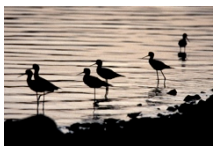

Cooper Ecological Monitoring, Inc.
EIN 72-1598095
Daniel S. Cooper, President
5850 W. 3rd St. #167
Los Angeles, CA 90036
(323) 397-3562; dan@cooperecological.com

July 19, 2011

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Daniel Cooper

Daniel S. Cooper
President, CEM, Inc.
USFWS Permit #TE 100008-1

Protocol survey for California gnatcatcher, *Polioptila californica,* at the Ballona Wetlands Ecological Reserve.

Los Angeles County, California

FINAL
2011

Performed by:

Daniel S. Cooper
Cooper Ecological Monitoring, Inc.
5850 W. 3rd St., #167
Los Angeles, CA 90036
dan@cooperecological.com
Permit # TE100008-1

For:

ICF INTERNATIONAL
1811 W. 7th St., Suite 800
Los Angeles, CA 90017

July 19, 2011

Summary
This report presents the findings from a protocol survey (USFWS 1997) for the California gnatcatcher, *Polioptila californica,* during spring 2011 at the Ballona Wetlands Ecological Reserve (Reserve) located in southwestern Los Angeles County, California adjacent to Marina del Rey. A single California gnatcatcher was detected on the first day of the survey (18 March 2011) but not in subsequent visits. Based on these observations, confidence is high that the California gnatcatcher is not resident at the Reserve, and that the individual observed was one of two birds that were present during winter 2010-2011 at the Reserve, and not prior or subsequent to last winter.

Site description
The Reserve complex is wholly located within the USGS "Venice" 7.5' topographic quadrangle, and includes an area centered on the coordinates 33.975787, -118.433561 (Figure 1). Roughly 600 acres of open space is contained within the Ballona Wetlands Ecological Reserve both north and south of Ballona Creek. However, only small amount of this area (<10 acres) supports ideal habitat for the gnatcatcher, that is, low scrub dominated by California sagebrush (*Artemisia californica*), and this habitat is widely scattered across the Reserve. Open space on either side of Lincoln Blvd. and north of Ballona Creek channel is dominated by thickets of coyotebush (*Baccharis pilularis*) and smaller areas of mulefat (*B. salicifolia*), within expanses of ruderal vegetation dominated by garland chrysanthemum (*Chrysanthemum coronarium*) and other non-native herbaceous vegetation such as tall annual mustards

(Brassicaceae). Tall, narrow stands of quailbush (*Atriplex lentiformis*) are present, mainly along a channel that runs along the northeastern edge of the study area, crossing Lincoln Blvd. Native forbs are rare, and non-existent over large areas of the open space, but include evening-primrose (*Camissonia* spp.), everlasting (*Gnaphalium* spp.), and more locally, clustered tarweed (*Hemizonia fasciculata*). Other native shrub species are few, but large laurel sumac (*Malosma laurina*) are present, as are scattered individuals of widespread coastal sage scrub species, including Palmer's goldenbush (*Ericameria palmeri*) and California bricklebush (*Brickellia californica*). Sage (*Salvia*) and coast buckwheat (*Eriogonum fasciculatum*) both appear to be absent, although dune buckwheat (*Eriogonum parvifolium*) historically occurred (CCH 2011), and has been planted by volunteers over the past 20 years in an area of relict backdune south of Ballona Creek. This restoration area, which is strongly dominated by dune lupine (*Lupinus chamissonis*), was not surveyed, due to a lack of California sagebrush and other coastal sage scrub species.

Other shrubland on the Reserve was deemed unlikely to support the California Gnatcatcher (D.S. Cooper, pers. obs.; D. Lawhead, CDFG, via email), so was not visited during this survey (Figure 2). Since October 2009, all areas of the Reserve have been subject to Reserve-wide bird surveys (by D.S. Cooper) each lasting several days in October 2009, January 2010, April 2010, July 2010, October 2010, and April 2011 (Santa Monica Bay Restoration Foundation, unpubl. data).

