

2009 LA & Orange County Cactus Wren Study Cheat Sheet, Page 1

Information for Round 1 Mapping/Habitat Classification/Surveys

The data sheet for the first round is different than the sheet used in later rounds. This page summarizes the methods for mapping and classifying cactus resources, most of which will take place during Round 1.

Planning Areas name and uppercase alphabetical ID (A, B, C, etc.); these will be provided by the study coordinators.

In each Planning Area, you will identify and map a number of cactus scrub Polygons. A Polygon is defined as an area of scrub that includes cactus potentially capable of supporting nesting Cactus Wrens (generally, stands that include cactus ≥ 1 m tall and that are expansive enough to protect a nest).

You will assign each Polygon a numerical ID, map and classify the cactus scrub in the Polygon, and survey for Cactus Wrens at one or more Sites within the Polygon. Numbering of Polygons starts at "1" in each Planning Area.

Each Polygon shall include at least one Site, which shall be given a lowercase alphabetical ID (a, b, c, etc.). Thus, a given Site will have a unique "Alpha-numeric-alpha" ID, such as "D-03-d." Large polygons, which could support more than one pair of Cactus Wrens, shall be divided into multiple Sites.

Map the entire Polygon perimeter using a blue *Sharpie*. Bear in mind that you are narrowly mapping the distribution of cactus, not the wider distribution of scrub that contains cactus.

It is important to be precise in mapping the cactus resources, but you should err on the side of making one contiguous polygon rather than dividing it up into multiple smaller Polygons.

Divide each Polygon into as many Sites as needed to minimize chances of more than one Cactus Wren territory per Site. Major ridges, other topographic features, or breaks in cactus scrub habitat should usually be used to delineate one Site from another.

Using a red *Sharpie* map the locations of any and all cholla plants/cholla clusters inside or outside the Polygon; mark them "c".

Specify the time you start mapping the Polygon and the time you finish mapping the Polygon.

Mapping the Polygon will typically be a slow process, during which you may detect any Cactus Wrens that may be present within the Polygon (at one or more Sites). You will record data on any observations of Cactus Wrens made during the mapping period on the data sheet for the appropriate Site.

As noted on the next page, you may choose to conduct a formal survey for Cactus Wrens at a Site after you finish mapping.

Circle which type of cactus scrub and (if cholla present) type of cholla characterize the Site:

Cactus Scrub Type 1: Highest quality. Site covers ≥ 1.0 acre and includes at least 1.0 *contiguous* acre with $\geq 20\%$ estimated areal cover of mature cactus (generally ≥ 1 m tall). Portions of the Site may have sparser cactus cover than this. One way to estimate an acre is to imagine a square that is 209 feet on a side. You may be able to use the scale on the map to visualize this.

Cactus Scrub Type 2: Site covers ≥ 1.0 acre. Well-developed cactus patches may be present, but Site does not include 1.0 *contiguous* acre with $\geq 20\%$ estimated areal cover of mature cactus (generally ≥ 1 m tall).

Cactus Scrub Type 3: Small, isolated stands of mature cactus *with* cholla. Polygon (a) covers less than 1.0 acre, *and* (b) includes at least one cholla plant ≥ 1 m tall. Density of cactus within the polygon is irrelevant.

Cactus Scrub Type 4: Small, isolated stands of mature cactus *without* cholla. Polygon (a) covers less than an acre, *and* (b) does *not* include at least one cholla plant ≥ 1 m tall. Density of cactus within the polygon is irrelevant.

Cholla Type 1: Highest quality. At least one cluster is fully developed, ≥ 1.3 m tall and in good health with extensive branching.

Cholla Type 2: At least one plant/cluster is ≥ 1.0 m tall, in good health, with branching extensive enough to hold nest(s).

Cholla Type 3: Poor quality. No plants/clusters appear to have branching extensive enough to readily hold nest(s).

Isolated cactus plants ("satellites") and expanses of scrub that do not include any cactus stands capable of supporting a nest ("proto cactus scrub") are mapped (using a green *Sharpie*) but receive no "Alpha-numeric-alpha" ID. No data is taken down and no survey is completed. Even limited cholla patches ≥ 1.0 m tall may be occupied by Cactus Wrens; if nesting seems feasible, map it as a Polygon/Site and complete a survey.

