
Yellow-billed Cuckoo

Coccyzus americanus

Aves — Cuculiformes — Cuculidae

CONSERVATION STATUS / CLASSIFICATION

Rangewide:	Secure (G5)
Statewide:	Imperiled breeding (S2B)
ESA:	Candidate
USFS:	Region 1: No status; Region 4: No status
BLM:	Threatened, Endangered, Proposed, and Candidate (Type 1)
IDFG:	Protected nongame

BASIS FOR INCLUSION

Candidate under the U.S. Endangered Species Act; limited breeding populations in Idaho and regional population declines.

TAXONOMY

Two subspecies have been recognized: the western (*Coccyzus americanus occidentalis*) and eastern (*C. a. americanus*) yellow-billed cuckoo; though the validity of the subspecies is currently debated (Hughes 1999, USFWS 2001). There is some evidence that western and eastern yellow-billed cuckoos are morphologically and ecologically distinct (differ in the timing of migration and breeding) and geographically separated (Hughes 1999, USFWS 2001). However, there is overlap in morphological measurements among populations and questions surrounding genetic findings. The USFWS provides a complete discussion on this debate in their 12-month finding for a petition to list the yellow-billed cuckoo in the western continental U.S. (USFWS 2001). In this finding the USFWS concluded that western populations of the yellow-billed cuckoo meet the discreteness criteria to be considered a Distinct Population Segment (DPS) that qualifies for consideration for listing under the Endangered Species Act. The western DPS of the yellow-billed cuckoo occurs west of the crest of the Rocky Mountains, from the Montana-Canada border to southern New Mexico (Hughes 1999).

DISTRIBUTION AND ABUNDANCE

The historic range of the yellow-billed cuckoo western DPS included all states west of the Rocky Mountains, and extended into southern British Columbia at the northern extent of its range and into the northwestern states of Mexico at the southern limit. Currently, its range is limited to disjunct fragments of riparian habitats from northern Utah, western Colorado, southwestern Wyoming, and southeastern Idaho, southward into New Mexico and northwestern Mexico, and westward into Arizona and California. It is considered to be extirpated from British Columbia, Washington, Oregon, and possibly Nevada (Hughes 1999). The USFWS (2003a) provides state-by-state summaries of the distribution of the yellow-billed cuckoo in the western United States.

In Idaho, the yellow-billed cuckoo is a rare visitor and local breeder that occurs in scattered drainages primarily in the southern portion of the state (Taylor 2000, Idaho

CDC 2005). In southwestern Idaho, the yellow-billed cuckoo has historically been considered a rare summer visitor and breeder in the Snake River Valley. Sightings over the last 25 years include: Battle Creek and Crane Creek Reservoir, Owyhee Co.; an island in the Snake River, Fort Boise Wildlife Management Area (WMA), and Lake Lowell, Canyon Co.; Swan Falls Dam, Ada Co.; Prairie, Elmore Co.; the Twin Falls area, Twin Falls Co.; and Hayspur Fish Hatchery, Blaine Co. (Taylor 2000, Idaho CDC 2005). Yellow-billed cuckoos have been most frequently and consistently reported in willow/cottonwood forests in the Snake River Valley in southeastern Idaho (Stephens and Sturts 1997). Numerous observations have been reported near: Rupert, Minidoka Co.; American Falls Reservoir (particularly on the stretch of Snake River flowing into the reservoir), Shelly, and Firth in Bingham Co.; Cartier W.M.A., Madison Co.; and Ririe, Jefferson Co. Away from the Snake River, cuckoos have been reported at Mud Lake WMA and Camas National Wildlife Refuge in Jefferson Co. Statewide, the breeding population is likely limited to a few dozen pairs (Taylor 2000).

POPULATION TREND

No population trend data are available for Idaho because populations of yellow-billed cuckoos are too low to make valid statistical conclusions. Major declines have been documented throughout this species' range in the western U.S. such that it is now extremely rare in most areas (Laymon and Halterman 1989).