Methods

All sagebrush-dominated scrub and adjacent shrubland habitat were surveyed north of the Ballona Creek channel (both habitats are limited south of the channel), covering an area of roughly 50 acres in aggregate, located in areas designated as Areas A and C. Area A is located west of Lincoln Blvd., and Area C is located east of Lincoln Blvd.; the latter is bisected by Culver Blvd. Because of the lack of sagebrush habitat in Area C south of Culver Blvd., only Area C north of Culver Blvd. was surveyed (Figure 3).

Surveys consisted of walking slowly and deliberately through or alongside (when impenetrable) all potentially suitable habitat in Areas A and C (including coastal sage scrub, coyotebush scrub, and mulefat scrub), watching and listening for the California gnatcatcher. Recorded vocalizations of the California gnatcatcher were not used during this survey.

Following U.S. Fish and Wildlife Service guidelines (USFWS 1997) a total of six visits at least one week apart were made between 18 March and 18 May 2011. Surveys were performed by Daniel S. Cooper (DSC), and survey dates and times were as follows (all 2011):

- 18 March (08:00-11:50, 54-61 degrees F)
- 29 March (09:10-11:20, 58-62 degrees F)
- 07 April (08:55-11:30, 60 degrees F)
- 15 April (09:15-10:50, 72-75 degrees F)
- 24 April (08:40-11:50 59-61 degrees F)
- 18 May (09:20-11:10, 56-60 degrees F)

Wind was <5 mph on each visit and was not felt to interfere with detection of bird calls at any point during the survey.

Findings

A single California gnatcatcher was observed on 18 March 2011 (Figure 4). The individual was located toward the southeastern corner of Area A, just north of Ballona Creek, in dense California sagebrush scrub (Figure 5). The gnatcatcher was calling infrequently, giving a weak but distinctive mewing call, and was seen very briefly.

The habitat where the gnatcatcher was found was a patch of California sagebrush approximately 20 meters across, surrounded by larger coyotebush and laurel sumac, located at the southeastern edge of Area A, adjacent to the Ballona Creek bicycle path. The bird was foraging actively in the upper braches of California sagebrush when observed and photographed, but it quickly disappeared. Despite circling the habitat and inspecting surrounding vegetation for nearly an hour, it was not seen again.

Despite repeated visits to this patch and to other patches during the survey, no other observations were made of a California gnatcatcher during the survey.

Including the target species, a total of 53 bird species were detected during the survey (Appendix A). Of these, the 11 species listed below were found on all six visits:

- Mourning dove, *Zenaida macroura*
- Anna's hummingbird, *Calypte anna*
- Allen's hummingbird, *Selasphorus sasin*
- Western kingbird, *Tyrannus verticalis*
- Bushtit, *Psaltriparus minimus*
- Wrentit, *Chamaea fasciata*
- Northern mockingbird, *Mimus polyglottus*
- Common yellowthroat, *Geothlypis trichas*
- Song sparrow, *Melospiza melodia*
- House finch, *Carpodacus mexicanus*
- Lesser goldfinch, *Carduelis psaltria*

In addition to the California Gnatcatcher, the following other bird species observed may be considered Sensitive under state and/or federal law under certain conditions (CDFG 2011):

- Cooper's hawk, *Accipiter cooperii* (California "Watchlist", formerly a California Bird Species of Special Concern)
- Sharp-shinned hawk, *Accipiter striatus* (California "Watchlist", formerly a California Bird Species of Special Concern)
- Purple martin, *Progne subis* (California Bird Species of Special Concern)
- Western meadowlark, *Sturnella neglecta* (Los Angeles County Bird Species of Special Concern; Allen et al. 2009)

These species are typically considered protected only when nesting. Cooper's hawks were observed on 18 March (one or two) and 07 April (one). The species is known to breed in the area (Marina del Rey, Mar Vista; D.S. Cooper, pers. obs.). A sharp-shinned hawk was observed on 24 April, and was a transient individual (not known to breed regularly in southern California). A single purple martin was overhead on 07 April, and was a transient (does not breed in coastal southern California).

