

Why coastal Cactus Wrens are of greater conservation concern than California Gnatcatchers



Wrens are . . .

- smaller in total population size
- more fragmented in their distribution
- **more specialized in their habitat requirements**
- **less likely to disperse long distances**
- underemphasized in habitat reserve designs?

1990 – San Diego Biodiversity Project & Palomar Audubon Society petitioned to have *sandiegensis* listed under ESA

1994 - Faced with questions about taxonomic validity of *sandiegensis*, FWS suggested that “Cactus Wrens residing in coastal southern California may . . . constitute a distinct vertebrate population segment” . . . and expanded subject of the petition to include all Cactus Wrens found in the coastal sage scrub of southern California and extreme northwestern Baja California

FWS found that “all of the published literature on the status of coastal sage scrub vegetation types in California supports the conclusion that this plant community is one of the most depleted habitat types in the United States,” and that “numbers of Cactus Wrens residing in coastal sage scrub of coastal southern California have declined as a result . . . of the same factors that have . . . impacted” the California Gnatcatcher

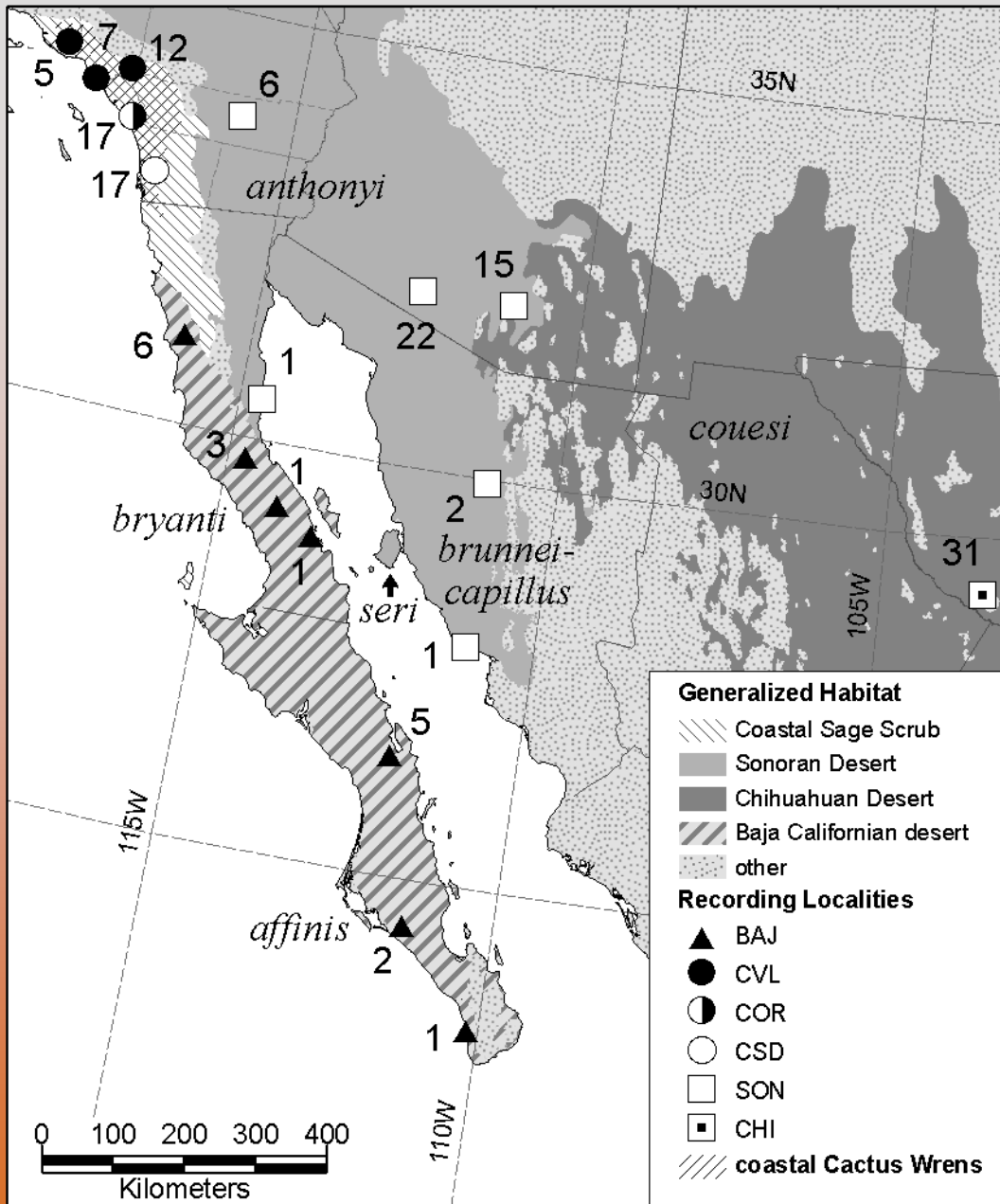
However, FWS also concluded that coastal Cactus Wrens “do not constitute a distinct vertebrate population segment” and therefore were not “a listable entity”

