

# yellow-billed cuckoo



Photo Credit: Mark Dettling/Point Blue Conservation Science

**yellow-billed cuckoo**  
**(*Coccyzus americanus*)**

- Neotropical migrant
- Family Cuculidae
- Winter in South America
- Breed in North America
- Relatively common in eastern North America
- Very few small populations in western North America



Photo Credit: Murrelet Halterman

# Threats

- Loss of riparian habitat  
(alteration of watercourse hydrology)
- Degradation of riparian habitat  
(livestock overgrazing,  
encroachment from agriculture,  
invasive plants,  
fragmentation,  
loss of prey due to pesticide use)



Photo Credit: Mark Dettling / Point Blue  
Conservation Science

## Population decline and listing

- Historically bred throughout western North America from southern British Columbia to northwestern Mexico
- Populations have declined dramatically since the mid-1800s
- Breeding cuckoos have been extirpated over much of the western range, including British Columbia, Oregon, and Washington
- Debate on whether western cuckoos are a subspecies
- Western distinct population segment was listed as threatened in 2014

Expect revised  
proposed  
critical habitat rule  
later this year



Photo Credit: Mark Dettling /  
Point Blue Conservation Science

Figure 2: Boundary of the Western Distinct Population Segment of the Yellow-billed Cuckoo



## Identification

- Bill stout, slightly curved, yellow bottom
- Slender, elongated body and long tail
- Yellow eye ring (adults)
- Plumage gray brown above, white below
- Reddish primary flight feathers
- Black and white pattern on bottom of tail
- Tail rounded
- About 12 inches in length
- About 2 ounces (60 grams) in weight
- Legs are short and bluish-gray
- Zygodactyl foot



Photo Credit: Mark Dettling / Point Blue Conservation Science

## Breeding Habitat

- Large tracts of willow-cottonwood or mesquite forest or woodland
- Rarely nest at sites less than 50 acres
- Prefer sites close to other occupied sites
- Prefer patches containing young (~20 foot tall) riparian
- Low gradient (surface slope less than 3%) rivers and streams
- Open valleys, wide floodplains (greater than 325 feet)
- From sea level to 7,000 feet in elevation

Photo Credit:  
Sally Brown /  
USFWS



# Breeding Habitat

- 10-17 acre core use area  
within larger 50-75 acre general home range
- Require plentiful large food items  
(e.g., cicadas, caterpillars, katydids, lizards, frogs)
- Opportunistic use of less optimal habitat based on  
high food availability
- Will breed in young restoration sites (~3 years)

Photo Credit:  
Sally Brown /  
USFWS



## Breeding

- In west typically mid-June to late July  
rarely beginning as early as late May  
may continue into early Sept
- Biparental care
- Small clutch size  
avg 2 eggs / nest, occasionally up to 4
- Some year-to-year site fidelity
- Nest is small platform of twigs in a tree fork  
tough to spot, looks like a pile of detritus
- Nest is always in an area with high canopy  
cover above and around it
- Adults are quiet, secretive around nest
- Eggs are blue



Photo Credit: Mark Dettling / Point  
Blue Conservation Science

## Breeding – Nest Abandonment

- YBC will abandon nest if disturbed
- YBC will never return to its nest if it sees you and you are still there even if you sit down and are quiet if a YBC sees you, leave
- Signs you are disturbing a nesting YBC:
  - Repeated soft knocking calls
  - Adult flies by with food, eats it
  - Broken wing display



Photo Credit: Steve Laymon

## Rapid Breeding Cycle

- Both adults build nest in 0.5 to 2 days
- Egg laying begins on day 0-2  
one egg every 24-48 hours until clutch  
is complete
- Incubation begins as soon as first egg  
has been laid and is continual
- Female does most daytime incubation  
male does nighttime incubation
- No cowbird parasitism observed  
(nest is not left unattended)



Photo Credit: Mark Dettling /  
Point Blue Conservation Science

## Rapid Breeding Cycle

- Eggs hatch after 11 days
- Each baby gets ~ 10 huge food items / day
- Young leave nest at 5 to 7 days (branching, not flying)
- At 10 days young are gliding
- At 14 days young are flying (not well)
- Fledglings fed by adults for 2-3 weeks
- At 1 month, young are almost indistinguishable from adults
- Adults have yellow eye ring that is difficult to see in the field



Photo Credit: Mark Dettling /  
Point Blue Conservation Science

## Vocalizations

- Vocalize infrequently (~1 call / hour)
  - Low response rate to call playback
  - Coo call
  - Contact calls
  - Alarm calls
  - Soft calls around the nest
- Species with similar sounding calls  
yellow-breasted chat, greater roadrunner  
pied-billed grebe, green heron,  
mourning dove, woodpeckers, accipiters  
<http://www.xeno-canto.org>



