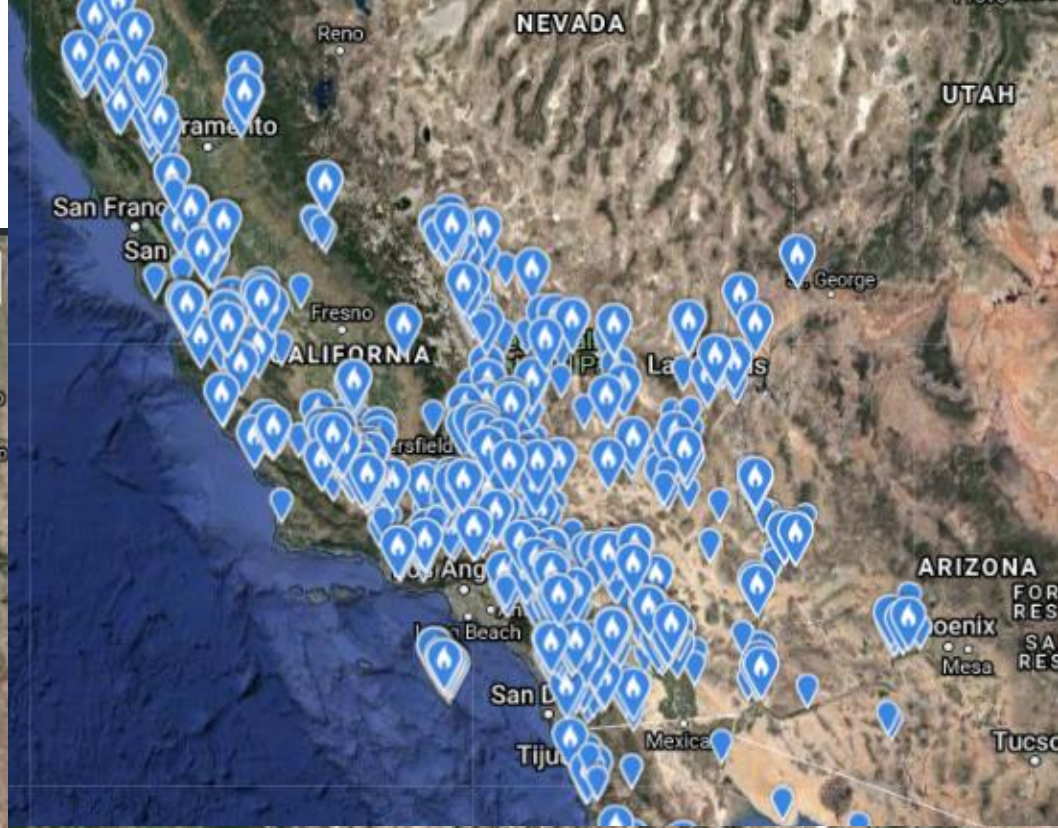
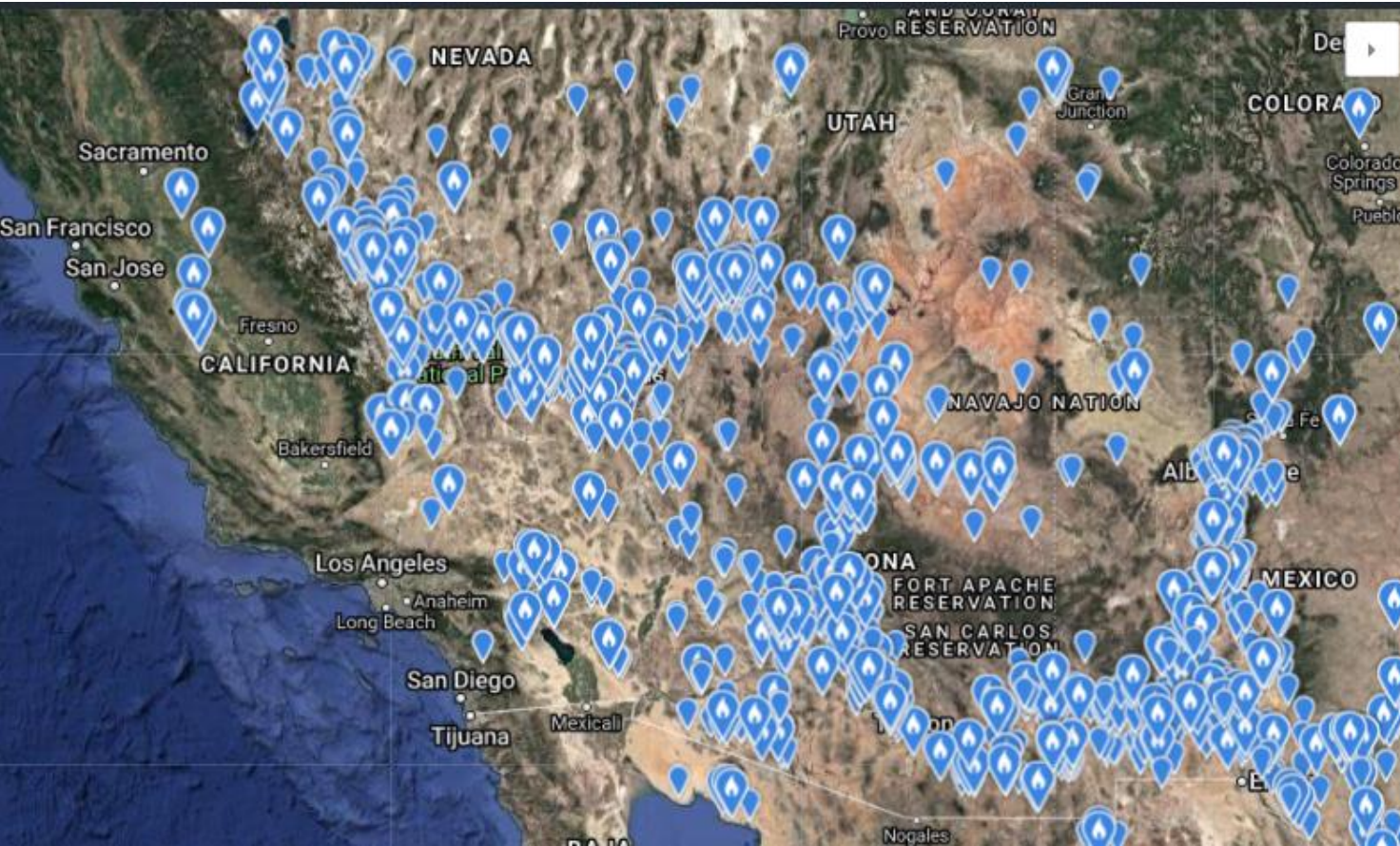
Songs of *canescens* somewhat intermediate, but closer to nominate Bell's

