

SURVEYS OF YELLOW-BILLED CUCKOO on the Lower Colorado River, 2008 Field Season



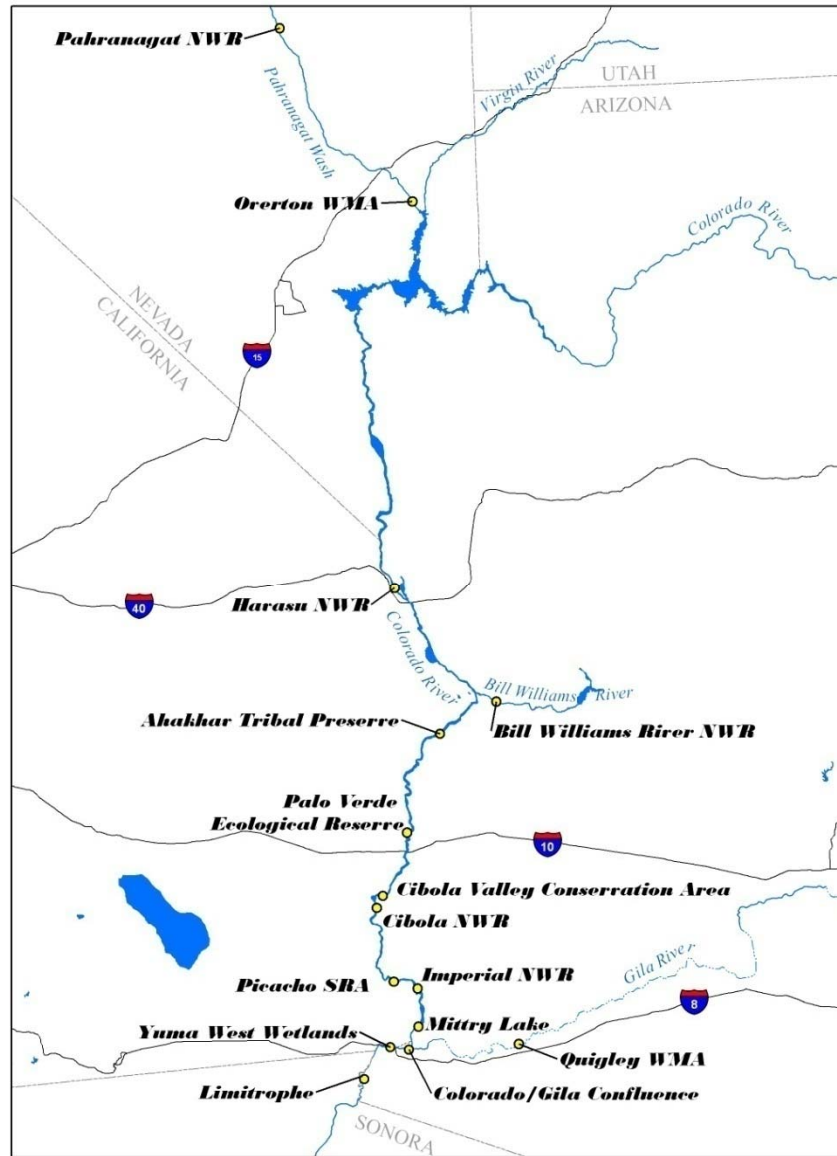
**Murrelet Halterman, Eli Rose, Shannon McNeil,
Diane Tracy**

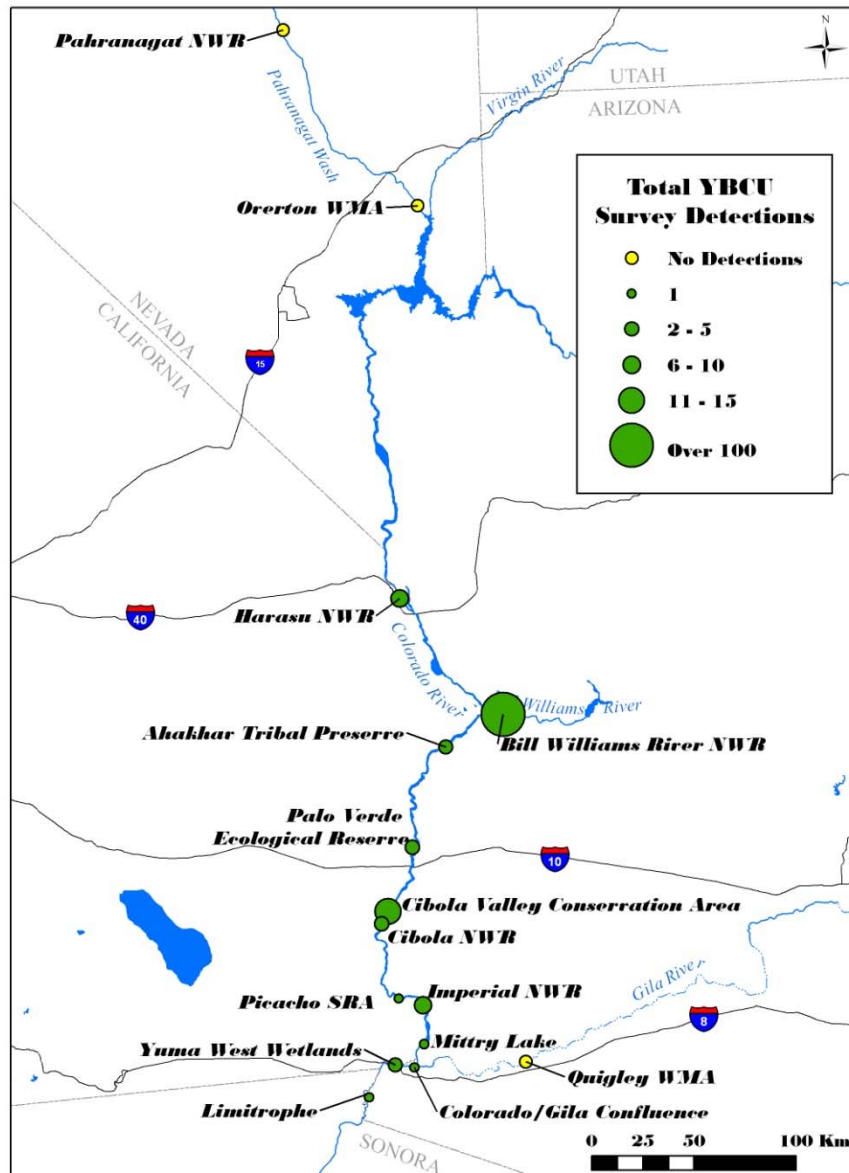
Southern Sierra Research Station

Survey using call playback



- Each route (approx 3 km) is surveyed four times between 1 June and 30 August (see dates in protocol)
- Stops are made every 100m
- Contact calls are played 5X at 1 minute intervals
- If a cuckoo is detected, the surveyor moves 300 m and resumes the survey





