2005 Surveys

RESULTS OF BASELINE SURVEYS FOR THE COASTAL CALIFORNIA GNATCATCHER AND THE COASTAL CACTUS WREN,

AND

GENERAL BIRD SURVEYS OF THE OAK AND WILLOW WOODLANDS ALONG FELICITA CREEK

AT THE

BERNARDO MOUNTAIN PRESERVE, ESCONDIDO, SAN DIEGO COUNTY, CALIFORNIA.

15 January 2006

Aerial View of the Preserve, Escondido, California

Report Prepared for:

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SYNOPSIS

This report summarizes the results of directed surveys for the California gnatcatcher and the coastal cactus wren, and general bird surveys of the oak and willow woodlands along Felicita Creek at the Preserve, Escondido, San Diego County, California. These surveys were conducted to provide baseline assessments of the occurrence of these species at the preserve in its first year of establishment. Fourteen territories of the California gnatcatcher occur within or adjacent to the Preserve. Five cactus wren territories also occur within or adjacent to the preserve. The riparian bird species assemblage is typical of similar habitats in coastal San Diego County. The western flycatcher and Hutton's vireo are two of the common species that occur in the southern coast live oak riparian forest along Felicita Creek and may be species that occur in sufficient numbers to be considered prime candidates for monitoring the health and quality of the riparian habitats along Felicita Creek.

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INTRODUCTION

This report summarizes the results of directed surveys for the California gnatcatcher (*Polioptila californica californica*) and the coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), and bird surveys of the oak and willow woodlands along Felicita Creek at the Bernardo Mountain Preserve (Preserve), Escondido, San Diego County, California. These surveys were conducted to provide a baseline assessment for the preserve in its first year of establishment. For the California gnatcatcher and the coastal cactus wren, these are the first specific assessment of the occurrence of two MSCP covered species on Bernardo Mountain. These results will be used as a measure to which future surveys and monitoring will be compared, and will thus serve as an indication, in part, of the general health of the preserve over the period its populations are monitored. These studies may also be used in developing adaptive management strategies to ensure that the native habitats and their constituent plant and animal species are maintained over time.

Coastal California Gnatcatcher

The Coastal California Gnatcatcher is a small songbird that occupies coastal southern California and northern Baja California. Its range includes parts of southern Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego counties in the United States and the upper portion of the Baja California peninsula—roughly, between 35° (in southern Ventura County, United States) and 32° degrees north latitude. The southernmost records are from the vicinity of Ensenada, Baja California Norte, Mexico, south of which subspecies *californica* is replaced by the subspecies *atwoodi* (Mellink and Rea 1994). Gnatcatchers nest and forage primarily in xeric low shrubbery typical of coastal and near-inland southern California and northern Baja California, especially various sage scrub associations. The gnatcatcher's breeding season appears to vary with climate. Nest building usually commences in early to mid-March but may be initiated as early as mid-January (Grishaver et al. 1998; Haas, personal observation). Adults may continue to tend young on the nest as late as early to mid-August (Haas personal observation). Fledglings are typically dependent upon their parents for three to four weeks but may associate with them for several months before dispersing (ERCE 1990; Haas, personal observation).

The objective of these 2005 surveys was to conduct baseline surveys to determine the California Gnatcatcher's status on Bernardo Mountain and its spatial and temporal distribution there. These surveys, conducted in the California gnatcatcher breeding season (spring/summer, 2005) provide

Coastal Cactus Wren

Breeding populations of the coastal Cactus Wren have been reported from the following counties in California: Ventura, Los Angeles, Orange, San Bernardino, Riversidehttp://www.prbo.org/calpif/htmldocs/species/scrub/cactus_wren.html - append5, and San Diego. The Coastal Cactus Wren also occurs in extreme northwestern Baja California Norte, Mexico (Figure X). Orange County contains the majority of the coastal population (Harper and Salata 1991). The cactus wren is resident throughout its range in California and does not migrate or make long distance seasonal movements. It forages for insects primarily on the ground or low in shrub species. Open ground is ignored during periods of greatest heat stress, with the species

preferring to forage on shady ground or in the lower branches of midstory vegetation at these times (Ricklefs and Hainsworth 1968).

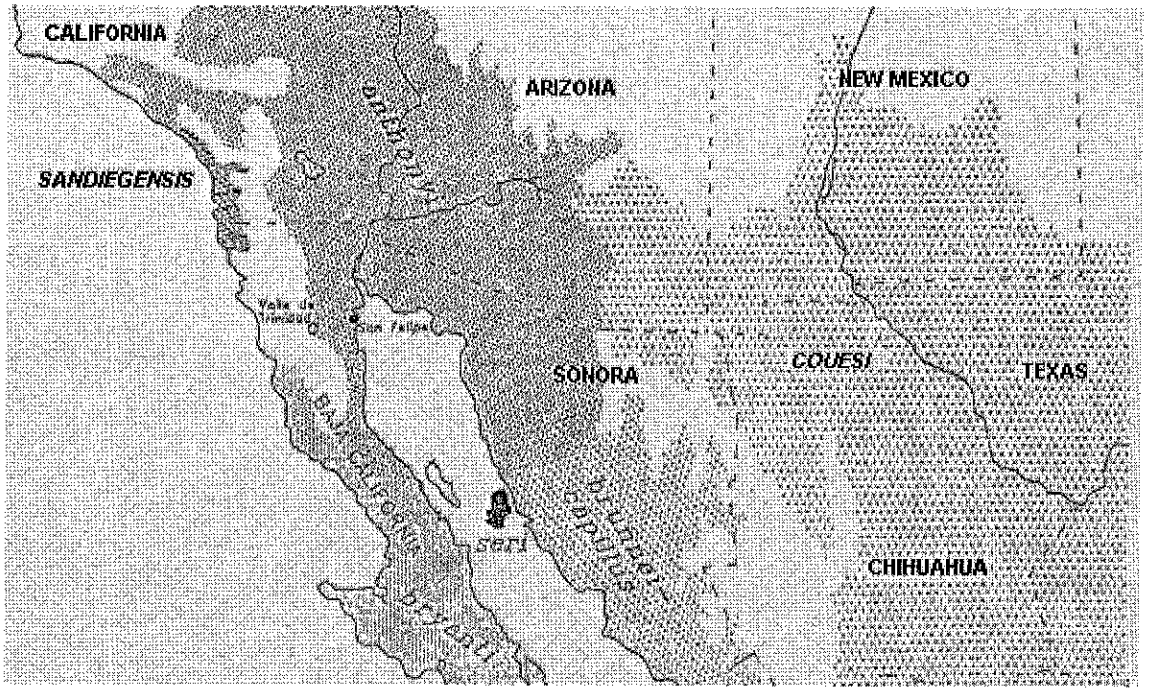

Figure X. Range of the Coastal Cactus Wren (*C. b. sandiegensis*) in Coastal California and Northwestern Baja California Norte, Mexico (from Rea and Weaver 1990).