Call notes of all are basically similar

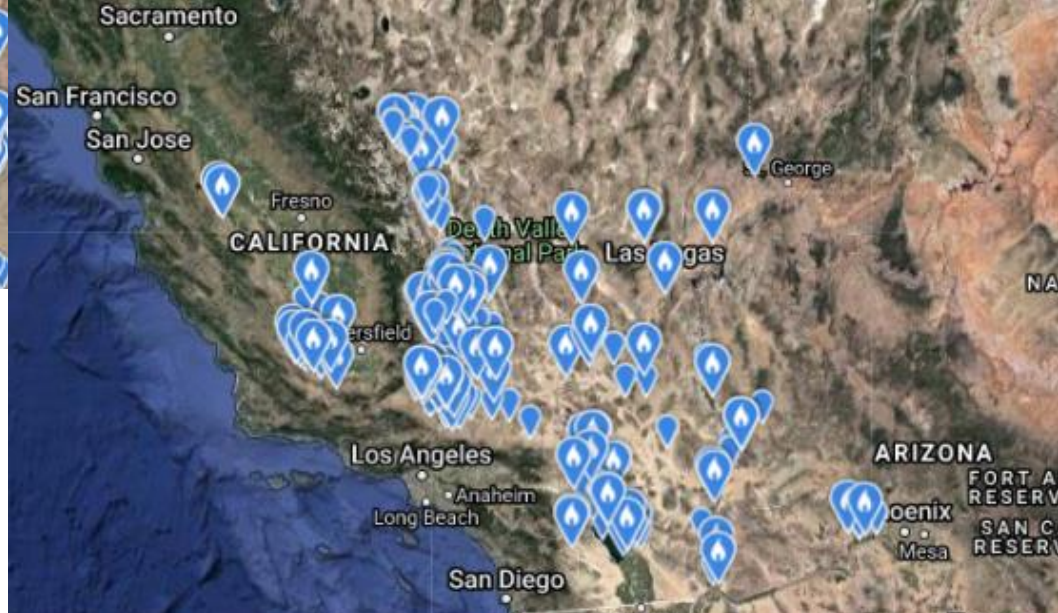
Little spontaneous singing on the winter grounds, but may respond to song playback even in winter

As always, consult Xeno-Canto, Macaulay Library, and Nathan Pieplow's western field guide

Bell's Sparrow DEC-FEB
(all subspecies)



Sagebrush Sparrow DEC-FEB



Bell's Sparrow DEC-FEB
(ssp. *canescens* only)

WINTER HABITAT DIFFERENCES: SAGEBRUSH vs. BELL'S

Much work by Chris McCreedy in sw. Arizona

Creosote scrub vs. saltbush vs. other low desert shrubs

Bajadas vs. low washes

In company of White-crowned Sparrows or with Black-throated Sparrows, or...?

