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SUBJECT: RUFIOUS-CROWNED SPARROW SURVEY ON ANACAPA AND SANTA CRUZ ISLANDS

Dear Bernie,

During the period 8–11 March 2007 I conducted focused surveys for the Santa Cruz Island Rufous-crowned Sparrow (*Aimophila ruficeps obscura*) on parts of Anacapa and Santa Cruz Islands. This letter report describes the methods and provides the results of this survey effort.

METHODS

I surveyed East and Middle Anacapa Islands, limited portions of West Anacapa Island that could be checked from waters close to shore, and the east end of Santa Cruz Island (see Figures 1–4). I understand that Island Conservation is primarily interested in learning the sparrow's status on West Anacapa Island, but current observations by Frank Gress led him to conclude that only the very western end of this island could be surveyed on foot without disturbing federally endangered Brown Pelicans (*Pelecanus occidentalis*) that are nesting on this island. Given that Dr. Gress indicated that he has never detected Rufous-crowned Sparrows on the western end of this island, I concluded that my time would be more productively spent conducting a thorough search of Middle Anacapa Island, which is nearly pelican-free and which supported Rufous-crowned Sparrows in the past (J. Diamond unpubl. notes cited by P. W. Collins, in press, Santa Cruz Island Rufous-crowned Sparrow *Aimophila ruficeps obscura* in California Bird Species of Special Concern 2006 [W. D. Shuford and T. Gardali, eds.]. Studies W. Birds 1.).

During each survey period listed in Table A, I used an i-Pod based system to play vocalizations of Rufous-crowned Sparrows in order to elicit responses from any of these sparrows that may have been present in the vicinity. I took notes on all vertebrate species detected.

TABLE A: SURVEY SUMMARY

DATE	TIME	CONDITIONS	AREA SURVEYED
8 March 2007	12:21–14:28	59–65°F; high, thin clouds; wind 2–8 mph	East Anacapa (red track)
8 March 2007	16:40–18:19	59–65°F; high, thin clouds; wind 2–8 mph	East Anacapa (green track)
9 March 2007	10:19–14:40	55–65°F; 100% overcast; wind 2–13 mph (mostly calm)	Middle Anacapa (cyan track)
10 March 2007	08:34–17:34	63–68°F; sunny/hazy; light winds	boat survey; very limited parts of West Anacapa (white track)
11 March 2007	12:26–15:41	77–82°F; sunny/clear; wind 4–6 mph	east end Santa Cruz (blue track)

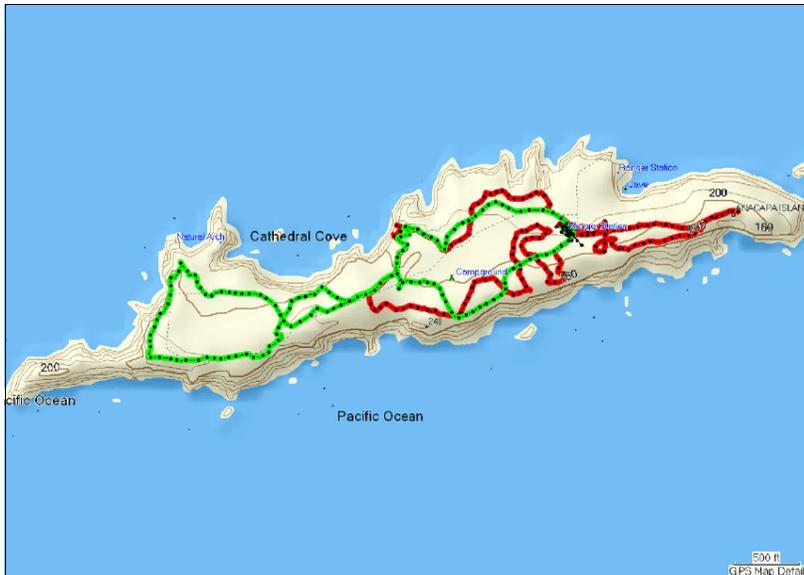


Figure 1: GPS tracks for 8 March 2007 on East Anacapa Island. Red track shows area traversed from 12:21 to 14:28; green track shows area traversed from 16:40 to 18:19.

Figure 2: GPS track for 9 March 2007 on Middle Anacapa Island, showing area traversed from 10:19 to 14:40.