Coastal cactus wrens nest almost exclusively in prickly pear (*Opuntia littoralis* and *O. oricola*) and coastal cholla (*O. prolifera).* Thus, the occurrence of the cactus wren along the southern California coast is intimately tied to areas that support coastal sage scrub in which prickly pear and cholla cacti are dominant components of the community. Other plant species associated with their occurrence a California buckwheat (*Eriogonum fasiculatum*), California sagebrush (*Artemisia californica*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). The most favorable nest locations appear to be on southern or southwesterly facing slopes where *Opuntia* cacti are most dominant (Rea and Weaver 1990); individuals may use exposed features of the territory (e.g., snags, fence posts and barbed-wire fencing) for calling and display. The cactus wren nest is a bulky, domed structure, constructed of grasses, twigs, leaves, and other plant fibers. It contains a tube-like entrance that can be up to 15 cm (6 in.) long. The inside of the nest is lined with feathers and down from cactus wrens and other bird species. Nests are constructed year-round and used for both roosting and nesting. A single bird can build multiple nests. Cactus Wrens often orient the entrance of the nest to take advantage of convective ventilation provided by prevailing winds (Facemire et al. 1990).

Cactus wrens are typically monogamous and reported to mate for life (Anderson and Anderson 1973). Cactus Wrens can occur in family groups from late spring through winter, but the juveniles are driven off by the adults as the breeding season approaches (Weathers 1983).

Some instances of nest helping, with juveniles from a first brood assisting with the care of a second brood; have been reported (Skutch 1935).

STUDY AREA DESCRIPTION

In September of 2002, the San Dieguito River Valley Conservancy in partnership with San Dieguito River Park and the Joint Powers Authority completed the purchase of 232 acres of undeveloped Bernardo Mountain. The mountain rises 900 feet above Lake Hodges and supports several distinct vegetation types including various sage scrub, chaparral, and grassland associations. Along its eastern boundary is Felicita Creek, a narrow riparian corridor that supports a limited amount of willow woodland and a more extensive stand of coast live oak riparian woodland.

MSCP COVERED SPECIES in the VICINITY OF LAKE HODGES

The MSCP is designed to preserve native habitat for multiple species rather than focusing efforts on the conservation of one species at a time. This is accomplished by identifying areas for directed development and areas to be conserved in perpetuity (referred to as a Multi-Habitat Planning Area) to achieve a workable balance between growth and species protection. This approach allows for preservation of entire ecosystems (e.g., coastal sage scrub) on a large scale, rather than on a project-by-project basis as under the original state and federal species protection laws.

The Hodges Reservoir/San Pasqual Valley core area represents one of the largest continuous blocks of habitat in the MSCP study area and serves as a major east-west wildlife corridor. This area includes core gnatcatcher and cactus wren populations; one of the two "centers of distribution" for Encinitas baccharis in the MSCP study area; large expanses of grassland that provide valuable raptor foraging habitat; and valuable wetland habitat in San Pasqual Valley which supports several MSCP target species that are dependent on riparian habitats. The western portion of the valley, east of I-15 and upstream of the lake, is currently an intensively farmed agricultural preserve which has been cultivated since the late 19th century.

The natural areas designated for conservation are those that surround the Hodges Reservoir, the riparian habitat along the San Dieguito River and its tributaries through San Pasqual Valley (e.g., Guejito, Santa Ysabel, and Santa Maria creeks), and the naturally vegetated slopes above the river valley. The majority of the riparian habitats in the river valley provide excellent opportunities for preservation, restoration and/or enhancement of the wildlife corridor through the valley. Conserved lands in the Hodges Reservoir/San Pasqual Valley area will be the cornerstone for a natural east/west open space corridor within the San Dieguito River Valley and San Pasqual Valley.

The Preserve is home to several MSCP covered species including the California gnatcatcher, the coastal cactus wren, the southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), the Cooper's hawk (*Accipiter cooperii*), orangethroat whiptail (*Aspidoscelis hyperythrus*), and the mule deer (*Odocoileus hemionus*). It is also temporary home to several others that use the area in migration, as a summer home, or forage and pass through the area on a more transient basis including the least Bell's vireo (*Vireo bellii pusillus*), the golden eagle (*Aquila chrysaetos*), and the mountain lion (*Felis concolor*) (W. Haas personal observation).

METHODS

The current study consisted of three surveys: 1) Directed surveys for the California Gnatcatcher; 2) Directed surveys for the Coastal Cactus Wren; and 3) General surveys of riparian habitats. Each survey method differs slightly from the others.

Gnatcatcher Surveys

The California Gnatcatcher surveys were conducted weekly between April and June within the peak of its 2005 breeding season. All surveys complied with the current USFWS protocols (USFWS 1997). During all surveys, we walked along and through appropriate habitat and surrounding areas, listening and watching for gnatcatchers. We listened for the characteristic kitten-like "mew" calls but also for scolds, "chur", and "wren-mimic" calls since the California Gnatcatcher may mimic other sympatric species including the more common Bewick's Wren (*Thryomanes bewickii*) (W. Haas, personal observation). We attempted to elicit vocal responses by scolding (onomatopoeically: "Spishing" in birding jargon) or periodically playing pre-recorded calls of the California Gnatcatcher. Following scolds and tape playing, we waited and watched the slopes for any small birds flitting between bushes. All vocalizations or behavioral cues similar to those produced by the California Gnatcatcher were investigated.

Coastal Cactus Wren Surveys

The Cactus Wren surveys were conducted concurrently with gnatcatcher surveys. Because the Coastal Cactus Wren's occurrence is intimately tied to the presence of cactus, we walked meandering transects through and along cactus-bearing coastal sage scrub, which at the Preserve occurs along its southern edge. The surveys were conducted in tandem commencing the survey together. Once a wren family was detected, one person (Surveyor 1) remained with the family while the second continued until a second pair was detected. The surveyors remained in visual contact or used two-way radios to communicate cactus wren locations. Once a second location was ascertained, Surveyor 1 then leap-frogged past the second surveyor in search of another Cactus Wren family. This method was adequate to detect all cactus wren families within the Preserve and along its southern boundary since cactus-dominated sage scrub occurs only within a narrow strip. During each Cactus Wren surveys, we walked along and through appropriate habitat and surrounding areas, listening and watching for wrens. We listened for the characteristic scolds and occasionally mimicked Cactus Wren scolds to elicit their responses to our presence.

Riparian Surveys

We conducted riparian bird surveys by walking along the edge of and on the trails that passed through the oak and willow riparian habitats along Felicita Creek within the Preserve. The primary survey techniques were 1) aural survey and 2) direct observation using 7 – 8-power field glasses. Surveys were conducted between one-half hour prior to sunrise and 1100 hours. Weather during the surveys was never extreme - neither hot nor cold; neither rainy nor foggy - and conducted during peak vocal periods, especially of year-round and summer resident species. Some migrants (e.g., McGillivray's warblers, *Oporornis tolmiei*) may have been missed if they were not vocal; however, surveys were conducted using visual as well as aural cues. Species were enumerated by tick-tally. Survey routes were reversed from one survey to the next.

Breeding behaviors (e.g., gathering of nest material; carrying food to a nest, feeding young) were a focal component of each survey.