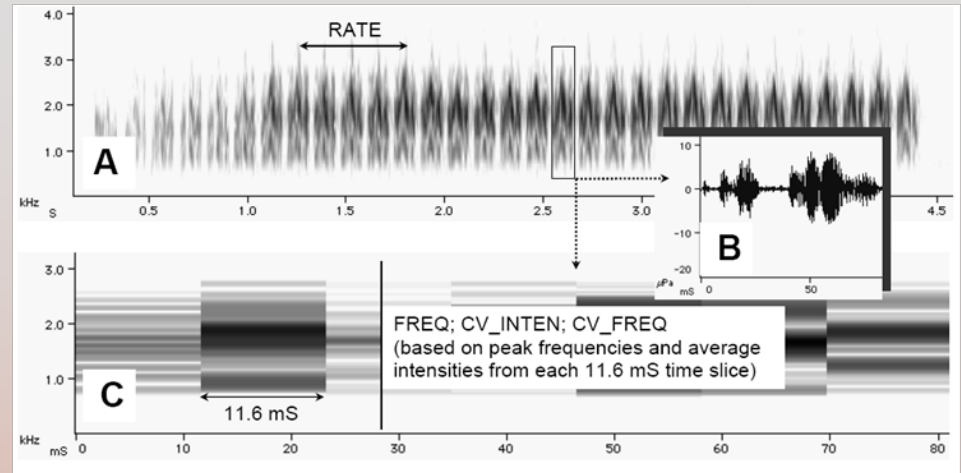
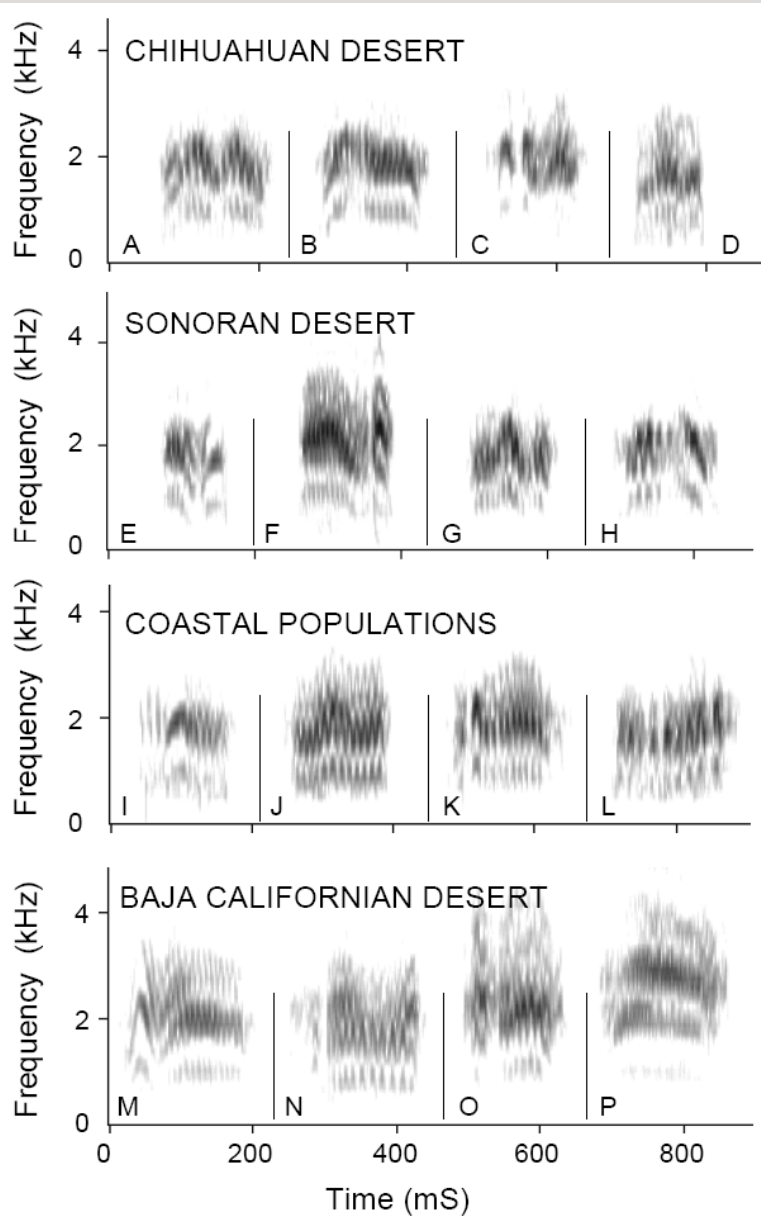
1. Lack of morphological differences between northern coastal populations and desert birds;
2. Lack of distinctive behavioral differences between coastal and desert birds;
3. Continuum of wren-occupied habitat from southern San Diego Co. south into Baja California

