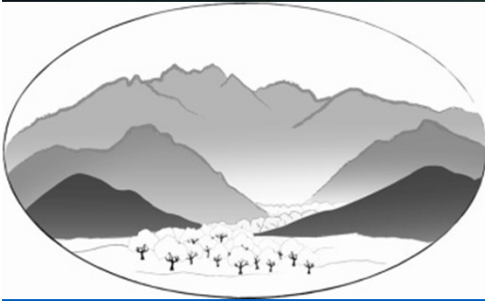


Lower Colorado River MSCP
yellow-billed cuckoo (*Coccyzus
americanus*)
monitoring
results,
2011



Shannon McNeil,
Southern Sierra Research Station
sem.ssrs@gmail.com

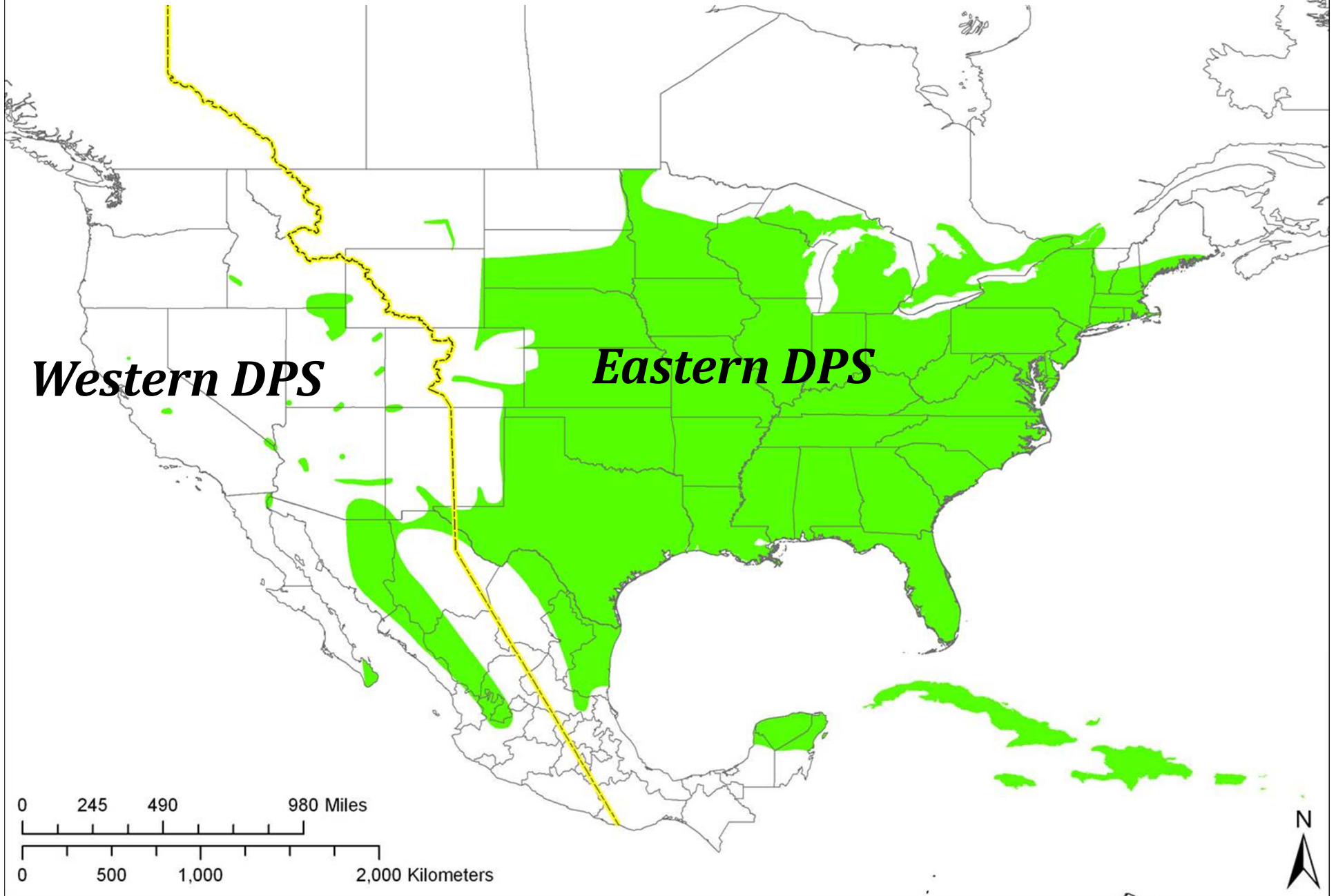
Alex Lamoreaux



Southern Sierra Research Station
Research for Conservation of Biological Diversity



YBCU Current status (distinct population segments)



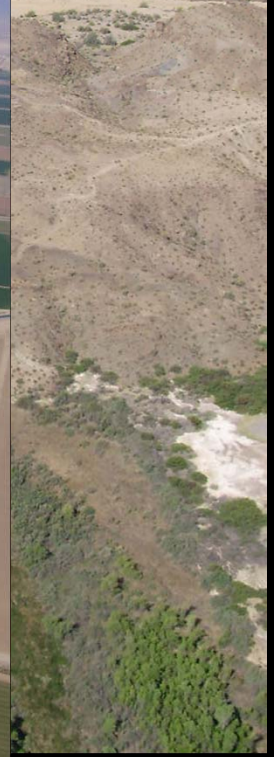
Western DPS

- Riparian/large area specialist
- Candidate for Federal listing (2001)



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Ahakhav Tribal Preserve: CRIT



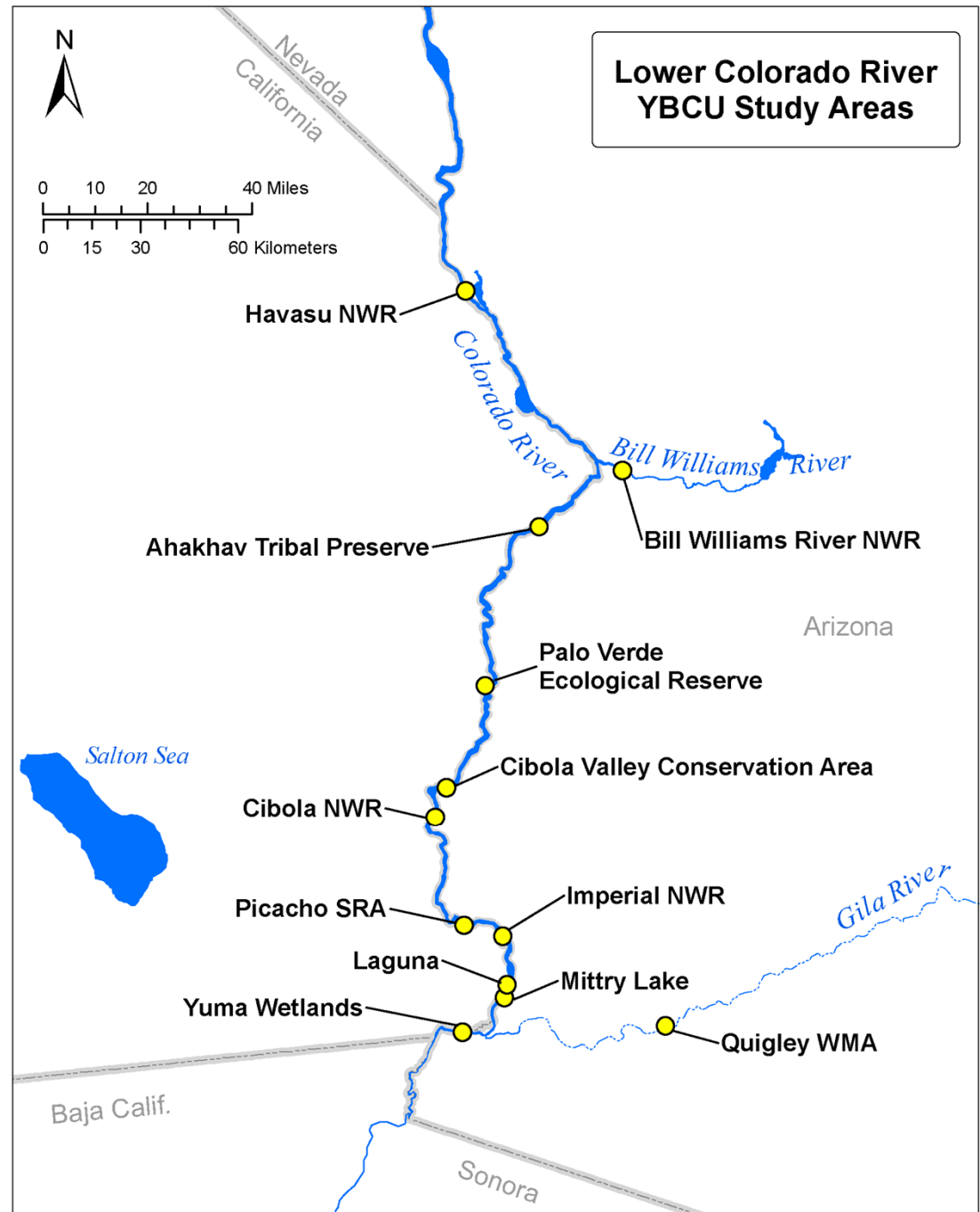
LCR MSCP Habitat Creation Sites

Palo Verde Ecological Reserve



Cibola NWR

2011 LCR YBCU study area



Project Components:

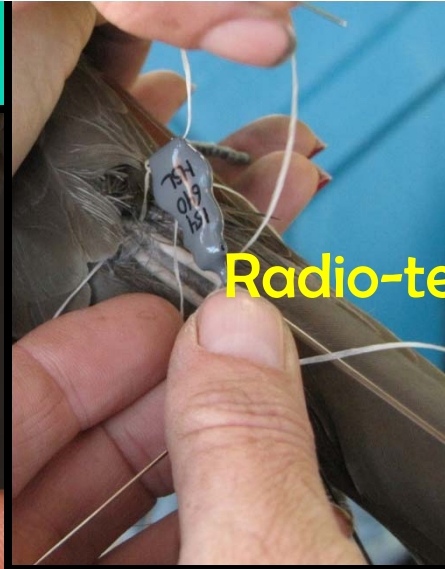
Nest monitoring



Target netting/
Color-banding



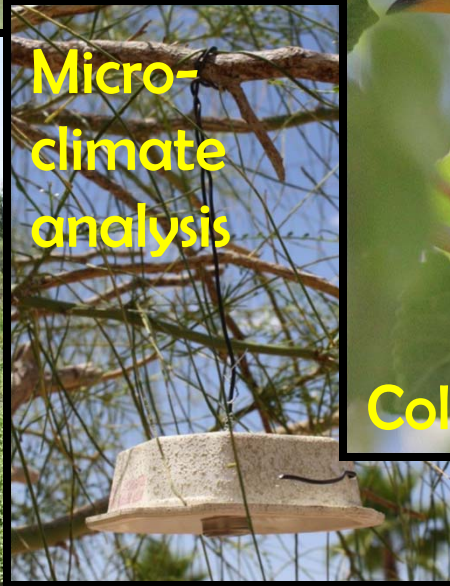
Radio-telemetry



Presence/
Absence
surveys



Micro-
climate
analysis

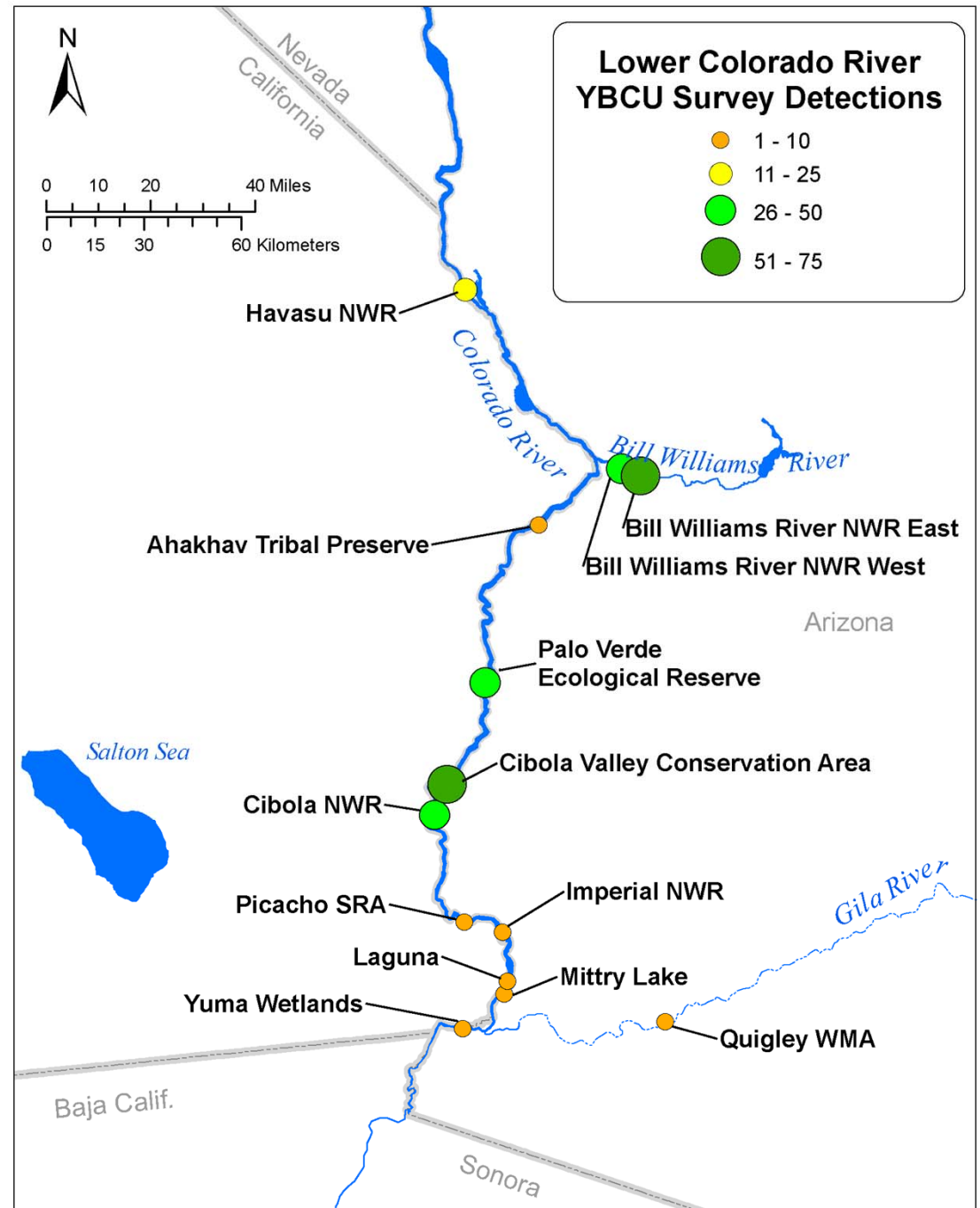
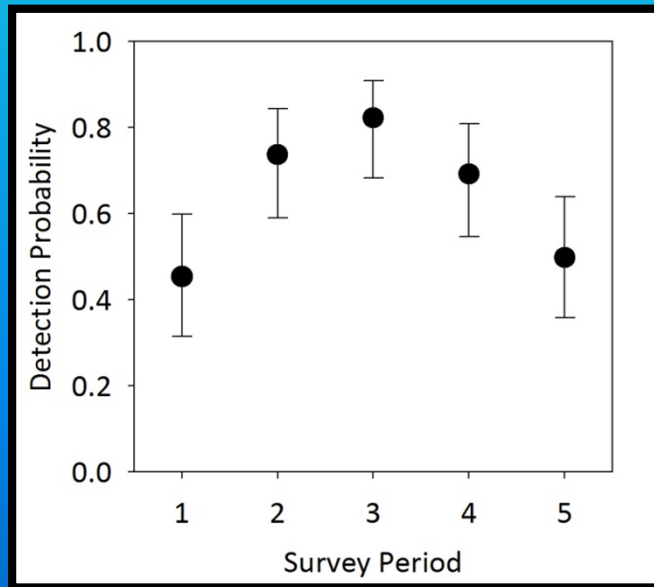