Data Collection

For each focal species survey we recorded the start and end times along with ambient temperatures, wind speeds, and cloud covers for each survey (Table 1). Surveys were conducted only during appropriate weather conditions, that is, when visibility was good, with little or no precipitation, and light winds (<10 mph). Fog, steady drizzle, rain, and stronger winds (>10 mph) were avoided. Surveyors were equipped with field glasses and a Global Positioning System (GPS) data collector.

We recorded the survey routes for all surveys on topographic maps or aerial photos at a scale of not less than 1:4800 (1″= 400′) and with the GPS collector. Our procedure was to map the locations of any gnatcatchers found as accurately as possible, to take a reading at the point with the GPS, and, insofar as possible, determine the sex, age-class, and reproductive status of each individual.

RESULTS

Coastal California Gnatcatcher

Fourteen territories of the California gnatcatcher occur within or adjacent to the Preserve (Figure 2). Most of the territories were found along the southern periphery of the Preserve and near its western boundary. Two gnatcatcher territories (labeled Territories #12 and #13 on Figure 3) were located in the core of the southern half of the Preserve. Habitats in the northern half of the Preserve (primarily dense chaparral) and along Felicita Creek (primarily coast live oak riparian forest) are rarely used by California Gnatcatchers during the breeding season although California gnatcatchers may use the edges of diverse habitats as a supplemental source of forage when sage scrubs become senescent and during dispersal.

Coastal Cactus Wren

Five cactus wren territories also occur within or adjacent to the preserve (Figure 3). All of the territories occur along the southern periphery of the Preserve. All are centered outside of or near the Preserve edge and all occurrences were documented in sage scrub habitats that contained populations of *Opuntia* and *Cylindropuntia*. Members of each family utilized Preserve habitats at some time during our observation period even though their territories may have been centered just outside of its boundaries.

Riparian Bird Surveys

The riparian bird species assemblage along Felicita Creek is typical of similar habitats in coastal San Diego County. A total of 50 different species were detected within or otherwise using the live oak riparian and willow riparian habitats along the creek (Table 1a). Species such as the turkey vulture were not counted as using these habitats although they frequently passed overhead in flight. Especially numerous in comparisons to other similar coastal habitats were the Hutton's vireo (*Vireo huttoni*) and the western flycatcher (*Empidonax difficilis*). Other typical species that were found in the oak woodland along Felicita Creek were the Nuttall's (*Picoides*

nuttalii) and acorn (*Melanerpes formicivorus*) woodpeckers, the house wren (*Troglodytes aedon*), and the orange-crowned warbler (*Vermivora celata*).

General Results

In addition to 14 pairs of California Gnatcatchers and five families of the Coastal Cactus Wren (of which we detected 19 individuals, 10 adults and 9 juveniles) we also counted or found evidence of 60 other bird species (Table 1b), 17 mammal species (Table 2), six amphibians, and 18 reptiles (Table 3). In addition to the California Gnatcatcher and the Cactus Wren, five sensitive bird species were observed within the Preserve (Table 4). These included nesting Cooper's hawk (*Accipiter cooperii*) and yellow warbler (*Dendroica petechia*), foraging golden eagle (*Aquila chrysaetos*), migrating Vaux's swift (*Chaetura vauxi*), and a solitary, singing male least Bell's vireo (*Vireo bellii pusillus*). The Bell's vireo is a common summer breeding resident of nearby San Pasqual Valley and other coastal riparian corridors; however, available habitat for Bell's vireo breeding is extremely limited at the Preserve and we had no evidence of either a second individual or of Bell's vireo nesting activity within the Preserve during our surveys.

Three sensitive reptiles were also detected: These were the coast horned lizard (*Phrynosoma coronatum*), the orangethroat whiptail (*Aspidocelis hyperythrus*) and the western skink (*Eumeces skiltonianus*).

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TABLES

Vertebrates Detected at the Bernardo Mountain Preserve

2005 Spring Surveys:

Table 1a. Bird Species List – Oak Woodland/Willow Riparian Bernardo Mountain Preserve, Escondido, CA April – June 2005								
						Status by Date		
Common Name	*Scientific Name*	Habitat of Occurrence	Breeding Status	Evidence of Breeding	Est. # nesting pairs	4/16	5/14	6/18
Great blue heron	*Ardea herodias*	WR	U	N/A	-	D	D	D
Great egret	*Ardea alba*	WR	U	N/A	-	D	D	ND
Green heron	*Butoroides virescens*	WR	U	N/A	-	D	ND	ND
Black-crowned night-heron	*Nycticorax nycticorax*	WR	U	N/A	-	D	D	ND
Cooper's hawk	*Accipiter cooperii*	OW/WR	Y	N, FL	1	D	D	D
Red-shouldered hawk	*Buteo lineatus*	OW/WR	Y	N	2	D	D	D
Red-tailed hawk	*Buteo jamaicenis*	WR/(O)	Y	Cop	2	D	D	D
American kestrel	*Falco sparverius*	WR	Y	CF	1	D	D	D
California quail	*Callipepla californica*	OW	P	N/A	-	D	D	D
Western screech owl	*Otus kennicottii*	OW	Y	NH	2	D	ND	ND
Great horned owl	*Bubo virginianus*	OW/WR	Y	N	1	ND	D	ND
Anna's hummingbird	*Calypte anna*	OW	Y	N	14	D	D	D
Costa's hummingbird	*Calypte costae*	OW Edge	Y	N	2	D	ND	ND
Black-chinned hummingbird	*Archilochus alexandri*	OW	Y	N	N>10	D	D	D
Acorn woodpecker	*Melanerpes formicivorus*	OW	Y	NH	2	D	D	D
Nuttall's woodpecker	*Picoides nuttallii*	OW	Y	NH	N>4	D	D	D
Northern flicker	*Colaptes auratus*	OW/WR	Y	NH	4	D	D	D
Western flycatcher	*Empidonax difficilis*	OW	Y	N, CF	9	D	D	D
Black phoebe	*Sayornis nigricans*	WR	P	N/A	-	D	D	D
Ash-throated flycatcher	*Myiarchus cinerascens*	OW	Y	NH	4	D	D	D
Hutton's vireo	*Vireo huttoni*	OW	Y	CF	10	D	D	D