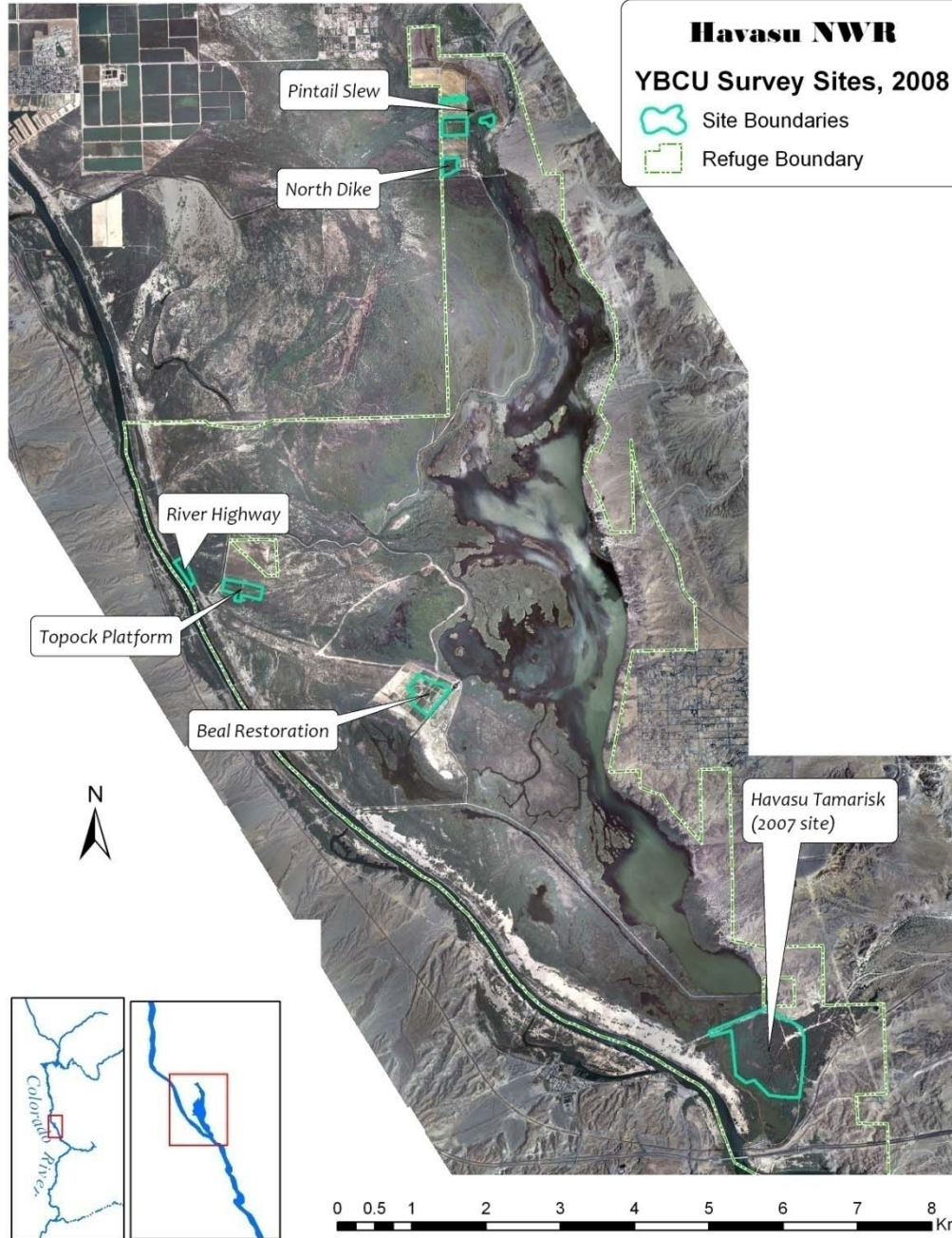


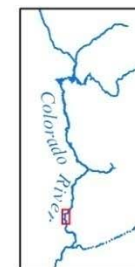
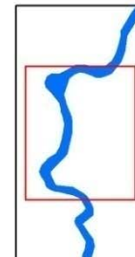
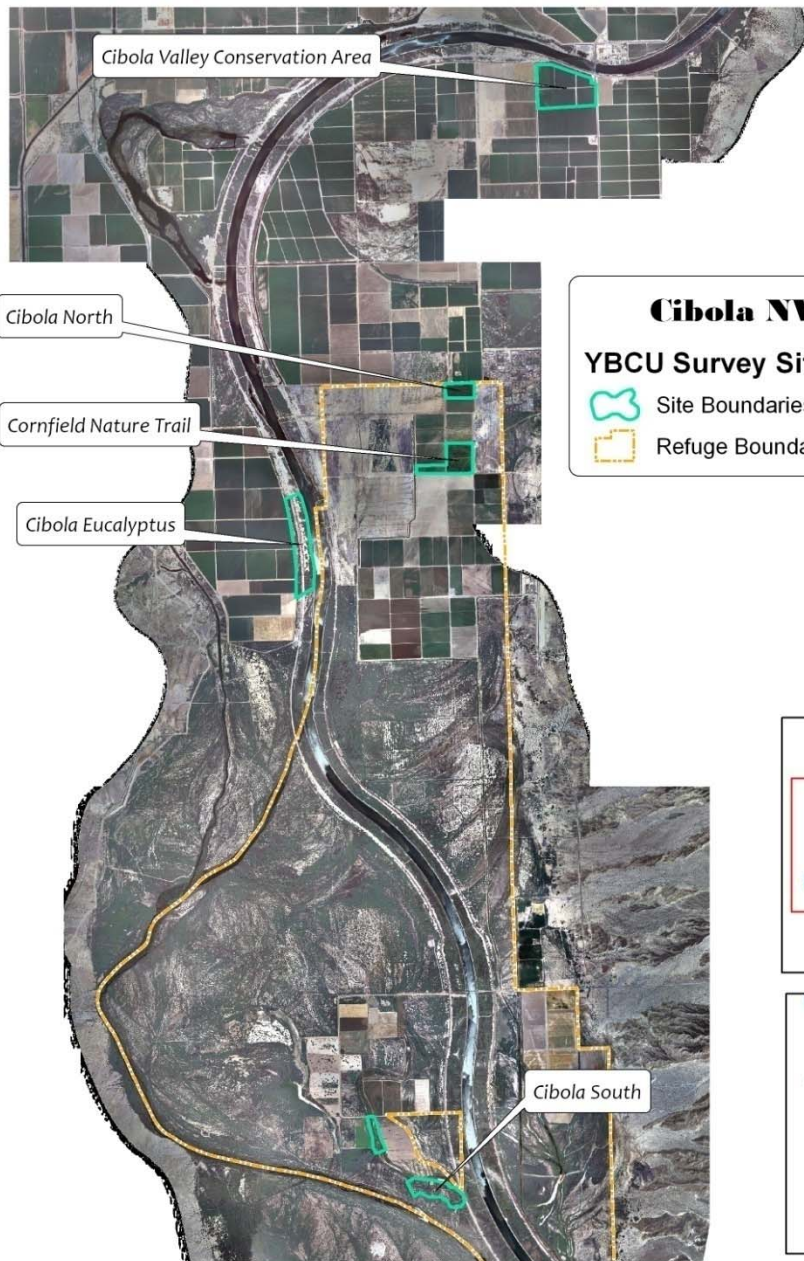
	Visit Number					Total det.	Ha per site	Veg Plots per site
	1	2	3	4	5	per site	site	per site
Sites North of BWRNWR Bill Williams River NWR	1	3	4	0	0	8	81	16
	11	30	35	36	18	144	518	61
Sites Near Blythe	0	11	5	5	4	25	167	31
Sites near Yuma	0	7	5	1	0	13	209	32
Totals	12	51	49	42	22	190	975	140

Havasas NWR

YBCU Survey Sites, 2008

-  Site Boundaries
-  Refuge Boundary







Bill Williams River NWR
YBCU Survey Routes, 2008
Survey Site Boundaries

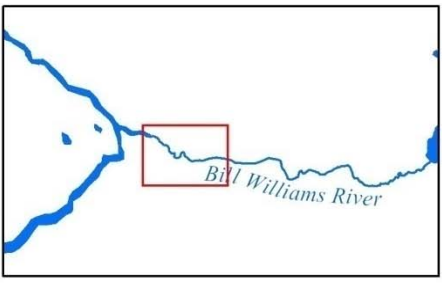
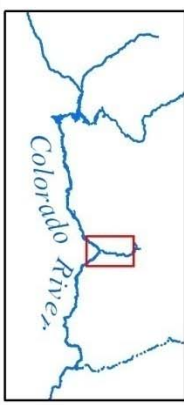


Figure . Maximum Cuckoo Detections on the Bill Williams River NWR in a single survey from 1997-2008 (excluding 2005).