Color-band resighting



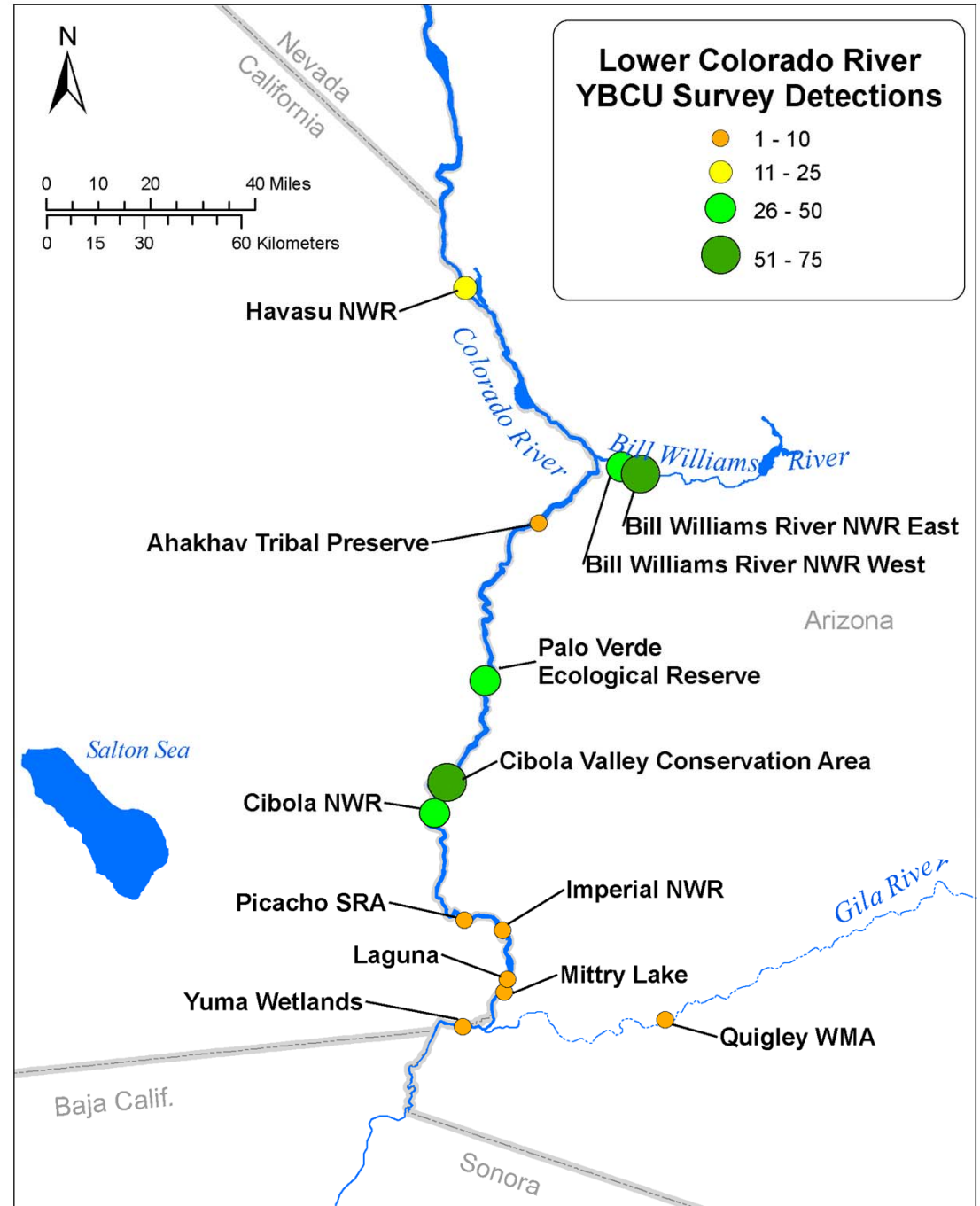
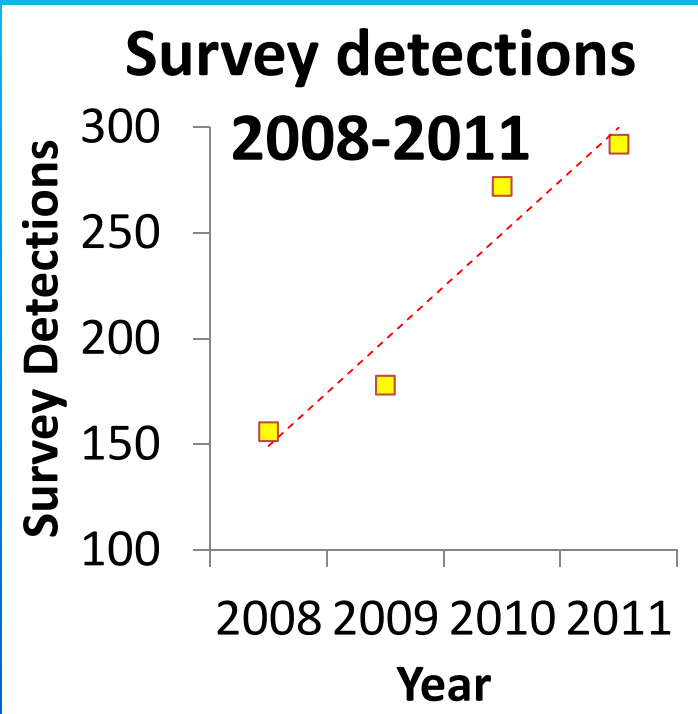
Survey results:

- 292 Survey detections (peak mid-July)
- Detection probability highest in July, lowest in June, August



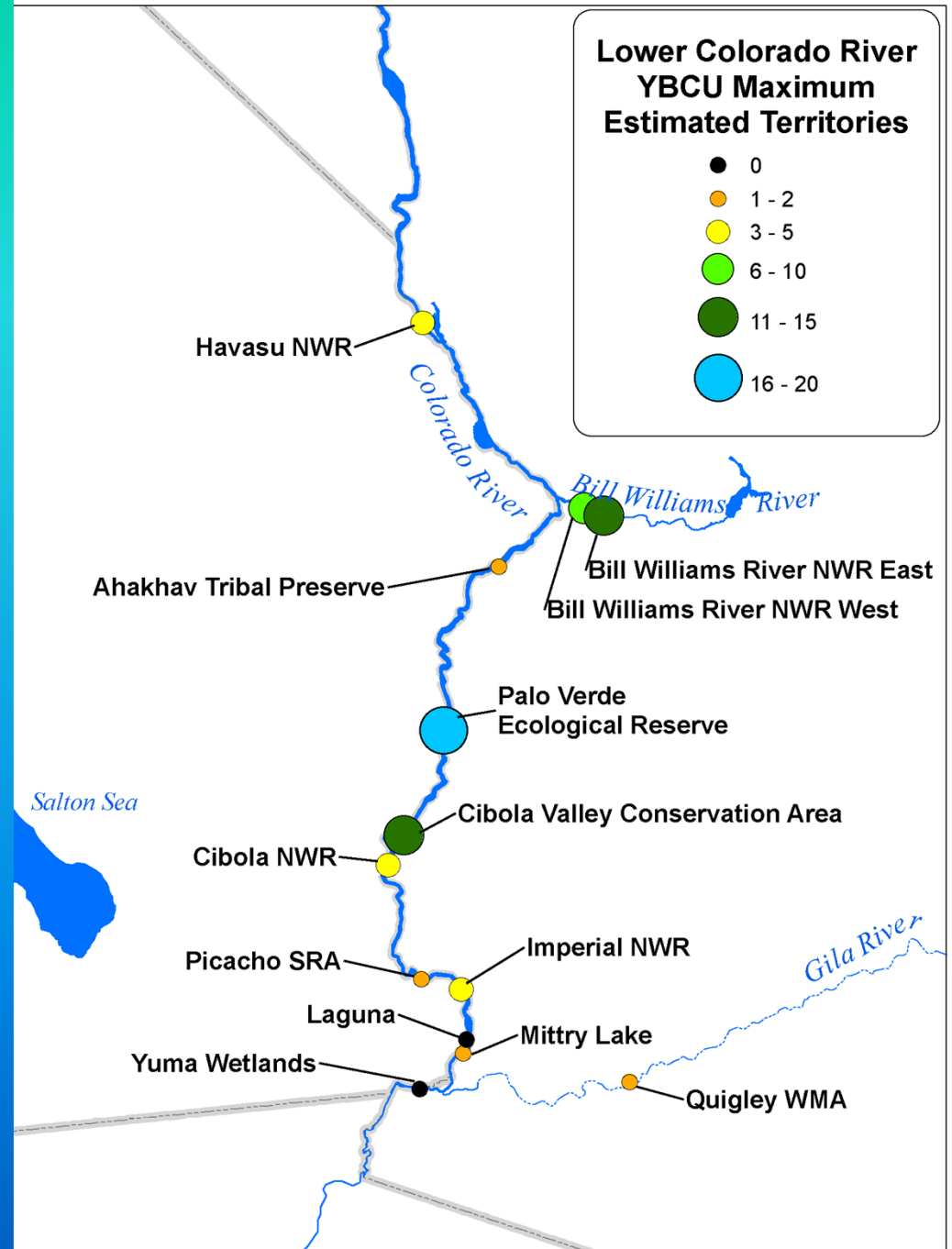
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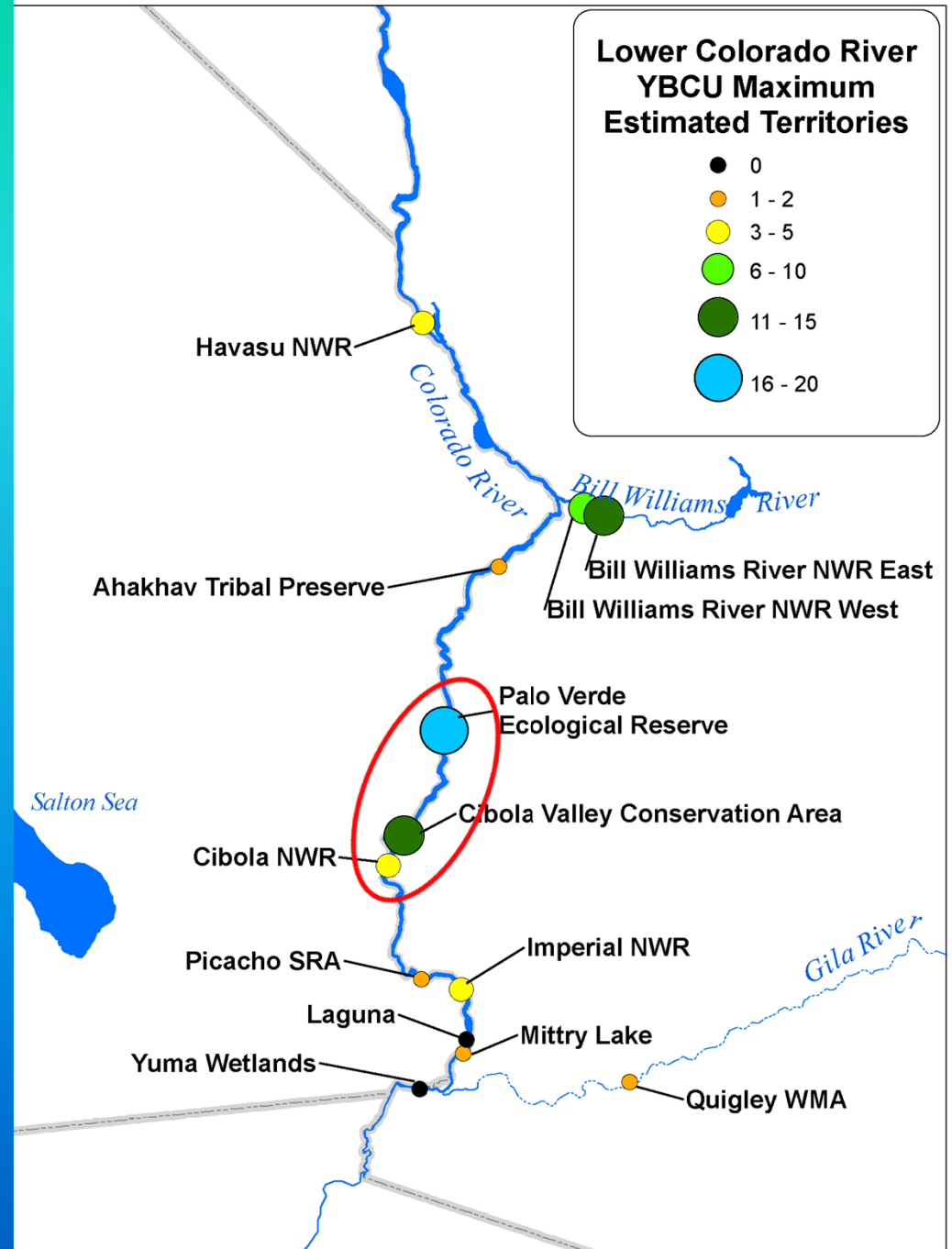
2011 breeding territory estimates:

Survey Area	Total Survey Dets	Min Pairs	Max Pairs
Havasu NWR	14	1	3
BWR NWR	107	9	23
Blythe	146	18	34
Yuma	25	0	6
All Sites	292	28	66