The western meadowlark formerly nested at the Ballona Wetlands Ecological Reserve (Cooper 2006) but was presumed to be extirpated around 2005, when the last local nesting was confirmed (D.S. Cooper, pers. obs.). Observations during this survey are consistent with its current occurrence pattern; counts went from to 14 birds in March, to one bird on 15 April to zero on the final two visits (24 April, 18 May).

Several savannah sparrows (*Passerculus sandwichensis*) were detected in both Area A and Area C (see Appendix A, below) through 24 April, which were presumably of migratory subspecies (several are known from southern California, including the Ballona area). While the Belding's savannah sparrow (*P. s. beldingi*; State Endangered) is a permanent, non-migratory resident south of Ballona Creek, it is not known to maintain a year-round presence in the area north of the creek, e.g., in Areas A or C. While several savannah sparrows were noted in small patches of pickleweed (*Salicornia* sp.) during the survey that may have been Belding's, we noted no territorial behavior (consistent singing, interacting pairs, etc.) that would suggest that they were of this resident, nesting subspecies (migratory subspecies are not afforded special status under the law). It is extremely difficult, if not impossible, to conclusively separate Belding's savannah sparrow from dark individuals of other subspecies at Ballona outside the late nesting season (late May – late July, when all local savannah sparrows are presumably Belding's, the resident breeding form).

Discussion

Prior to 2010, the California gnatcatcher was known from the vicinity of the Reserve only from a single specimen from "Port Ballona" collected in 1888 (LACM 12790). Despite considerable effort from birders and ornithological surveys since the 1980s, few reports, and no confirmed observations of this species have been made in the vicinity of the Reserve (the species' close resemblance to the more common blue-gray gnatcatcher, *Polioptila caerulea,* has been responsible for numerous erroneous reports of the California gnatcatcher in the region).

During a quarterly Reserve-wide bird survey conducted as part of an ongoing baseline biological survey, initiated in 2009, two California gnatcatchers were discovered (by DSC) in Area C of the Reserve on 23 October 2010 (Figures 6 and 7). At least one of these birds was subsequently observed in Area C intermittently through 14 February 2011, but not after this date (D.S. Cooper, unpubl. notes). The individual found in Area A during the initial visit for this survey (on 18 March) was presumably one of the two birds that wintered in Area C, as the two locations are approximately 500 meters apart, and no birds were observed in Area A on several visits (by DSC and others) during the winter of 2010-2011 or prior to this season.

The patch of sagebrush in Area A that held the single California gnatcatcher on 18 March is the largest occurrence of this habitat type known on the Reserve, and also supported up to two Wrentit (*Chamaea fasciata*), another scrub-dwelling species, during our surveys. More extensive sagebrush has been planted to the south on the slopes of the Westchester Bluffs, which were outside the area studied (nearest point is approximately 850 meters south of the Ballona Creek channel that formed the southern boundary of the study area).

The historical status of the California gnatcatcher in the vicinity of the Reserve is incompletely known. With just a single specimen, it is not possible to speculate on whether it formerly occurred regularly, or was a resident here. In addition to the "Port Ballona" recorded listed above, two specimens were collected in 1904 from "Redondo Beach vic." (LACM; http://www.ornisnet.org/), presumably the southern end of what are known as the El Segundo Dunes. The nearest resident

population appears to be on the Palos Verdes Peninsula 20 km south of Ballona, and the species has never been confirmed as occurring in the Baldwin Hills, nor in the eastern Santa Monica Mountains (Bradley 1980, Garrett 2001, K.L. Garrett, pers. comm.).

Overall, the Ballona Wetlands Ecological Reserve supports a depauperate scrubland avifauna even as compared with nearby open space areas such as the Baldwin Hills (Garrett 2001) or the Palos Verdes Peninsula (Bradley 1980), with otherwise common and widespread species absent or rare, some occurring as non-breeding visitors only, such as California Quail (*Callipepla californica*; former resident, extirpated 1980s); Costa's Hummingbird (*Calypte costae*; vagrant); Bewick's Wren (*Thryomanes bewickii*; fall/winter only); California Thrasher (*Toxostoma redivivum*; vagrant); Spotted Towhee (*Pipilo maculatus*; fall/winter only); Rufous-crowned Sparrow (*Aimophila ruficeps*; no records) (Cooper 2006).