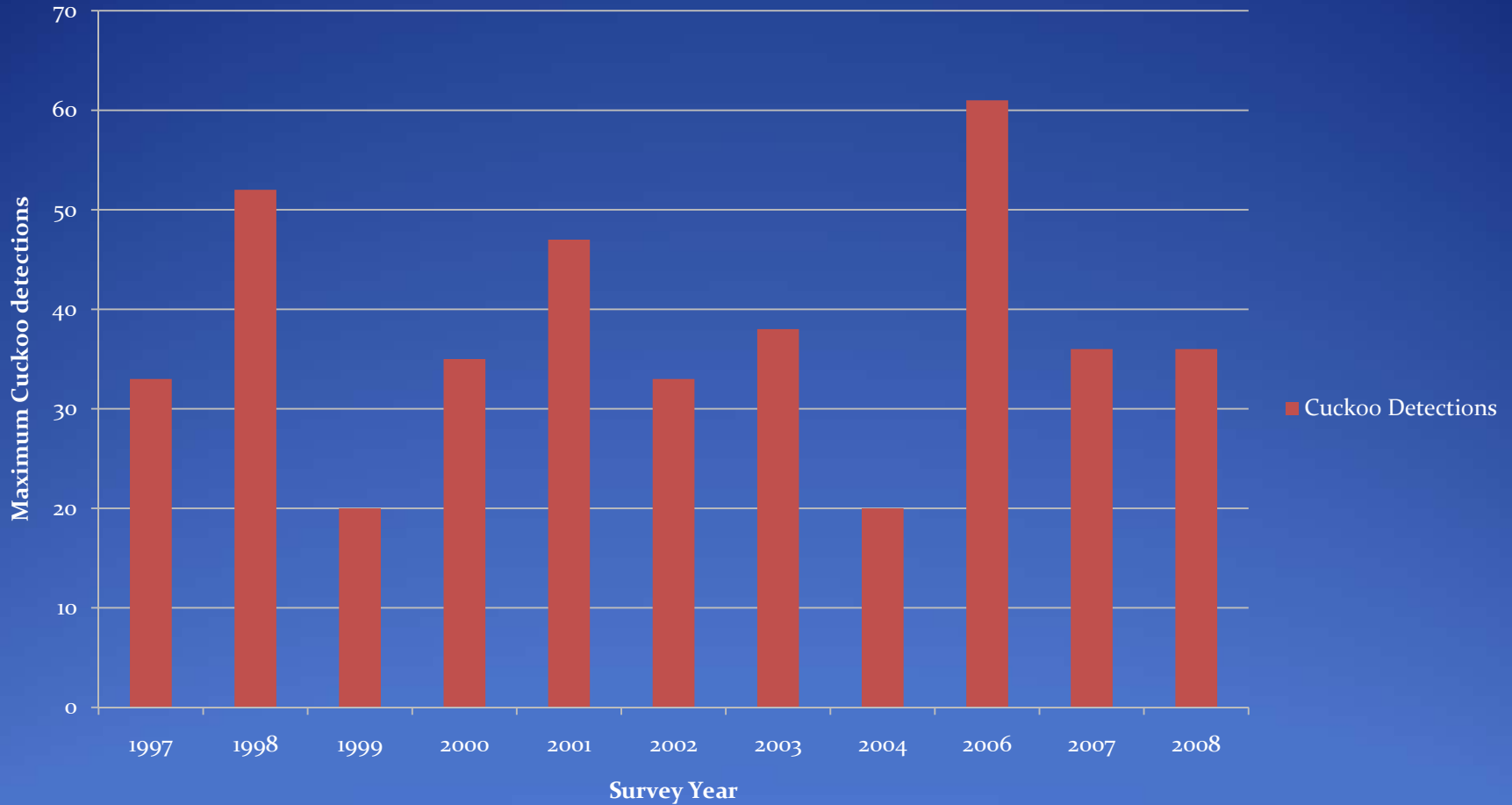




Table . Yellow-billed Cuckoo Nesting activity on the Lower Colorado River, 2008 field season.

Nest Number	Location	Number of eggs	Number of fledglings	Date Found	Nestlings banded?	Nest Succ?	Nest Tree species
CVCA-01-2008	CVCA	3	3	7/15/2008	3	Yes	Cottonwood
CVCA-02-2008	CVCA	2	0	8/6/2008	0	No	Cottonwood
BWHB-01-2008	Honeycomb Bend	3	2	7/22/2008	2	Yes	Tamarisk
BWHB-02-2008	Honeycomb Bend	2	2	7/27/2008	0	Yes	Good. Willow
BWHB-03-2008	Honeycomb Bend	unknown	2	7/24/2008	0	Yes	Good. Willow

Cibola Valley Conservation Area: CVCA

YBCU Survey Detection Site Boundary

●→ Period 1

●→ Period 2

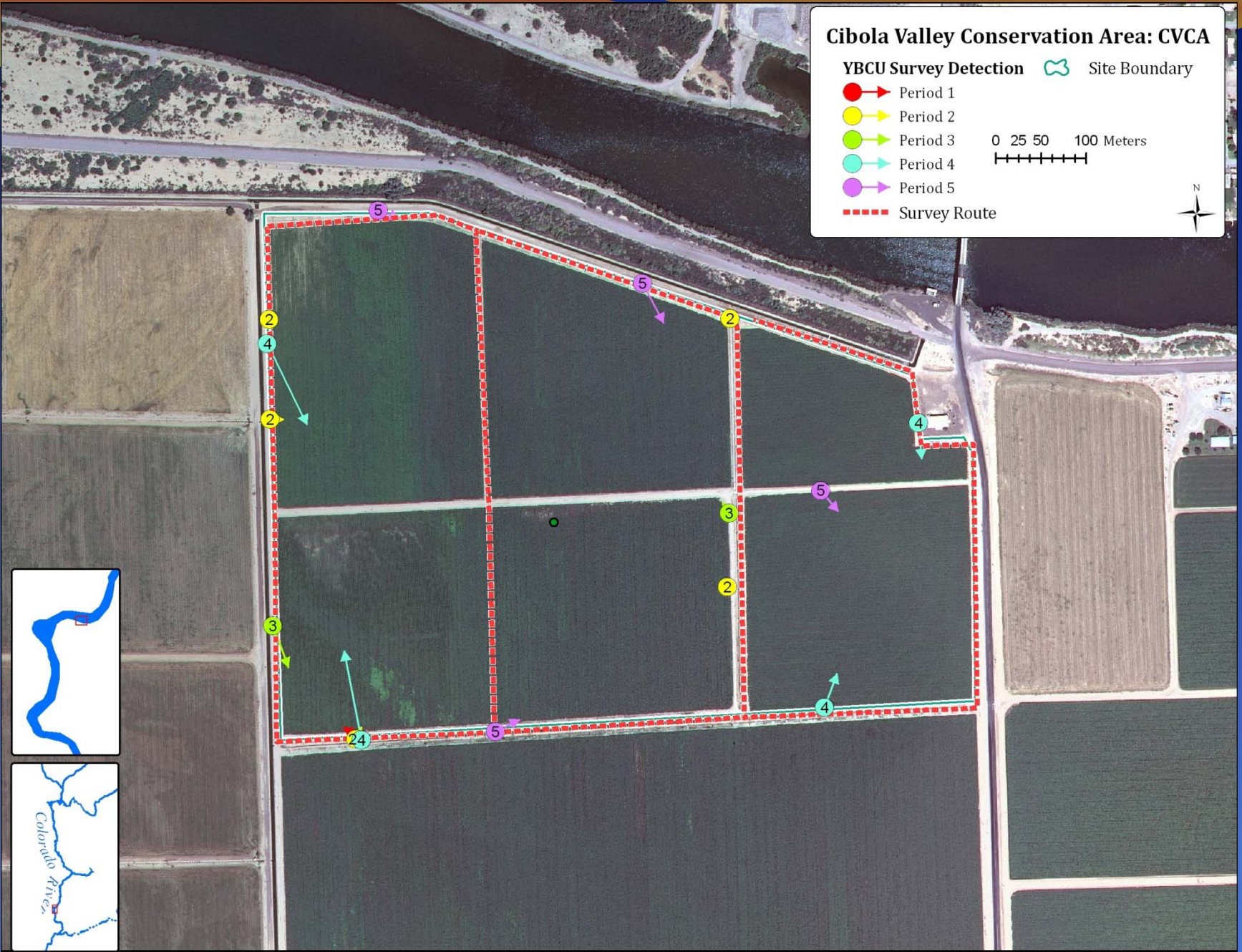
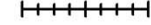
●→ Period 3

