

least Bell's vireo



Photo credit: Steve Maslowski/USFWS

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Vireo bellii pusillus

- Small insectivorous songbird in the family Vireonidae
 - Bugs, beetles, grasshoppers, moths, caterpillars
- Neotropical migrant
 - Winter in Baja California, Mexico
 - Breed in southern California



Photo credit: Devin Taylor

Background

- Historically characterized by Grinnell as one of the most abundant song birds in the state
- Historically San Joaquin and Sacramento Valleys were center of breeding range with 60 to 80% of populations, but LBV extirpated from these areas by 1980
- Listed as Federally Endangered in 1986 with only 291 known territories
- Critical habitat designated in 1994
- At time of listing, greater than 99% of territories were in Southern California



Photo credit: Alex Houston

Threats

- Habitat loss
 - Riparian habitat suitable for LBV had declined by an estimated 95% at the time of listing
- Brown-headed cowbird brood parasitism
- Habitat degradation from invasive exotic plants such as *Arundo donax*
- Predation by cats and Argentine ants



Photo credit: Sally Brown
Cowbird trap, Morrison Property, San Diego
County

Background

- By 2001-2005, LBV population had increased 10 fold to 2,968 known territories (from 291 in 1986)
- Greater than 99% of populations remain in Southern California.
- 90 % of territories are found in only 11 populations.
- Currently populations are in decline presumably due to drought.



Photo credit: Alex Houston

Identification

- Plumage grayish olivaceous above, white below
- Plain dull ashy gray on head
- White eye-ring
- Short, straight bill
- Small (length 4.75 inches, weight 7-10 g)
- Active, flicks tail



Photo credit: Lisa Allen

Vocalizations

- Distinctive
2 phrase song

scratchy, unmusical

First phrase ends rising in inflection

Second phrase ends falling in inflection

Cheedle cheedle chee?

Cheedle cheedle chew!



Photo credit: Alex Houston

Habitat

- Willow dominated riparian habitat
- Prefer early successional habitat (dense, low, shrubby)
- Like structurally diverse riparian
- Southern willow scrub, mulefat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, cottonwood bottomland forest
- Winter in mesquite scrub, palm groves, hedgerows



Photo credit:
Sally Brown/
USFWS
Forrester Creek

Breeding

- Arrive mid March to early April
begin to establish territories
- Nest mid April to end of July
- Then begin to molt
- May be present in the area
until mid to late September
- Territory size ranges from
0.5 to 7.5 acres



Photo credit: Jeff Wells

Breeding

- Both adults build nest in 4-5 days
- Nest is cup-shaped, constructed of leaves, bark, willow catkins, spider webs
- Nest typically constructed in fork of a tree or shrub within 1 meter of the ground
- Egg laying within 1-2 days of nest completion
- 2-5 eggs laid (typically 3 or 4)



Photo credit: Alex Houston

Breeding

- Both parents share in Incubation
- Eggs are white and most have fine brown, black, or reddish-brown dots
- Eggs hatch after 14 days
- Nestlings fed by both parents
- Nestlings fledge in 10-12 days
- Adults care for young for 2 weeks after fledging



Photo credit: Suellen Lynn

Survey Methodology

- No 10(a)(1)(A) recovery permit required for passive surveys (no recordings)
- Survey guidelines from 2001 are available on-line
<http://www.fws.gov/pacific/ecoservices/endangered/recovery/documents/LBVireo.2001.protocol.pdf>
- 8 surveys from April 10 to July 31 spaced at least 10 days apart



Photo credit: Sally Brown /
USFWS Anza Borrego

Questions?



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