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All Sites	292	28	66



Nest results: 29 nests found

Havasu NWR Beal – 1

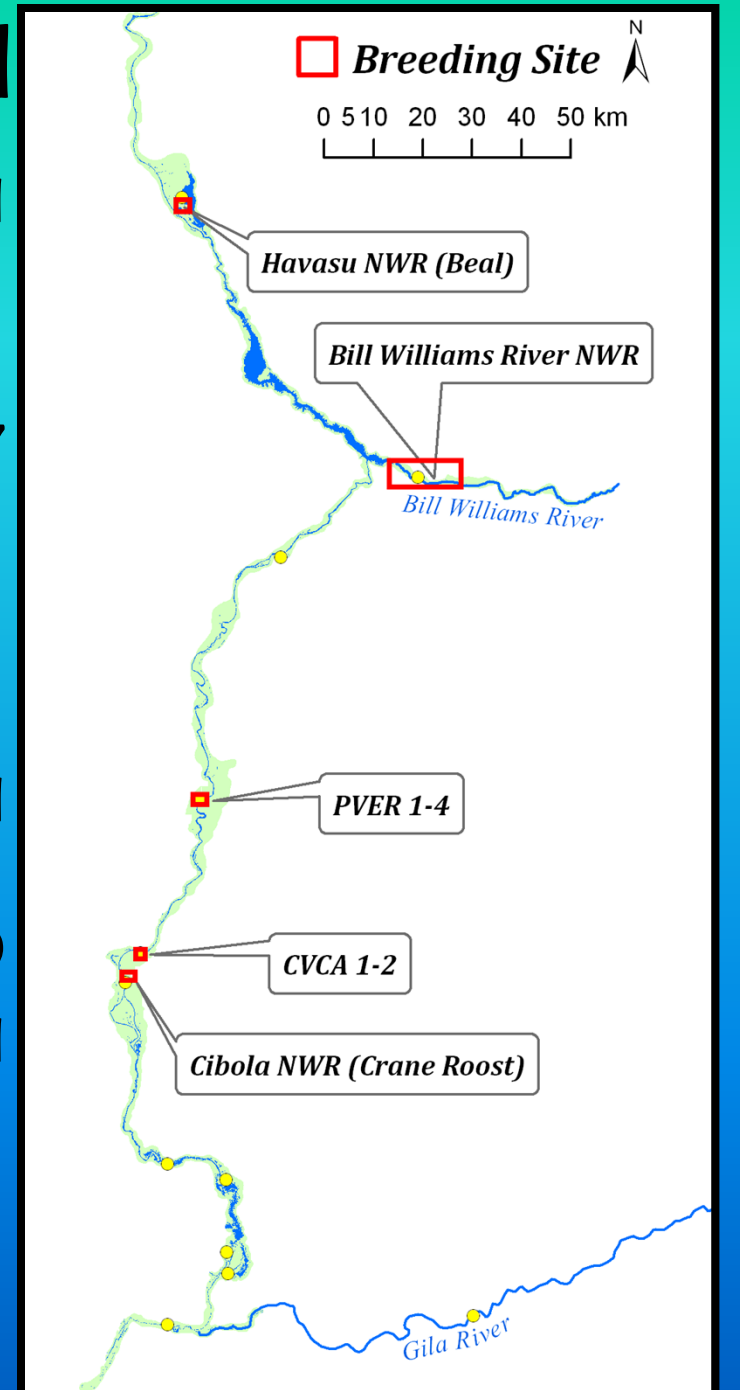


BWR NWR – 7

PVER 1-4 – 11

CVCA 1-2 – 9

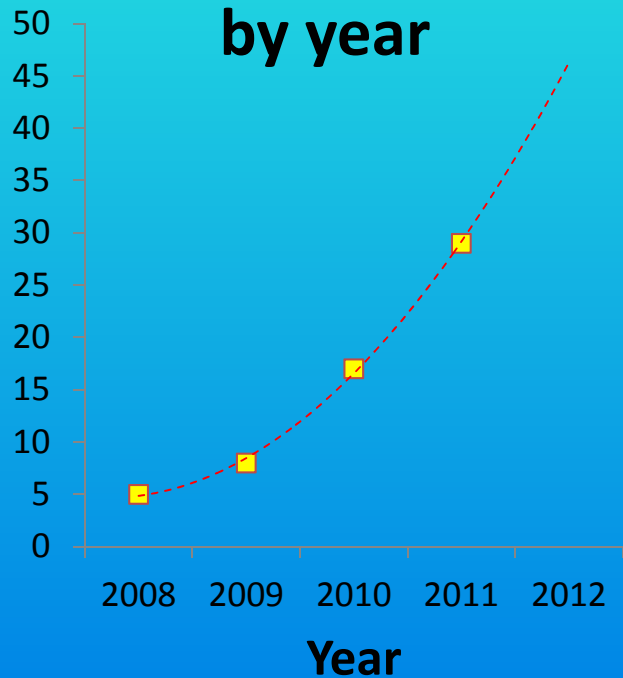
Cibola NWR – 1



Nest results: 29 nests found

Havasu NWR Beal – 1

#LCR nests found
by year

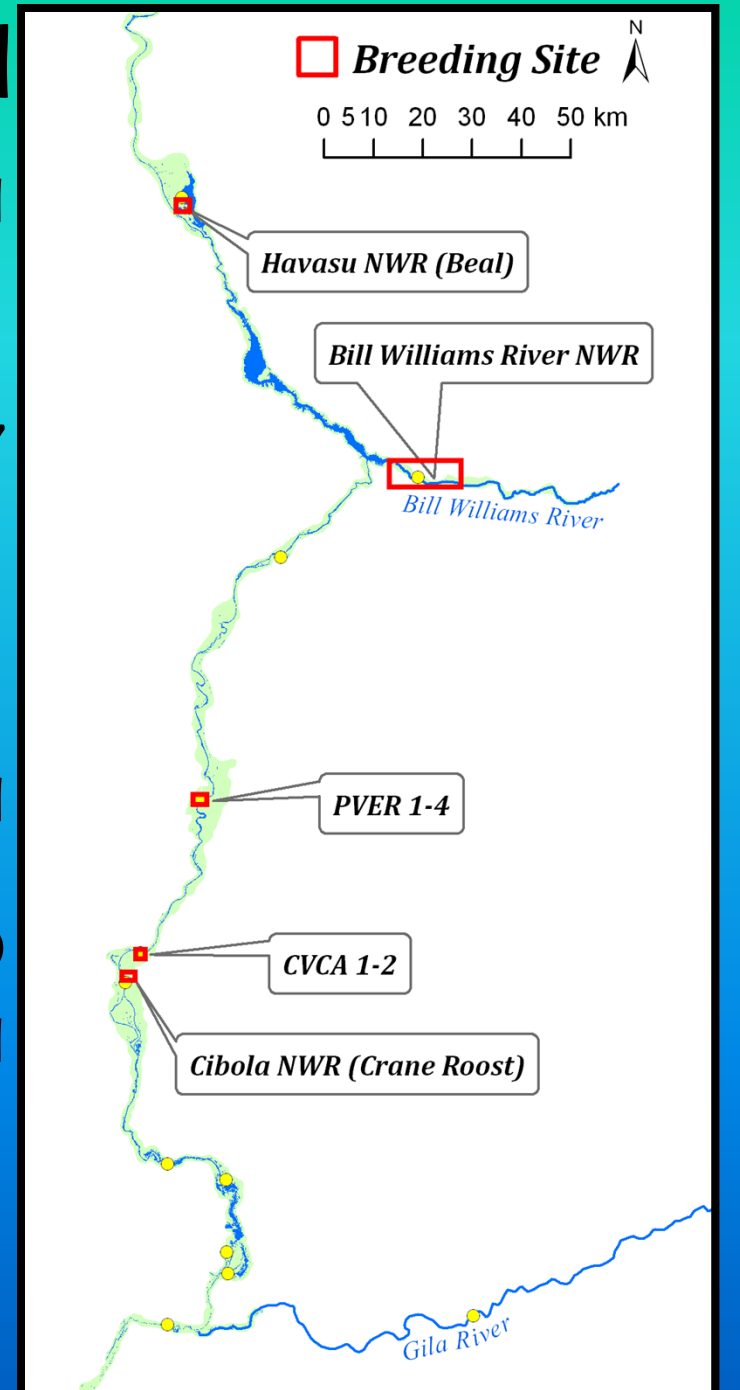


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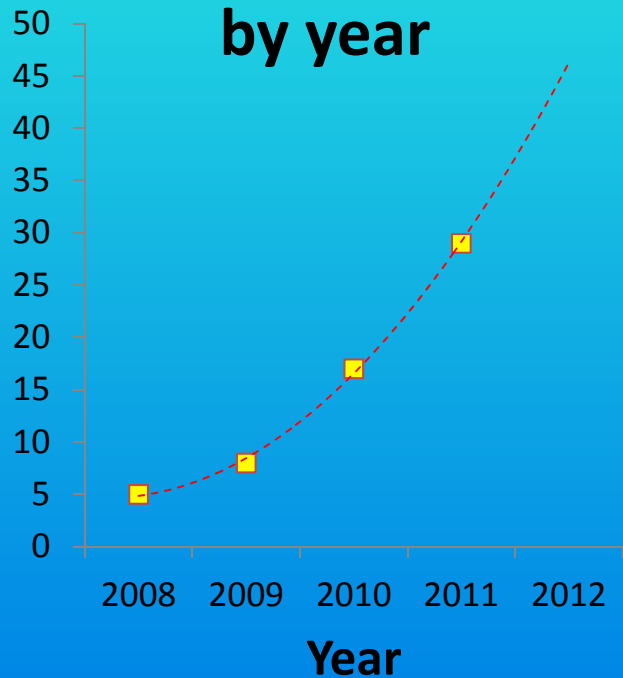
Cibola NWR – 1



Nest results: 29 nests found

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#LCR nests found
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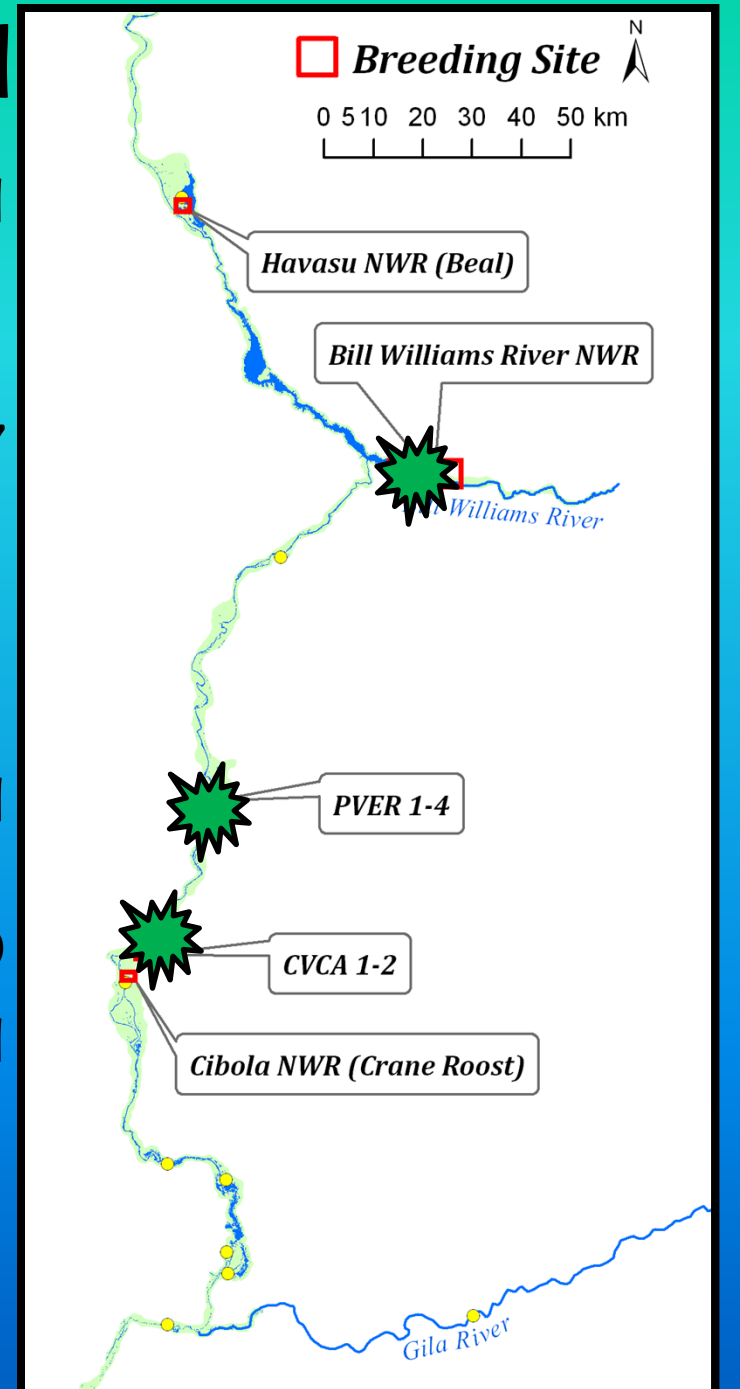


BWR NWR – 7

PVER 1-4 – 11

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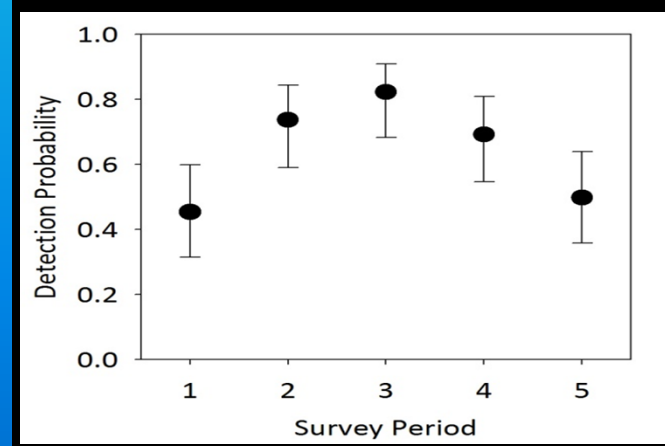
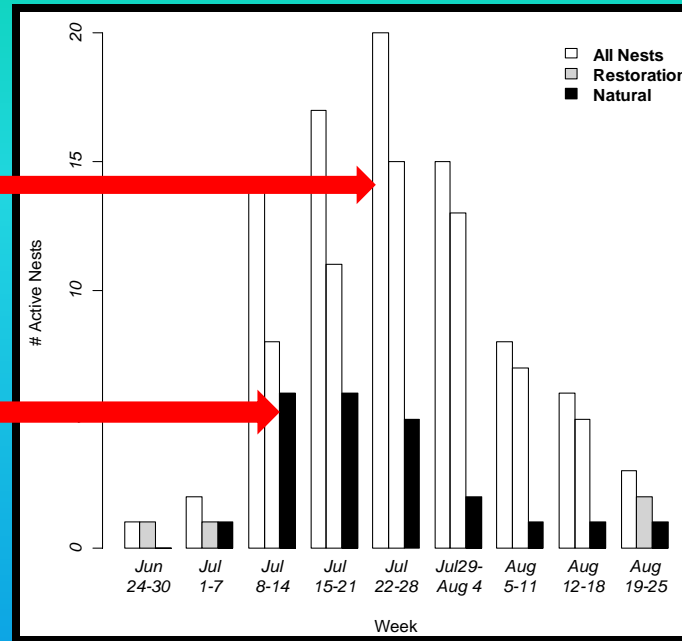
Cibola NWR – 1