HABITAT AND ECOLOGY

In the western U.S. the yellow-billed cuckoo is a riparian obligate species. Suitable riparian habitat is limited to linear and often widely separated riparian zones that make up <1% of the arid western landscape (USFWS 2001). Throughout its range, yellow-billed cuckoos are usually found in large tracts of cottonwood and willow habitats with dense sub-canopies (Hughes 1999, USFWS 2001). In Idaho, they are reported to occur most frequently and consistently in cottonwood forests with thick understory (Groves et al. 1997a, Taylor 2000, Idaho CDC 2005). Moist riparian habitats are thought to provide humidity requirements for successful hatching and rearing of young. Dense understory foliage appears to be an important factor in nest site selection, while cottonwood trees are an important foraging habitat (Laymon et al. 1993). In contrast, eastern populations of the yellow-billed cuckoo breed in a wider range of habitats that include extensive bottomland forests and non-riparian deciduous woodlands that are consistently humid during the summer (Ehrlich et al. 1988, Hughes 1999, USFWS 2001). Yellow-billed cuckoos are generally absent from heavily forested areas and large urban areas (Eaton 1988), and very scarce in the extensive high elevation zones of the Rocky Mountains above 2000 meters (6600 feet) (USFWS 2001).

Yellow-billed cuckoos appear to require large blocks of riparian habitat for nesting. For example, in California, Laymon and Halterman (1989) found that habitat patch occupancy significantly increased with size. Cuckoos occupied 9.5% of 21 sites 20–40 ha (50–100 ac) in extent, 58.8% of 17 sites 41–81 ha (51–200 ac), and 100% of 7 sites >80 ha (200 acres). Yellow-billed cuckoos primarily eat large insects such as caterpillars, katydids, cicadas, grasshoppers, and crickets. Occasionally, they eat bird eggs and young, snails, frogs, and lizards. Yellow-billed cuckoos also will consume

small fruits and seeds, but more frequently in fall and on their wintering grounds. Parents feed their young regurgitated insects (Hughes 1999).

ISSUES

The primary issue that relates to the yellow-billed cuckoo is the loss and degradation of breeding habitat, which is believed to have caused the declines in the distribution and abundance of the species (Hughes 1999). Estimates of riparian habitat losses range from 90–95% in Arizona, 90% in New Mexico, 90–99% in California, and >70% nationwide (Ohmart 1994, Noss et al. 1995). The principle causes of riparian habitat losses are conversion to agriculture and other land uses, urbanization, dams and river flow management, stream channelization and bank stabilization, and livestock grazing (USFWS 2003a). Overgrazing by livestock has been a major factor in the degradation and modification of riparian habitats in the western U.S. Overuse by livestock results in changes in plant community structure, species diversity, and relative abundance of plant species. Overgrazing further degrades watershed conditions by compacting soil, increasing surface water runoff, reducing water infiltration, and causing bank instability.