Geographic Variation in Cactus Wren Songs

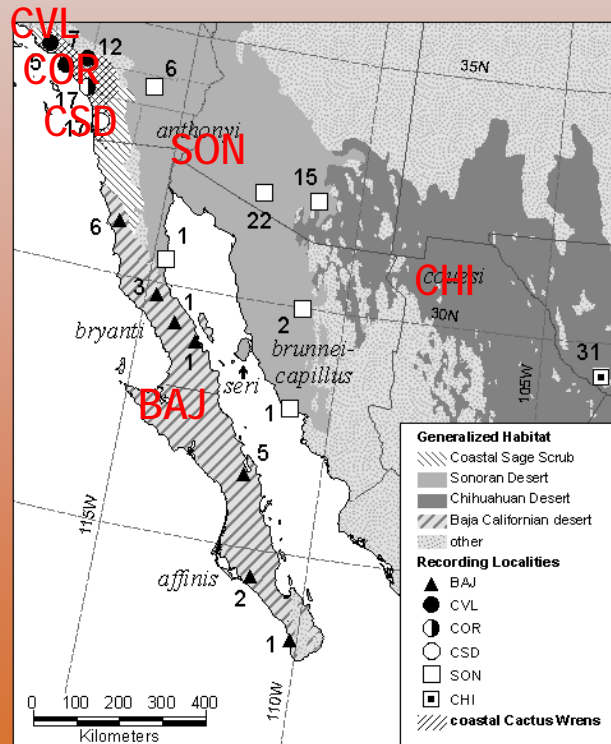
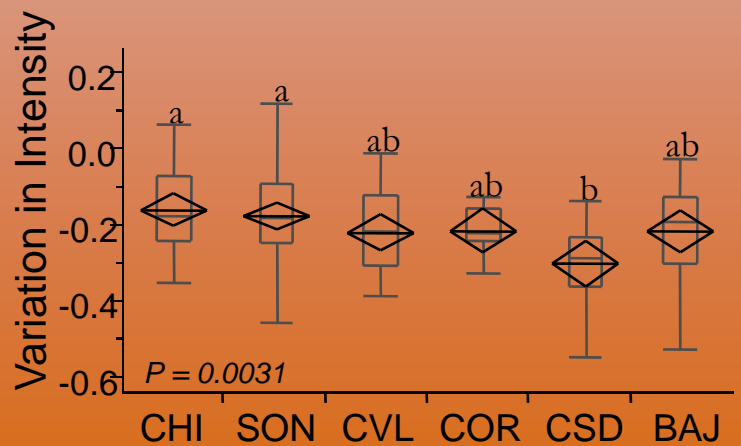
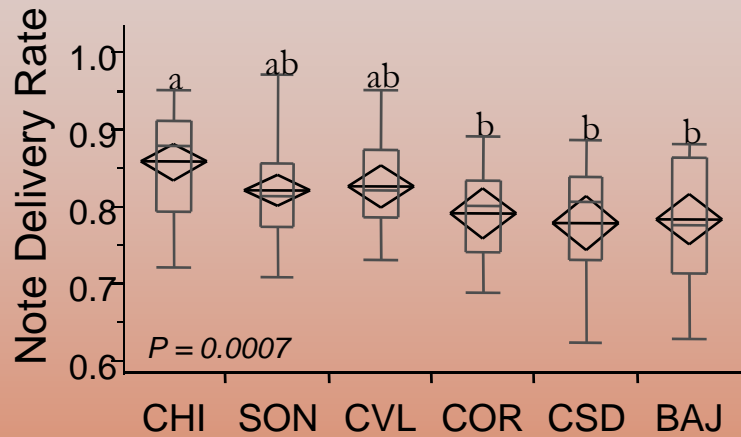
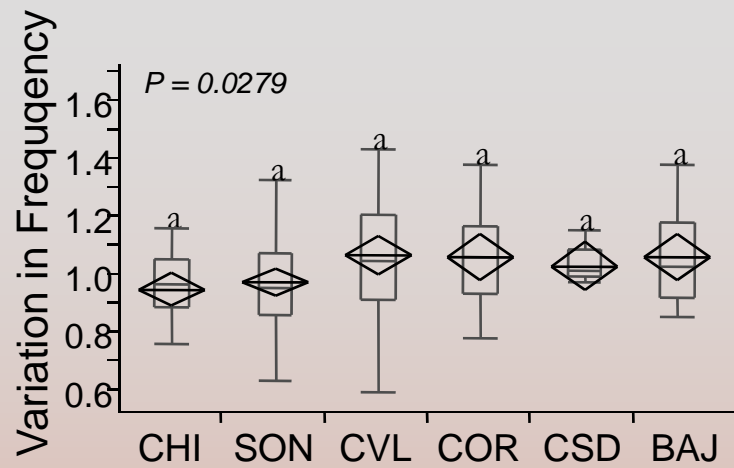
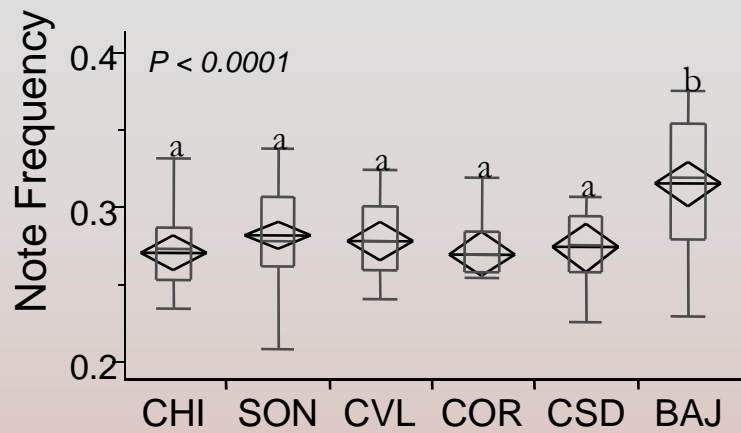
Jonathan L. Atwood and Susannah B. Lerman