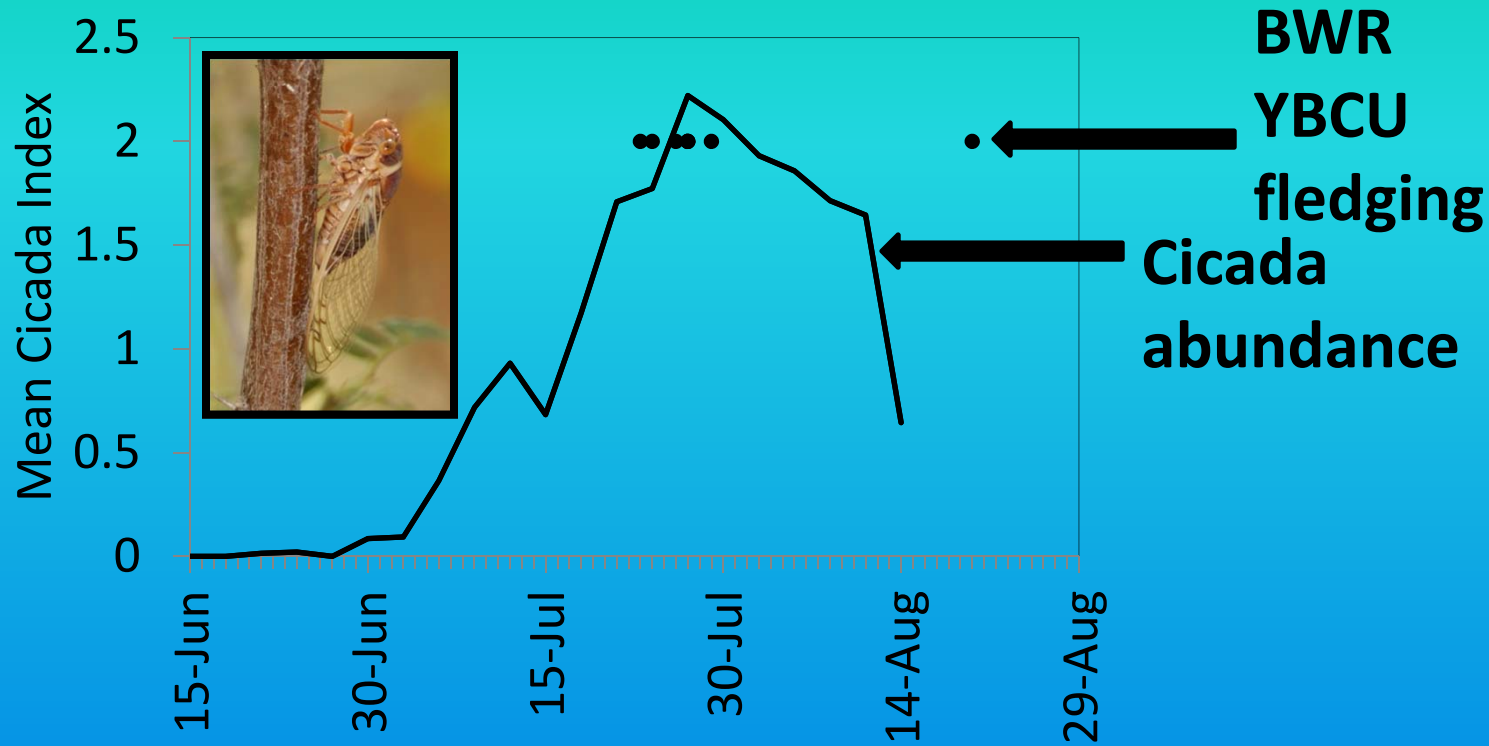
Nest results: Peak mid-late July

Restoration: July 22-28

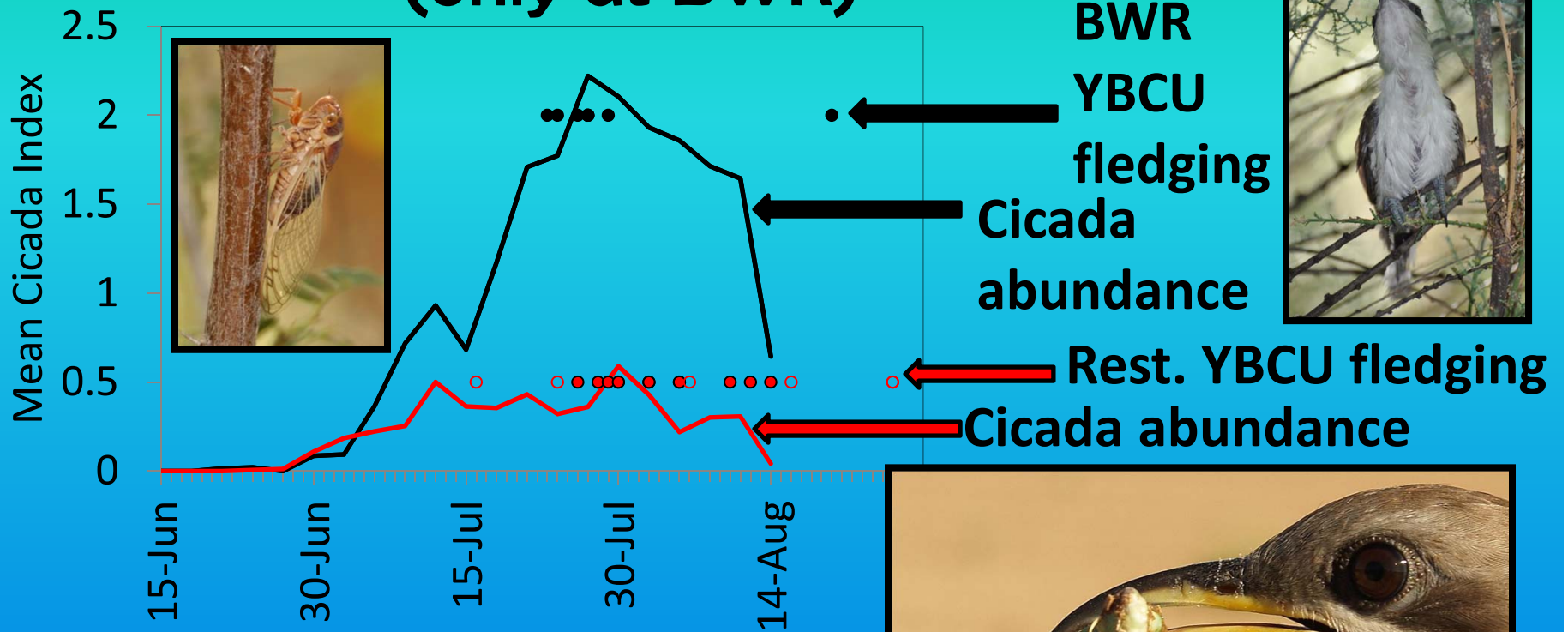
BWR: July 8-21



Nest results: Fledging timed with cicada activity



Nest results: Fledging timed with cicada activity (only at BWR)



Nest results: large clutch sizes in 2011

CVCA2 : 5-egg clutch (fledged 4)



4- and 5-egg clutches – first ever observed on LCR

2008-10: 2.30 ± 0.6 (n=22)

2011: 2.84 ± 0.8 (n=25)

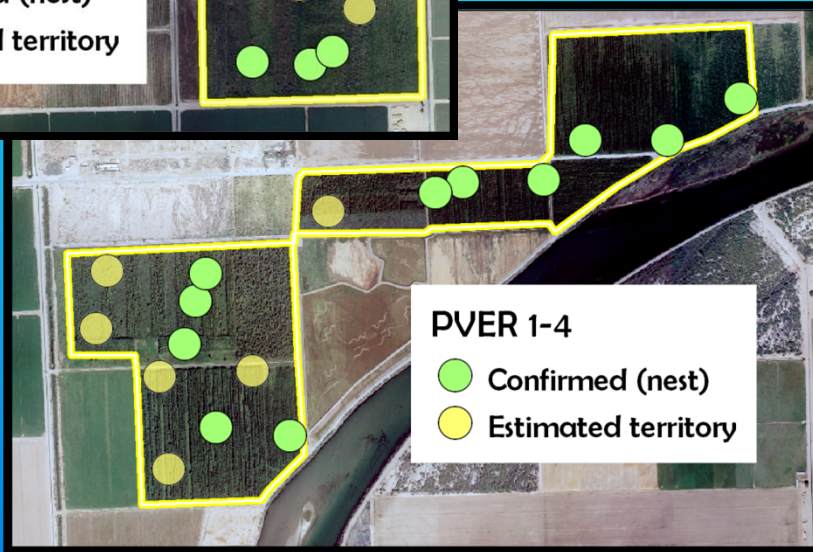
CVCA1 : 4-egg clutch (fledged 3)



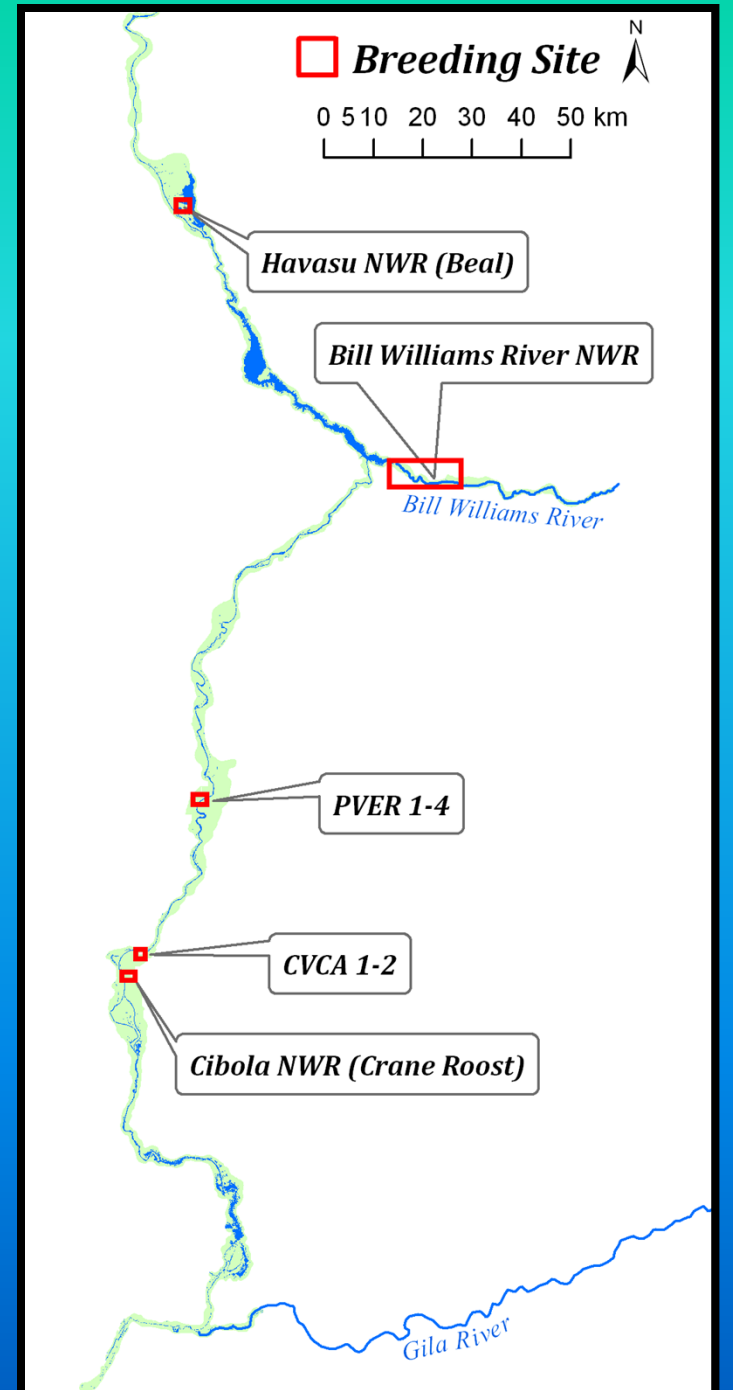
Nest results: high nesting densities (PVER, CVCA)



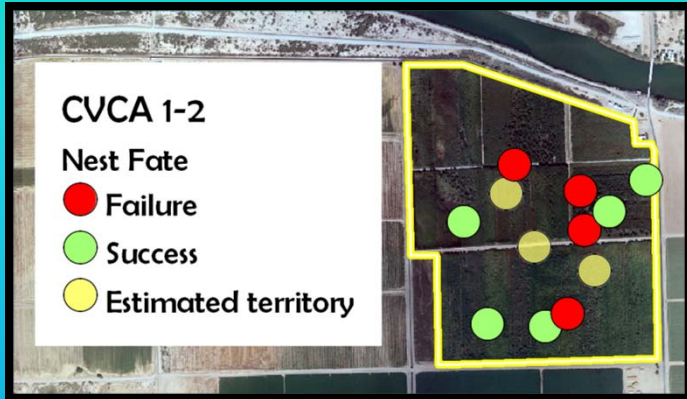
64 ha
7-11
pairs



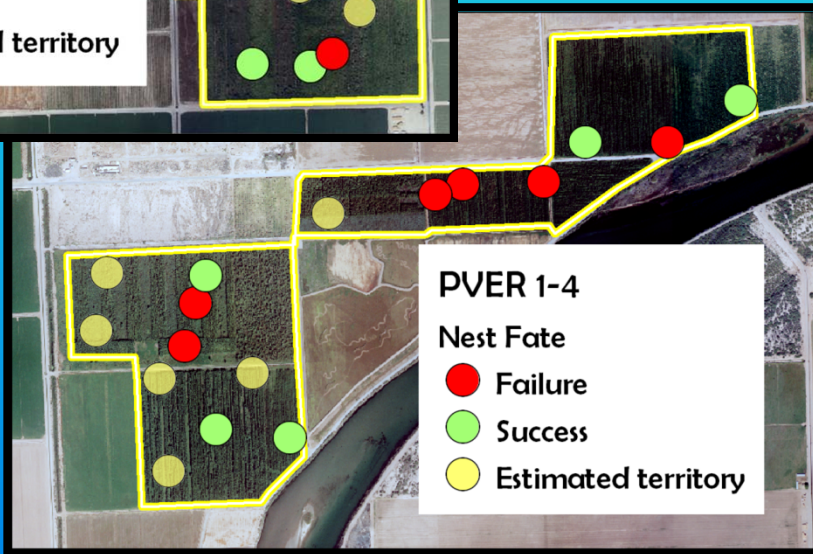
91 ha
11-17 pr



Nest results: high nesting densities (PVER, CVCA)