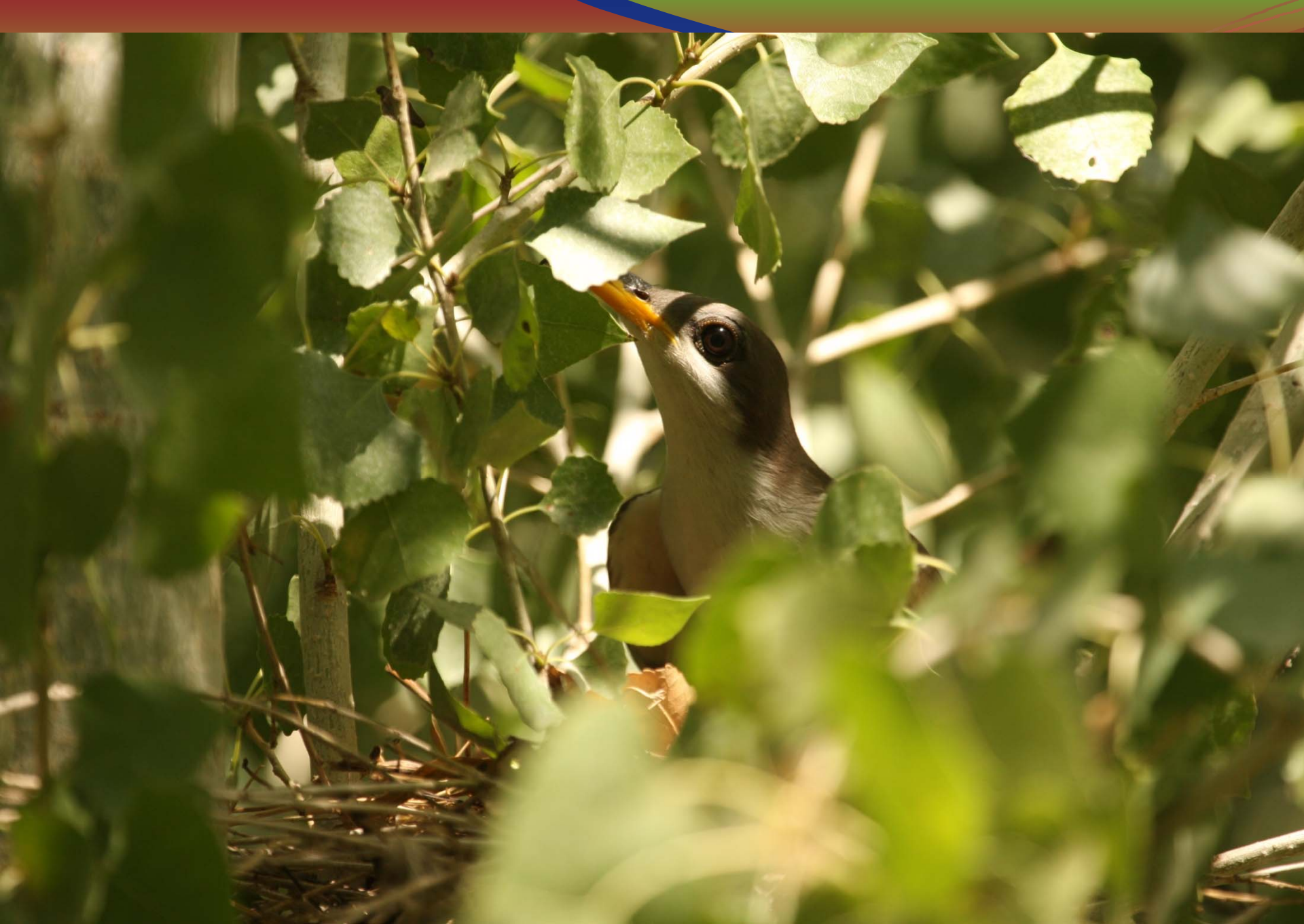
●→ Period 4

●→ Period 5

--- Survey Route

0 25 50 100 Meters













Cibola Valley Conservation Area: CVCA

YBCU Survey Detection Site Boundary

●→ Period 1

●→ Period 2

●→ Period 3

●→ Period 4

●→ Period 5

--- Survey Route

0 25 50 100 Meters

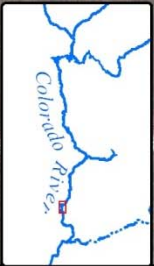
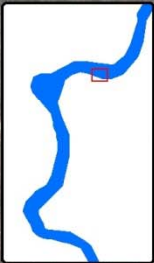
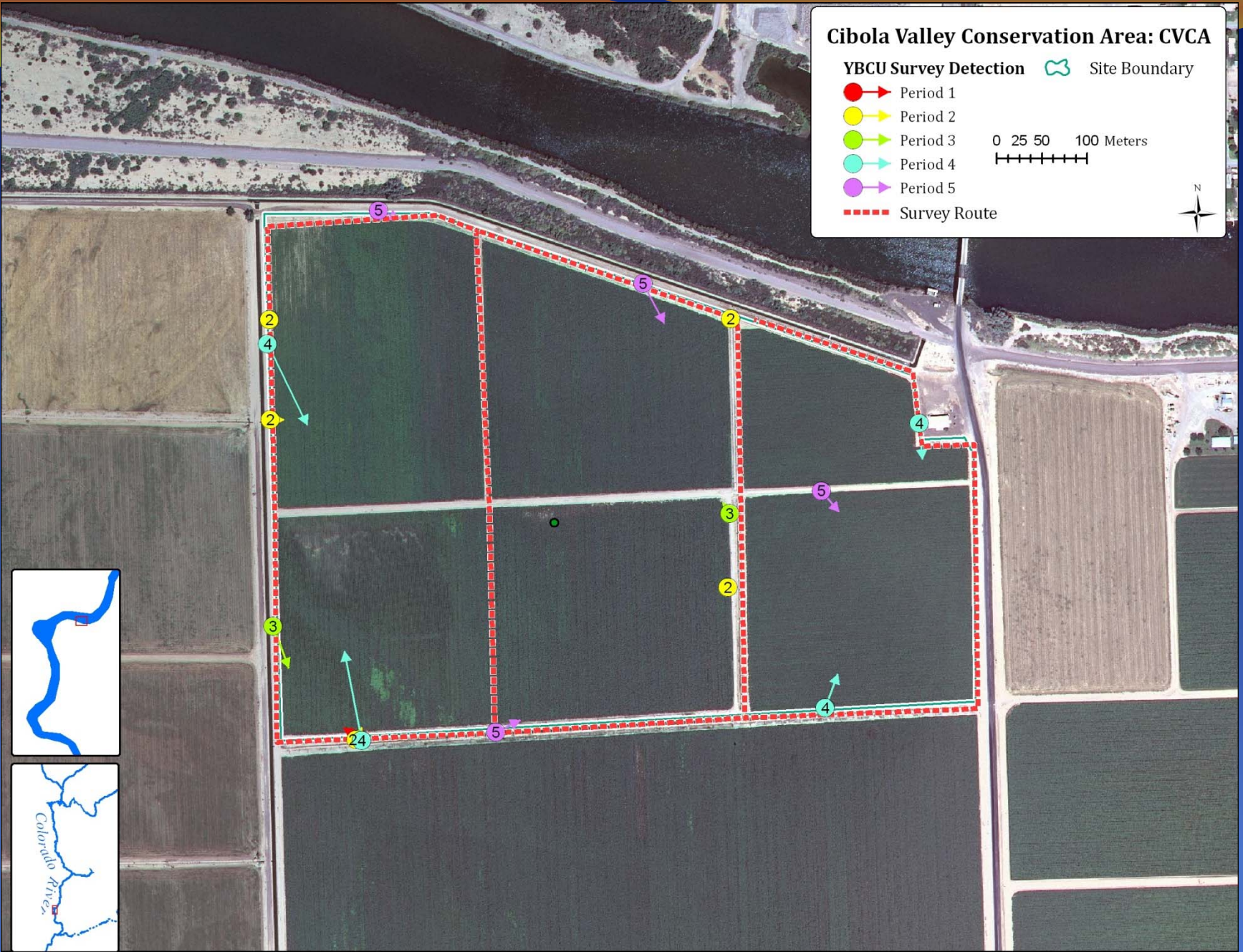
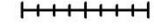


Figure 47. Yellow-billed Cuckoo detections and soil moisture on survey sites on the Lower Colorado River, 2008.

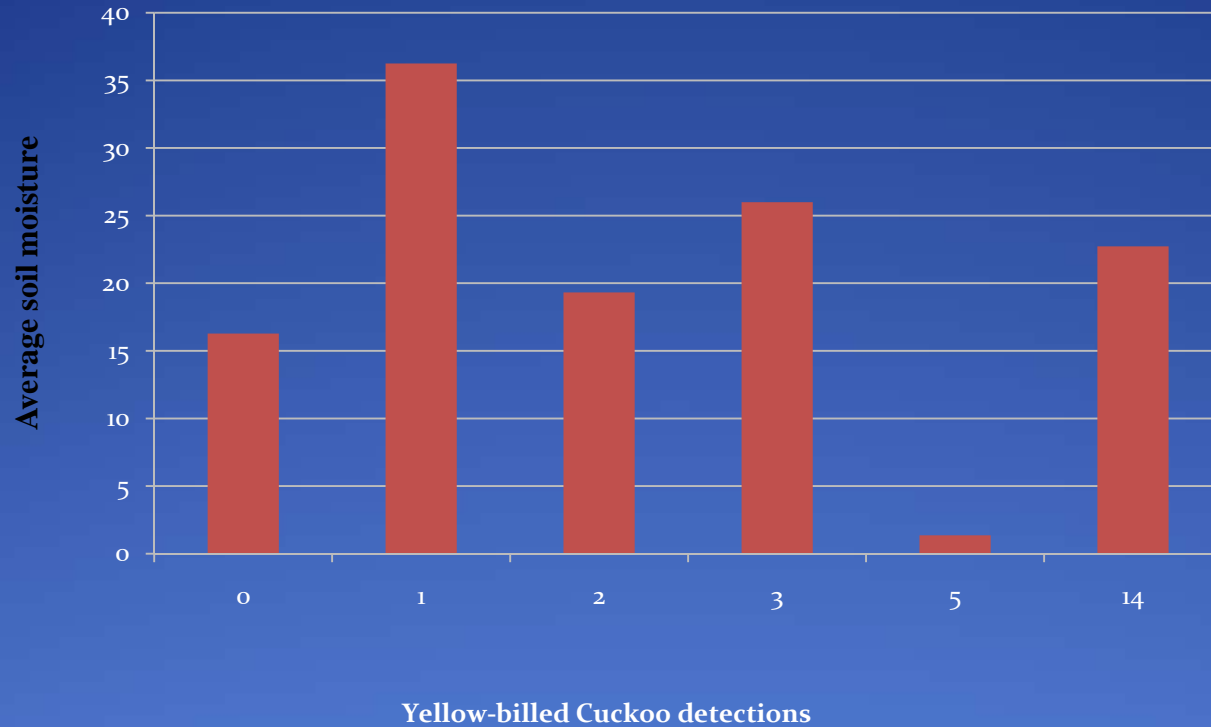


Figure 48. Cuckoo detections and Soil Moisture on the Bill Williams River NWR, 2008.