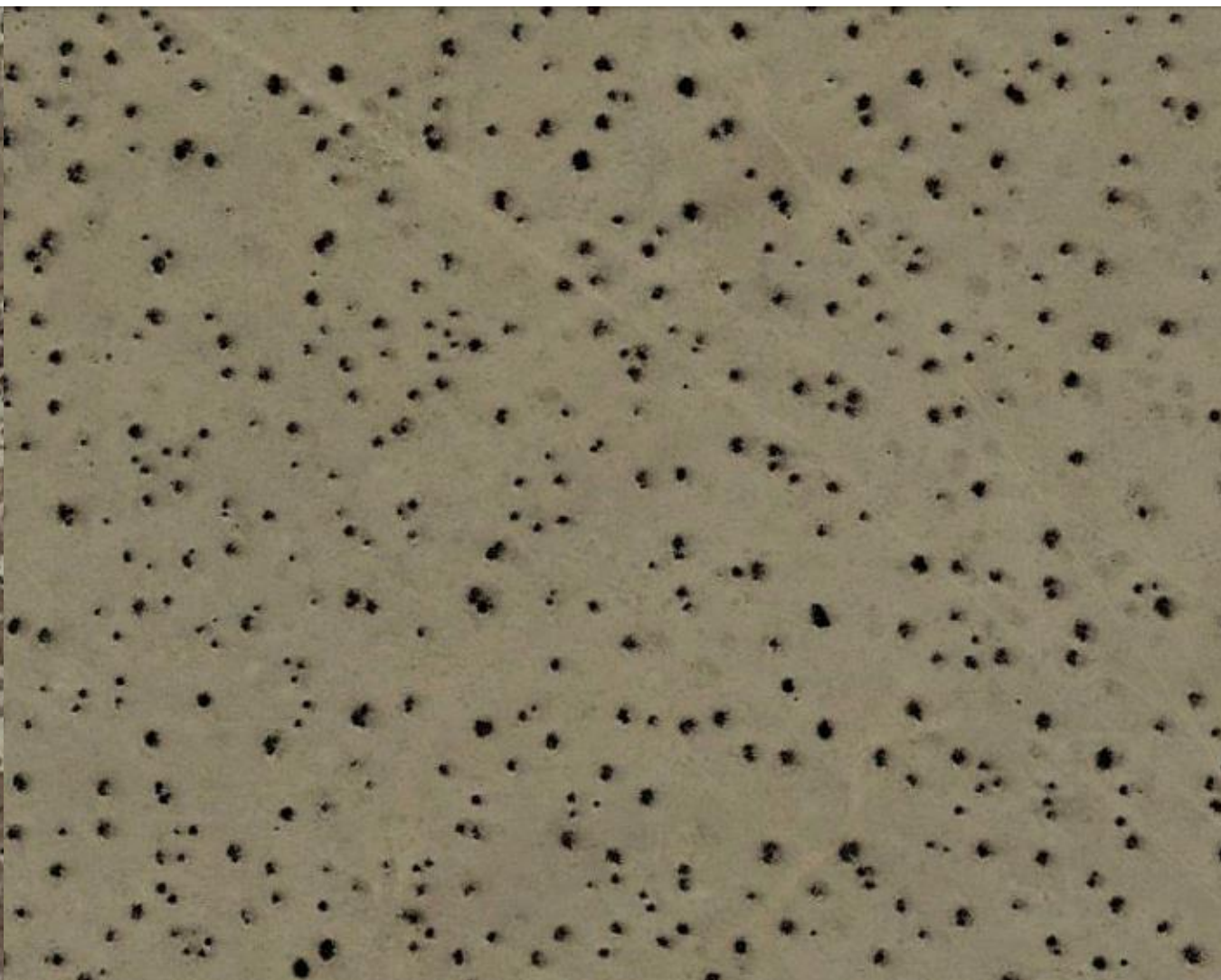


210th St E

E Ave D



Saltbush scrub



Creosote scrub

The Great Sagebrush Sparrow Hunt: When and where?

Both species may undergo up-slope post-breeding movements and molt migration

Sagebrush and *canescens* Bell's are on "winter grounds" by November

Bell's (*canescens*) breeding season starts in March

Sagebrush breeding season starts later (late April/May)

Previous L. A. County specimen records of Sagebrush are from 01 and 25 November

So **November to March** may be the BEST time to look for Sagebrush Sparrows in
Los Angeles County

The Great Sagebrush Sparrow Hunt: Protocols

Pick a route or defined area in Antelope Valley, especially north of Ave J on west side, and north of Hwy 138 on the east side

Especially in need of coverage is the far northeastern corner of the County

Conduct one or more surveys between mid-November and the end of February

Use eBird as platform for reporting results; routes should be <5 miles, but can run multiple adjacent routes

Provide *specific* details on coverage, habitat, results (include ALL species encountered)

Suspected Sagebrush must be thoroughly photo-documented

Use of spotting scope is essential

Playback (songs of *canescens* and Sagebrush) is encouraged

Detailed protocol information will be sent to participants

Protocols will also be posted at LABirders.org

If you're interested in surveying:

Contact Kimball Garrett

kgarrett@nhm.org

SOME REFERENCES

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