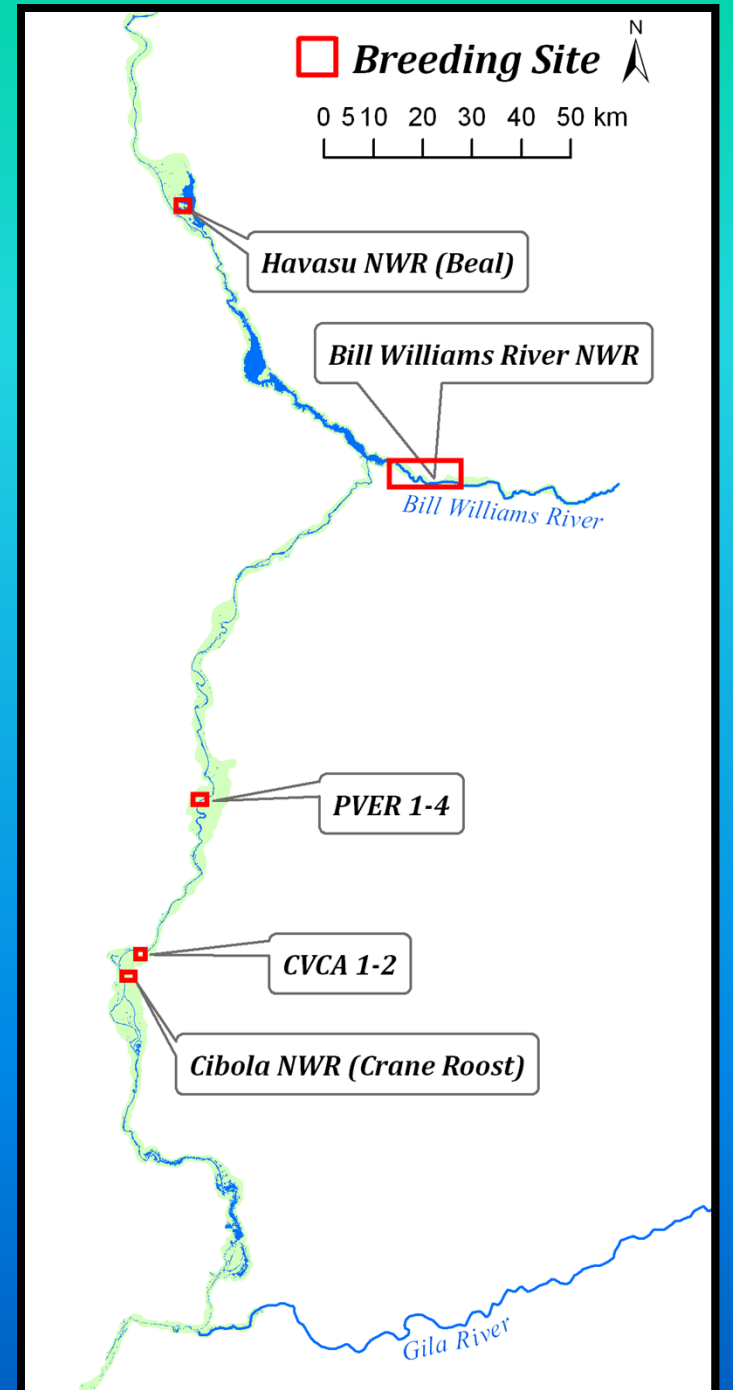


64 ha
7-11 pairs



91 ha
11-17 pr

(high nest density \neq high productivity/success)



Nest results: nest productivity/success



Overall mean: 1.46 fledged per nest (n=24)

BWR NWR: **2.14**

Restoration sites: **1.25** (2.5 per successful nest).

Apparent nest success:

BWR: **100%**

Restoration sites: **50%**

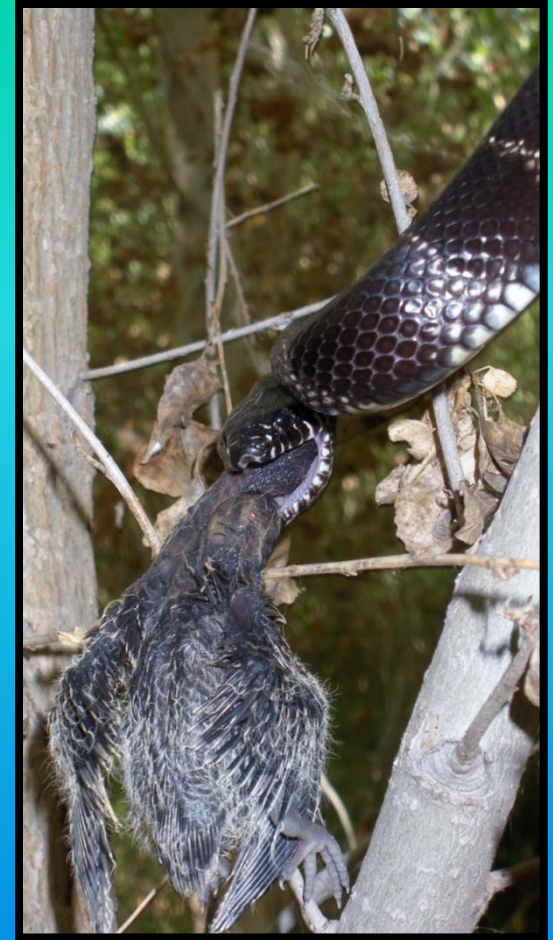
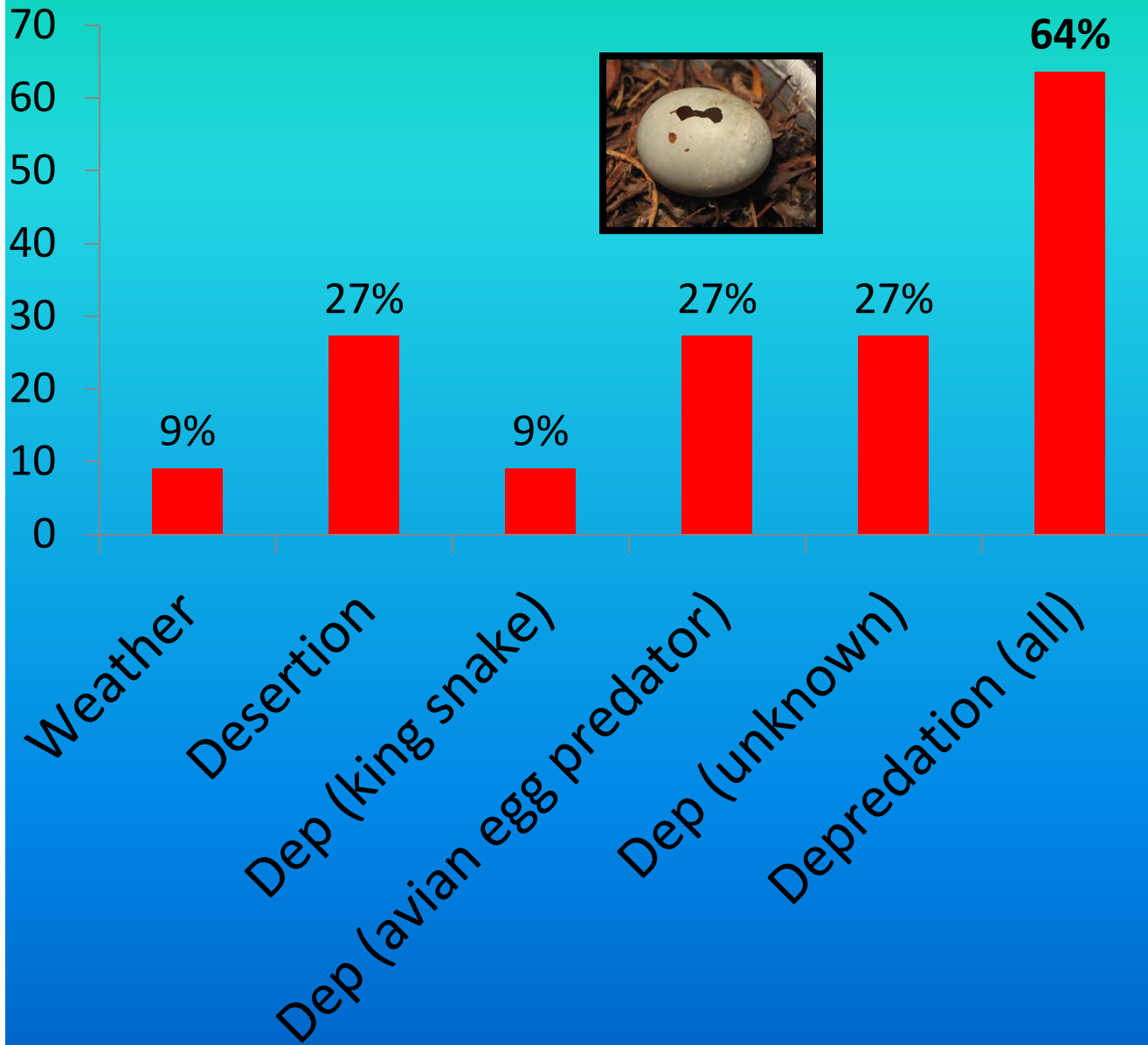
PVER4: Abandoned with 3 eggs



PVER2: 3 eggs depredated



Nest results: causes of failure



Nest results: anomalous nests

CVCA2 Nest 2: July 27 2011



Interspecific nest parasitism: first LCR observations (3 nests, CVCA+PVER)

PVER4: July 14 2011



Nest results: anomalous nests

CVCA2 Nest 2: July 27 2011



Interspecific nest parasitism: first LCR observations (3 nests, CVCA+PVER)

(intraspecific nest parasitism also suspected in 3 nests)

PVER4: July 14 2011



Nest results: anomalous nests

CVCA2 Nest 2: July 27 2011



Interspecific nest parasitism: first LCR observations (3 nests, CVCA+PVER)

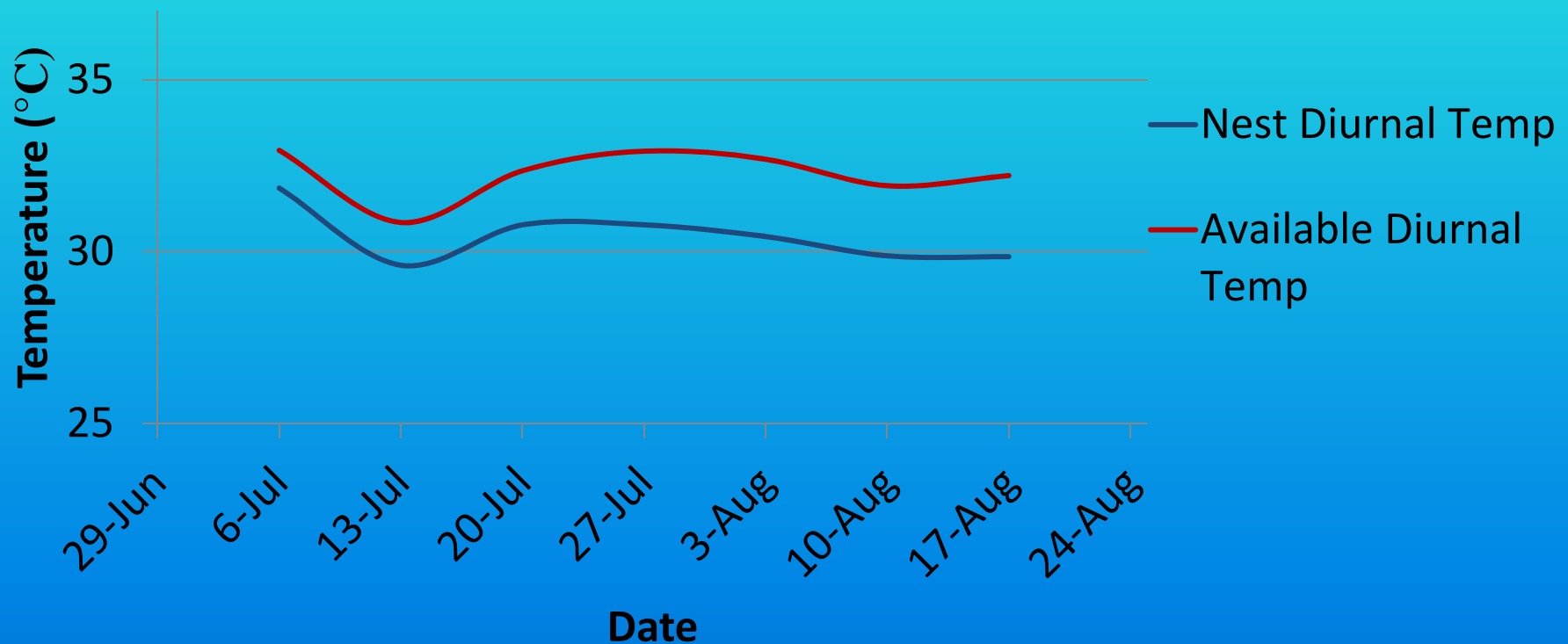
CVCA2 Nest 2: August 3 2011



(intraspecific nest parasitism also suspected in 3 nests)

Nest results: lower diurnal temps at nests

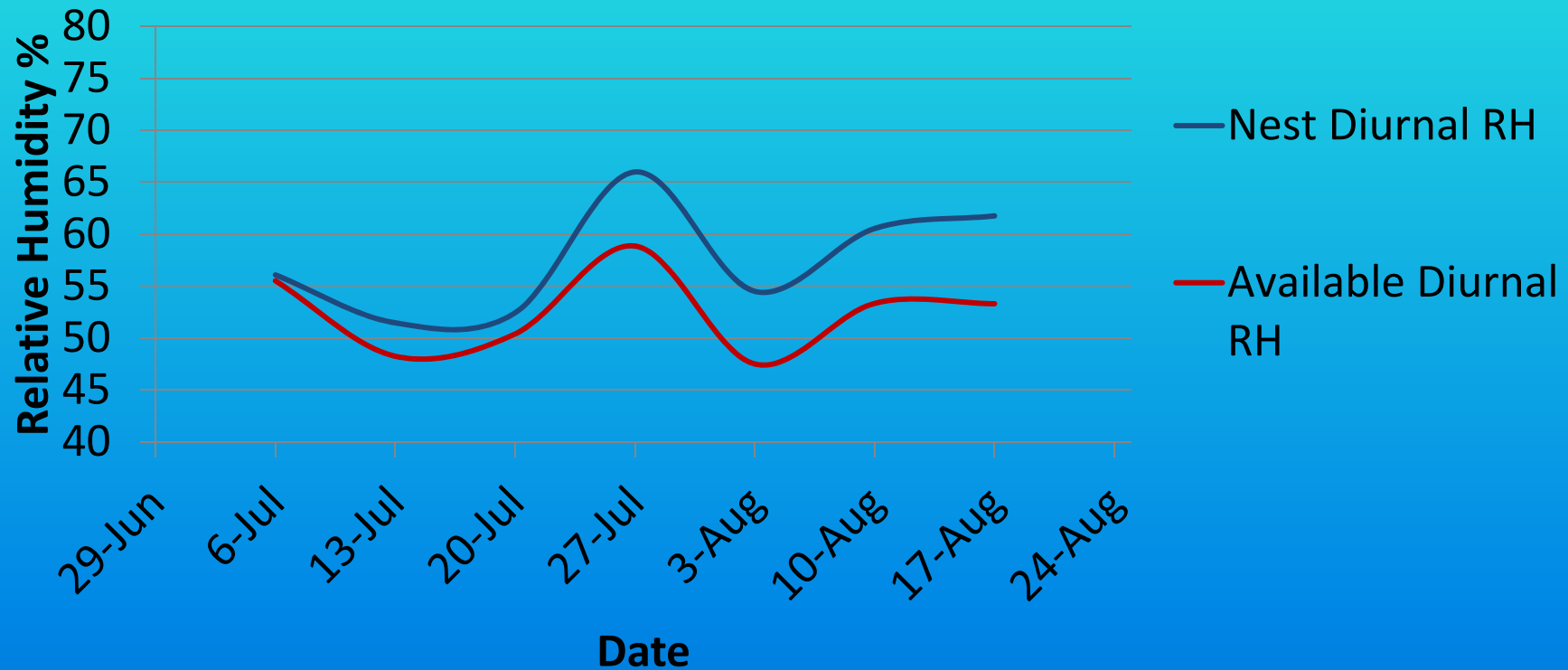
- “59.8% increase in odds of nest placement for every degree (C) decrease in average diurnal temperature”



Average diurnal temperature at nest habitat and available habitat (within occupied sample units only) during the 2011 survey season.

