

Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*)**Species Status Statement.**Distribution

The western subspecies of yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a neotropical migrant with a patchy and disjointed breeding distribution tied to suitable riparian habitats (Parrish et al. 2002) west of the Rocky Mountain front. Individual western yellow-billed cuckoos are occasionally detected in scattered locations throughout Utah. However the species has been found regularly in only two areas of the state, both near the Green River: north of the town of Green River, and around Ouray National Wildlife Refuge, Uinta Basin (DWR files).

Table 1. Utah counties currently occupied by this species.

Western Yellow-billed Cuckoo	
BOX ELDER	RICH
CACHE	SALT LAKE
DAVIS	SAN JUAN
DUCHESNE	UINTAH
EMERY	UTAH
GARFIELD	WASATCH
GRAND	WASHINGTON
IRON	WAYNE
JUAB	WEBER

Abundance and Trends

Western yellow-billed cuckoo populations have exhibited precipitous declines since the mid-nineteen century (Haltermann et al. 2012, Hughes 2015). Breeding cuckoos have been extirpated from British Columbia, Oregon, and Washington, and the number of breeding pairs in California fell from 15,000 to only 40 in less than 100 years (Hughes 2015).

First reported from Utah in the late 1800s, this bird was likely a common to uncommon summer resident in the state at the time of European settlement (Parrish et al. 2002). Efforts to document yellow-billed cuckoos in the past 20 years have been largely unsuccessful, except for the two focus areas on the Green River. Even within these areas, numbers detected over time have been variable (DWR files). The Utah population of yellow-billed cuckoo is estimated to be 120 individuals (Partners in Flight 2019a). Yellow-billed cuckoos have nested in Utah and breeding may occur on the Green River, though this has not been confirmed (DWR files). The last reported, conclusive evidence of breeding in Utah was in 1994 (Parrish et al. 2002). To better understand their distribution and abundance in Utah, systematic surveys are needed.

Currently, western yellow-billed cuckoo is listed as threatened under the Endangered Species Act of 1973 (79 FR 59992).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Western yellow-billed cuckoo is a riparian obligate species, dependent on dense, continuous stands of riparian vegetation (Haltermann et al. 2015, Hughes 2015). Distribution of breeding cuckoos is influenced on the landscape level by how much cottonwood and willow dominated vegetation is available in riparian areas, and the width of those vegetative communities (Haltermann et al. 2015). Nesting occurs almost entirely in lower elevation (2500 to 6000 feet) riparian woodlands dominated by native trees and shrubs (Parrish et al. 2002). Preferred habitats consist of a canopy of native broadleaf gallery trees, usually cottonwood or willow, with a dense, mixed species shrub and tree sub-canopy. Cuckoos require large, continuous tracts of dense riparian forest for nesting. Reports of the minimum forest patch size that cuckoos will use for nesting range from 25 acres to over 50 acres (Parrish et al. 2002, Haltermann et al. 2015). These patches must also be greater than 100 m in width and within 100 m of water. Individual cuckoos can be found in much smaller patches of riparian vegetation during migration or if they are not breeding (Haltermann et al. 2015). Yellow-billed cuckoos are late migrants and fast breeders (Hughes 2015). They arrive on breeding grounds in mid- to late June and depart in August. Numbers of individuals, breeding status and distribution are all influenced by prey (large arthropod insects, especially caterpillars and cicadas) abundance and availability of suitable habitat (Parrish et al. 2002, Haltermann et al. 2015, Hughes 2015).

U. S. Fish and Wildlife Service proposed designation of critical habitat for western yellow-billed cuckoo in 2014. This includes nine stream segments in Utah totaling approximately 40,000 acres and 147 stream miles of riparian habitats, mostly in the eastern half of the state (USFWS 2014a). No final ruling was made on that proposal.

Threats to the Species

Loss and degradation of riparian habitats are the primary threats to western yellow-billed cuckoo (Parrish et al. 2002, USFWS 2014b, Haltermann et al. 2015, Hughes 2015). Riparian habitat loss results from changed water regime, resource overutilization, and continued invasion by non-native plants (USFWS 2014b, Haltermann et al. 2015). Excessive water depletion, flooding and variable water levels associated with storage reservoirs and changes in timing and intensity of natural precipitation events (e. g. drought, torrential rains) compromise the health and vitality of native riparian vegetation. Western yellow-billed cuckoo eggs may be prone to drying during heat waves and droughts, which reduces hatchability (Laymon and Haltermann 1987). Bank stabilization and construction of levees cuts floodplains off from stream flows that support the surrounding riparian forests. Improper grazing, urban and rural development, and some outdoor recreation activities increase erosion and siltation of stream channels. Non-native plants that are more adapted to disturbed sites and altered water regimes (e. g. Russian olive, tamarisk) out-

compete native vegetation and further degrade riparian condition (UDWR 2015). Evidence indicates that western yellow-billed cuckoos prefer native or mixed native/non-native vegetation over non-native vegetation, and these conditions are more suited for native wildlife species (Haltermann et al. 2015, UDWR 2015).

Compromised riparian communities are more susceptible to stand-killing fires. This is especially problematic for stream reaches where the dominant species is tamarisk. Urban expansion into or adjacent to riparian communities increases the probability of ignitions.

Because cuckoos respond to arthropod insect availability, broadcast spraying of pesticides in and adjacent to riparian zones may be detrimental (Parrish et al. 2002, Hughes 2015). Spraying can either decrease food sources to the point that cuckoos will not breed or may kill them directly through toxic response.

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Western Yellow-billed Cuckoo
High
Brush Eradication / Vegetation Treatments
Channel Downcutting (indirect, unintentional)
Improper Grazing (current)
Problematic Plant Species – Native Wetland
Water Allocation Policies
Medium
Camping (Dispersed)
Dam / Reservoir Operation
Droughts
Habitat Shifting and Alteration
Inappropriate Fire Frequency and Intensity
OHV Motorized Recreation

Rationale for Designation.

Western yellow-billed cuckoo is protected as a threatened species under ESA and is currently under status review (USFWS 2014b, USFWS 2018). This species is almost entirely dependent on riparian zones, a severely limited and highly impacted land cover type in Utah. Ongoing threats to the species require management. Sensitive species designation for this bird will bolster state habitat and water management programs in riparian communities, which are also important habitats for many other Utah wildlife species.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate coordinated management of this species, which is required to reverse ESA listing and lessen related economic impacts. Western yellow-billed cuckoo is currently listed as threatened under the ESA. This relatively recent listing has resulted in increased costs for managing and developing water in designated critical habitat in Utah. It has also resulted in increased costs of regulatory compliance for many land-use decisions including infrastructure and water use. These costs will remain as long as the species is listed under the ESA. If the species is downlisted or delisted, continued efforts will be required to mitigate threats and maintain stronger populations.

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