It is possible that the California gnatcatcher may occur in the Ballona area in the future, and even become a year-round resident in small numbers in the Ballona area, perhaps in the several dozen acres of planted coastal sage scrub along the Westchester Bluffs to the south, an area outside the Reserve. These bluffs have yet to be completely surveyed for this and other bird species (regular bird surveys have been conducted at the Ballona Freshwater Marsh and Playa Vista Riparian Corridor, both along the base of the bluffs, since 2003), and a population may yet become established here. It is also possible that the species will again occur within the Ballona Wetlands Ecological Reserve proper; however, with so little coastal sage scrub present, particularly the low, sagebrush- and coast buckwheat-dominated vegetation favored by this species, it seems unlikely that a breeding population will develop here, even if the occasional bird might occur again. The fact that more widespread, regionally-abundant taxa like wrentit, Bewick's wren, and California thrasher which are supported by similar habitat types have not become established here suggests that the site may simply be inappropriate to support the species, either because of its geographic location (i.e., too far out on the coastal plain, far from core populations of these species), or because the habitat present is too small and fragmented in its current state.

Based on the occurrence of the California gnatcatcher elsewhere in the area (e.g., Palos Verdes peninsula), the species requires extensive areas of coastal sage scrub dominated by California sagebrush. While sagebrush is present locally at the reserve, it does not form a dominant habitat type of more than an acre in occurrence except at the far southeastern end of Area A. Given the isolation of the Reserve from the nearest known population (20 km; Figure 8), and the unlikelihood of immigration into the area from this population, the establishment of a population anywhere in the vicinity of the Reserve might require that additional habitat be created in the intervening area. It is notable that the species is not known from the Baldwin Hills, located just east of the Reserve, which supports several dozen hectare of sagebrush-rich coastal sage scrub that would seem ideal for the species. This suggests that the entire west Los Angeles area may currently lie outside the natural range of occurrence for the species, and that no amount of restoration or habitat creation would lead to its establishment here.

However, if this establishment is deemed a conservation priority, we suggest the following recommendations:

- Establish patches of coastal sage scrub dominated by California sagebrush throughout the Reserve, where feasible, such as along the outer slopes of the Ballona Creek levee, along levee roads, etc.

- Continue to remove non-native plants such as garland chrysanthemum, mustards, annual grasses (Poaceae), pampas-grass (*Cortaderia selloana*), Brazilian pepper (*Schinus terebinthifolius*), and other flora that are inhibiting the development of coastal sage scrub on the Reserve.
- Continue to encourage patches of bare ground on soils that promote the establishment and growth of native coastal sage scrub species (especially in Area C, where this is already occurring; see Figure 6).
- Work with partner organizations to restore coastal sage scrub habitat in the Baldwin Hills.
- Work with partner organizations to establish "stepping stones" of habitat along Ballona Creek leading to the Reserve from the Baldwin Hills, where a population may become established in the future.
- Work with partner organizations to establish coastal bluff scrub in areas south of El Segundo leading to the Palos Verdes Peninsula (e.g., within cities of Redondo Beach, Torrance, etc.)

References

Allen, L.R. (and 10 co-authors) 2009. Los Angeles County's Sensitive Bird Species. Western Tanager 75(3). January/February 2009.

Bradley, R.A. 1980. Avifauna of the Palos Verdes Peninsula, California. Western Birds 11(1).

California Department of Fish and Game, 2011. *Special Animals* (898 taxa). Biogeographic Data Branch (CDFG), January 2011.

CCH (California Consortia of Herbaria). 2011. Data provided by the participants of the Consortium of California Herbaria (ucjeps.berkeley.edu/consortium/).

Cooper D.S. 2006. Annotated checklist of birds of the Ballona Valley, Los Angeles County, California. Available online: http://www.cooperecological.com/birds_of_ballonaweb.htm

Garrett, K.L. 2001. Birds of the Baldwin Hills, Pp. 77-126 in K. Molina, ed. Biota of the Baldwin Hills, Los Angeles County, California. California Community Conservancy International and Natural History Museum of Los Angeles County Foundation, Los Angeles, CA.