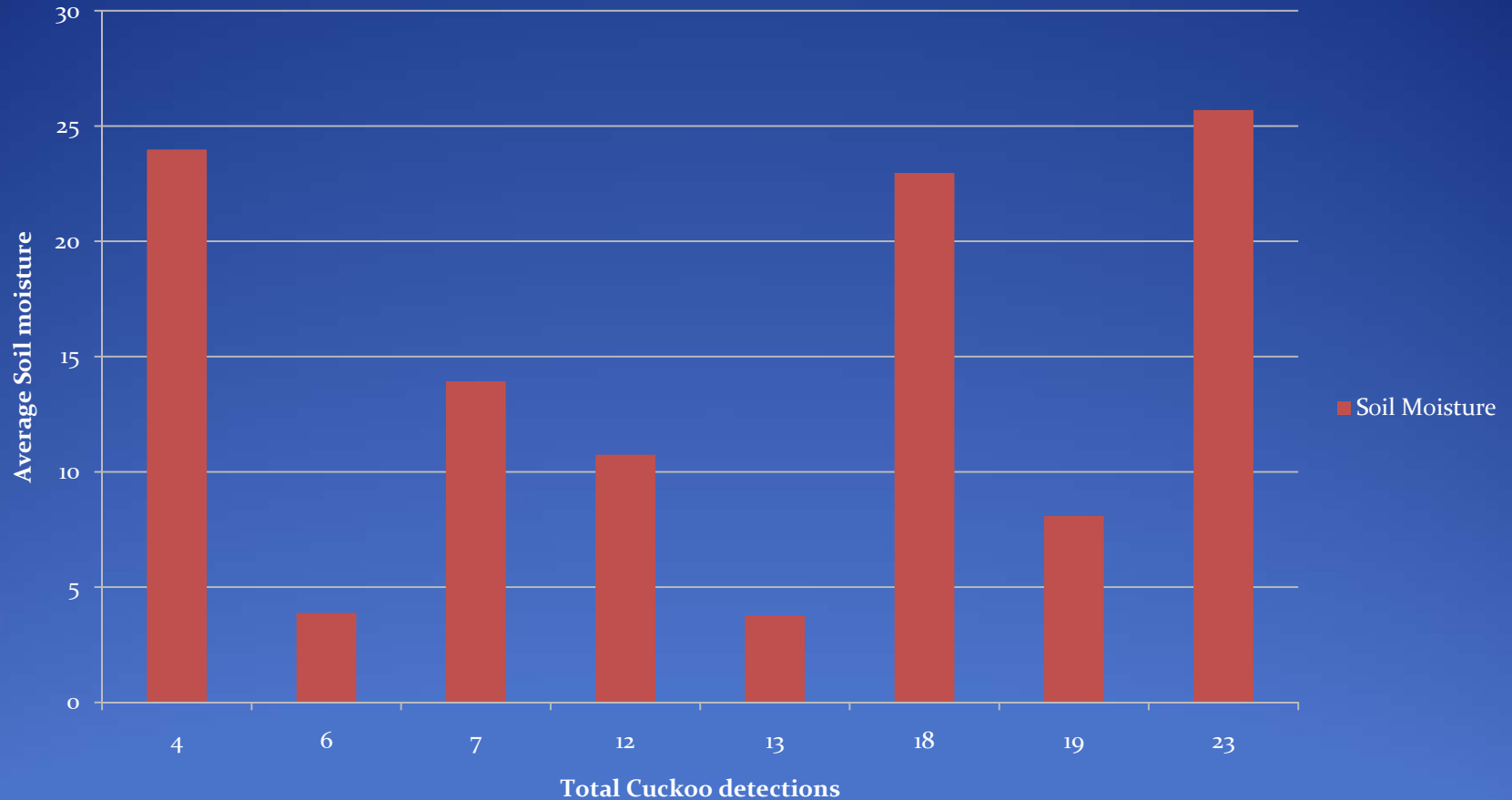


Figure . Yellow-billed Cuckoo detections and average temperature and relative humidity with trendlines, 2009 field season.

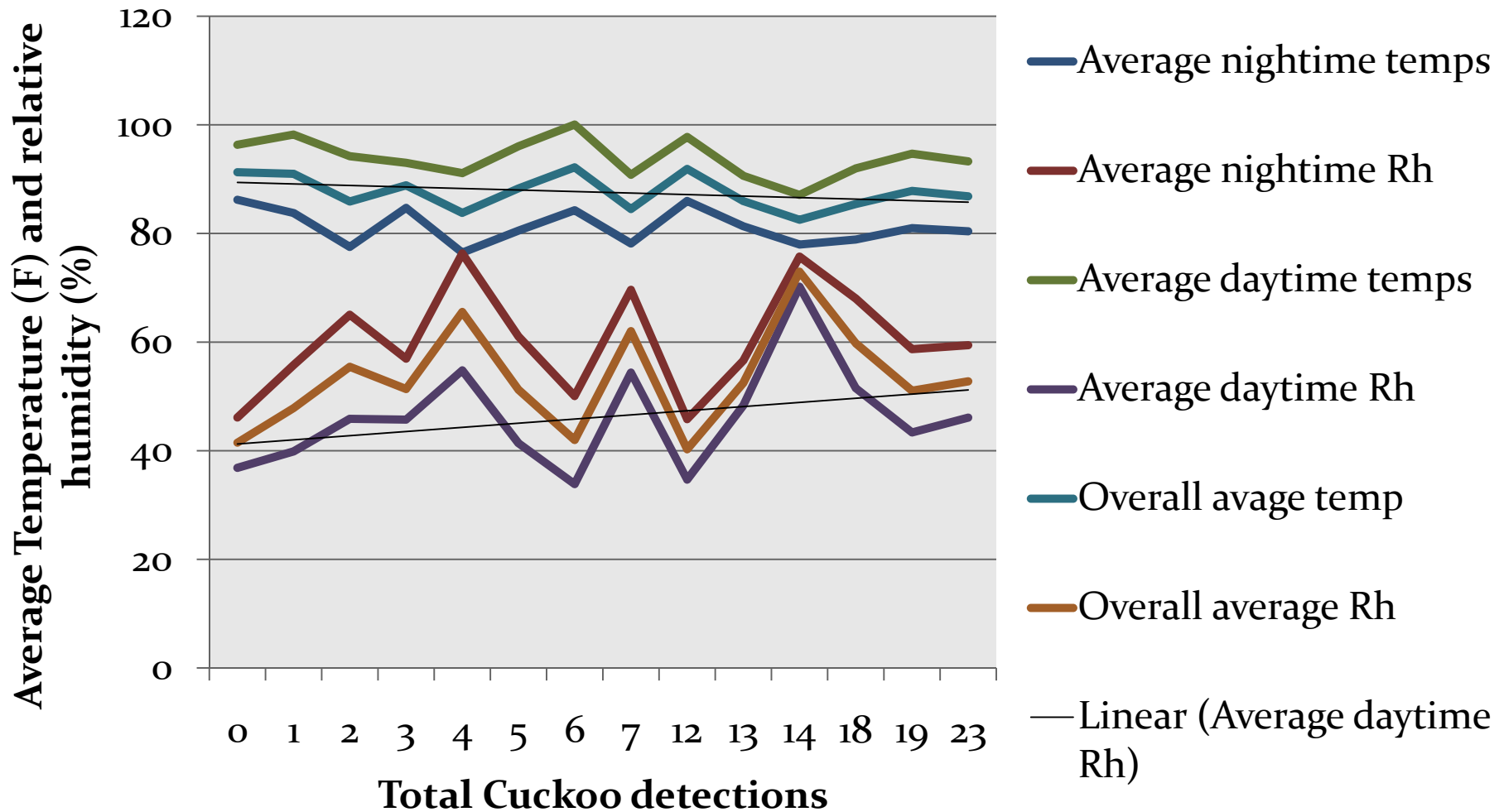


Figure 50. Cicada and Yellow-billed Cuckoo detections on the Lower Colorado River, 2008 field season.