Table 1a. Bird Species List – Oak Woodland/Willow Riparian Bernardo Mountain Preserve, Escondido, CA April – June 2005								
						Status by Date		
Common Name	*Scientific Name*	Habitat of Occurrence	Breeding Status	Evidence of Breeding	Est. # nesting pairs	4/16	5/14	6/18
Least Bell's vireo	*Vireo bellii pusillus*	WR	U	N/A	-	ND	ND	D
Western scrub-jay	*Aphelocoma californica*	OW/WR	Y	CF	N>6	D	D	D
American Crow	*Corvus brachyrhynchos*	OW	U	N/A	-	D	D	D
Common raven	*Corvus corax*	WR	Y	N	1	D	D	D
California thrasher	*Toxostoma redivivum*	OW	P	N/A	2	D	D	D
White-breasted nuthatch	*Sitta carolinensis*	OW	P	N/A	2	D	D	D
Bewick's wren	*Thryomanes bewickii*	OW	Y	CF	3	D	D	D
House wren	*Troglodytes aedon*	OW	Y	N	N>10	D	D	D
Blue-gray gnatcatcher	*Polioptila caerulea*	OW	U	N/A	-	D	D	ND
Oak titmouse	*Baeolophus inornatus*	OW	P	N/A	-	D	D	D
Bushtit	*Psaltriparus minimus*	OW/WR	Y	N	N>6	D	D	D
Wrentit	*Chamaea fasciata*	OW	Y	FY	8	D	D	D
Lesser goldfinch	*Carduelis psaltria*	OW/WR	P	N/A	-	D	D	D
House finch	*Carpodacus mexicanus*	OW/WR	Y	Juv	N>6	D	D	D
Song sparrow	*Melospiza melodia*	OW/WR	Y	Juv	N>12	D	D	D
White-crowned sparrow	*Zonotrichia leucophrys*	OW edge	N	N/A	-	D	ND	ND
Spotted towhee	*Pipilo maculatus*	OW	P	N/A	N>5	D	D	D
California towhee	*Pipilo crissalis*	OW	P	N/A	N>4	D	D	D
Orange-crowned warbler	*Vermivora celata*	OW	Y	CF	N>9	D	D	D
Yellow warbler	*Dendroica petechia*	OW/WR	Y	SM	3	ND	D	D
Black-throated gray warbler	*Dendroica nigrescens*	OW	N	N/A	-	D	ND	ND
Common yellowthroat	*Geothlypis trichas*	OW/WR	P	N/A	N>6	D	D	D

Table 1a. Bird Species List – Oak Woodland/Willow Riparian Bernardo Mountain Preserve, Escondido, CA April – June 2005								
						Status by Date		
Common Name	*Scientific Name*	Habitat of Occurrence	Breeding Status	Evidence of Breeding	Est. # nesting pairs	4/16	5/14	6/18
Wilson's warbler	*Wilsonia pusilla*	OW/WR	N	N/A	-	D	ND	ND
Black-headed grosbeak	*Pheucticus melanocephalus*	OW	Y	N	N>5	D	D	D
Bullock's oriole	*Icterus bullockii*	OW	Y	N (in ornamental tree)	2	D	D	D
Hooded oriole	*Icterus cucullatus*	OW	Y	N (in palm tree)	1	D	D	D
Red-winged blackbird	*Agelaius phoeniceus*	WR	Y	Display, Carrying food	5	D	D	D
Brewer's blackbird	*Euphagus cyanocephalus*	WR	U	N/A	-	D	D	D
Brown-headed cowbird	*Molothrus ater*	WR	P	N/A	Probable nest parasite	ND	D	D

Table 1b. Bird Species List – Compilation, All Habitats Combined Bernardo Mountain Preserve, Escondido, CA April – June 2005 Surveys along Felicita Creek					
Common Name	*Scientific Name*	Habitat of Occurrence	Breeding Status	Evidence of Breeding	Est # nesting pairs
Great blue heron	*Ardea herodias*	H_2O/WR	U	N/A	-
Great egret	*Ardea alba*	H_2O/WR	U	N/A	-
Green heron	*Butoroides virescens*	H_2O/WR	U	N/A	-
Black-crowned night-heron	*Nycticorax nycticorax*	(O)/WR	U	N/A	-
Turkey vulture	*Cathartes aura*	(O)/CSS	Y	Entering cave w/ food	1
Cooper's hawk (SSC)	*Accipiter cooperii*	OW	Y	N, FL	1
Red-shouldered hawk	*Buteo lineatus*	All	Y	N	2
Red-tailed hawk	*Buteo jamaicenis*	All	Y	Cop	2
American kestrel	*Falco sparverius*	All	Y	N/A	1
California quail	*Callipepla californica*	All	P	N/A	-
American Coot	*Fulica americana*	H_2O	N	N/A	-
Mourning dove	*Zenaida macroura*	All	P	N/A	-
Western screech owl	*Otus kennicottii*	OW	Y	NH	2
Great horned owl	*Bubo virginianus*	OW/WR	Y	N	1
White-throated swift	*Aeronautes saxatalis*	(O)	N	N/A	-
Anna's hummingbird	*Calypte anna*	OW	Y	N	14
Costa's hummingbird	*Calypte costae*	All	Y	N	8
Black-chinned hummingbird	*Archilochus alexandri*	OW	Y	N	11
Acorn woodpecker	*Melanerpes formicivorus*	OW	Y	NH	1
Nuttall's woodpecker	*Picoides nuttallii*	OW	Y	NH	2
Northern flicker	*Colaptes auratus*	All	Y	NH	4
Western flycatcher	*Empidonax difficilis*	OW	Y	N, CF	9
Black phoebe	*Sayornis nigricans*	All	P	N/A	-

Table 1b. Bird Species List – Compilation, All Habitats Combined Bernardo Mountain Preserve, Escondido, CA April – June 2005 Surveys along Felicita Creek					
Common Name	***Scientific Name***	**Habitat of Occurrence**	**Breeding Status**	**Evidence of Breeding**	**Est # nesting pairs/Status**
Ash-throated flycatcher	*Myiarchus cinerascens*	All	Y	NH	5
Hutton's vireo	*Vireo huttoni*	OW	Y	CF	10
Least Bell's vireo	*Vireo bellii pusillus*	WR	U	N/A	-
Western scrub-jay	*Aphelocoma californica*	All	Y	CF	10
American Crow	*Corvus brachyrhynchos*	(O)	U	N/A	-
Common raven	*Corvus corax*	All	Y	N	1
California thrasher	*Toxostoma redivivum*	All	P	N/A	-
White-breasted nuthatch	*Sitta carolinensis*	OW	P	N/A	2
Bewick's wren	*Thryomanes bewickii*	OW	Y	CF	5
House wren	*Troglodytes aedon*	OW	Y	N	15
Coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis*	CSS	Y	N, FL	5
Blue-gray gnatcatcher	*Polioptila caerulea*	All	U	N/A	-
California gnatcatcher	*Polioptila californica*	CSS	Y	N, FY	14
Oak titmouse	*Baeolophus inornatus*	All	P	N/A	-
Bushtit	*Psaltriparus minimus*	OW/WR	Y	N	N>12
Northern rough-winged swallow	*Stelgidopteryx serripennis*	(O)	N	N/A	-
Tree swallow	*Tachycineta bicolor*	(O)	N	NH	2
Cliff swallow	*Petrochelidon pyrrhonota*	(O)	N	N/A	-
Wrentit	*Chamaea fasciata*	All	Y	FY	15
Lesser goldfinch	*Carduelis psaltria*	All	U	N/A	-
House finch	*Carpodacus mexicanus*	All	Y	Juv	N>15
Song sparrow	*Melospiza melodia*	All	Y	Juv	N>15