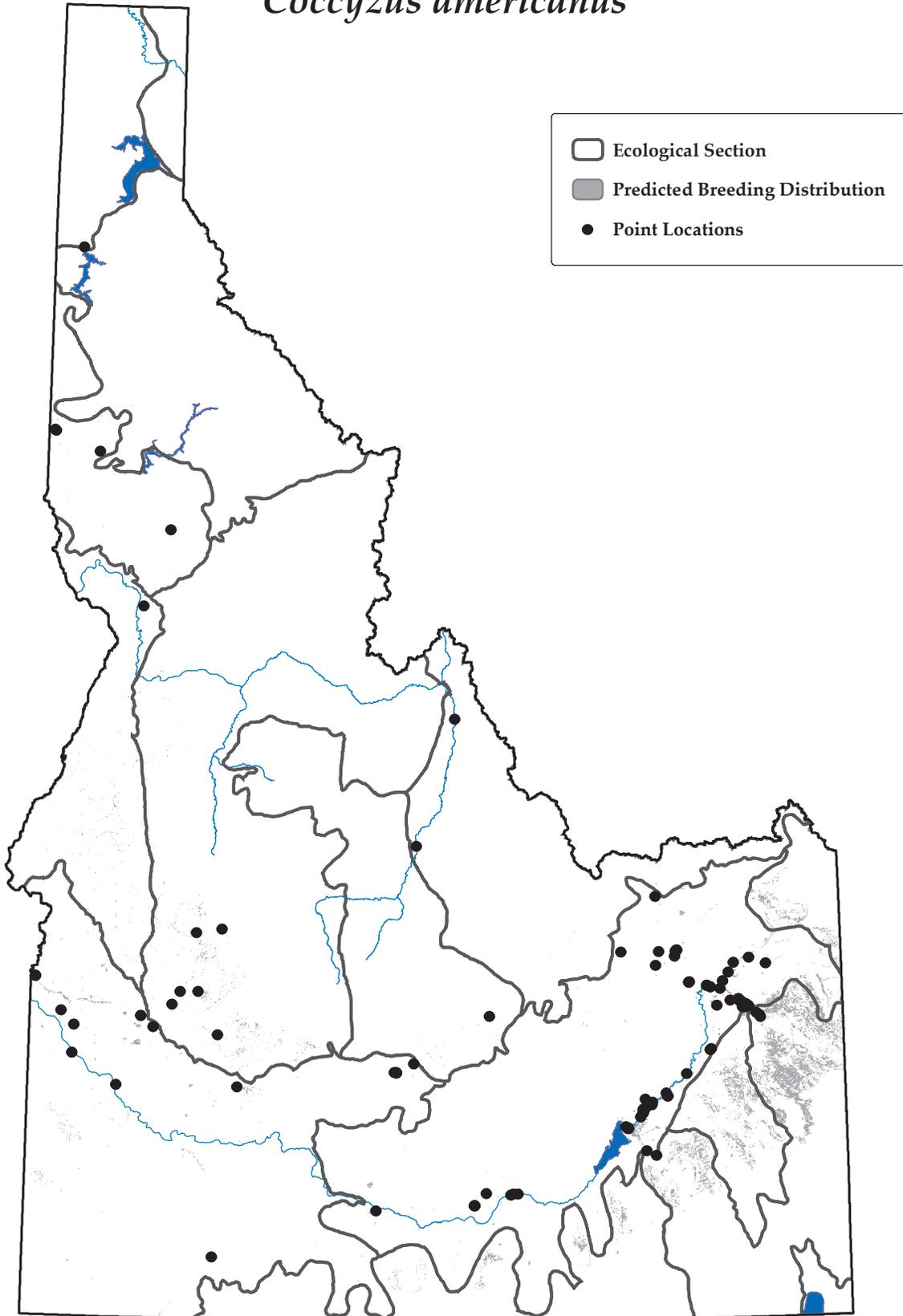
Available breeding habitat also has been substantially reduced in area and quality by activities that have lowered the water table (e.g., water diversion, ground water pumping) and the replacement of native riparian vegetation with invasive non-native plants, particularly tamarisk. The conversion of riparian habitat to tamarisk typically results in the reduction or complete loss of bird species strongly associated with cottonwood-willow habitat, including the yellow-billed cuckoo (USFWS 2003a). Disturbances imposed by humans, such as vegetation removal, grazing, and flooding, have facilitated the invasion of tamarisk. Because it is a Neotropical migrant, the yellow-billed cuckoo also is considered to be very vulnerable to tropical deforestation on its wintering grounds (Morton 1992); however, the relationship between over-wintering habitat and populations has not been studied.

RECOMMENDED ACTIONS

Conservation actions in Idaho should focus on more accurately determining numbers of existing yellow-billed cuckoos, mapping locations of remnant populations, and protecting areas where breeding birds appear to be well established. The recently conducted statewide survey (Reynolds 2004) should be repeated more thoroughly and monitoring of established breeding populations conducted on a regular basis (e.g., every 2–3 years). In addition, efforts should be made to acquire and protect suitable riparian habitat, such as through partnerships with The Nature Conservancy along the South Fork of the Snake River where cuckoos are known to occur. Laymon (1980) also recommends eliminating pesticide spraying in orchards adjacent to riparian areas, and efforts to investigate the feasibility of captive breeding and reintroduction to naturally generated or reforested habitat in historical parts of this species' range.

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Map created on September 22, 2005

and prepared by Idaho Conservation Data Center.

Sources: Point data are from Idaho Conservation Data Center, Idaho Department of Fish and Game (2005). Predicted distribution

is from the Wildlife Habitat Relationships Models (WHR), A Gap Analysis of Idaho: Final Report. Idaho Cooperative Fish and Wildlife Research Unit, Moscow, ID (Scott et al. 2002).

Predicted distribution is approximate (for more information, go to http://www.wildlife.uidaho.edu/idgap/idgap_report.asp).

