Table 1. Newly banded birds by location/session.

Location/sessom	Date	AHY-M	AHY-F	HY-M	HY-F	Total
Zwicker (1 & 2)	31-Jul-2020	81	52	4	6	143
Stoecklin (3)	31-Jul-2020	9	54	5	0	68
Zwicker (4 & 5)	7-Sep-2020	13	50	104	35	202

Table 2. Returns for each location/session

Location/session	Date	Sex	2014	2015	2016	2017	2018	2019	2020	Total
Zwicker (1 & 2)	31-Jul-2020	Male				1	4	13	6	24
		Female	1		1	11	14	29	6	62
Stoecklin (3)	31-Jul-2020	Male				1	1		3	5
		Female			2	4	4	7	8	26
Zwicker (4 & 5)	7-Sep-2020	Male						3	2	5
		Female				9	4	16	12	41

impressive figure of the 31 July "exceptional" day is the number of returns (previously banded birds) that were captured. Of the 328 captured birds on 31 July, 117 (36%) had been previously banded and, of these, 94 (29%) were returns; the other 23 were repeats of birds banded earlier that year. A more traditional rate of return at sites where I have banded for three or more years is 15-25% (and that is primarily for adult birds banded early each season rather than young birds banded later in the season (which have a low survival rate their first year and neither hatched at nor is necessarily expected to return to the capture area).

In addition, on 7 September we also caught a foreign retrap, an HY M that had been banded only two weeks earlier (22 August) by Cynthia Routledge in Clarksville, TN.

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The abundances of the four subspecies groups of Fox Sparrows (*Passerella iliaca*) at a southern California bird banding station.

I have maintained a year-round constant effort bird banding station in the Santa Monica Mountains in southern California (34° 01' 54" N , 118° 48' 44" W) since 1994. The station is located in Zuma Canyon and is about 1.5 km from the Pacific Ocean. Banding protocol has changed somewhat over the 25 years the station has been in operation, but in general banding occurred every two weeks utilizing 10-20 twelve-meter mist nets at permanent net locations.

I became curious about the four subspecies groups of Fox Sparrows (*Passerella iliaca*) described by Pyle (1997). Weckstein et al. (2020) stated all four taxonomic groups can be found in southern California during the winter months. Los Angeles County is considered one of the best places to see all four groups of Fox Sparrows (Allen et al. 2016), but little is know about their actual abundances (Garrett, per. comm.). The four subspecies groups of Fox Sparrows are fairly distinct, although there are some differences in naming them (see Table 1). So I thought it would be enlightening to look at the abundances of the Fox Sparrow groups through our banding efforts at Zuma Canyon in the Santa Monica Mountains. A more detailed description of the banding station can be found in Sakai (2016).

We began to note the group that each Fox Sparrow we caught belonged beginning in 2006, using the criteria in Pyle (1997) as well as the illustrations in field guides (Sibley 2014, Dunn and Alderfer 2017). By 2019, we ended up with 143 birds for which banders identified the group; 38 of these birds were previously banded and identified to a species group. Since both the original bander and the processor of the recaptured bird determined the group independently, I realized this was a good measure of the reliability of the subspecies group identifications. I found that 35/38 (92.1%) birds' group identifications were the same. The three discrepancies were pair-wise of the three more common groups (see below).

The Sooty (*unalaschcensis*) group, which breeds in Alaska, was the most common, represented by 59.0% of all birds identified to a group. The Thick-billed (*megarhyncha*) group was the second most abundant group representing 24.8% of all birds identified. Although this subspecies group breeds locally in the San Gabriel Mountains, these particular birds apparently move southward to winter (Allen et al. 2016).

The wintering Thick-billed birds come from other populations to the north in the Sierra Nevada (Allen et al. 2016). The Slate-colored (*schistacea*) group represents 13.3% of the birds and breeds in western Canada and the interior West. The Red (*iliaca*) group breeds over much of northern Canada. As it winters in the eastern half of the U.S., it is the rarest at 2.9%. These results follow Allen et al. (2016) who state Thick-billed, Slate-colored, and Sooty are "fairly common winter residents," with the latter most numerous, and the Red group is considered very rare. The almost 3% for the Red group is somewhat misleading as related to its rarity. In 25+ years of banding in Zuma Canyon, Reds were captured and banded once in 2009-10, 2010-11, and 2014-15. In conclusion, the abundances of each group is pretty much what is in the literature but with numbers.

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Table 1. Common names of the four groups of Fox Sparrow (*Passerella iliaca*) from four sources.

Group	*unalaschcensis*	*megarhyncha*	*schistacea*	*iliaca*	Source
	Sooty	Thick-billed	Slate-colored	Red	Sibley (2014)
	(Pacific)	(California)	(Interior West)	(Taiga)	
	Coastal NW Sooty	Western Thick-billed	Western Slate-colored	Northern Red	Pyle (1997)
	Sooty	Thick-billed	Slate-colored	Red	Weckstein et al. (2020)
	Sooty	Thick-billed	Slate-colored	Red	Dunn and Alderfer (2017)