Table 1b. Bird Species List – Compilation, All Habitats Combined Bernardo Mountain Preserve, Escondido, CA April – June 2005 Surveys along Felicita Creek					
Common Name	***Scientific Name***	**Habitat of Occurrence**	**Breeding Status**	**Evidence of Breeding**	**Est # nesting pairs/Status**
White-crowned sparrow	*Zonotrichia leucophrys*	All	N	N/A	Migrant
Savannah sparrow	*Passerculus sandwichensis*	CSS/Grass	N	N/A	Migrant/Transient
Spotted towhee	*Pipilo maculatus*	OW	P	N/A	N>5
California towhee	*Pipilo crissalis*	OW	P	N/A	N>7
Orange-crowned warbler	*Vermivora celata*	OW	Y	CF	12
Western yellow warbler (SSC)	*Dendroica petechia brewsteri*	OW/WR	Y	SM	3
Black-throated gray warbler	*Dendroica nigrescens*	OW/RW/CSS	N	N/A	Migrant
Common yellowthroat	*Geothlypis trichas*	All	P	N/A	N>6
Wilson's warbler	*Wilsonia pusilla*	All	N	N/A	Migrant
Blue grosbeak	*Guiraca caerulea*	CSS/Grass	P	N/A	6
Black-headed grosbeak	*Pheucticus melanocephalus*	All	Y	N	N>5
Bullock's oriole	*Icterus bullockii*	All	Y	N (in ornamental tree)	2
Hooded oriole	*Icterus cucullatus*	OW	Y	N (in palm tree)	1
Red-winged blackbird	*Agelaius phoeniceus*	WR/CSS/Grass	Y	Display, Carrying food	5
Brewer's blackbird	*Euphagus cyanocephalus*	WR/CSS/Grass	U	N/A	-
Brown-headed cowbird	*Molothrus ater*	All	P	N/A	Probable nest parasite

KEY TO BIRD SPECIES OCCURRENCE and BREEDING STATUS
Evidence of Breeding
CF - Carrying food to nest or fledgling
M - Occurs as a migrant
N - Nest observed
NH – Nest hole observed
O - Observed flying overhead
R - Year-round resident species
S - Summer resident
SM - Singing males
T - Transient, may pass through area irregularly
W - Winter resident
Breeding Status
N - No breeding evidence, not expected to breed on site
U - No known records, may breed on regular or irregular basis
P - Probably breeds within the Preserve
Y - Known to breed on site
Legal Status
FE= Federally listed endangered
SE= State listed endangered
SSC= State species of special concern
+ = invasive alien

Table 2. Mammal Species List Bernardo Mountain Preserve, Escondido, CA April 2005 Surveys (Pacific Coast Conservation Alliance)		
Common Name	*Scientific Name*	Notes
Marsulialia		
opossum+	*Didelphis virginiana*	tracks
Insectivora		
Ornate shrew	*Sorex ornatus ornatus*	visual observation
Chiroptera		
Bat surveys not conducted		
Lagomorphia		
desert (Audubon) cottontail	*Sylvilagus auduboni*	visual observation
Rodentia		
California vole	*Microtus californicus sanctidiegi*	captured by WTKi
big-eared woodrat	*Neotoma macrotis*	numerous middens
California mouse	*Peromyscus californicus insignis*	nest in oak tree
coastal deer mouse	*Peromyscus maniculatus gambelii*	visual observation/under board
western harvest mouse	*Reithrodontomys megalotis longicaudus*	partially eaten carcass found along trail
California ground squirrel	*Spermophilus beecheyi nudipes*	visual observation
southern pocket gopher	*Thomomys bottae sanctidiegi*	burrows
Carnivora		
coyote	*Canis latrans*	tracks, feces
bobcat	*Lynx rufus*	feces
long-tailed weasel	*Mustela frenata latirostris*	visual observation
racoon	*Procyon lotor psora*	tracks, feces
striped skunk	*Mephitis mephitis*	tracks
gray fox	*Urocyon cinereoargenteus*	visual observation
Artiodactyla		
southern mule deer	*Odocoileus hemionus fulginata*	tracks, feces
Key to Mammal Table		
FSC=Federal species of concern		
SSC= State species of special concern		
+ = invasive alien		

Table 3. Reptile & Amphibian Species List Bernardo Mountain Preserve, Escondido, CA April 2005 Surveys (Pacific Coast Conservation Alliance)			
	Common Name	*Scientific Name*	Notes
Amphibians			
Caudata	**Salamanders**		
	arboreal salamander	*Aneides lugubris*	coastal sage, under wood debris
	garden slender salamander	*Batrachoseps major*	oak woodland, under rotting log
Anura	**Frogs and Toads**		
	California toad	*Bufo boreas halophilus*	larvae, Lake Hodges
	California chorus (tree) frog	*Pseudacris (Hyla) cadaverina*	aural detection
	Pacific chorus (tree) frog	*Pseudacris (Hyla) regilla*	aural detection
	bullfrog+	*Rana catesbeiana*	visual observation, Lake Hodges
Chelonians			
Testudines	**Turtles**		
	No records to date.		
Saurians			
Lacertilia	**Lizards**		
	coastal whiptail	*Aspidoscelis tigris stejnegeri*	visual observation
	orangethroat whiptail	*Aspidoscelis hyperythrus*	visual observation
	San Diego alligator lizard	*Elgaria multicarinata webbii*	visual observation
	western redtail skink	*Eumeces gilberti rubricaudatus*	visual observation, oak woodland
	western skink	*Eumeces skiltonianus*	visual observation, under wood debris
	San Joaquin fence lizard	*Sceloporus occidentalis biseriatus*	visual observation
	granite spiny lizard	*Sceloporus orcutti*	visual observation
	California side-blotched lizard	*Uta stansburiana elegans*	visual observation
	coast horned lizard (SSC)	*Phrynosoma coronatum*	visual observation
Ophidians			
Serpentes	**Snakes**		
	southern Pacific rattlesnake	*Crotalus oreganus helleri*	visual observation
	San Diego ringneck snake	*Diadophis punctatus similis*	coastal sage, under wood debris
	California night snake	*Hypsiglena torquata nuchalata*	coastal sage, under wood debris
	California kingsnake	*Lampropeltis getula californiae*	visual observation
	southwestern blind snake	*Leptotyphlops humilis humilis*	carcass found
	coastal rosy boa	*Charina trivirgata roseofusca*	carcass found
	red coachwhip	*Masticophis flagellum piceus*	visual observation
	California striped racer	*Masticophis lateralis lateralis*	visual observation
	San Diego gopher snake	*Pituophis catenifer annectens*	visual observation
	Baja California lyre snake	*Trimorphodon biscutatus lyrophanes*	visual obs., in rock formation
Nomenclature based on *Standard Common and Current Scientific Names for North American Amphibians and Reptiles*: 5th edition (Collins and Taggart 2002)			
Key to Reptile and Amphibian Table			
SSC= State species of special concern			
+ = invasive alien			