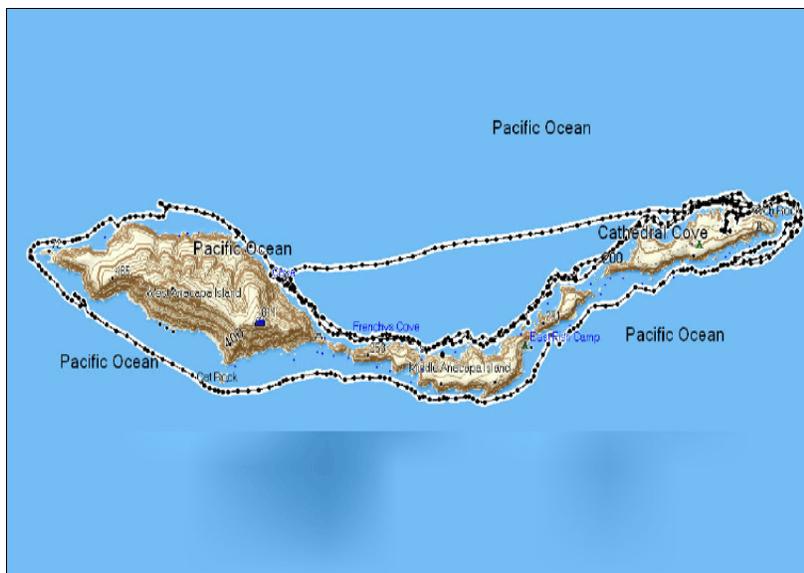


Figure 3: GPS tracks for 10 March 2007 describing boat trips around West, Middle, and East Anacapa Islands from 08:34 to 17:34. I played vocalizations of Rufous-crowned Sparrows along the northeastern shoreline of West Anacapa Island when the boat was close to shore.

On 11 March, a change in plans by Island Packers gave me an opportunity to check the west end of Santa Cruz Island. I spent about three hours there playing the sparrow vocalizations and making notes on the habitats where I detected sparrows. Figure 4 shows the area that I covered and the locations where I detected sparrows.



Figure 4: GPS track and waypoints for 11 March 2007 on Santa Cruz Island. Blue track shows area traversed from 12:26 to 15:41. Numbered waypoints represent locations where Rufous-crowned Sparrows were detected. Pairs of sparrows were detected at waypoint nos. 1-6 and single birds were detected at waypoint nos. 7 and 8.

RESULTS

I present daily species lists below followed by notes from Santa Cruz Island regarding Rufous-crowned Sparrows and the habitats where I found them, including photos. Please refer to Table A and Figures 1-4 for survey times, survey conditions, and areas covered. Except for the first day, when the Island Packers boat took us around the south side of East Anacapa, I did not count pelicans or cormorants since Frank Gress and Laurie Harvey are conducting detailed counts of these birds. Also, Western Gulls were abundant and conspicuous on East Anacapa and Middle Anacapa, pairing off, giving long calls, performing courtship rituals, and, in a few instances, copulating; I made no effort to count these gulls.

8 March 2007

Departed Ventura Harbor at 0940. Choppy seas with moderate winds. No seabird or marine mammal highlights. I saw one Barn Swallow flying up the coast as we left the harbor. Arrived at Landing Cove on East Anacapa at around 1100 and met Laurie Harvey. Later I met Frank Gress and Theresa Rusca. The *Coreopsis* was green and just starting to bloom. Figure 5 shows the general conditions on East Anacapa, and the species list that follows combines my mid-day and late afternoon observations from this island.



Figure 5. Photograph taken on 8 March 2007 showing the general conditions on East Anacapa Island.

East Anacapa Island, 8 March 2007

Painted Lady	1	Rock Wren	1 singing @ Landing Cove
Surf Scoter	20	Bewick's Wren	8
Brown Pelican	400 on east end of island	Orange-crowned Warbler	16 (singing)
Brandt's Cormorant	50	Savannah Sparrow, interior	1
Pelagic Cormorant	5	Song Sparrow	1
Black Oystercatcher	2	White-crowned Sparrow	22
Western Gull	abundant	Western Meadowlark	14
Black Phoebe	1	California Sea Lion	several @ east end
Say's Phoebe	2	Harbor Seal	a few @ east end

9 March 2007

Awoke at 0620 and checked mouse traps at west end of East Anacapa with Theresa. She had captured no mice, but we did find a Southern Alligator Lizard under a board. I walked to the lighthouse and saw one new species, a single Lincoln's Sparrow. Figure 6 shows a Western Gull with yellowish legs, the only individual that I saw with this unusual coloration during this trip. Frank said that there were too many Brown Pelicans nesting on top of East Anacapa Island to allow me to walk anywhere but the westernmost slope of the island, an area where he had never seen Rufous-crowned Sparrows before. As an alternative, he said that I could walk virtually all of Middle Anacapa Island, where the sparrows had been seen before. I decided to take the second option, and from 0930 to 1000 Frank and Laurie motored me over to Middle Anacapa Island in their zodiac. On the way over we saw three Pigeon Guillemots near Landing Cove, East Anacapa Island.



