

## Work Task D7: Yellow-billed Cuckoo Presence/Absence Surveys

FY06 Estimates	FY06 Actual	Cumulative Accomplishment Through FY06	FY07 Approved Estimate	FY08 Proposed Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate
\$500,000	\$454,775	\$454,775	\$500,000	\$500,000	\$500,000	\$500,000

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**Start Date:** FY06

**Expected Duration:** FY55

**Long-term Goal:** Acquire yellow-billed cuckoo data as part of the system monitoring program.

**Conservation Measures:** AMM1, AMM2, AMM3, AMM6, MRM1, MRM2, and YBCU2

**Location:** General presence/absence surveys are conducted in 55 sites of suitable habitat within the LCR MSCP project boundary.

**Purpose:** Conduct surveys to determine existing yellow-billed cuckoo (YBCU) populations along the LCR from the Grand Canyon to the Southerly International Boundary with Mexico and monitor long-term trends.

**Connections with Other Work Tasks (past and future):** Information obtained from C21 and C22 in FY05 was used to develop the monitoring protocol currently being utilized in D7.

**Project Description:** Yellow-billed cuckoo utilize mature cottonwood-willow habitat and may act as an umbrella species for other covered avian species that use these mature habitats. Existing YBCU populations and habitat are being determined along the LCR as systematic surveys are conducted over the project area. This work task assesses existing YBCU populations and evaluates required habitat characteristics. Data collected on vegetation characteristics of occupied sites enables Reclamation to design habitat creation sites for YBCU and recommend future demographic studies necessary to understand more about the YBCU populations along the LCR.

**Previous Activities:** This project is a new start for FY06.

**FY06 Accomplishments:** Yellow-billed cuckoo surveys were conducted at 55 sites, within 17 areas, between June 11 and September 13, 2006. In 2006, field biologists conducted 243 visits and recorded 180 YBCU detections. Cuckoos were detected at 27 of 55 sites, primarily at the Bill Williams River NWR (117 detections) and the Grand Canyon National Park/Lake Mead NRA sites (29 detections). There were also YBCU detections at the Colorado/Gila River Confluence, AZ (9 detections), Overton Wildlife Management Area, NV (7 detections), and Limitrophe Division North, AZ (6 detections). In 2006, five breeding events were confirmed, including one nesting observation and sightings for four juveniles; all confirmed breeding events

were recorded on the Bill Williams and the Lake Mead delta sites. There were also 17 probable breeders detected (e.g., carrying nesting material or food) and 40 possible breeders (e.g., detected in same area during repeated surveys).

Preliminary analysis of vegetation data collected at occupied and unoccupied sites in 2006 focused on general patterns of the distribution and abundance of woody species within riparian habitats of the study region. The dominant tree species at YBCU survey sites were cottonwood, willow, and tamarisk. Tamarisk was the most common tree due to the abundance of small individuals. When occupied and unoccupied sites were compared, occupied sites tended to have greater canopy cover, attributable to the mid and low canopy. Microclimate variables (temperature, relative humidity, soil moisture) were also measured at occupied and unoccupied sites.

**FY07 Activities:** Presence/absence surveys, vegetation measurements, and microclimate data collection will continue for the 2007 field season. Existing survey effort will be evaluated and recommended changes will be implemented during FY08.

**Proposed FY08 Activities:** Presence/absence surveys will be conducted at approximately 55 sites along the LCR. Habitat characteristics will be recorded, including vegetation measurements, for micro-habitat creation projects targeting YBCU. Demographic studies will be conducted on detected YBCU populations. Survey effort, protocols, and studies will be modified following FY07 evaluation.

**Pertinent Reports:** *Yellow-billed Cuckoo Distribution, Abundance, and Habitat Use Along the Lower Colorado and Gila Rivers — 2006 Annual Report*, will be posted to the LCR MSCP Web site.