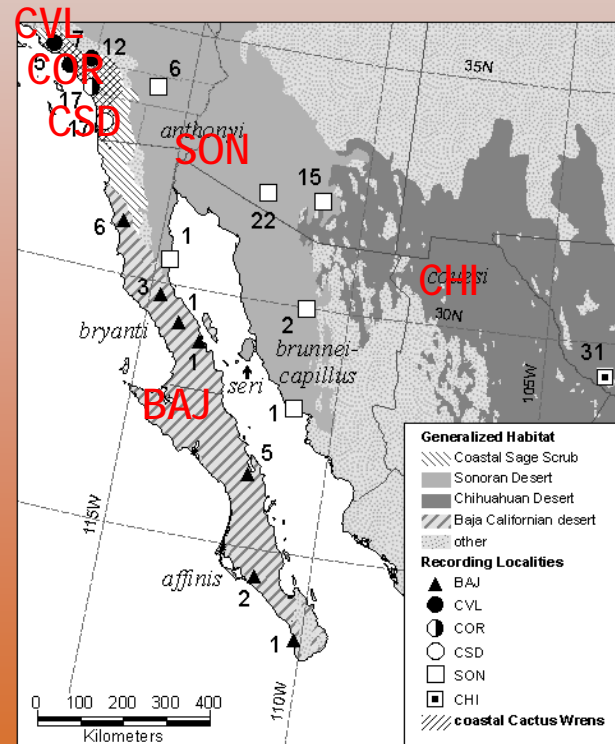
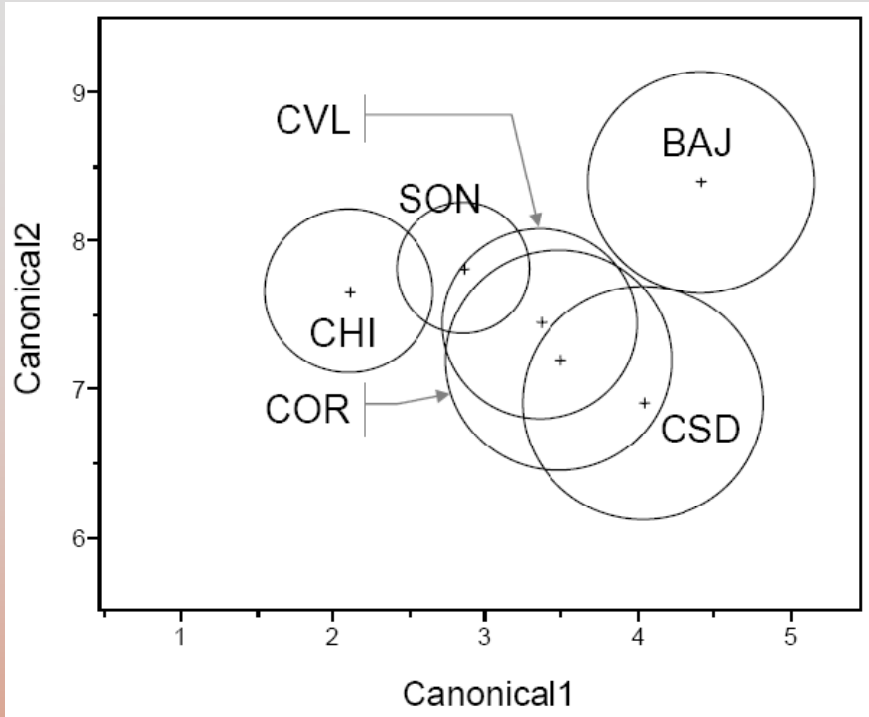
Western Birds 38(1): 29-46





- Rate of note delivery
- Frequency of each note
- Variability in note frequency
- Variability in note intensity