Figure 6. Adult Western Gull with yellowish legs photographed on East Anacapa Island, 9 March 2007.

Middle Anacapa Island, 9 March 2007

Side-blotched Lizard	3	Bewick's Wren	11
Southern Alligator Lizard	1	House Wren	1
Surf Scoter	125	Ruby-crowned Kinglet	1
Brown Pelican	present	Orange-crowned Warbler	34 (singing)
at least one pair nest-building		Song Sparrow	4
Brandt's Cormorant	present, nesting	Lincoln's Sparrow	1
Pelagic Cormorant	present, nesting	White-crowned Sparrow	23
Black Oystercatcher	11	Golden-crowned Sparrow	2
Spotted Sandpiper	1	Western Meadowlark	1
Western Gull	abundant	House Finch	2
Allen's Hummingbird	11		
most in eucalyptus grove on north side			

Figures 7-9 show the scrub and grassy habitats on Middle Anacapa Island where I concentrated my survey efforts. On the night of 9 March, back on East Anacapa, I heard a Barn Owl.



Figure 7. Coastal scrub on southeastern slope of Middle Anacapa Island, 9 March 2007.



Figure 8. Coastal scrub on eastern slope of Middle Anacapa Island, 9 March 2007.



Figure 9. Coastal scrub and grassland on the northern slope of Middle Anacapa Island, 9 March 2007.

10 March 2007

Frank and Laurie had a day of pelican and cormorant surveys planned today, and by tagging along I could at least survey parts of West Anacapa when the boat was close to the shoreline. From the boat I was able to hear the songs of Bewick's Wren and Song Sparrow as well as the calls of Orange-crowned Warbler, so I expect that I would have been able to hear Rufous-crowned Sparrows had they responded to the digital playback. We left Landing Cove at 0830, and with excellent weather all day long Frank and I were able to stay out until around 1700 (Laurie had to leave the island mid-day, so we dropped her off and then continued surveying).

Although virtually all of the Western Gulls that I saw on the tops of the islands were adults, I noted roughly 10-20 subadults on and around the rocky coastlines. We looked for, but were unable to find, Brown Boobies that Laurie had been seeing consistently for the past several weeks among cormorants that roost on the eastern end of East Anacapa Island.

East Anacapa Island, 10 March 2007

Surf Scoter	6	Spotted Sandpiper	1
Red-breasted Merganser	2	Western Gull	abundant
Brown Pelican	present	Heermann's Gull	2 subadults
Brandt's Cormorant	present, nesting	Pigeon Guillemot	3 near Landing Cove
Pelagic Cormorant	present, nesting	Black Phoebe	2

Middle Anacapa Island, 10 March 2007

Surf Scoter	12	Black Oystercatcher	23
Red-breasted Merganser	1	Western Gull	abundant
Brown Pelican	present, 1 building nest	Heermann's Gull	2 subadults
Brandt's Cormorant	present, nesting	Pigeon Guillemot	1
Pelagic Cormorant	present, nesting	Bewick's Wren	2
American Oystercatcher	1, photos adult paired with Black Oystercatcher at "Battleship Rock" on north side of island; black tips to undertail coverts; see Fig. 10	Song Sparrow	1

West Anacapa Island, 10 March 2007

Brown Pelican	abundant, nesting	Western Gull	abundant
Brandt's Cormorant	present, nesting	Royal Tern	31
Pelagic Cormorant	present, nesting	Bewick's Wren	2
Black Oystercatcher	13 3 birds responded aggressively to playback of Rufous-crowned Sparrow vocalizations by flying around the boat, calling	Orange-crowned Warbler	2



Figure 10. Adult American and Black Oystercatchers at "Battleship Rock" on the northern shore of Middle Anacapa Island on 10 March 2007. Black tips to the undertail coverts of the American Oystercatcher indicate some degree of hybridism. This record has been submitted to the California Bird Records Committee for review.

Figure 11. Coastal scrub on the northern slope of West Anacapa Island, 10 March 2007.



