Southwestern Willow Flycatcher/Western Yellow-billed Cuckoo

Presented by Vicky Ryan
Flycatcher Breeding Range

![Map showing the breeding range of different species of flycatchers. The map highlights regions in the United States and South America.](image)
Status – Estimated Flycatcher Population Numbers Rangewide

24% of rangewide population within Middle Rio Grande
NM Specific Population Trends

Source: USGS/BBS Data

Source: USBR

Source: Rolland Shook
Threats to Southwestern Willow Flycatchers

- Predation
- Cowbird Brood Parasitism
- Loss of habitat due to:
  - Damming and Flooding
  - Flood Control
  - Urbanization
  - Overgrazing
  - Fire
  - Saltcedar Leaf Beetle
- Climate Change and Drought
Habitat Needs/Primary Constituent Elements (PCE’s)

- **Riparian Vegetation**: along a dynamic river or lake with dense riparian vegetation (<50% cover) and patches at least ¼ acre
- **Insect Prey Populations**: a variety found in moist environments (i.e. mosquitos)
Conservation Tips

- Work outside of April 15 to September 1st whenever possible
- Replace native plants at a 10:1 ratio (5:1 if original plants removed were particularly young, stressed, diseased, or in otherwise just bad shape)
- If removing vegetation (for invasive species management, creating backwater channels or embayments for example), areas should be replanted mechanically or by hand if not naturally replaced within 1-2 years
- Spoil piles should be placed outside of active floodway
- Develop a Flycatcher and/or Cuckoo specific Management Plan

Planting Guidelines:

To create BREEDING flycatcher habitat:
- To achieve at least 50% canopy cover plan on planting 1133 whips per acre
- Vegetation must be at least 10 feet tall
- Depth to groundwater less than 6 feet (saturated or flooded areas preferred)
- Vegetation = coyote willow and/or tree willow
- Must be a patch at least 4.5 acres in area and 100 feet wide.
- Within 50 meters of water or moist area.
Yellow-billed Cuckoo

Photo source: Perrianne Houghton
Cuckoo Historic Breeding Range

Source: Dr. Charles van Riper III (http://www.charlesvanriper.com/gallery/YBCU_Range.html)
Status – Estimated Population Numbers (breeding pairs) Rangewide

In total (America Only): 350-495
Total (America + Mexico): 680-1025
Trend Data Western BBS Region and Survey-wide (including Eastern DPS) from USGS
NM Specific Population Trends

Source: USGS/BBS Data

Source: USBR
Threats to Western Yellow-billed Cuckoos

• Drought and Climate change
• Wildfire
• Water management (regulation, diversion, pumping, dams, channelization) leads to:
  • Loss of river function (lack of scouring floods)
  • Altered hydrology to favor non-native vegetation
• Conversion of floodplains for agricultural activities (crops, overgrazing)
• Small populations in fragmented landscape more vulnerable to extirpation (population loss)
• Pesticides on breeding and wintering grounds reduce prey base
• Defoliation by tamarisk leaf beetle during breeding season
Habitat Needs: Critical Habitat PCE’s

- Riparian Woodlands: dense riparian habitat (70% canopy cover or more) for nesting and foraging in large patches (i.e. 100m in width and 200 acres or more in extent, but could vary)

- Insect Prey Populations: a variety found in moist environments (i.e. cicadas, caterpillars, dragonflies, etc.)

- Dynamic Riverine Processes: dynamic river systems that provide hydrologic processes that encourage sediment movement, which in turn promotes seedling germination, plant growth, maintenance, health, and vigor. Ultimately resulting in multiple age classes of vegetation.
Conservation Tips

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Planting Guidelines:
To create BREEDING cuckoo habitat:
• To achieve at least 50% canopy cover plan on planting 1133 whips per acre
• Vegetation must be at least 10 feet tall
• Depth to groundwater less than 6 feet (saturated or flooded areas preferred)
• Vegetation = tree willow, cottonwood, NM olive
• Must be at least 12 acres in area and 325 feet wide (based on survey protocol by Halterman et al)
• “Edge effect” for perching on the fringe and finding prey in adjacent sparse areas
Future Research/Research Needs
Contact Information for Questions

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