Nest results: lower diurnal RH at nests

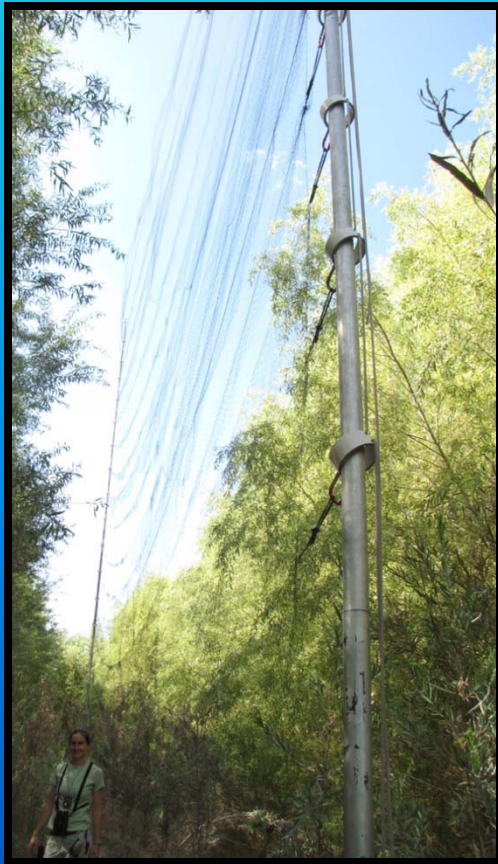
- “4.6% increase in odds of nest placement for every 1% increase in average diurnal relative humidity”



Average diurnal relative humidity at nest habitat and available habitat (within occupied sample units only) during the 2011 survey season.

Banding results (adults/HY)

- 29 adults (27 Havasu NWR (1/1) new, 2 recaps)
- 34 HY

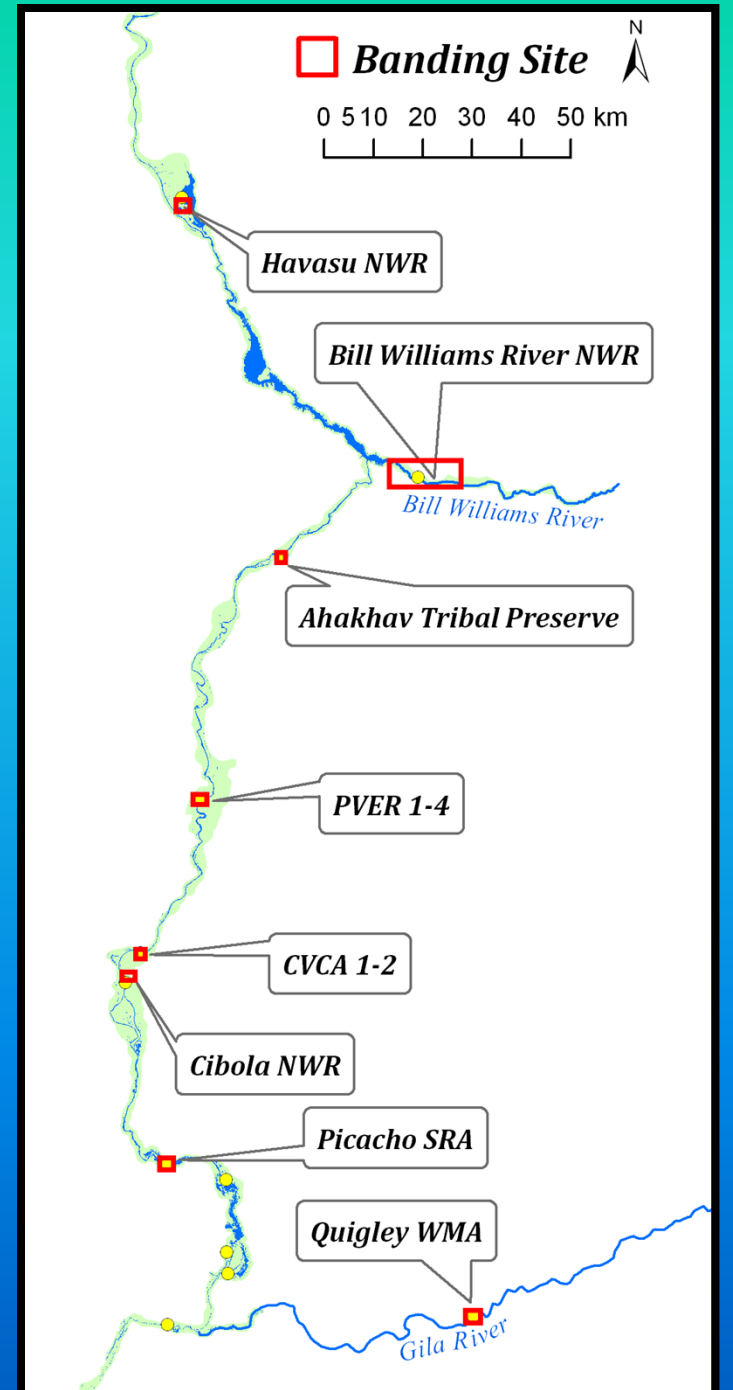


BWR NWR (0/13)
Ahakhav Tribal
Preserve (2/0)

PVER 1-4 (8/7)

CVCA 1-2 (11/13)
Cibola NWR (5/0)

Picacho SRA (1/0)
Quigley WMA (1/0)



Resight results

- 4 returning adults from 2010
- 3 of 24 young from 2010

CVCA1 (R/W, Bk/Go): banded June 23 '10



CVCA2 (W/Go, W/O): banded June 11 '09, recap June 23 '10

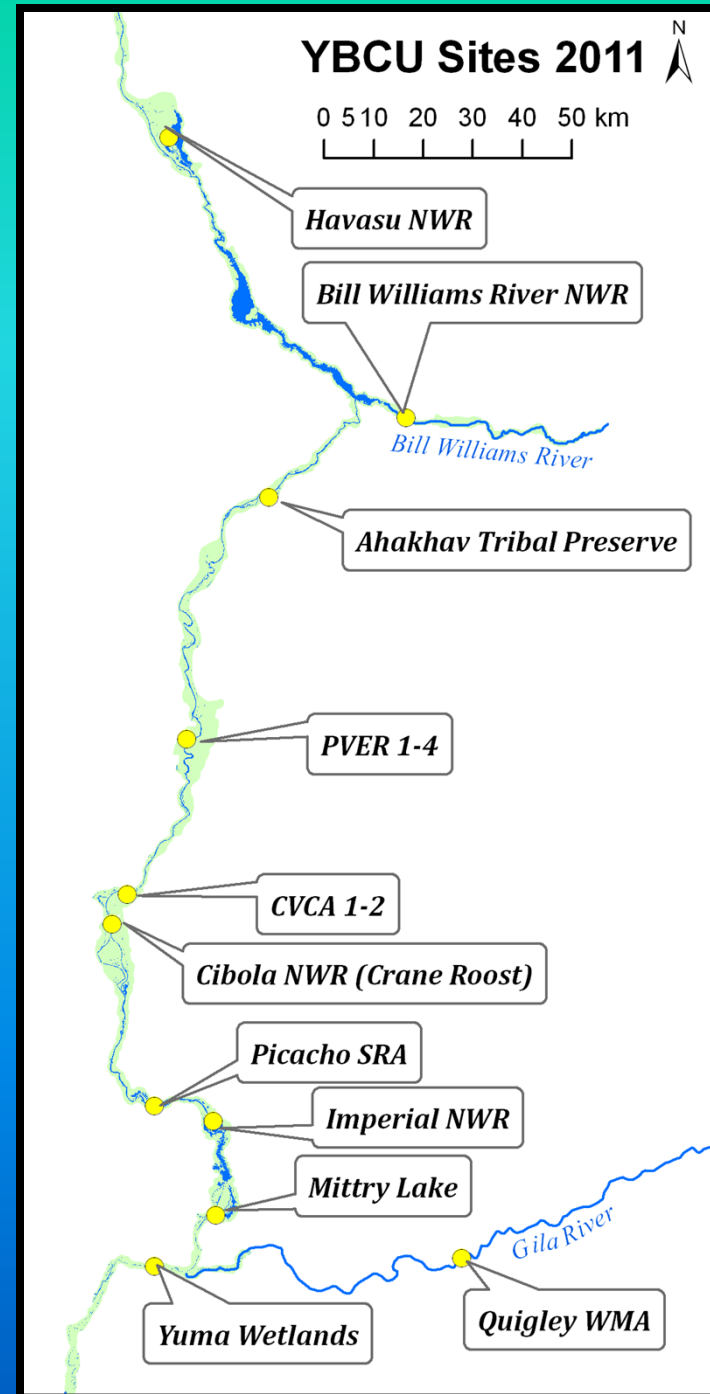


BWR NWR (BI/W, R/Go): banded July 4 '10



Resight results: dispersal

> three years of data:



Resight results: dispersal

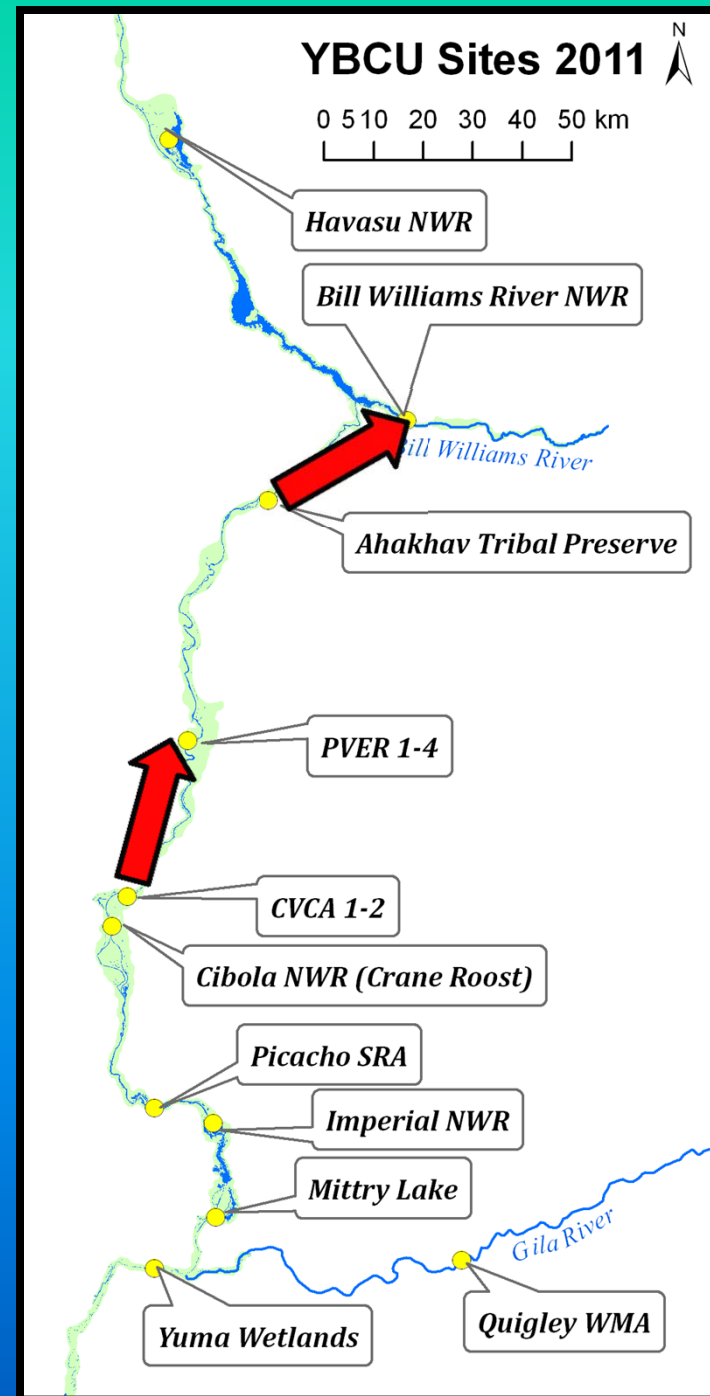
> three years of data:

