



GILA RIVER, ARIZONA SOUTHWESTERN WILLOW FLYCATCHER AND YELLOW-BILLED CUCKOO SURVEYS AND NEST MONITORING FOR PROPOSED RESTORATION SITES, 2019

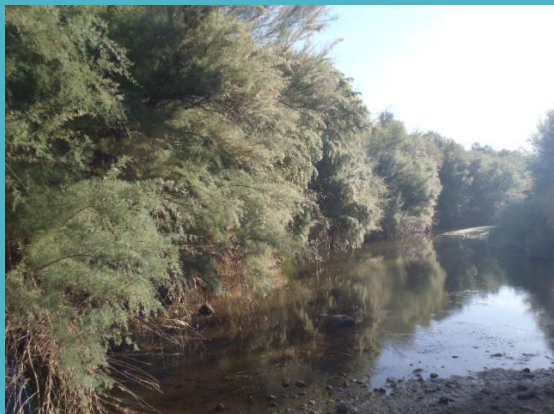


Submitted To:

Gila Watershed Partnership of Arizona
U.S. Fish and Wildlife Service
USDA-APHIS-PPQ

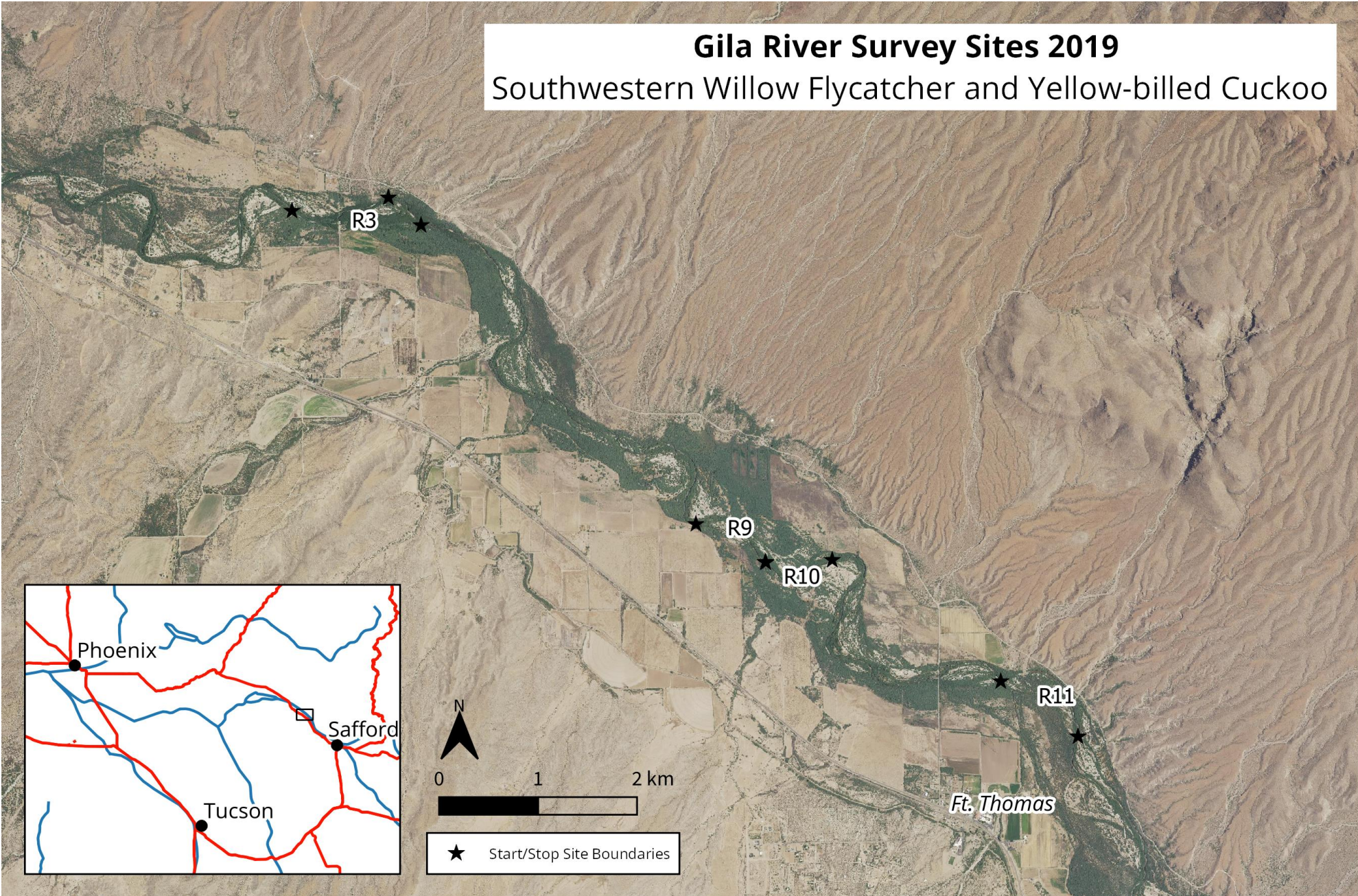
Prepared by

Matthew Johnson and
Ryan Gillespie
Northern Arizona University
Colorado Plateau Research Station, 86011
Flagstaff, Arizona