Table 4. Sensitive (Listed) Vertebrate Species Bernardo Mountain Preserve, Escondido, CA				
Common Name		*Scientific Name*		
SAURIA (Lizards)				
Coast horned lizard	SSC	*Phrynosoma coronatum*		
Orangethroat whiptail	SSC	*Aspidoscelis hyperythrus*		
Western skink	SSC	*Eumeces skiltonianus*		
OPHIDIA (Snakes)				
Focused surveys not conducted				
MAMMALIA (Mammals)				
Focused surveys not conducted				
Chiroptera (Bats)				
Focused surveys not conducted				
Rodentia (Rodents)				
Focused surveys not conducted				
AVES (Birds)	**S**		**O**	**B**
Cooper's hawk	SSC	*Accipiter cooperii*	R	Y
Golden eagle	SSC	*Aquila chrysaetos*	R	N
Vaux's swift	SSC	*Chaetura vauxi*	M	N
Coastal cactus wren	SSC	*Campylorhynchus brunneicapillus sandiegensis*	R	Y
California gnatcatcher	FT	*Polioptila californica*	R	Y
least Bell's vireo	FE	*Vireo bellii pusillus*	S?	U
Yellow warbler	SSC	*Dendroica petechia*	S?	U
KEY TO SPECIES OCCURRENCE, BREEDING, AND LISTING STATUS				
S - Protected Status				
FE = Federally listed as endangered				
FT = Federally listed as threatened				
SE = State listed as endangered				
SSC = State species of special concern				
O - Occurrence				
B - Breeding status				
M - Occurs as a migrant				
R - Year-round resident species				
S - Summer resident				
T - Transient, may pass through area irregularly				
W - Winter resident				
B - Breeding Status				
N - No known breeding records, not expected to breed on site				
U - No known records, may breed on regular or irregular basis				
Y - Known to breed on site				

FIGURES

Figure 1:

Regional Location of Bernardo Mountain

Figure 2:

Locations of California Gnatcatcher Territories

Figure 3:

Locations of Cactus Wren Territories

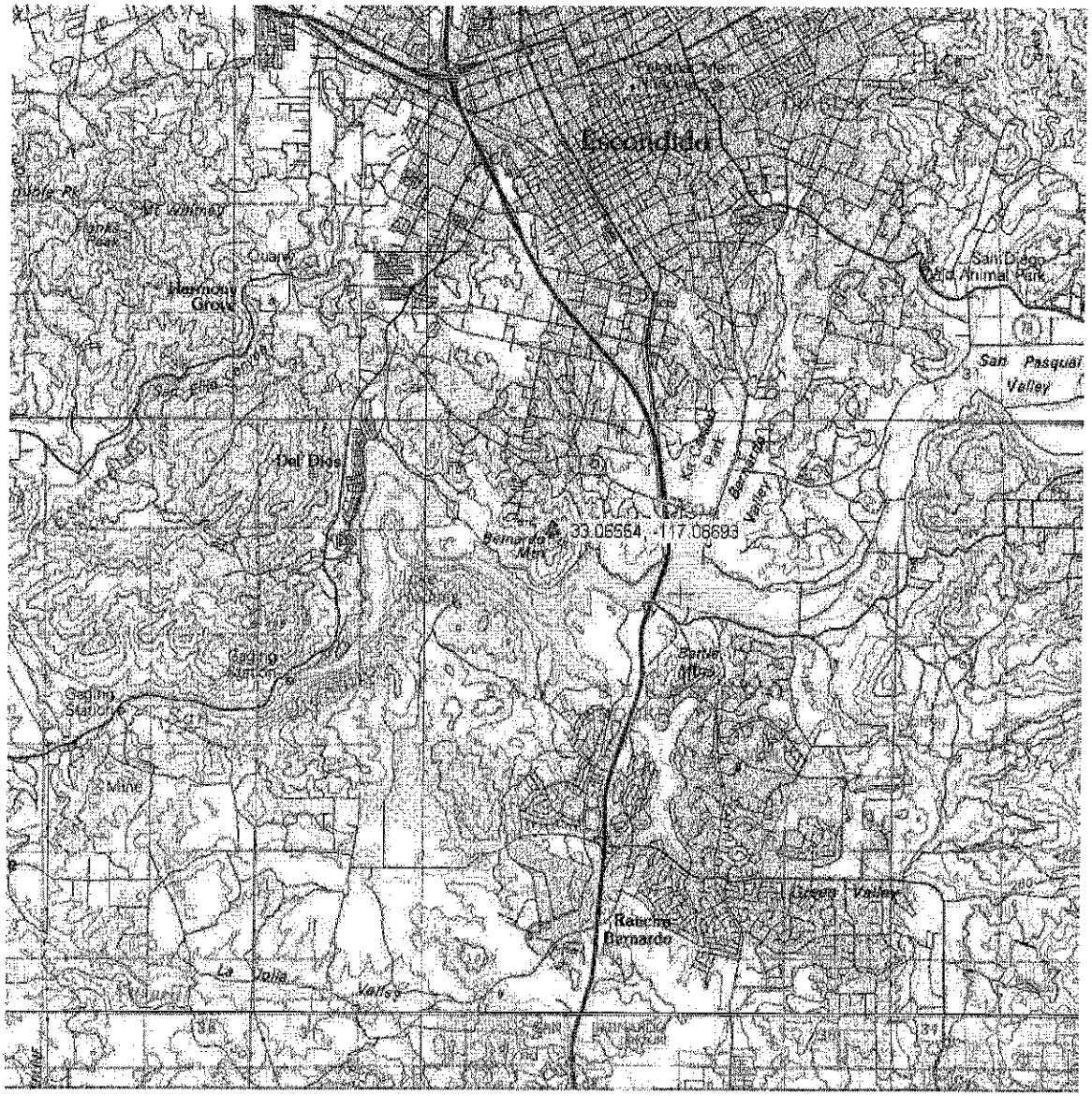


Figure 1. Regional Location of Bernardo Mountain Preserve, Escondido, San Diego County, California