Photo Credit: Murrelet Halterman

# Survey Methodology

- YBC are secretive and hard to detect
- 10(a)(1)(A) recovery permit required for protocol surveys
- Very few people are permitted at this time
- We are working with applicants to get them qualified
- Next field season there should be a larger number of qualified survey biologists
- Draft survey protocol is available but is subject to change
- Final survey protocol should be available prior to next field season



Photo Credit: Mark  
Dettling / Point Blue  
Conservation Science

# Survey Methodology - Brief Summary

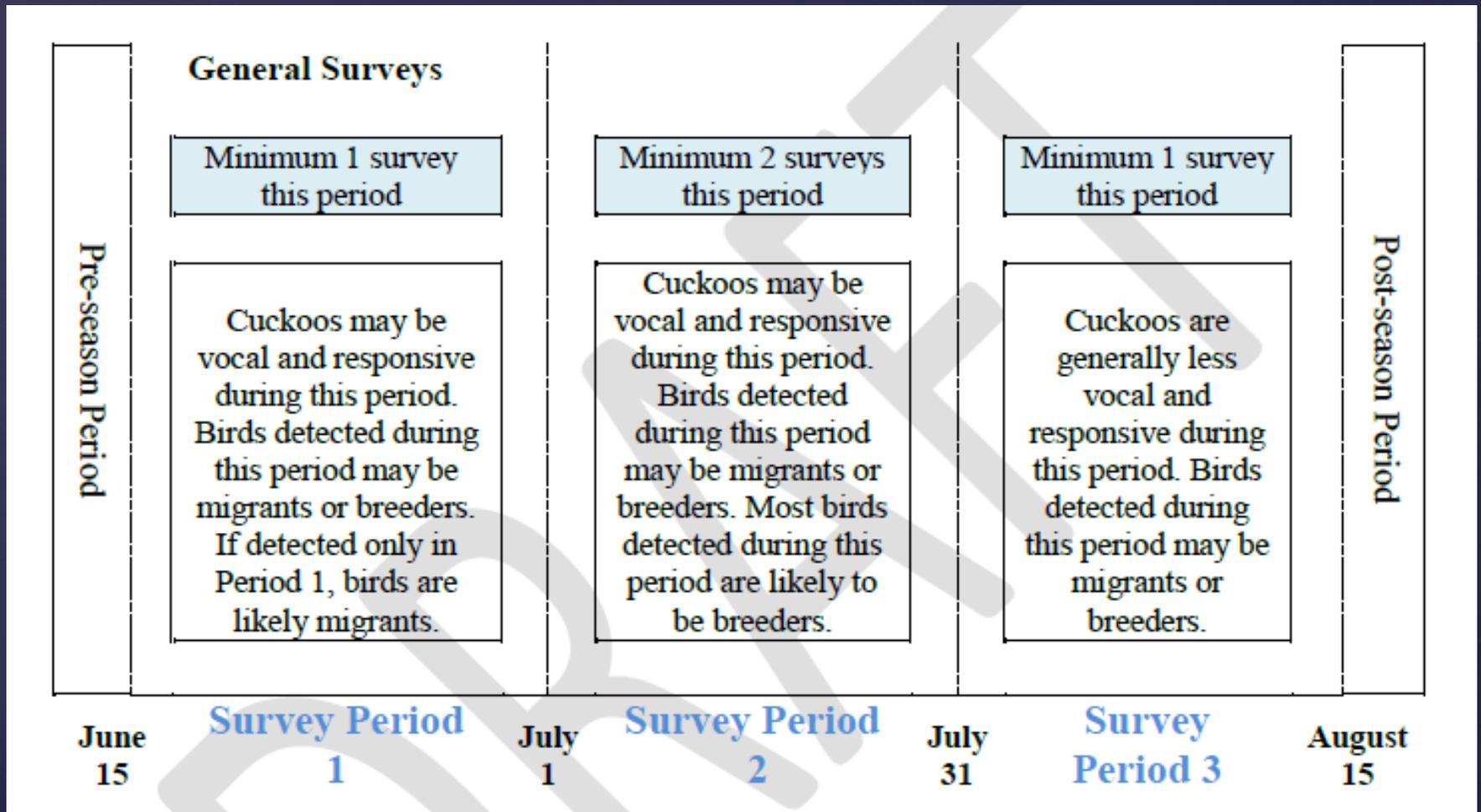
- Survey using call playback
- Survey each route 4 times mid June to mid August  
minimum 12 days, maximum 15 days between surveys
- Make stops at 100 meters
- Play contact calls 5 times at 1 minute intervals
- When a cuckoo is detected, record data, move 300 meters,  
resume survey
- YBC surveys not conducted at the same time as other surveys  
(LBV, SWWF)



Photo Credit:  
Mark Dettling /  
Point Blue  
Conservation  
Science

# Draft Survey Protocol

95% probability of detecting cuckoos if present



Halterman, M.D., M.J. Johnson, J.A. Holmes and S.A. Laymon. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo: U.S. Fish and Wildlife Techniques and Methods, 45 p.

# Questions?



Photo Credit: Mark Dettling/Point Blue Conservation Science