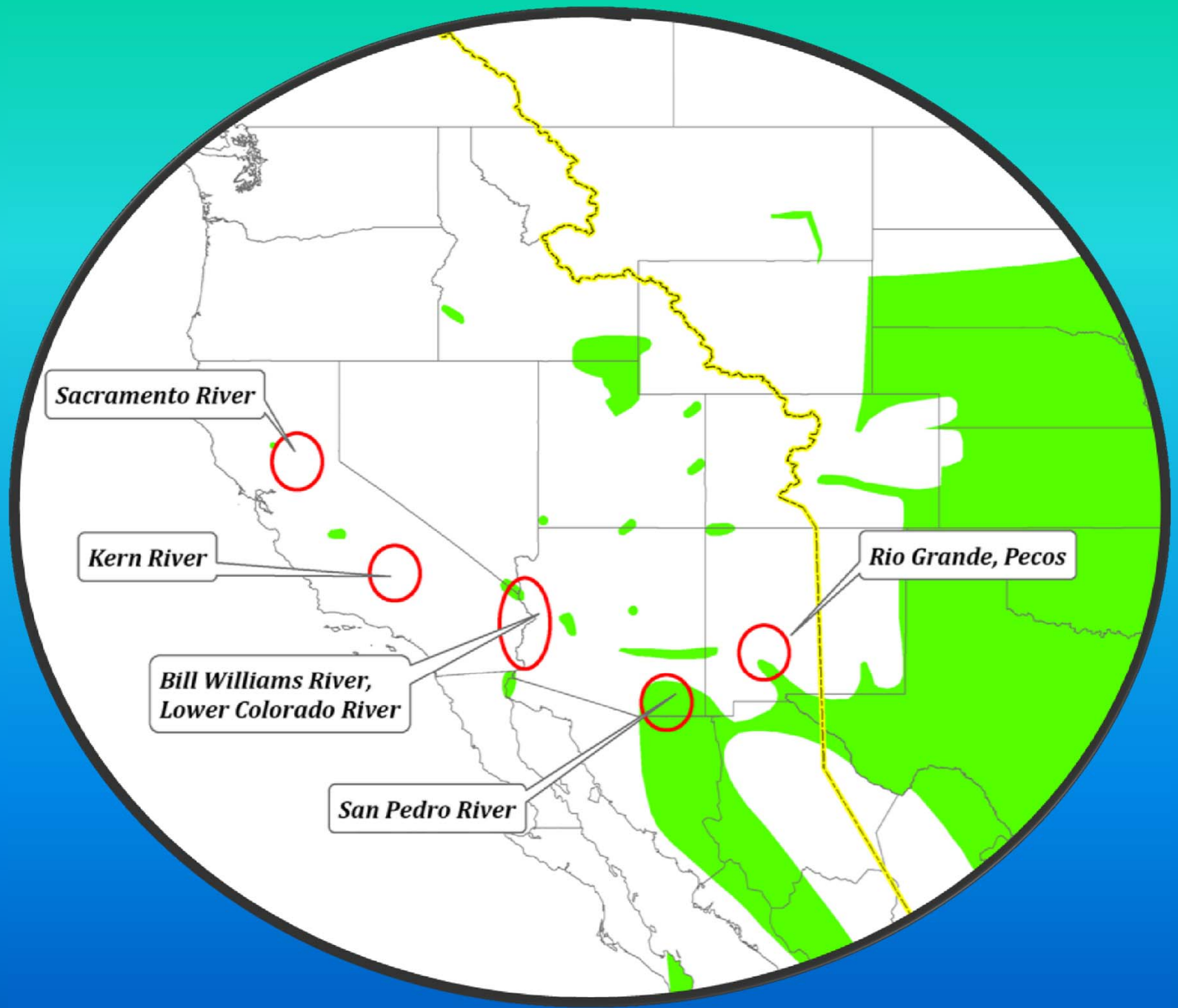
- Of 10 resighted birds, just two were between-year, between-site returns

1. CVCA1 to PVER2
2. Ahakhav TP to BWR NWR

All others returned to their previous banding site

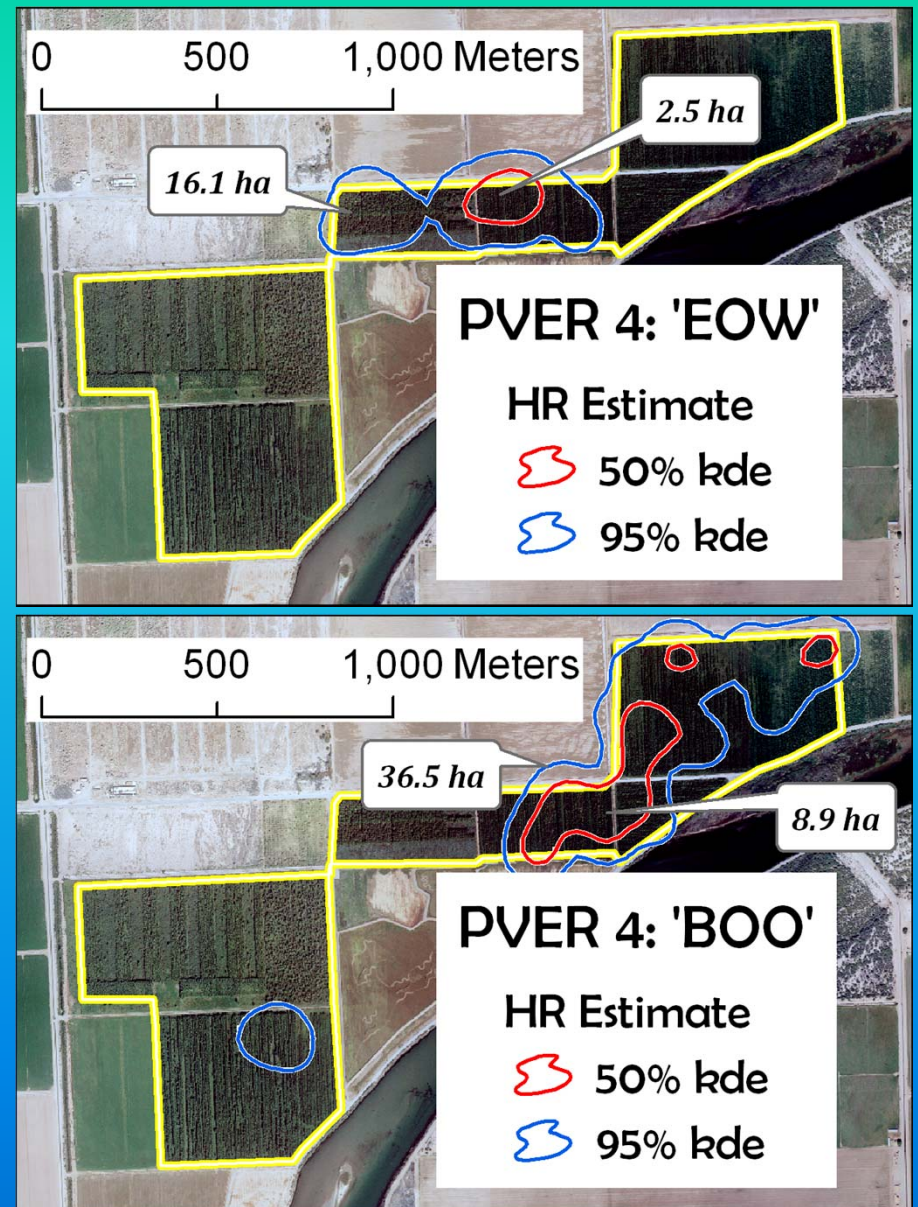
= High apparent site fidelity





Telemetry results

- Home range size (95% kde): **19.8 ± 9.7 ha** (n=18)
- ~20 hectares for 3rd year
- 17.4 ± 4.0 ha for nesting birds (n=7)
- Both nesting and non-nesting birds maintained territories
- No movement between discontinuous sites
- Nesting birds stayed ~37 days at a site vs ~11 days (non-breeding birds)



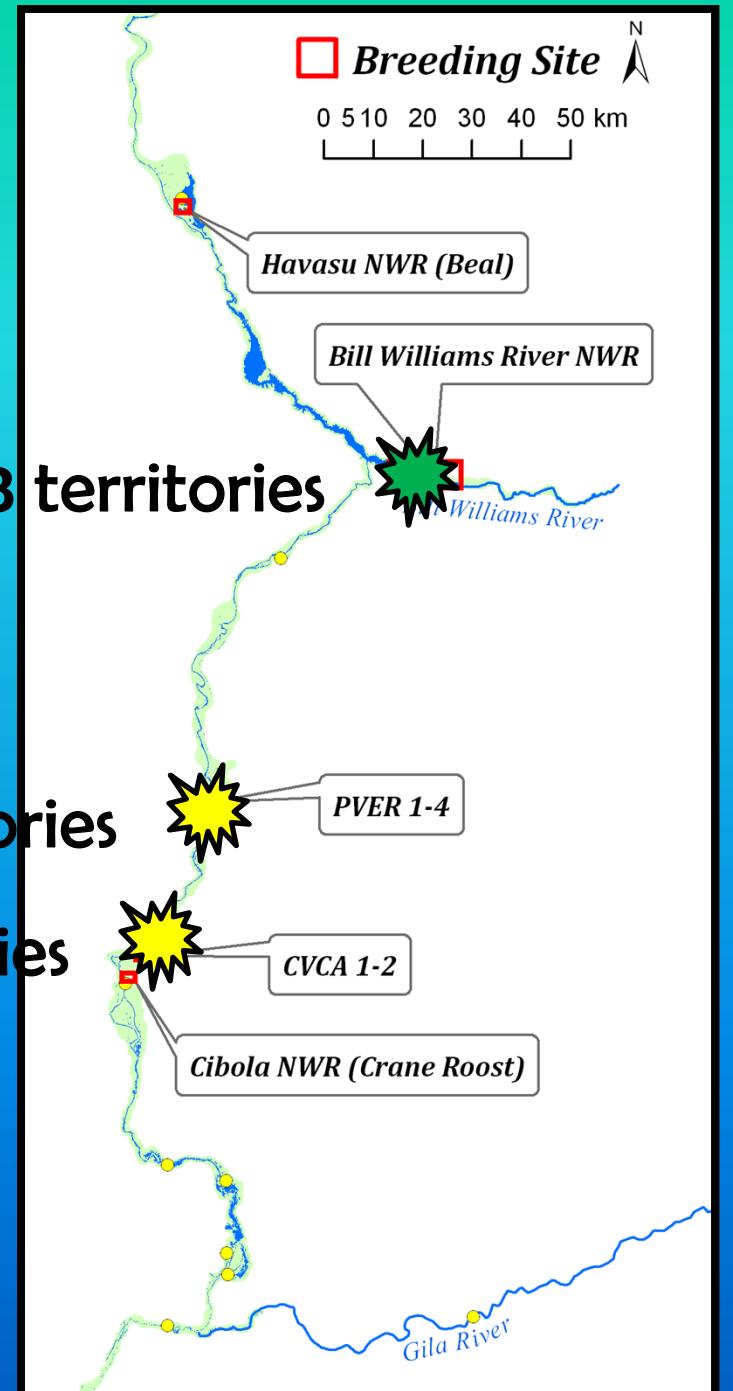
Population Viability

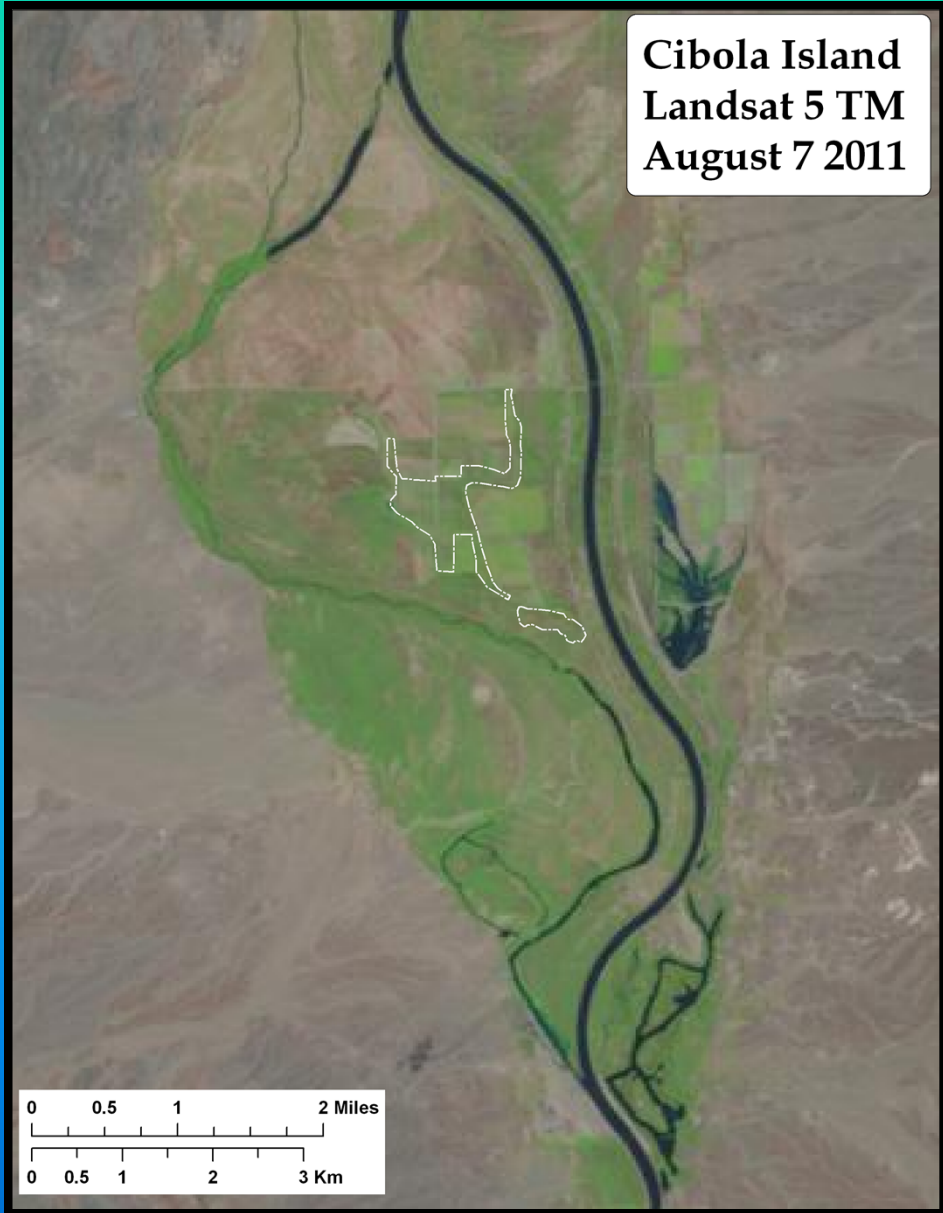
- ≥ 25 breeding pairs = minimum recommended for a viable population