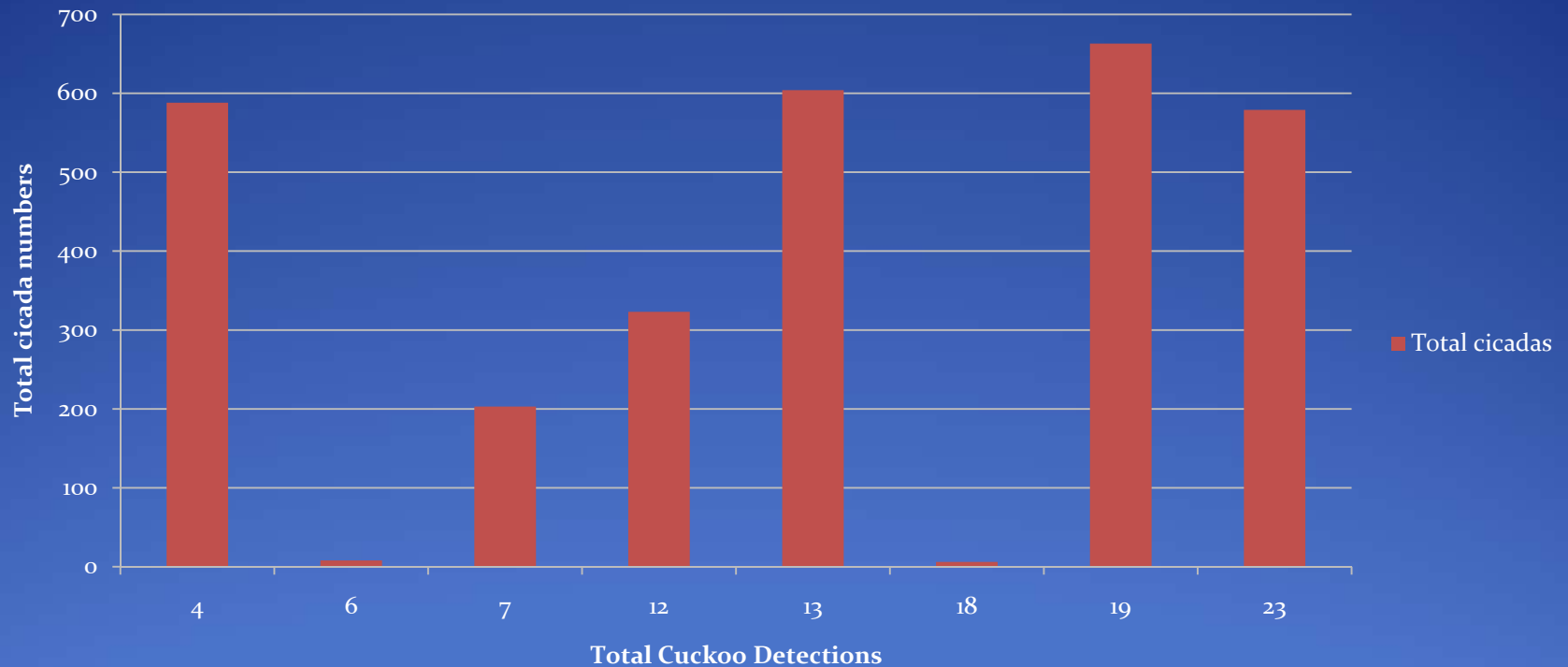


Figure 51. Cicada counts and average Soil moisture on the Bill Williams River NWR, 2008

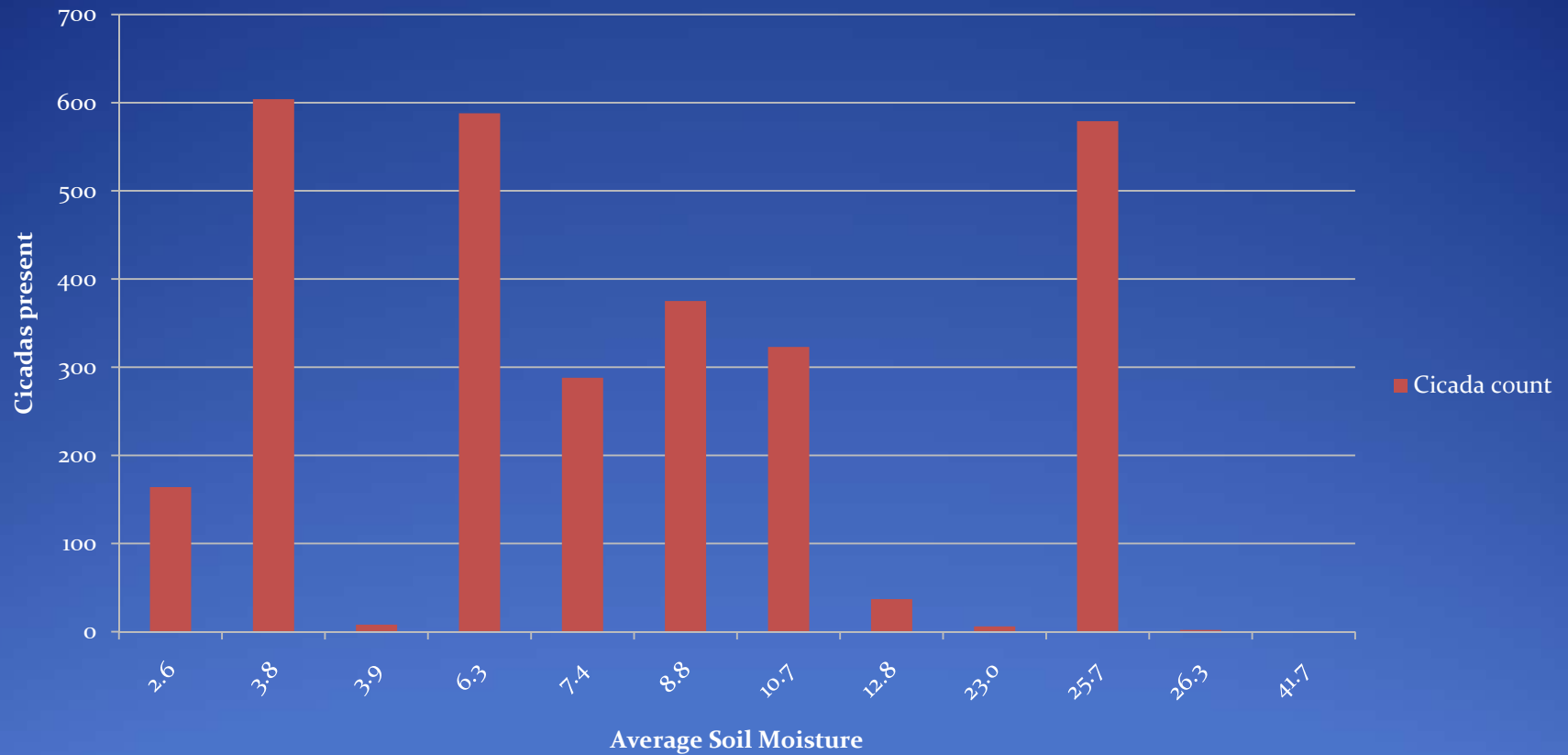




Figure . Cicada counts and average Soil moisture on the Bill Williams River NWR, 2008

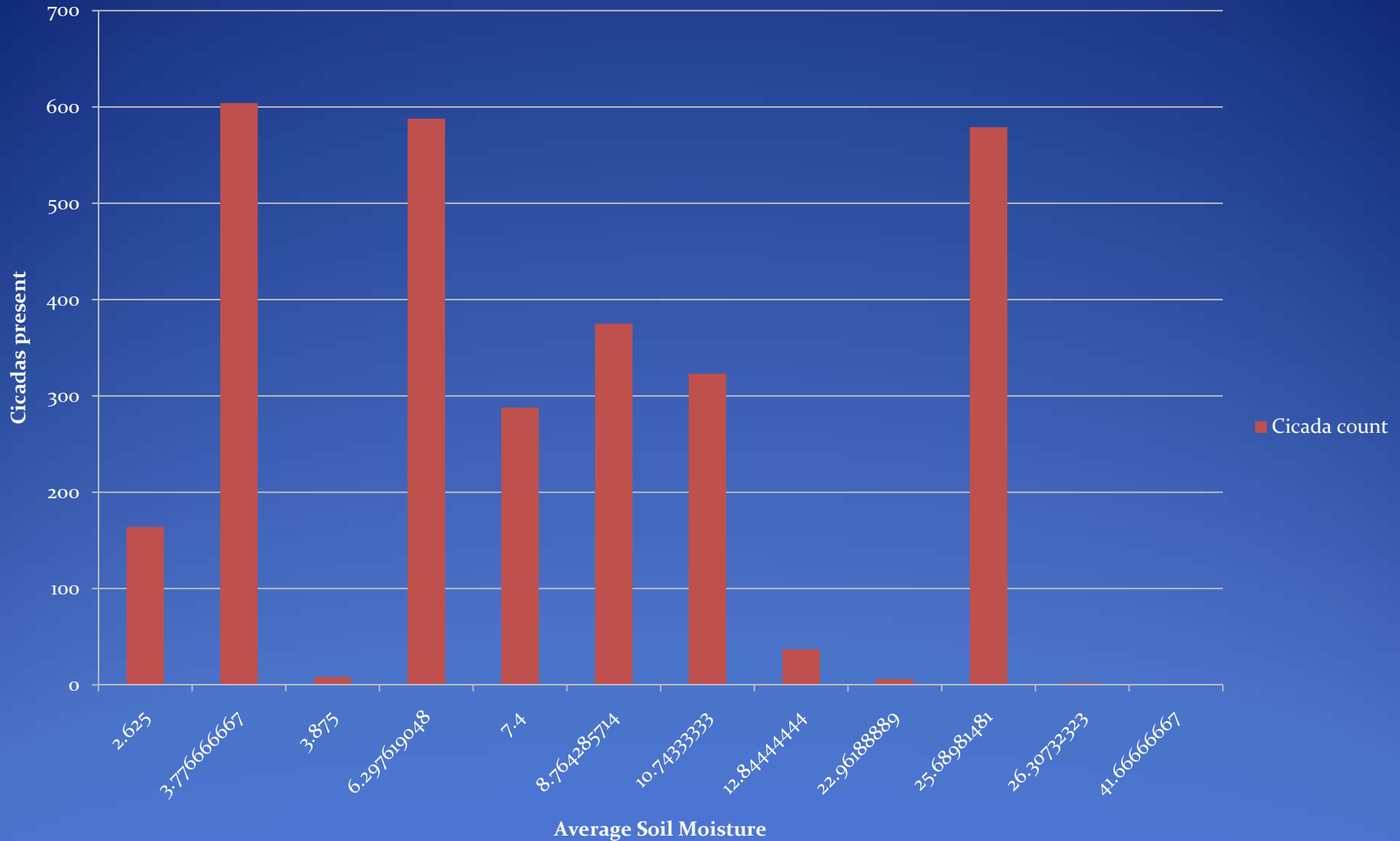


Figure . Total detections of Yellow-billed Cuckoos in relation to nearest occupied habitat patch, 2008 field season.