11 March 2007

We awoke to an unseasonably warm, sunny day on East Anacapa, with glassy seas and almost no wind. During the early morning I saw a Peregrine Falcon perched on the lighthouse and I spent some time photographing Brown Pelicans that were flying low along the northern shoreline. Mid-morning, however, the captain of the Island Packers boat called in and said that, due to Santana winds up to 45 mph on the mainland, he would be picking us up before noon and taking us to Santa Cruz Island instead of picking us up at 15:30 and taking us back to the mainland. We arrived at Scorpion Anchorage shortly after noon and I spent a few hours successfully searching for Rufous-crowned Sparrows on the east end of Santa Cruz Island. Figures 12-16 show two of the sparrows and some of the habitats where I found these birds.

Santa Cruz Island, 11 March 2007

Monarch	many
Gray Hairstreak	a few
Side-blotched Lizard	present
Brown Pelican	present
Sharp-shinned Hawk	1
American Kestrel	2
Western Gull	present
Mourning Dove	11
Allen's Hummingbird	19, courtship
Black Phoebe	3
Say's Phoebe	2
Common Raven	6
Rock Wren	1

Bewick's Wren	18
Orange-crowned Warbler	3
Audubon's Warbler	32
Spotted Towhee	2
Rufous-crowned Sparrow	14 6 pairs, 2 single birds; see Fig. 4 the birds were vocal and responded to playback of RcSp songs and calls
Song Sparrow	21
Lincoln's Sparrow	2
White-crowned Sparrow	15
Western Meadowlark	3
House Finch	45
Lesser Goldfinch	21



Figure 12. A pair of Rufous-crowned Sparrows on Santa Cruz Island, 11 March 2007. These birds, photographed at waypoint 004 (see Figure 4), were in habitat typical for the species: rocky slopes vegetated with a mix of grasses and shrubs. See also the following figures, which show this and other areas on Santa Cruz Island that were found to support Rufous-crowned Sparrows on the same afternoon.

Figure 13. Habitat on Santa Cruz Island occupied by Rufous-crowned Sparrows on 11 March 2007 (waypoint 004 on Figure 4).





Figure 14. Habitat on Santa Cruz Island occupied by Rufous-crowned Sparrows on 11 March 2007 (waypoint 001 on Figure 4).



Figure 15. Habitat on Santa Cruz Island occupied by Rufous-crowned Sparrows on 11 March 2007 (waypoint 002 on Figure 4).



Figure 16. Habitat on Santa Cruz Island occupied by Rufous-crowned Sparrows on 11 March 2007 (waypoint 006 on Figure 4).

CONCLUSION AND RECOMMENDATION FOR AN ADDITIONAL SURVEY

I did not detect any Rufous-crowned Sparrows on East, Middle, or West Anacapa Islands, but I did find 14 birds (six pairs and two individuals) on the eastern end of Santa Cruz Island. Considering the responsiveness of these birds to my playback of digital recordings of Rufous-crowned Sparrow songs and calls, I am confident that the species is currently either absent from East and Middle Anacapa Islands or present only in very small numbers.

The Rufous-crowned Sparrows that I detected on Santa Cruz Island were utilizing a mix of grassland and scrub habitats, generally on slopes with conspicuous rocky outcrops (see Figures 12-16). East and Middle Anacapa Islands support grassland, scrub, and rocky habitats, but I did not find many areas where all three of these elements come together to comprise what seems to be ideal habitat for Rufous-crowned Sparrows (for example, compare Figures 5, 7, 8, 9 with Figures 12-16). The lower slopes of West Anacapa Island that are visible from sea consist of coastal sage scrub with bare patches and rocky outcrops, but with little grassy cover (see Figure 11). I was unable to evaluate the upper portion of West Anacapa Island, where Frank Gress has seen Rufous-crowned Sparrows in recent years – perhaps this part of the island supports a more favorable mix of grass, scrub, and rocky outcrops compared with the areas that I surveyed with negative results.

In order to more conclusively determine the status of Rufous-crowned Sparrows on Anacapa Island it will be necessary to survey the upper reaches of West Anacapa Island, preferably between late winter and early summer. The field effort could include another survey of Middle Anacapa Island to double-check the negative results that I obtained during the current effort. Any surveys conducted should utilize playback of Rufous-crowned Sparrow vocalizations, as this technique was shown to be effective in eliciting responses from this species on Santa Cruz Island.

Thank you for the opportunity to conduct this interesting survey. Please call me at 562-477-2181 if you wish to discuss any issues; you may send e-mail to robb@rahamilton.com.

Sincerely,



Robert A. Hamilton
Consulting Biologist