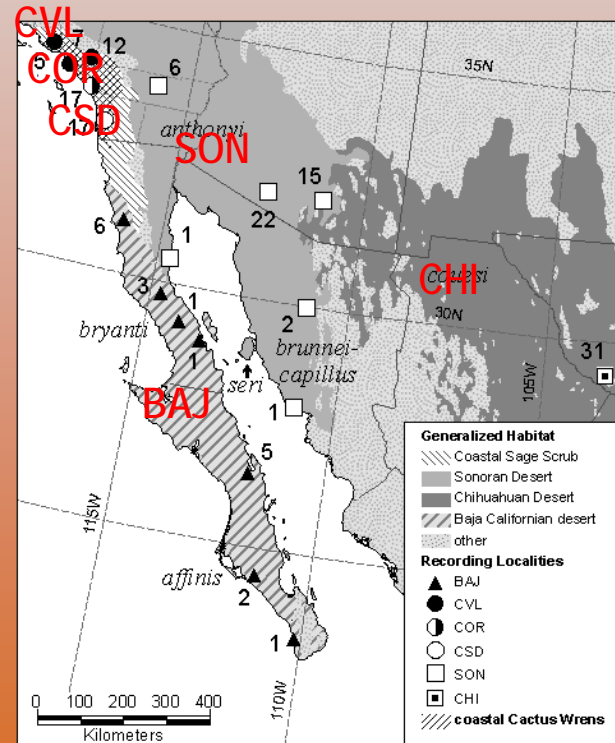
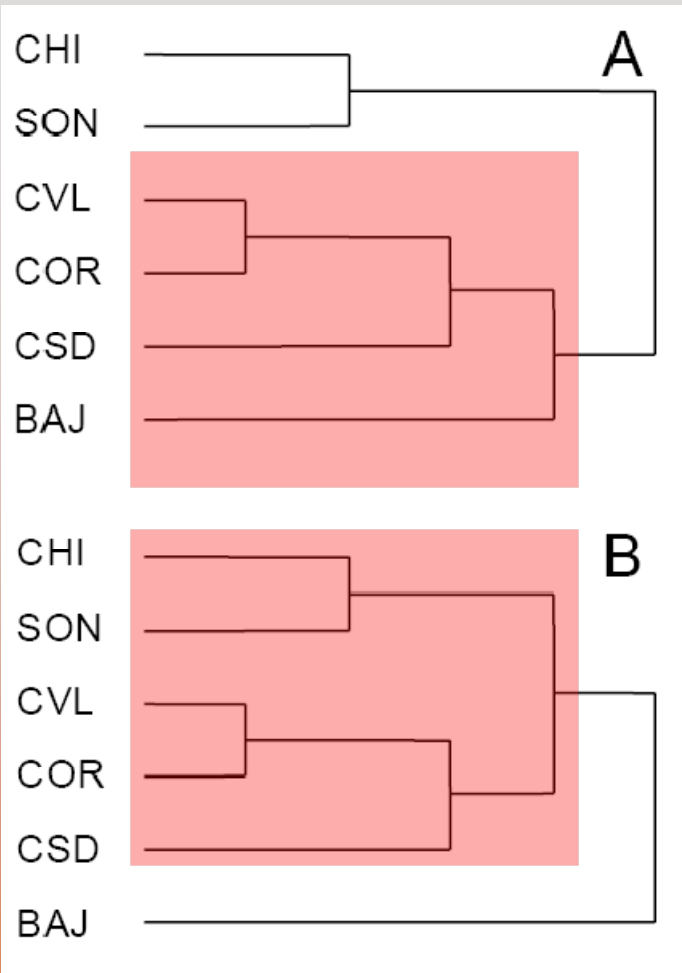




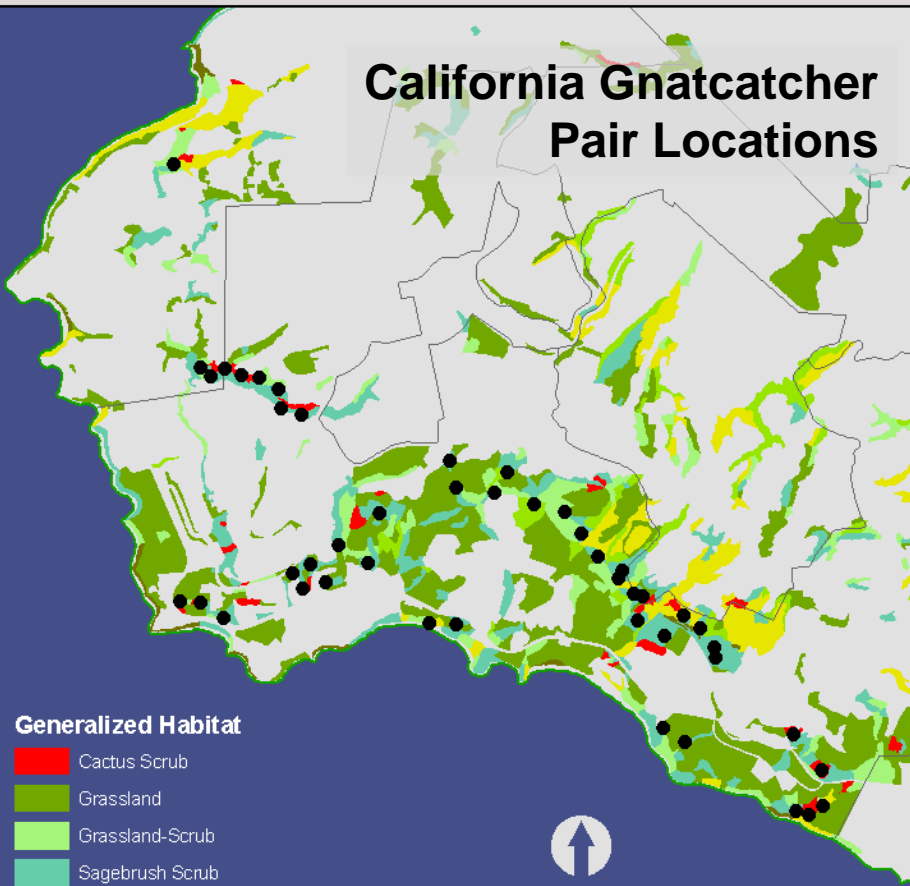
Coastal wrens grouped with Baja California population