Gila River Survey Sites 2019

Southwestern Willow Flycatcher and Yellow-billed Cuckoo



OVERALL GOAL

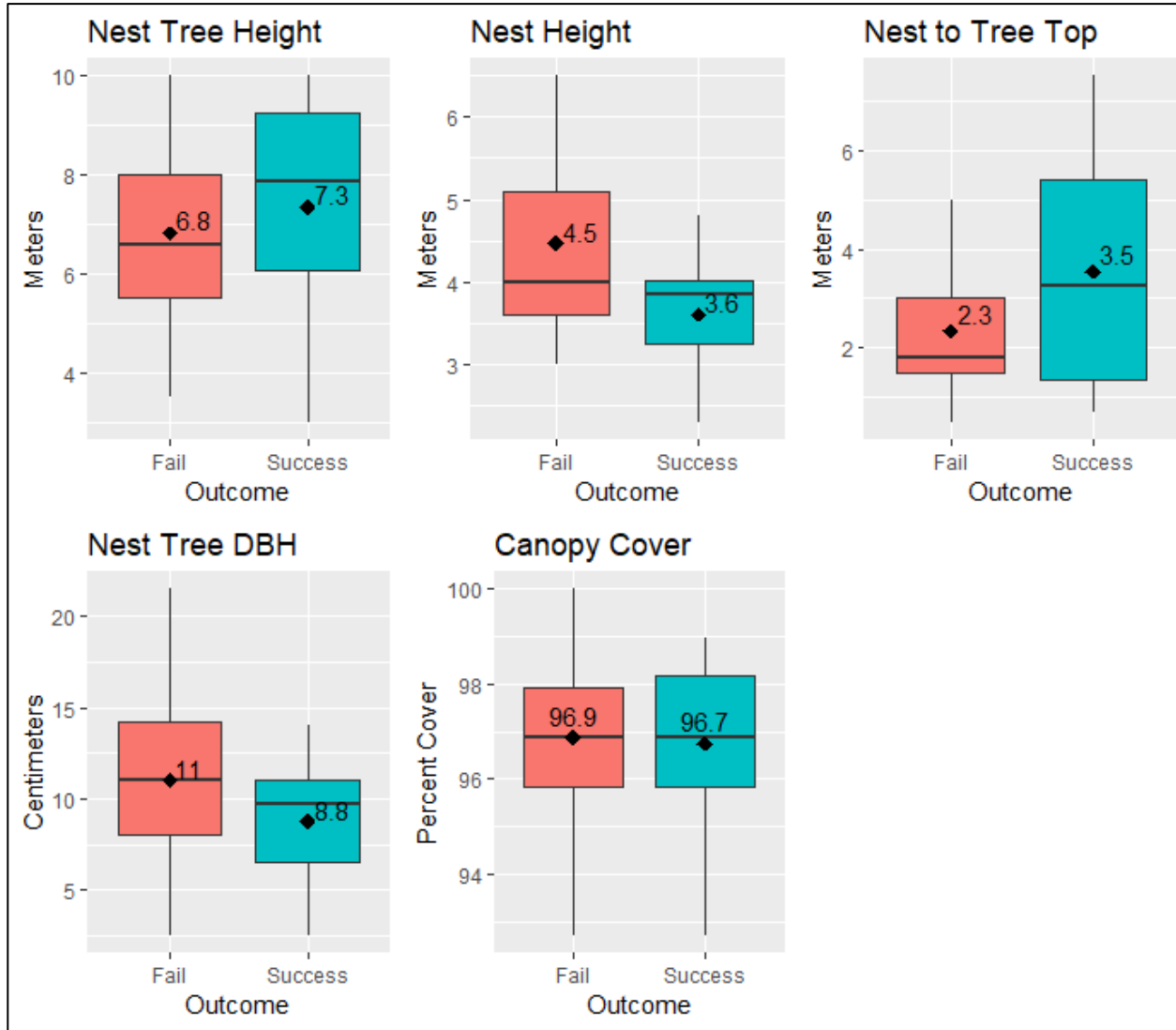
This proactive project is initiating habitat restoration at sites that currently provide breeding habitat for both endangered and threatened species, but due to the anticipated arrival of the tamarisk leaf beetle (*Diorhabda* spp.), the Gila Watershed of Arizona is taking responsible action now that will restore native habitat, minimize impacts of the beetle, and conserve this vulnerable riparian ecosystem.