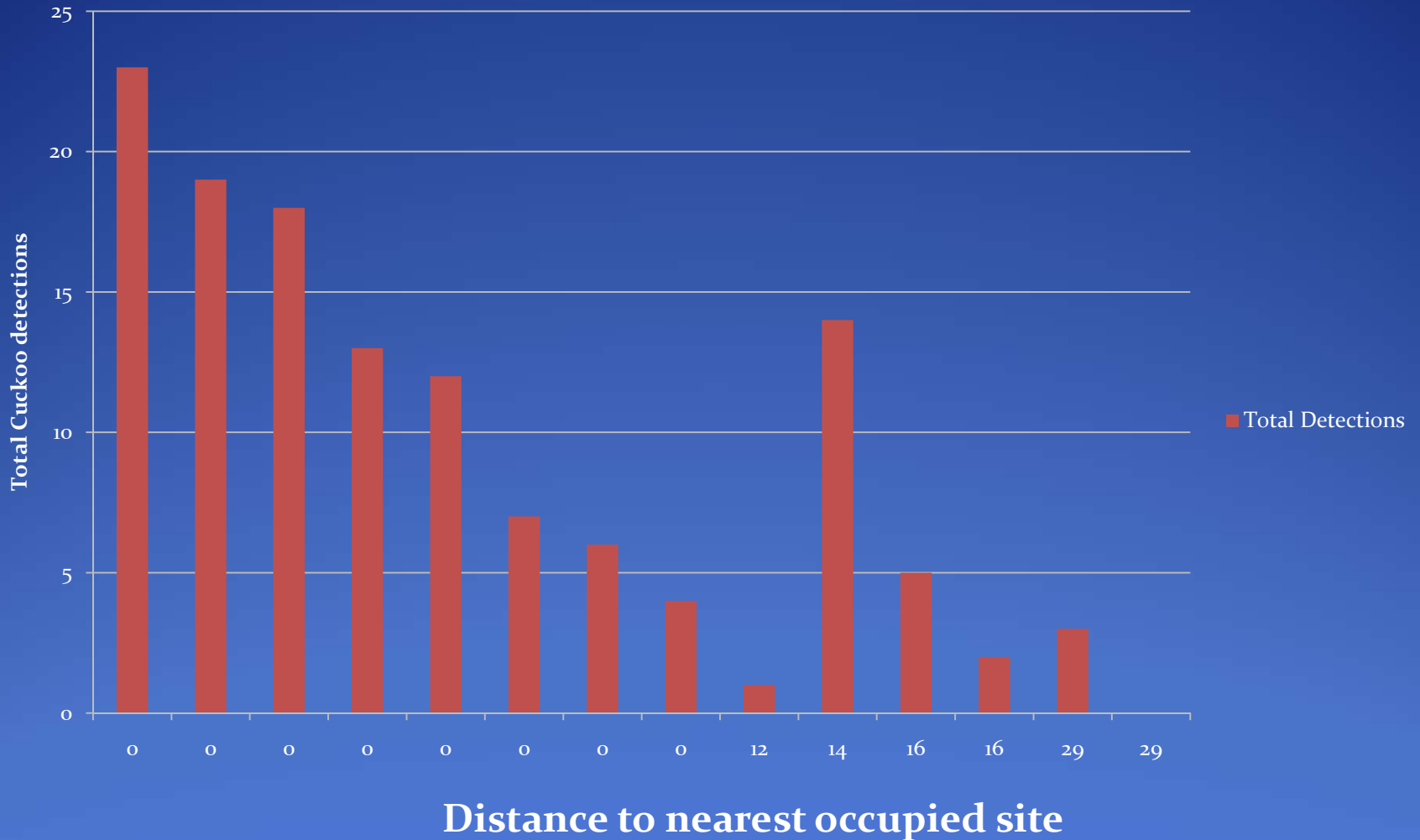


Figure 3. Detections of Yellow-billed Cuckoos by hectares of habitat on survey sites on the Lower Colorado River in 2008.