or

Coastal wrens grouped with Sonoran & Desert populations

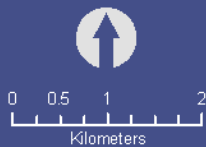


California Gnatcatcher Pair Locations



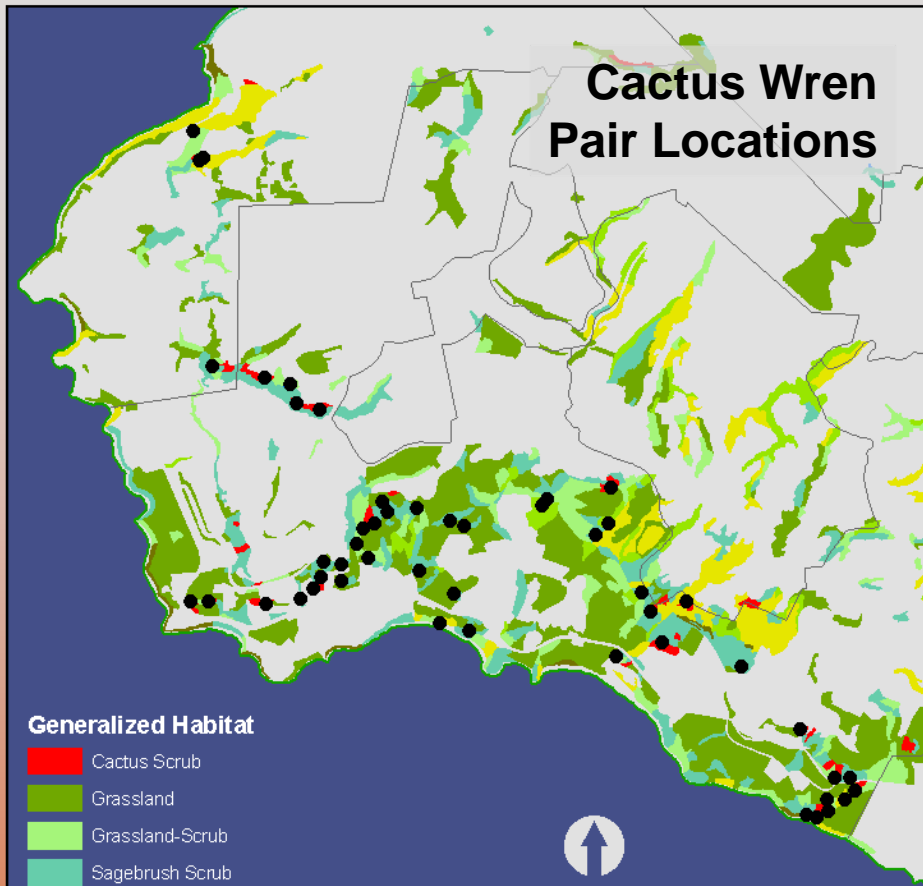
Generalized Habitat

- Cactus Scrub
- Grassland
- Grassland-Scrub
- Sagebrush Scrub
- Sage-Lemonadeberry Scrub
- Lemonadeberry Scrub
- Bluff Scrub
- Riparian



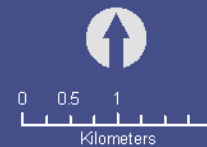
Palos Verdes Peninsula, 1993

Cactus Wren Pair Locations

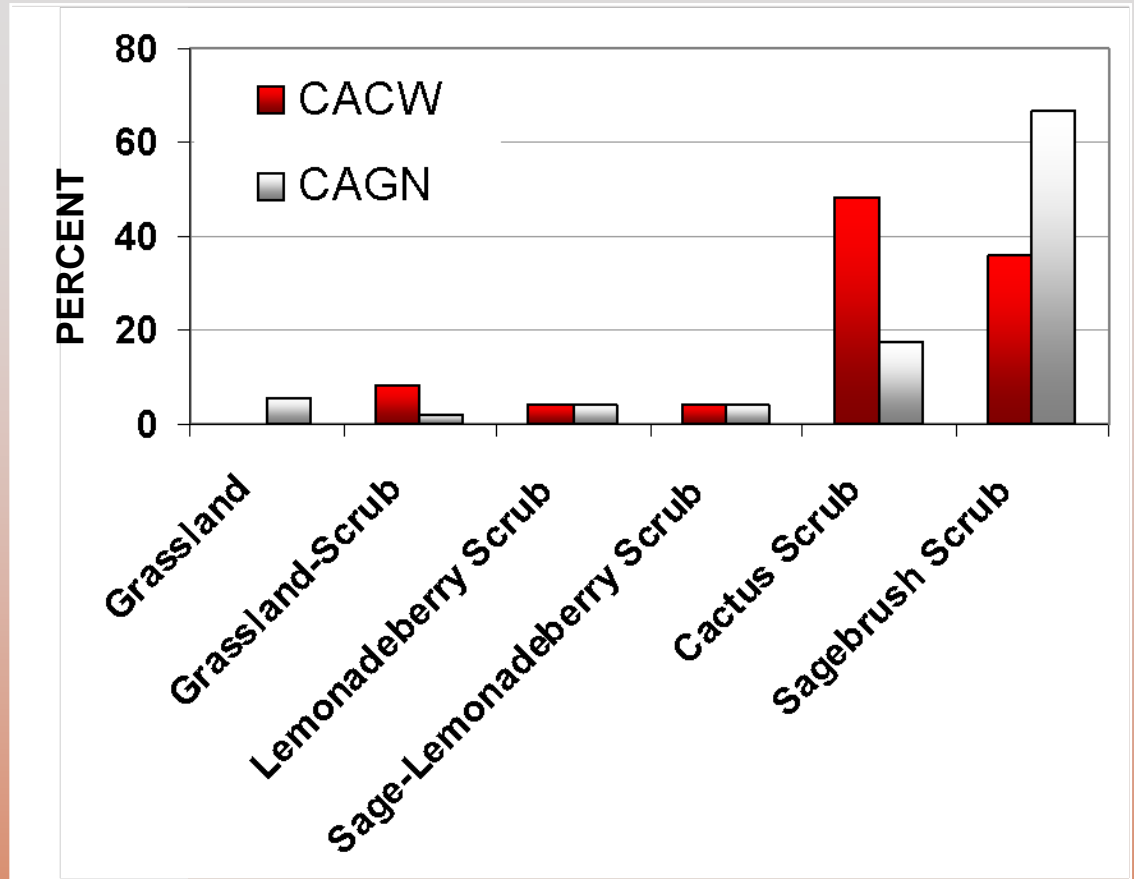
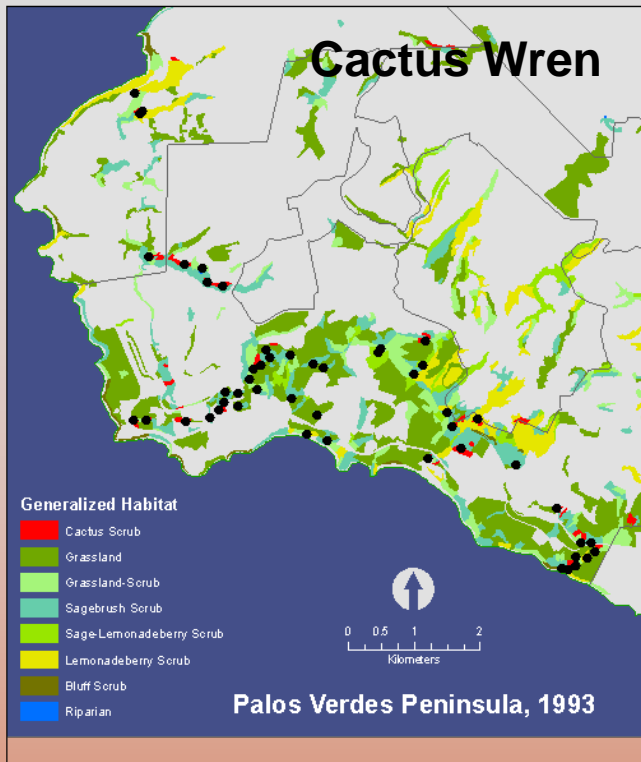