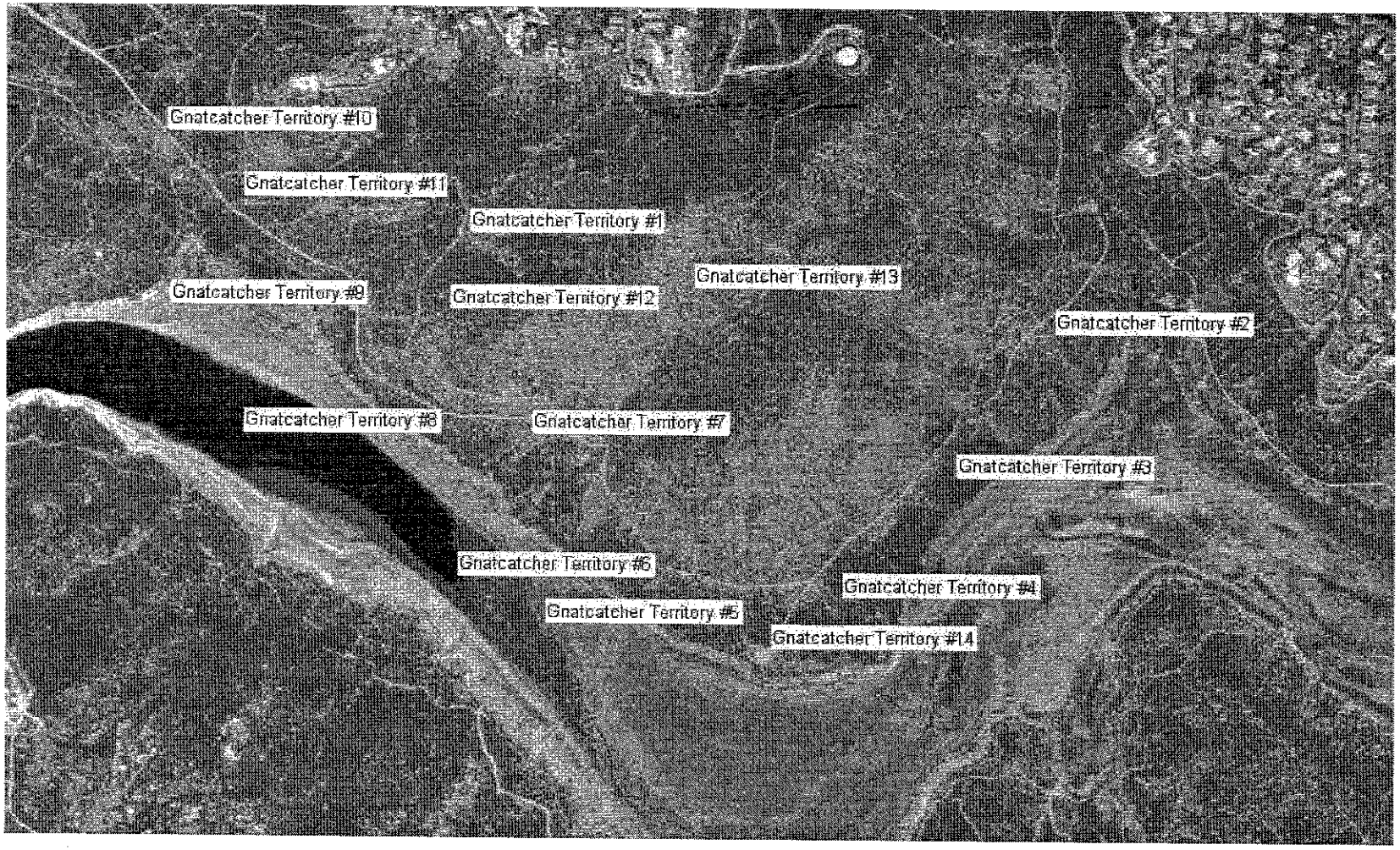


Figure 2: Locations of California Gnatcatcher Territories,
Bernardo Mountain Preserve, Escondido, San Diego County, California