OBJECTIVES

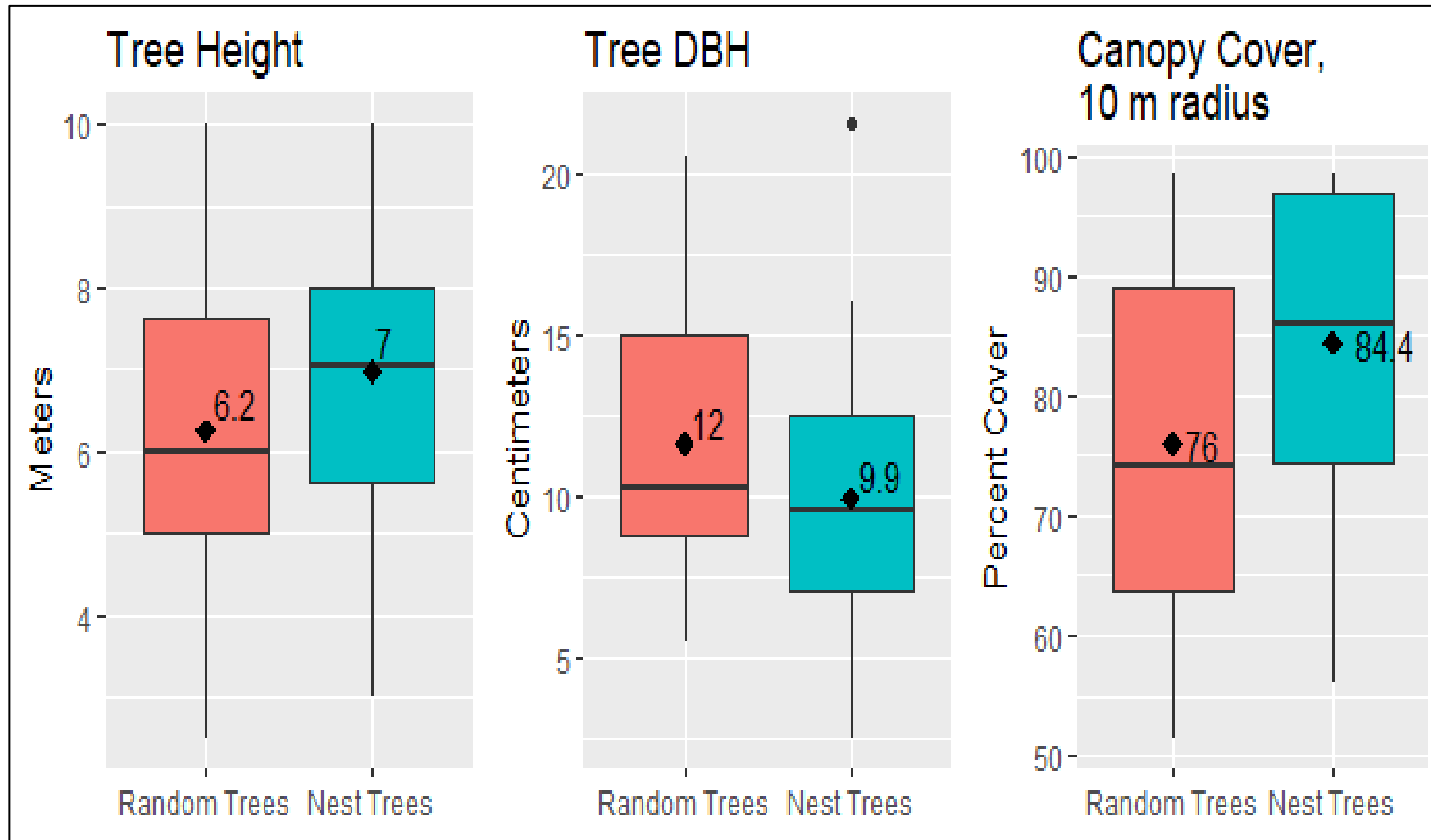
The purpose of this study is to conduct Southwestern Willow Flycatcher and Yellow-billed Cuckoo surveys and nest monitoring in six suitable and/or historical riparian sites within the Upper Gila River Watershed, Arizona. Specific objectives of this project are as follows: (1) Conduct flycatcher and cuckoo presence/absence surveys and determine breeding status of both species at selected Gila River restoration sites; (2) Provide flycatcher and cuckoo site evaluations and descriptions; (3) Conduct nest searches and nest monitoring at flycatcher and cuckoo breeding sites in order to calculate parasitism and predation rate, and the effects of human disturbance;