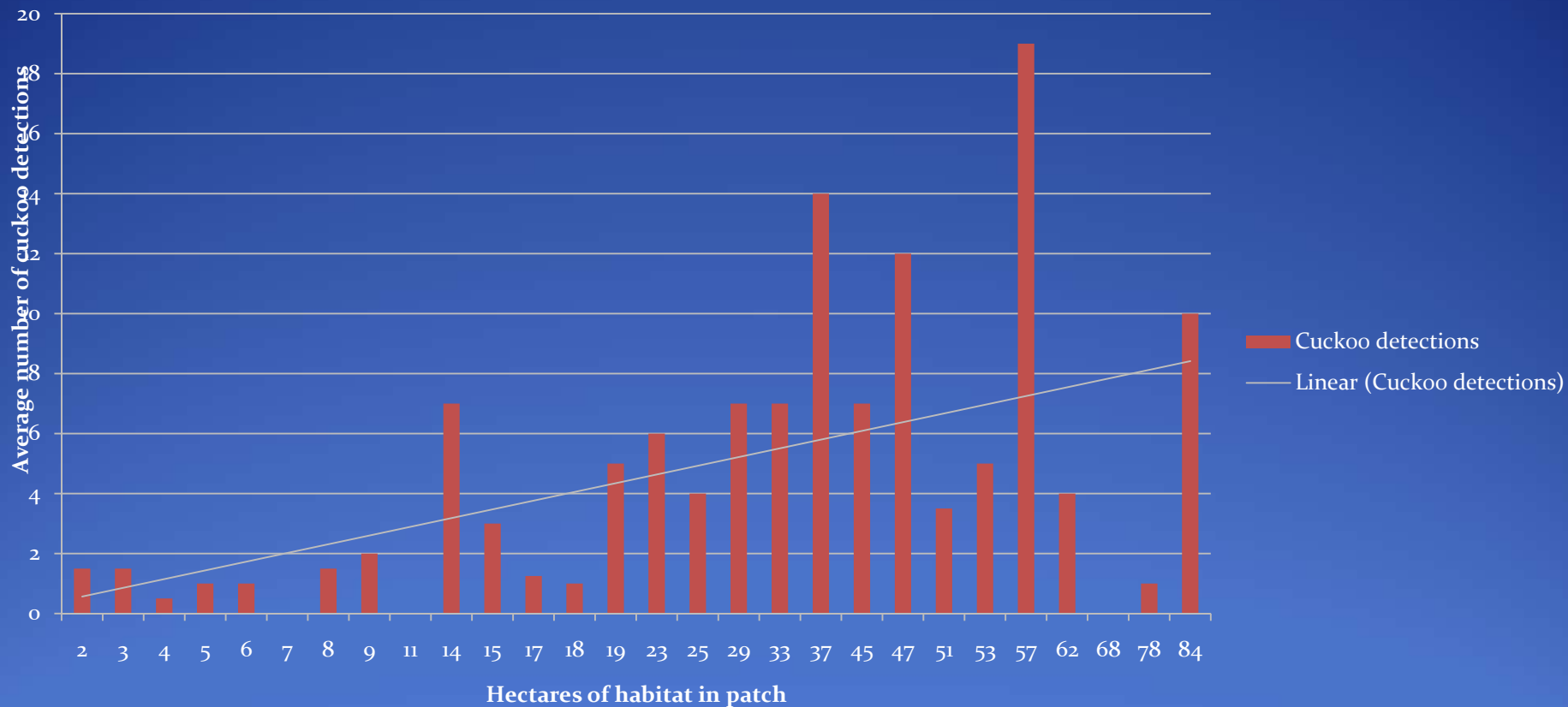
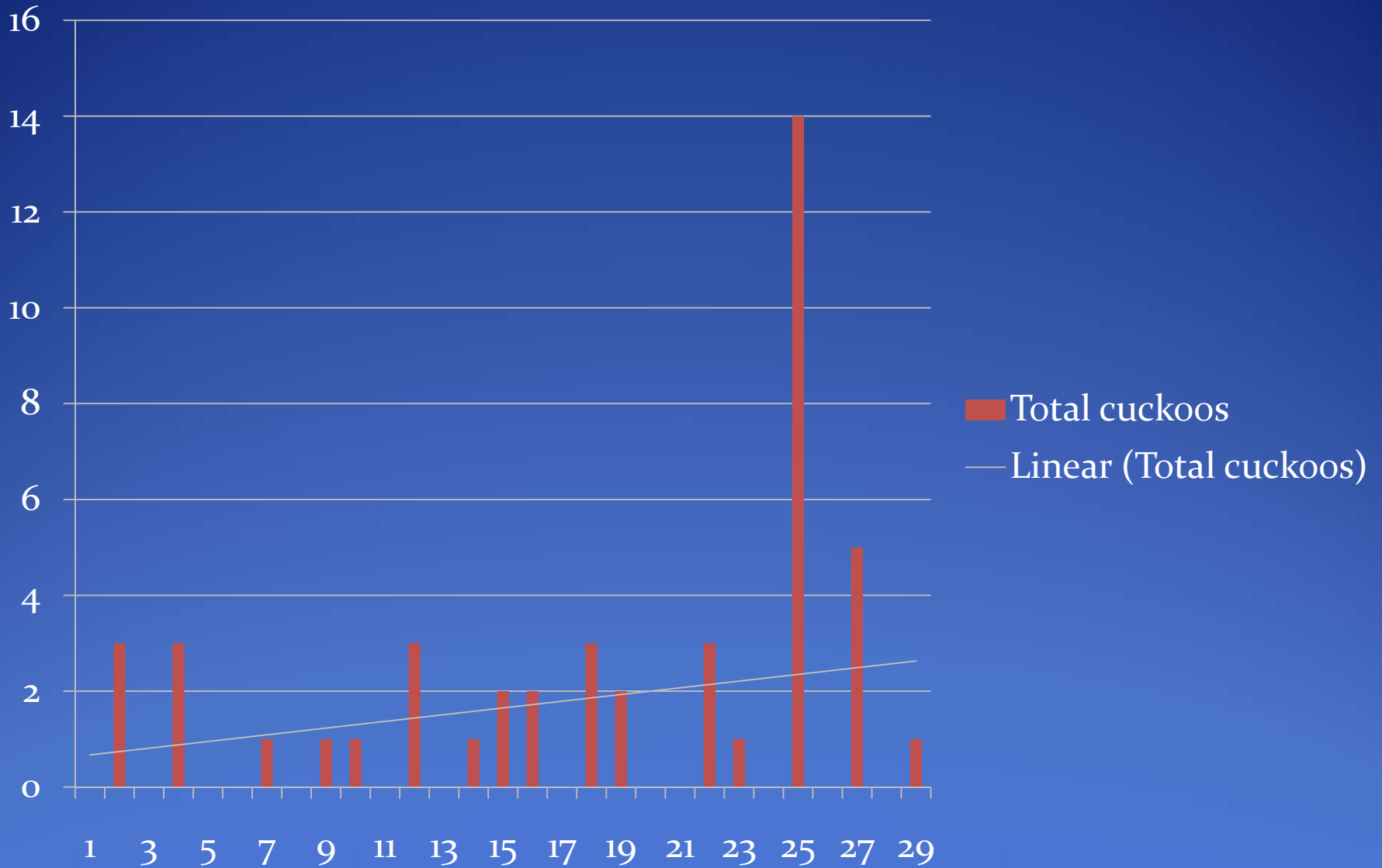


Figure 4. Cuckoo detections per hectare on restoration sites on the LCR, 2008.



Acknowledgements

The Southern Sierra Research Station wishes to thank the following organizations and individuals for their support and assistance with this project: Colorado River Indian Tribes and Stephanie Hines, USFWS and Mike Oldham, USFWS and Dominic Barrett, USFWS and Juliette Gutierrez, USFWS and Tina Lynsky, USFWS and Dick Gilbert, USFWS and Kathleen Blair, CAFG and Pam Beare, BOR and Bill Fingleton, AZGF and Troy Smith, USFWS and Jack Allen, USFWS and Ty Benally, NDOW and Keith Brose, USFWS and Merry Maxwell, CAFG and Conrad Jones, AZGF and Bob Achee, BOR and Barbara Raulston, BLM and Fred Wong, BLM and Todd Shoaff, AZGF and Lin Piest, SWCA and Tom Koronkiewicz.

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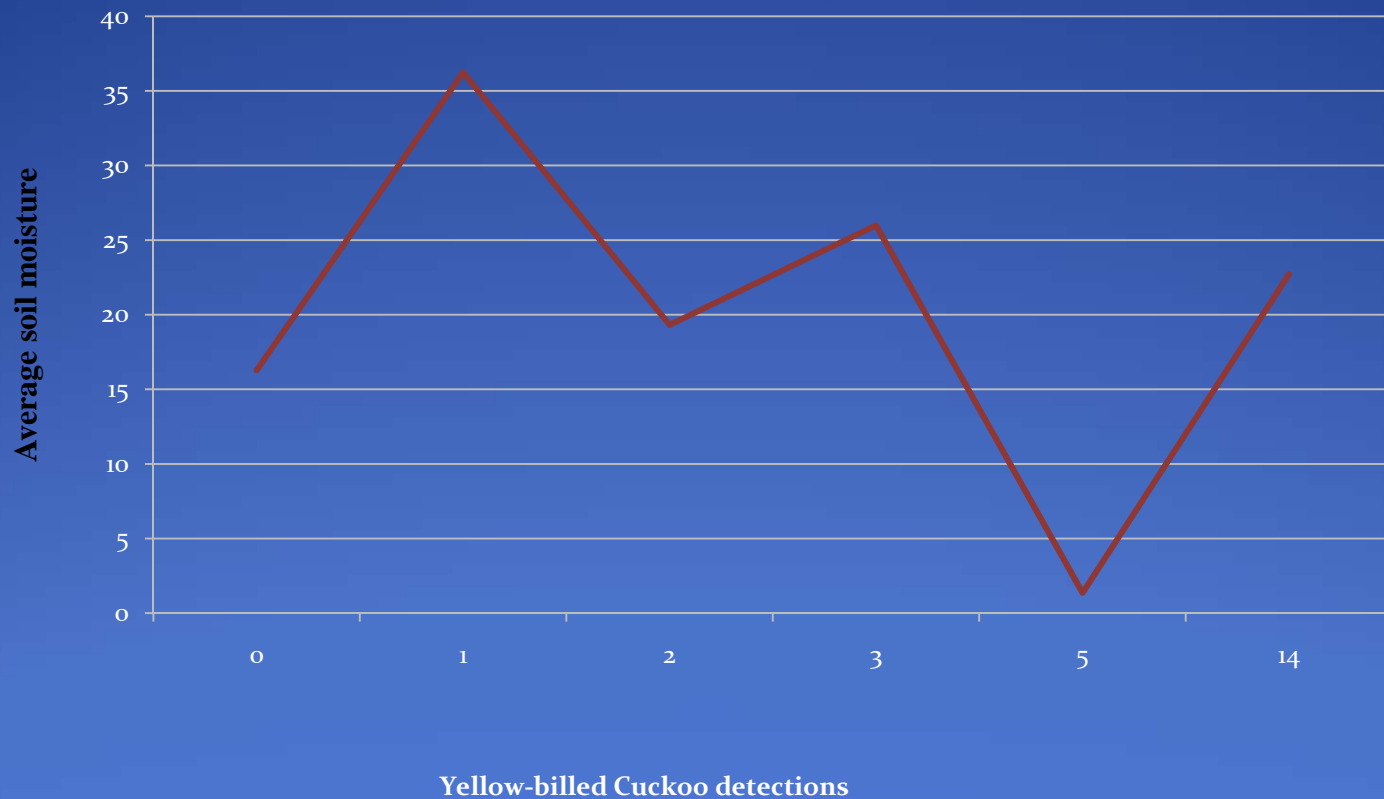
2009 Field season

- More focus on restoration sites
- More focus on banding and putting transmitters on cuckoos on restoration sites
- Include several new sites
- Expand veg monitoring to other sites

QUESTIONS?



Figure . Yellow-billed Cuckoo detections and soil moisture on survey sites on the Lower Colorado River, 2008.



Visit Number

**Total
detect/region**

**Sites North of
BWRNWR**

1	2	3	4	5	
1	3	4	0	0	8

**Bill Williams River
NWR**

11	30	35	36	18	144
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Sites Near Blythe

0	11	5	5	4	25
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Sites near Yuma

0	7	5	1	0	13
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Total Detections

12	51	49	42	22	190
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