United States Fish and Wildlife Service, 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines. February 28, 1997.

Figures

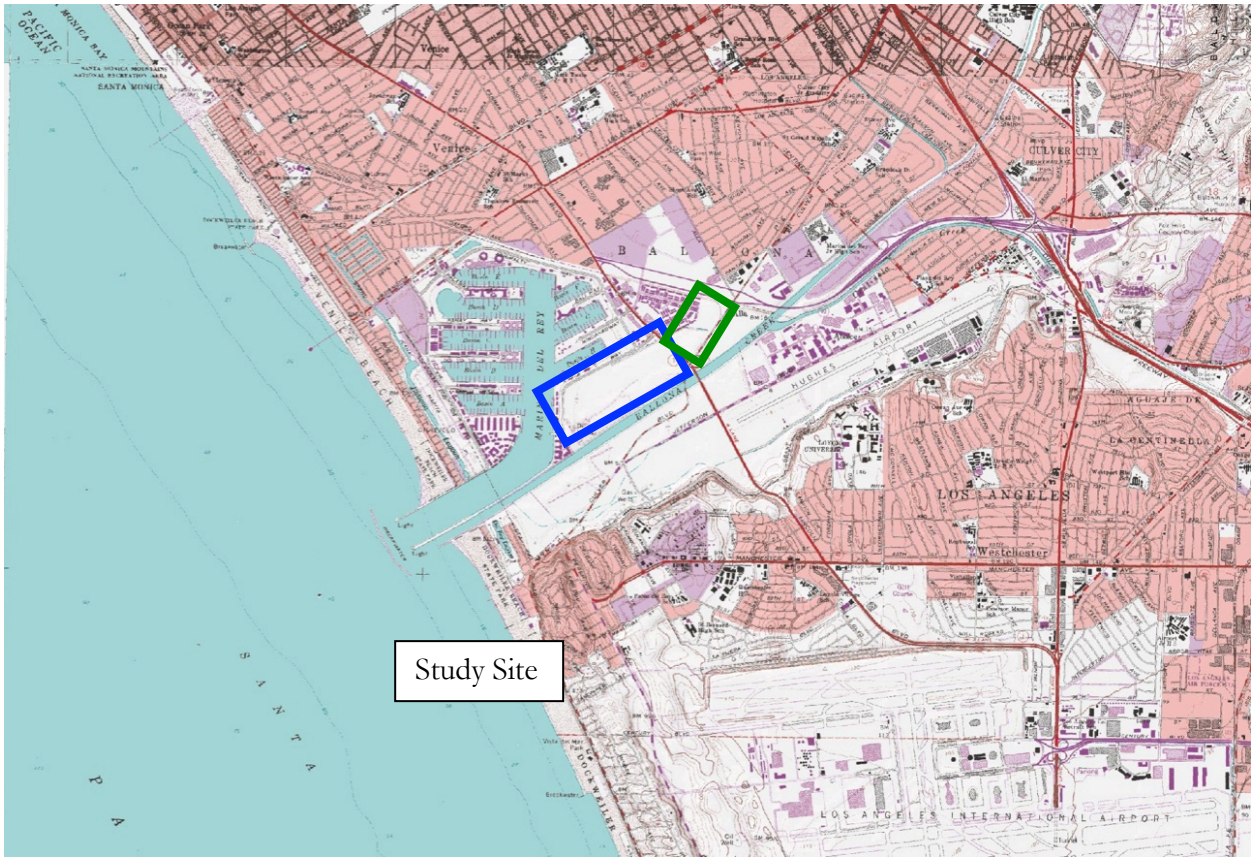

Figure 1. Location of Ballona Wetlands Ecological Reserve (USGS "Venice" quadrangle, Los Angeles Co.). Blue box: "Area A"; green box: "Area C north". Lincoln Blvd. divides the two Areas above.