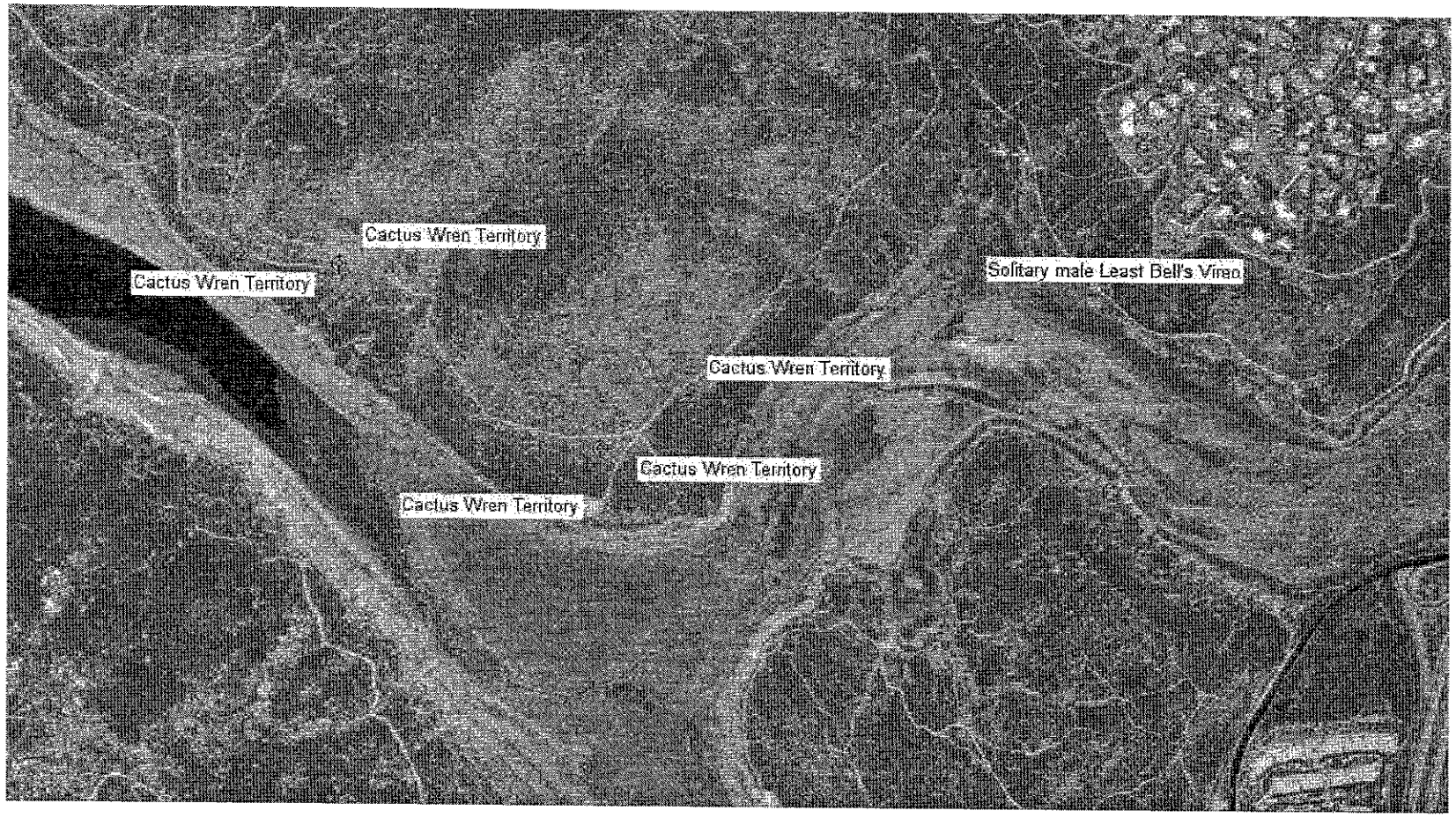
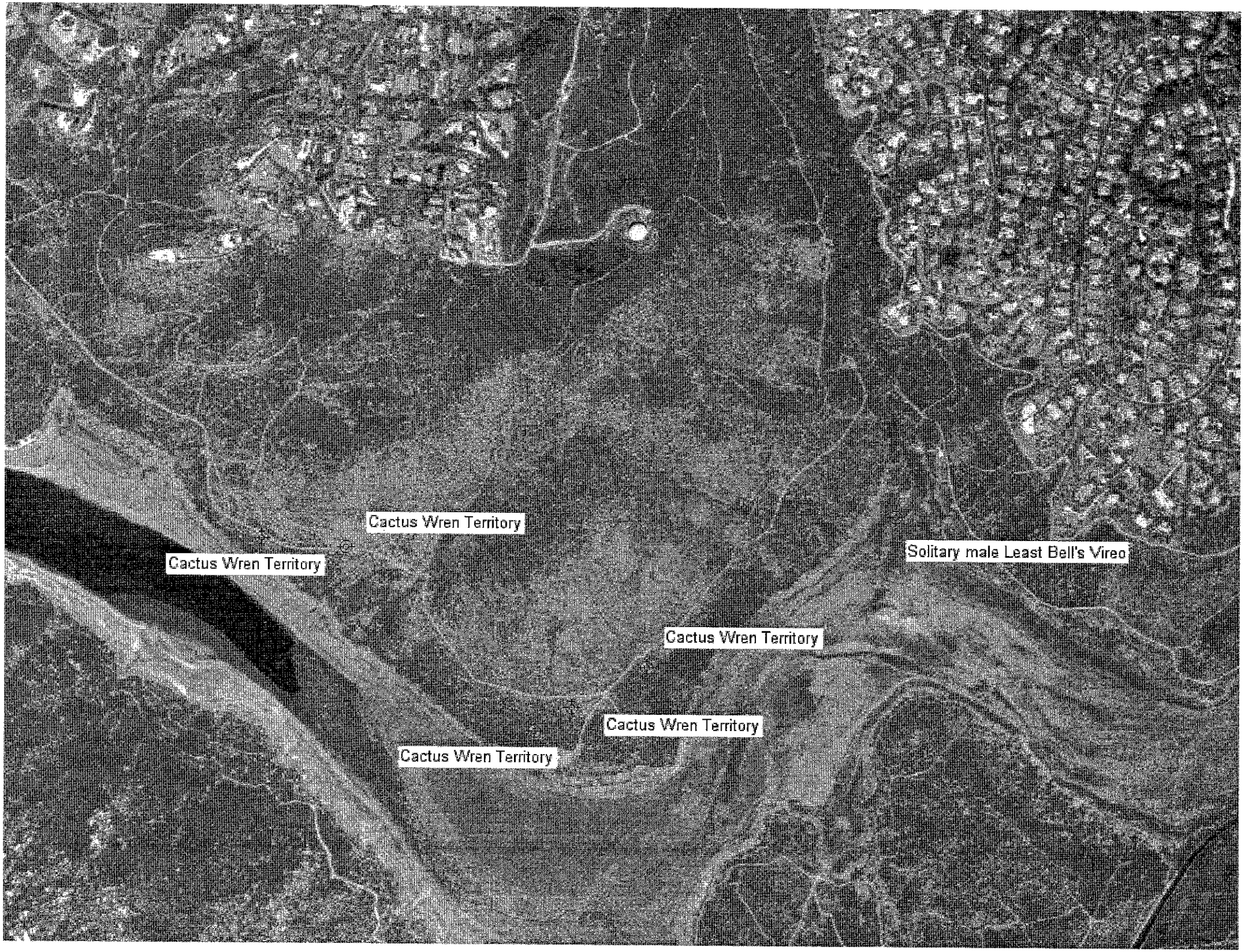
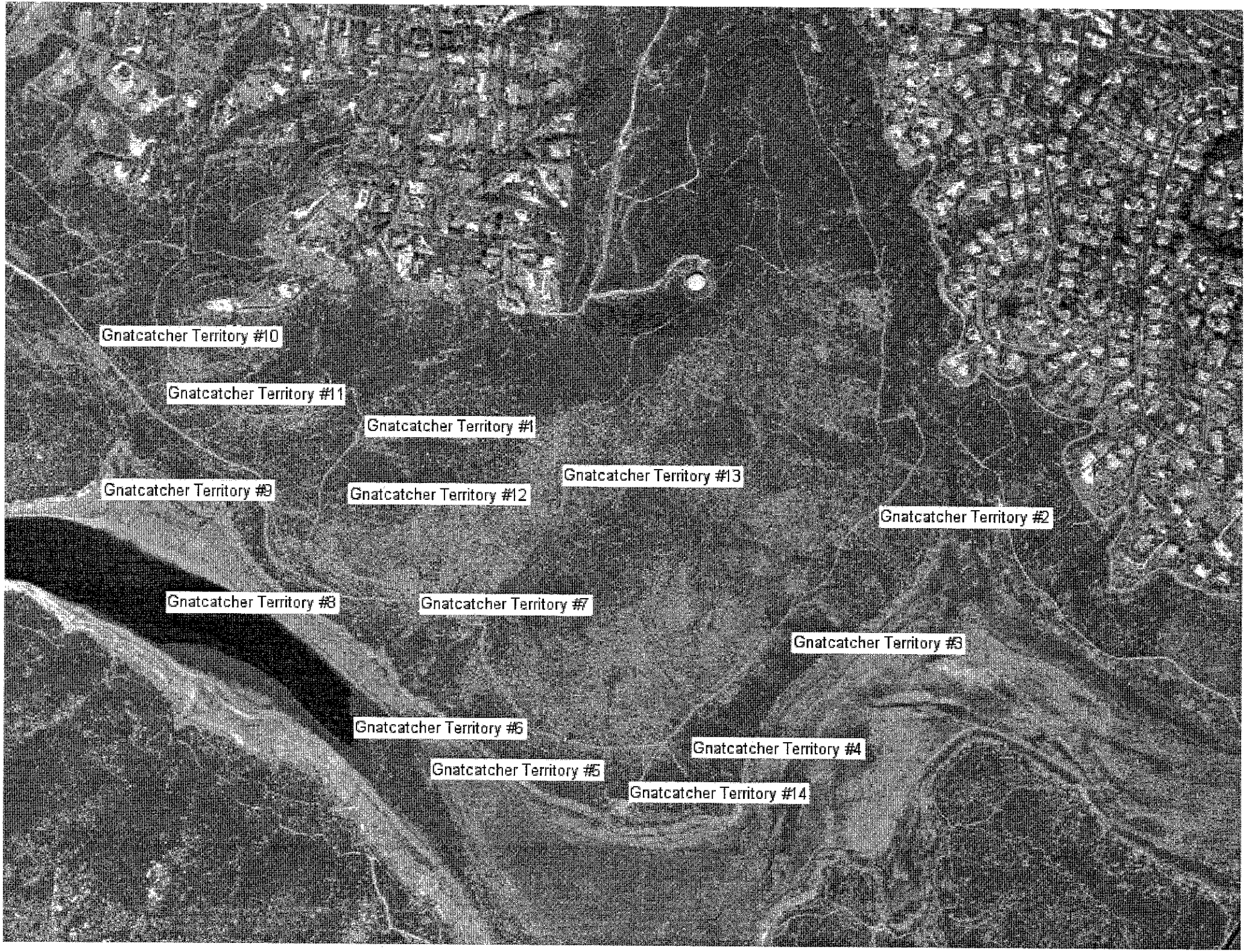


Figure 3: Locations of Cactus Wren Territories and Locale of Solitary Male Least Bell's Vireo, Bernardo Mountain Preserve, Escondido, San Diego County, California


Cactus Wren Territory
Cactus Wren Territory
Solitary male Least Bell's Vireo
Cactus Wren Territory
Cactus Wren Territory
Cactus Wren Territory


Gnatcatcher Territory #10
Gnatcatcher Territory #11
Gnatcatcher Territory #1
Gnatcatcher Territory #13
Gnatcatcher Territory #9
Gnatcatcher Territory #12
Gnatcatcher Territory #2
Gnatcatcher Territory #8
Gnatcatcher Territory #7
Gnatcatcher Territory #3
Gnatcatcher Territory #6
Gnatcatcher Territory #4
Gnatcatcher Territory #5
Gnatcatcher Territory #14