

2007 REPORT  
GAZOS MOUNTAIN CAMP MURRELET MONITORING PROGRAM

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Introduction

In 2007, six ground surveys were conducted in the Meadow at Gazos Mountain Camp in Butano Redwoods State Park. These surveys are part of the larger Gazos Creek Marbled Murrelet Monitoring Program initiated by the Apex Houston Trustee Council and the Sempervirens Fund with the support of the California State Parks Department, and conducted under a Biological Investigations permit from the Parks Department. This program includes funding for murrelet radar surveys in alternate years, with the next scheduled radar surveys to occur in 2008.

Since the Apex Houston funds for ground surveys have been exhausted, these surveys were done on a pro bono basis. Three surveys were done by the author and three were done by Portia Halbert, State Park Ecologist.

Findings

The results of the six ground protocol surveys are shown in Table 1 below.

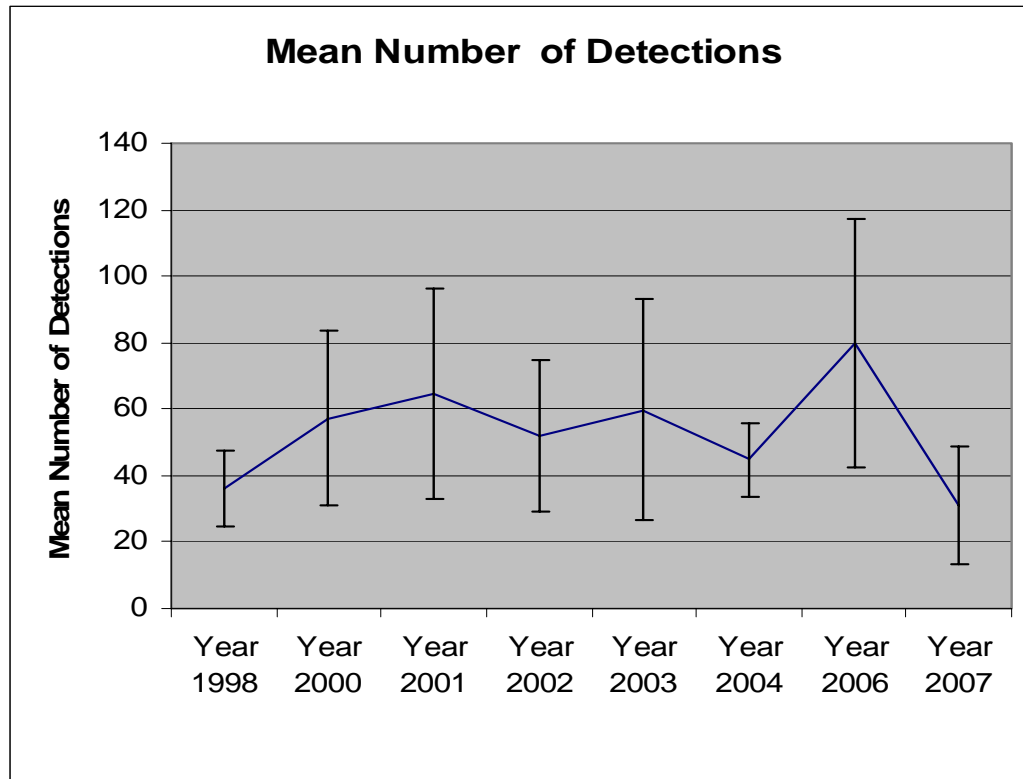
Table 1. Results of 2007 Marbled Murrelet Ground Surveys

Site	Date	Total Detects	# Occup. Behavior	# Visuals	# SSBBC	% Overcast	Ppt.	Fog (low ceiling)
Gazos Mtn Camp	6/29/2007	20	2	4	0	30 - 66	N	N
Gazos Mtn Camp	7/11/2007	40	8	12	5	100	N	N
Gazos Mtn Camp	7/14/2007	11	0	0	0	0	N	N
Gazos Mtn Camp	7/20/2007	38	5	7	1	10 - 50	N	N
Gazos Mtn Camp	7/29/2007	59	27	30	12	25 - 85	N	N
Gazos Mtn Camp	8/1/2007	19	13	14	2	66 - 100	N	N
MEAN		31.17	9.17	11.17	3.33			
STDV		17.77	9.87	10.55	4.63			
CV		0.57	1.08	0.95	1.39			
Notes: (1) #SSBBC = Number of single, silent birds below canopy								
(2) Occupied behaviors include circling above canopy								

Table 1 shows the high degree of variability associated with ground surveys. The number of daily total detections ranged from 11 to 59. Because of the high variability in daily detections, the purpose of the ground surveys is not to determine levels of annual use, but rather to provide evidence as to the type of use that is occurring. The fact that four of the six days had both occupied behavior and the occurrence of single silent birds below canopy suggests that the area and its environs are used as breeding habitat, although not necessarily in each year.

Graph 1 compares the mean total of daily detections in 2007 with the mean total of daily detections in previous years.

Graph 1. Mean Number of Ground Survey Murrelet Detections Since 1998



Graph 1 shows a drop in the mean number of detections in 2007, but that drop is not significant. The error bars associated with each point represent one standard deviation, and it is still possible to draw a straight line through them all. Thus these results do not show any trends in the annual number of murrelet detections, nor were they intended to. The broader program's radar surveys are more suited to determine any changes in the intensity of murrelet use over time.

### Conclusion

Marbled Murrelets are still using Gazos Mountain Camp and are using it in a way that is compatible with breeding on the site or nearby.

### Acknowledgements

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