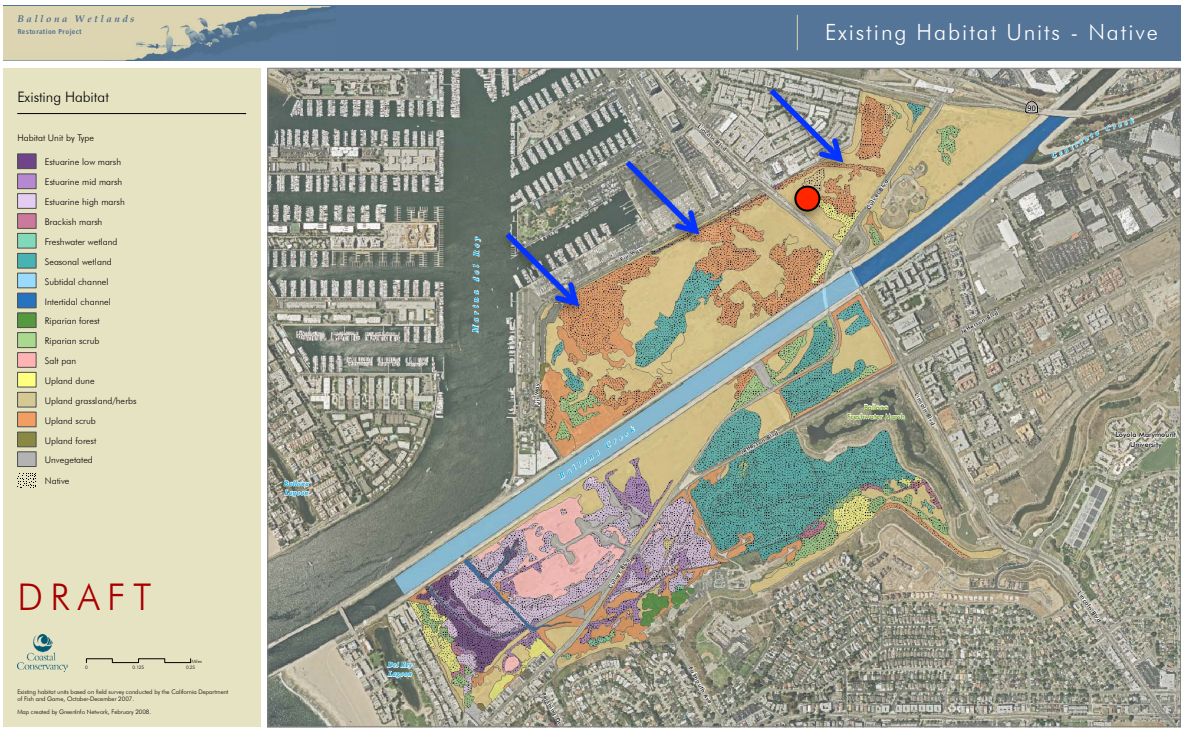

Figure 2. Areas of native "upland scrub" habitat at Ballona Wetlands Ecological Reserve (orange with black stippling), with area of Oct. 23 2010 observation of two California gnatcatchers shown as a red circle. Sagebrush scrub covering more than an acre in extent was limited to polygons north of Ballona Creek (blue arrows). Polygons south of Ballona Creek supported shrubland inappropriate for California gnatcatcher due to a lack of California sagebrush and other sage scrub species. Map courtesy of Ballona Wetlands Restoration Project.

Figure 3. Map showing boundary of survey area (solid red line); area to west of dashed line is known as Area A; area to east is Area C north. Blue box shows location of 18 March bird; white box shows location of one or two birds recorded 23 Oct. 2010 – 14 Feb. 2011, prior to start of survey.

Figure 4. Image of California gnatcatcher recorded on 18 March 2010 in Area A. Black undertail coverts are barely visible (photo: DSC).

Figure 5. Landscape view of habitat where single California gnatcatcher was observed on 18 March 2011, showing dense stand of California sagebrush (Artemisia californica) with scattered clumps of coyotebush (*Baccharis pilularis*) and emergent laurel sumac (*Malosma laurina*) (photo: DSC, 18 March 2011).