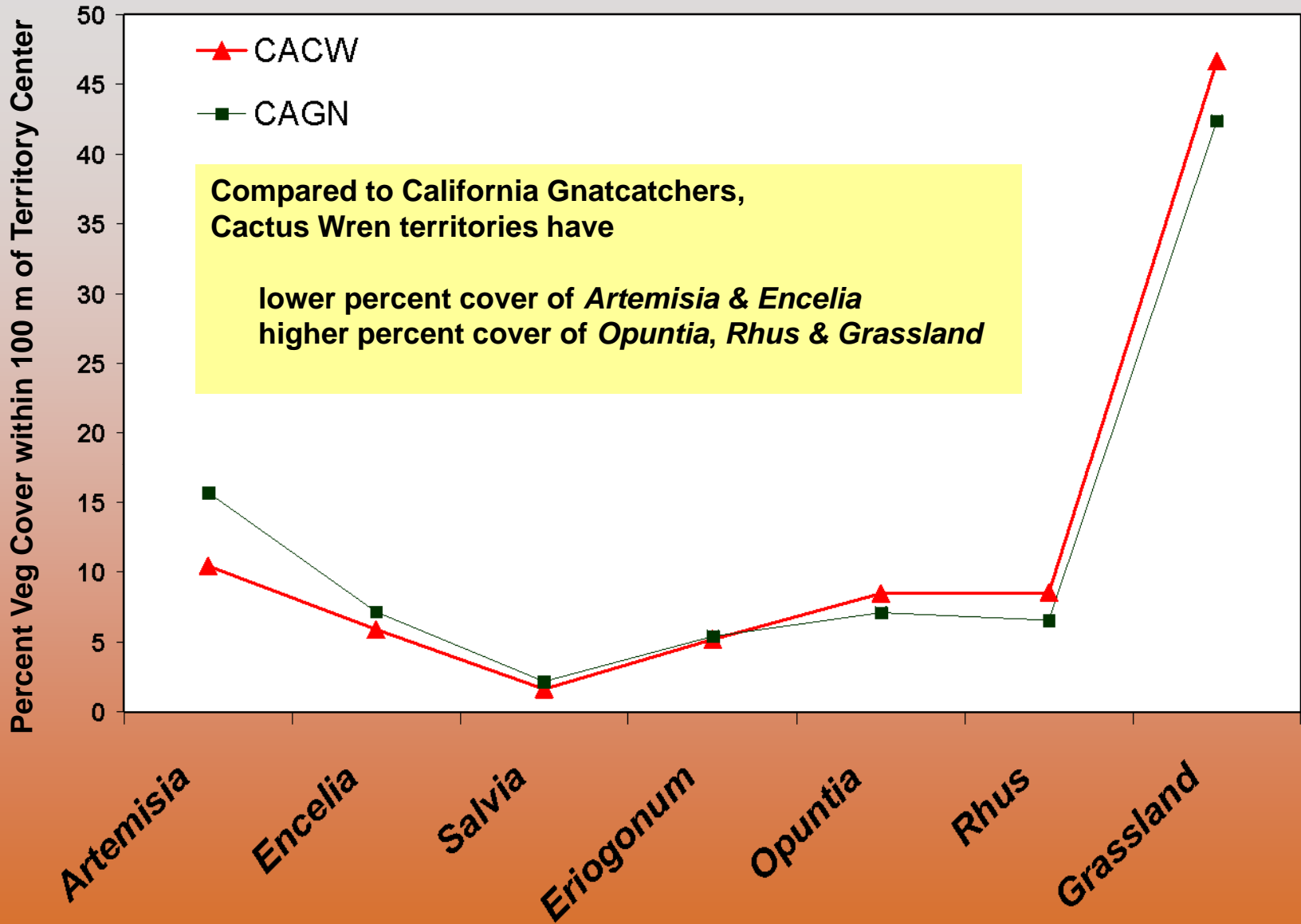
Generalized Habitat

- Cactus Scrub
- Grassland
- Grassland-Scrub
- Sagebrush Scrub
- Sage-Lemonadeberry Scrub
- Lemonadeberry Scrub
- Bluff Scrub
- Riparian

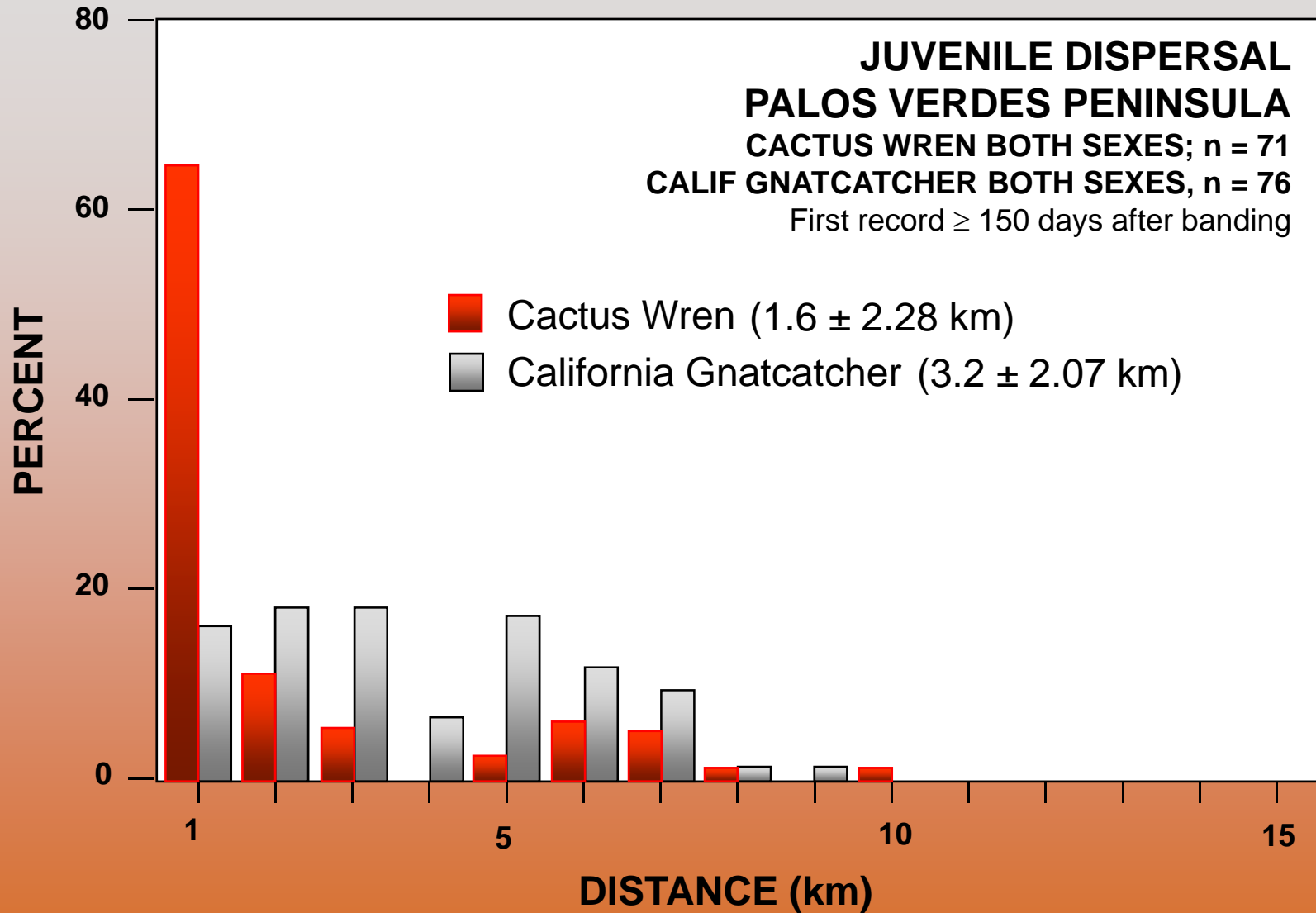


Palos Verdes Peninsula, 1993





JUVENILE DISPERSAL
PALOS VERDES PENINSULA
CACTUS WREN BOTH SEXES; n = 71
CALIF GNATCATCHER BOTH SEXES, n = 76
First record ≥ 150 days after banding



Why coastal Cactus Wrens are of greater conservation concern than California Gnatcatchers



Wrens are . . .

- smaller in total population size
- more fragmented in their distribution
- more specialized in their habitat requirements
- less likely to disperse long distances
- underemphasized in habitat reserve designs?