Use a black *Sharpie* to map prickly-pear "satellites" that lie outside of cactus scrub or proto cactus scrub; mark them "p".

2009 LA & Orange County Cactus Wren Study Cheat Sheet, Page 2

Information for Cactus Wren Surveys

You may conduct a formal Cactus Wren survey during Round 1, but since the mapping is generally time-consuming you may conclude that you have spent enough time at a given Site by the time you have finished mapping it. If you decide to complete a formal survey after the mapping is complete, record your start and end times in the appropriate locations on the data sheet.

Surveys should be conducted primarily during the morning hours, but may extend into the early afternoon.

Wind speed \leq 8 mph; you will receive a Beaufort Scale that will enable you to estimate wind speed without a meter.

Don't survey in rain or drizzle. If surveying in the early afternoon, temperatures should not exceed 85°F.

Survey all areas that you classify as Sites. Remember to record the start and end times for each survey.

Do not survey the sites in the same order, but change up the order from one round to the next.

First search for Cactus Wren nests. Map each with an "N". On the data sheet indicate the number of fresh nests, old/disused nests, and unknown-age nests. At very small Sites where you are sure no nests are present, an abbreviated survey of a few minutes may be adequate. At other Sites, spend at least 10 minutes walking through or around the Site, looking for nests and wrens from various angles. Remain silent for the first 5 minutes, then "pish" loudly and frequently as much as you consider useful thereafter.

Record the time at which you encounter the first Cactus Wren during the survey (adult or juvenile) and map with "W" and the survey round (1, 2, 3, etc.). Do not take down any more data on the map other than to indicate movements. Widely separated birds may be mapped with two "W" marks to indicate that two territories are potentially involved.

If you have not detected any Cactus Wrens after 20 minutes, you must move on. If you have detected Cactus Wrens and are attempting to determine numbers, ages, etc., you can remain more than 20 minutes.

Incubating female Cactus Wrens may remain on the nest for extended periods, so you may need to move on before the female is located.

Adult Cactus Wrens are heavily marked below, especially on the throat and upper breast. They have long bills, reddish eyes, and usually their faces are more weakly marked compared with juveniles. Late in the nesting season, when their plumage gets very worn, their underparts may look much whiter.

Juvenile Cactus Wrens have short bills, dark eyes, mostly white underparts with only diffuse brownish spotting, well-marked facial stripes (white supercilium and dark brown trans-ocular streak), and their plumage looks fresh during the first part of the nesting season. Potential difficulties can arise late in the season, when both adults and juveniles become worn-looking and the juveniles' bills have lengthened. Still, most birds can be aged in the field if seen closely, especially if other Cactus Wrens are around for comparison.

If you follow Cactus Wrens for an extended period, you may find that they are using multiple Sites. This should always be noted on the data sheet for each Site, and later entered into the "Notes" section of data sheet (for each Site involved).

With repeated visits, there is potential for Cactus Wrens to move around and cause confusion about how many pairs are in a given area. Rule of thumb is to be conservative.

If one adult wren is detected at Site "A" and a second lone adult, with or without young, is detected at an adjacent Site "B" during the same round of surveys, search for more adults at both Sites. If no second adult can be found at either Site, you normally should conclude that the two adults probably represent a single pair foraging apart, and thus should recognize only one "likely territory" (at Site "A"). You may recognize two "likely territories" in this situation, but only if evidence suggests that the adults are not paired. Enter any relevant observations in the "notes" section of the data sheets (for both Site "A" and Site "B").

In cases where Round 1 yields a CACW detection at Site "X" but not at nearby Site "Y," and these results are reversed during Round 2, you normally should recognize only one "likely territory" (at Site "X"). You may recognize two "likely territories" in this situation, but only if you uncover evidence suggesting that more than one pair of CACW is involved. Enter any relevant observations in the "notes" section of the data sheets (for both Site "X" and Site "Y").

Remember to watch and listen for California Gnatcatchers and Brown-headed Cowbirds at each Site; these species must be recorded if the birds are either on or adjacent to the cactus scrub survey Site. Map gnatcatchers with a "g" and the survey round (1, 2, 3, etc.); no additional data on gnatcatchers must be recorded. Cowbird locations need not be mapped, but you need to fill out the appropriate fields on the data sheet.