Figure 6. Site of discovery of two California gnatcatchers in Area C on 23 Oct. 2010 showing sparse California sagebrush scrub and bare ground (photo: DSC, 27 July 2010).

Figure 7. Image (cropped) of female California gnatcatcher in Area C on date of discovery, 23 Oct. 2010 (photo: DSC).

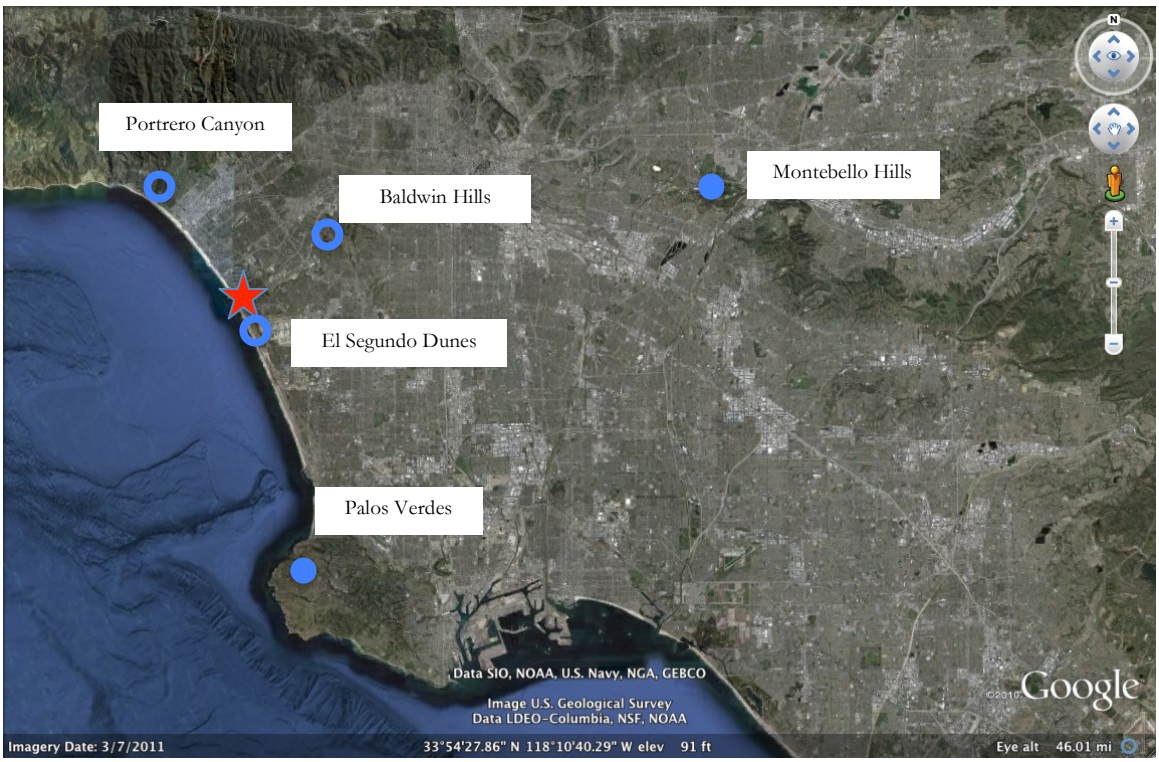

Figure 8. Regional setting of Ballona Ecological Reserve (red star) other populations of the California gnatcatcher (filled circles), and other nearby patches of coastal scrub (open circles).

