Southwestern Willow Flycatcher
Demography and Ecology Studies
along the Lower Colorado River and Tributaries
2009
Study components

- Broadcast surveys
- Territory/nest monitoring
- Banding/resighting

- Microclimate/vegetation
- Cowbird trapping
Approx. 100 survey sites
Sites chosen by field recon via helicopter and on foot
Goal to survey all potential habitat
Breeding sites
- Pahranagat – native
- Mesquite – mixed-native
- Mormon Mesa – mixed-exotic
- Muddy River – mixed-exotic
- Topock – exotic
- Bill Williams – mixed-native
- Littlefield – native
Habitat conditions 2009

Pahranagat
Mesquite West
No resident willow flycatchers recorded south of Bill Williams

Migrant willow flycatchers detected through mid-June
Mormon Mesa

- % parasitism
- Fecundity

- 2003: 0.6, 2004: 0.8, 2005: 1.2, 2006: 1.4, 2007: 1.0, 2008: 0.4, 2009: 0.2


Graph showing trends in percent parasitism and fecundity from 2003 to 2009.
Topock Marsh

Simultaneous drop in nesting and rise in unpaired males
- 3 territories in which potential females were detected for less than a week in June
- Similar pattern seen at Roosevelt Lake in 2002
- Possible indication of poor habitat quality
Microclimate and Vegetation Study Design

Within active territories
- 20 m from territory center
- T/RH logger as soon as territory identified
- Vegetation at end of season

Provide description of occupied habitat in various vegetation types
- Combine with data collected within territories in previous years
Temporal changes in habitat

- Identified portions of study areas that were occupied in previous years but not 2009
- Relocated old nests
- Hung T/RH data logger at the old nest
- Completed veg plot at end of season
- Compared results to data collected when nest was active
Old Nest Results

Mormon Mesa (n = 13) and Topock Marsh (n = 13)

- No obvious changes in habitat
- Lower humidity
- Increase in canopy height
- Decrease in proportion of live stems 2.5-8 cm dbh
  Same result as at Topock in 2008
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- USFWS Regions 1 and 2
- Federal Bird Banding Laboratory
- Arizona Game and Fish Dept.
- Nevada Division of Wildlife
- California Dept. of Fish and Game
- Utah Division of Wildlife Resources
- Refuges:
  - Pahranagat NWR
  - Havasu NWR
  - Bill Williams River NWR
  - Cibola NWR
  - Imperial NWR
- Grand Canyon National Park
- Hualapai Tribe
- Colorado River Indian Tribes
- Lake Mead NRA
- Bureau of Land Management
- Key Pittman WMA
- Overton WMA
- Private landowners

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