BWR: 9-23 territories

PVER: 11-17 territories

CVCA: 7-11 territories

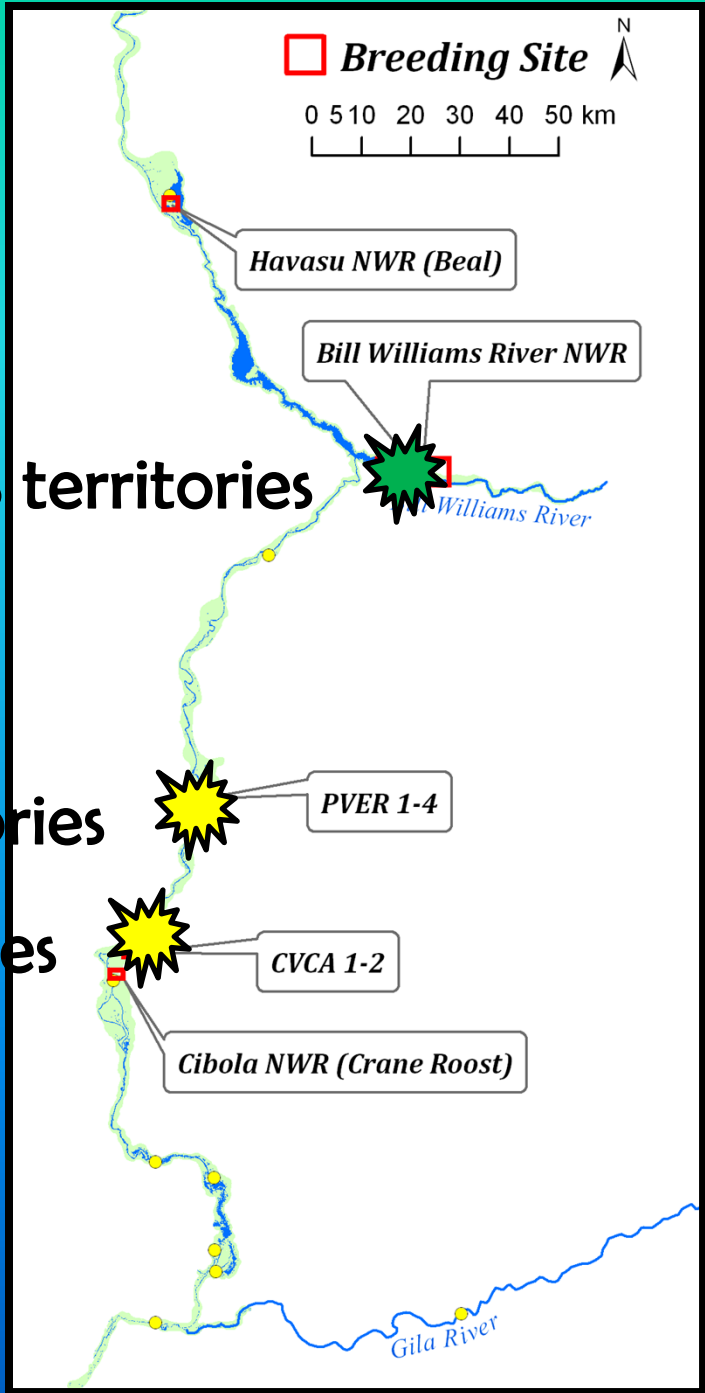




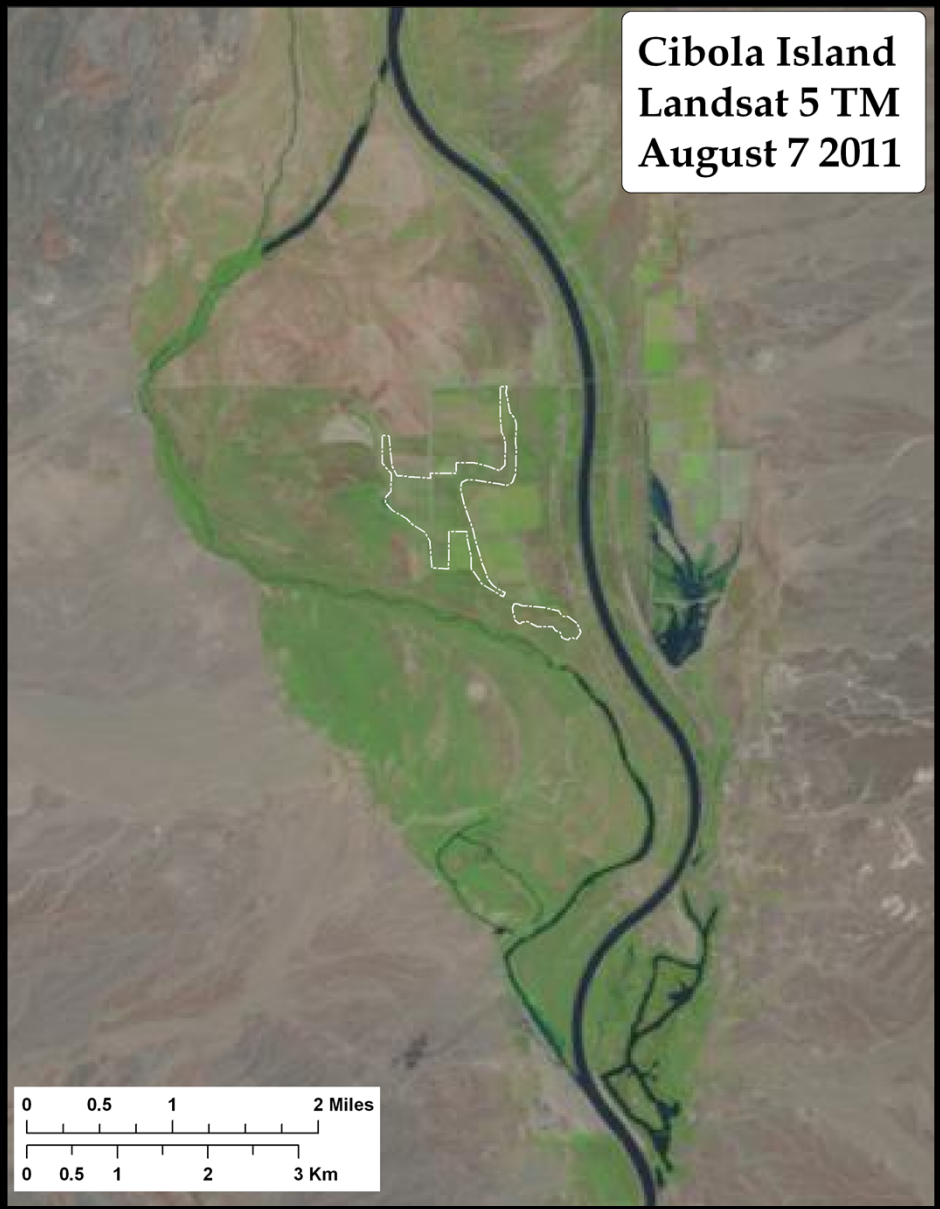
WR: 9-23 territories

7 territories

territories



**Cibola Island
Landsat 5 TM
August 7 2011**



**Cibola Island
Landsat 5 TM
Sept. 8 2011**



**Cibola Island
Landsat 5 TM
August 7 2011**



**Cibola Island
Landsat 5 TM
Sept. 8 2011**



Cibola Island
Landsat 5 TM
August 7 2011

Cibola Island
Landsat 5 TM
Sept. 8 2011

CRITICAL MESSAGE: Landsat 5 acquisitions suspended.

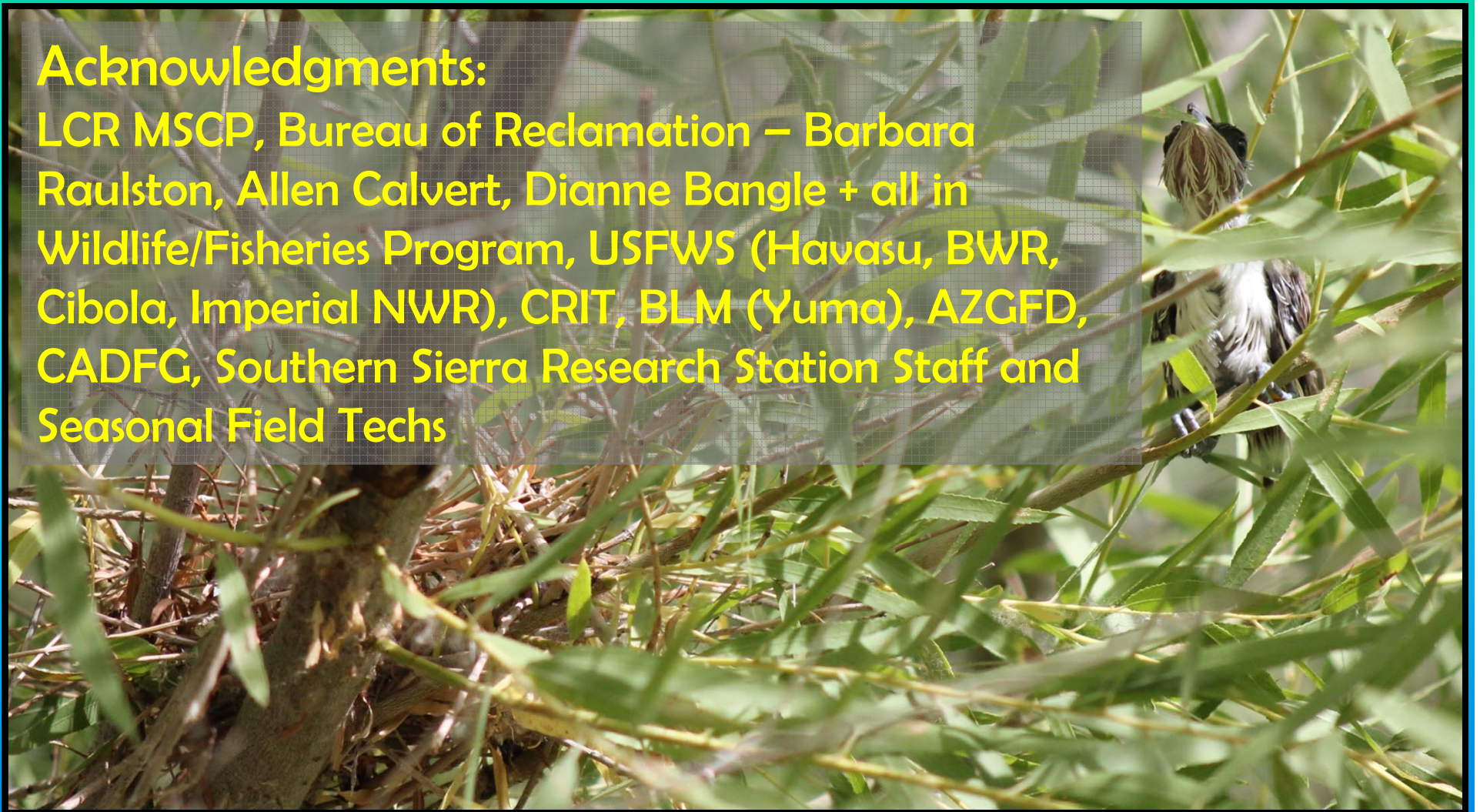
11/18/2011 - Landsat 5 collections have been ceased for the foreseeable future. Please see <http://landsat.usgs.gov> for additional information.

0 0.15 0.3 0.6 Miles
0 0.25 0.5 1 Km

0 0.15 0.3 0.6 Miles
0 0.25 0.5 1 Km

Acknowledgments:

LCR MSCP, Bureau of Reclamation – Barbara Raulston, Allen Calvert, Dianne Bangle + all in Wildlife/Fisheries Program, USFWS (Havasu, BWR, Cibola, Imperial NWR), CRIT, BLM (Yuma), AZGFD, CADFG, Southern Sierra Research Station Staff and Seasonal Field Techs





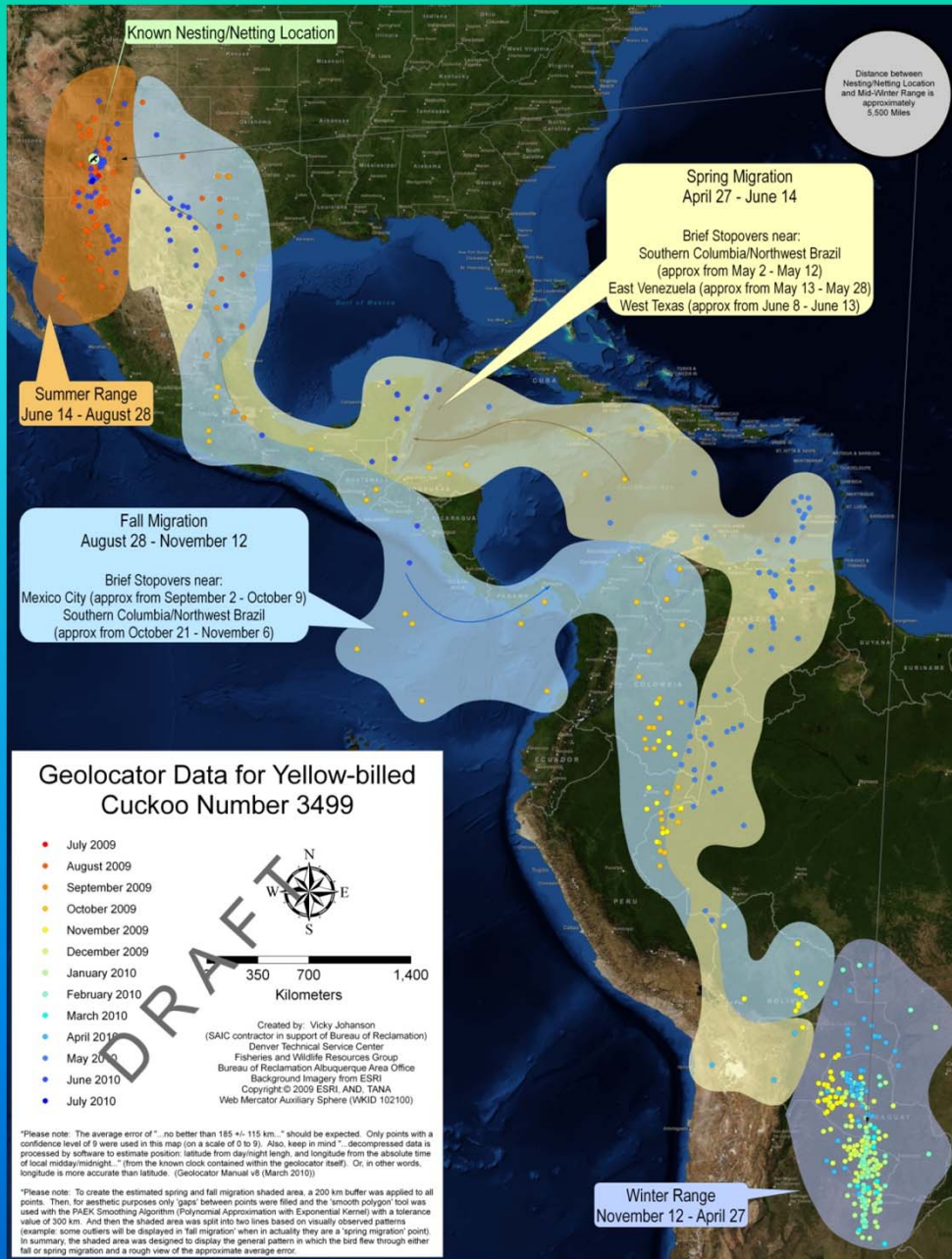


**Cibola Island
Landsat 5 TM
Oct. 26 2011**



**Cibola Island
Landsat 7 TM
Jan. 6 2012**







Yellow-billed cuckoo (*Coccyzus americanus*)
LCR MSCP survey and monitoring results, 2011

Southern Sierra Research Station

Shannon McNeil sem.ssrs@gmail.com

Cuculidae: *Coccyzus* (Payne 2005)