Appendix A

Species list for Ballona Wetlands "Area A", "Area C", Los Angeles Co.													
Cooper Ecological Monitoring, Inc.													
www.cooperecological.com													
		3/18/11		**3/29/11**		**4/7/11**		**4/15/11**		**4/24/11**		**5/18/11**	
		Area A	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**
Mallard	*Anas platyrhynchos*							1		1		3	
Cooper's Hawk	*Accipiter cooperii*	1	1				1						
Sharp-shinned Hawk	*Accipiter striatus*									1			
Red-tailed Hawk	*Buteo jamaicensis*			1						1	2		
American Kestrel	*Falco sparverius*						1						
Merlin	*Falco columbarius*	1		1									
Great Egret	*Ardea alba*	1		1									
Great Blue Heron	*Ardea herodias*	1				2					2	1	
Rock Pigeon	*Columba livia*										1		
Mourning Dove	*Zenaida macroura*	1		1	1	3		1		6	6	3	2
Eurasian Collared-Dove	*Streptopelia decaocto*										1		
Anna's Hummingbird	*Calypte anna*	2		1		1		6		5	1	1	
Allen's Hummingbird	*Selasphorus sasin*	17	3	3	7	7	7	7	3	14	9	5	1
Belted Kingfisher	*Megaceryle alcyon*	1						1					
Black Phoebe	*Sayornis nigricans*	1		2	1	1			2	1	4		
Ash-throated Flycatcher	*Myiarchus cinerascens*							2		2			
Cassin's Kingbird	*Tyrannus vociferans*	4											
Western Kingbird	*Tyrannus verticalis*	1		6		3		1		10	8	2	

		3/18/11		3/29/11		4/7/11		4/15/11		4/24/11		5/18/11	
		Area A	Area C	Area A	Area C	Area A	Area C	Area A	Area C	Area A	Area C	Area A	Area C
Common Raven	*Corvus corax*					2							
Purple Martin	*Progne subis*					1 f/o							
Barn Swallow	*Hirundo rustica*	4		9									
Bushtit	*Psaltriparus minimus*	14	2		2	6	1	8		17	3	2	
Wrentit	*Chamaea fasciata*	1		1		2		1		1		2	
California Gnatcatcher	*Polioptila californica*	1											
Swainson's Thrush	*Catharus ustulatus*									1		1	
Hermit Thrush	*Catharus guttatus*	1		3									
Northern Mockingbird	*Mimus polyglottos*	4	1	1	2	1		1		3	1	3	
California Thrasher	*Toxostoma redivivum*												
European Starling	*Sturnus vulgaris*	24						3	1	6	7		3
Orange-crowned Warbler	*Vermivora celata*		2			1		1		4	8		
Nashville Warbler	*Vermivora ruficapilla*										2		
Yellow-rumped (A) Warbler	*Dendroica coronata*	10	19	8	8		3				1		
Yellow-rumped (M) Warbler	*Dendroica coronata*	1	1		1						1		
Yellow Warbler	*Dendroica petechia*											1	
Common Yellowthroat	*Geothlypis trichas*	4	1	4	1	4	1	6	2	11	3	3	
Wilson's Warbler	*Wilsonia pusillis*									3		1	1
Spotted Towhee	*Pipilo maculatus*	2		1	1								
California Towhee	*Melozone crissalis*	1				4				4	1		
Chipping Sparrow	*Spizella passerina*									1			

		3/18/11		3/29/11		4/7/11		4/15/11		4/24/11		5/18/11	
		Area A	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**	**Area A**	**Area C**
Savannah Sparrow	*Passerculus sandwichensis*	13		3	2	7		8		10	2		
Song Sparrow	*Melospiza melodia*	31	4	14	3	11	3	17	3	30	8	7	1
Lincoln's Sparrow	*Melospiza lincolnii*	4				2		1					
White-crowned Sparrow	*Zonotrichia leucophrys*	40	12	19		7	5	7		6	7		
Black-headed Grosbeak	*Pheucticus melanocephalus*									1	1		
Lazuli Bunting	*Passerina amoena*										2	1	
Hooded Oriole	*Icterus cucullatus*								1	3	3		
Western Meadowlark	*Sturnella neglecta*	14		13		1		1					
Red-winged Blackbird	*Agelaius phoeniceus*		1										
Brown-headed Cowbird	*Molothrus ater*	1		1		pr f/o				2	f/o		
House Finch	*Carpodacus mexicanus*	80		32	4	5		6	4	37	92	32	10
American Goldfinch	*Spinus tristis*											4	1
Lesser Goldfinch	*Spinus psaltria*	4	2	5	3	2	2		3	+	5+	8	1
House Sparrow	*Passer domesticus*			6		2		2	2	4	8	4	20