Southwestern Willow Flycatcher Nest Success vs. Nest Site Characteristics



Southwestern Willow Flycatcher vegetation characteristics Surrounding the Area

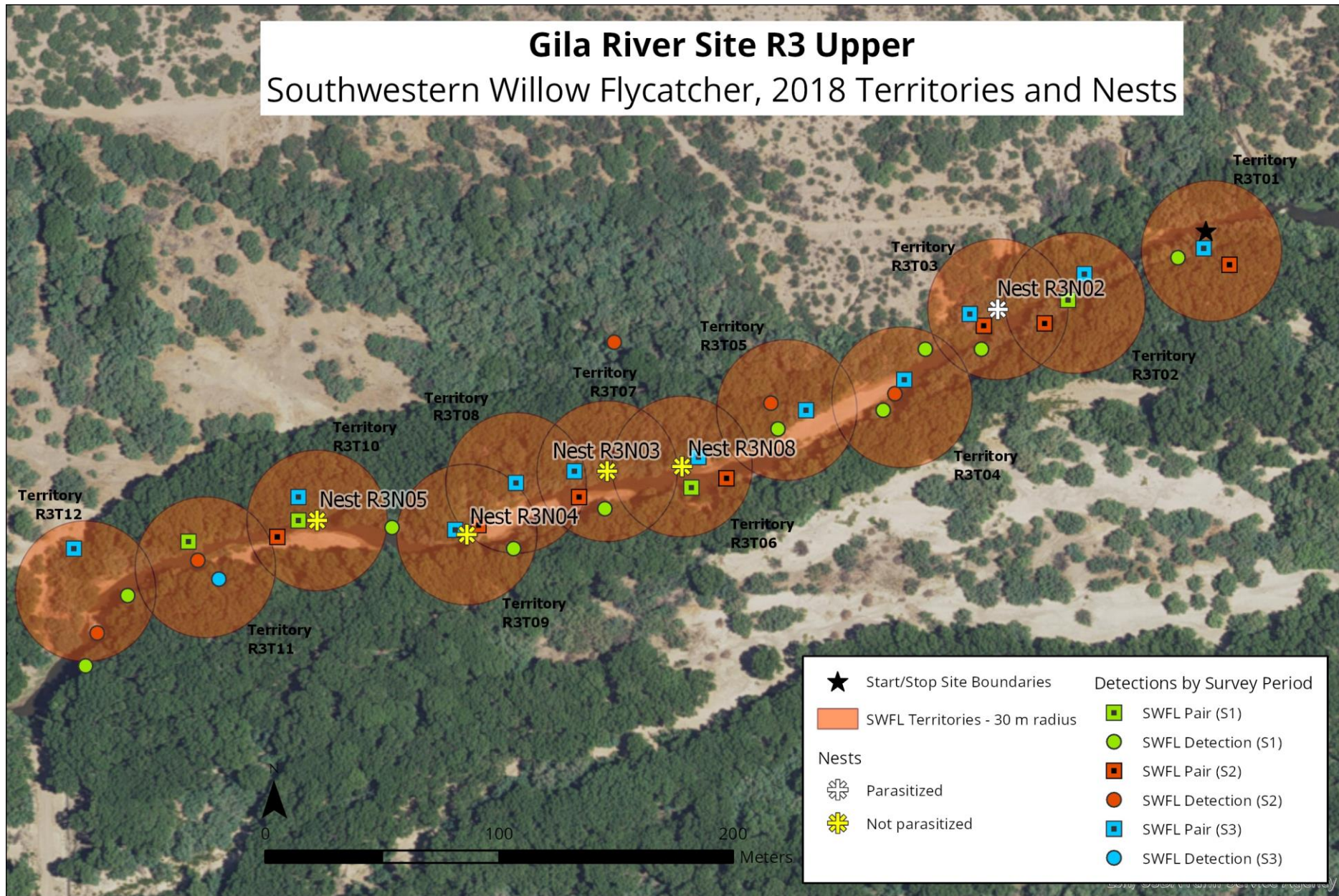


Gila River Site R3 Upper

Southwestern Willow Flycatcher, 2018 Territories and Nests

2018 Upper
(n = 12
Territories)

2018 Total
(n = 26
Territories)

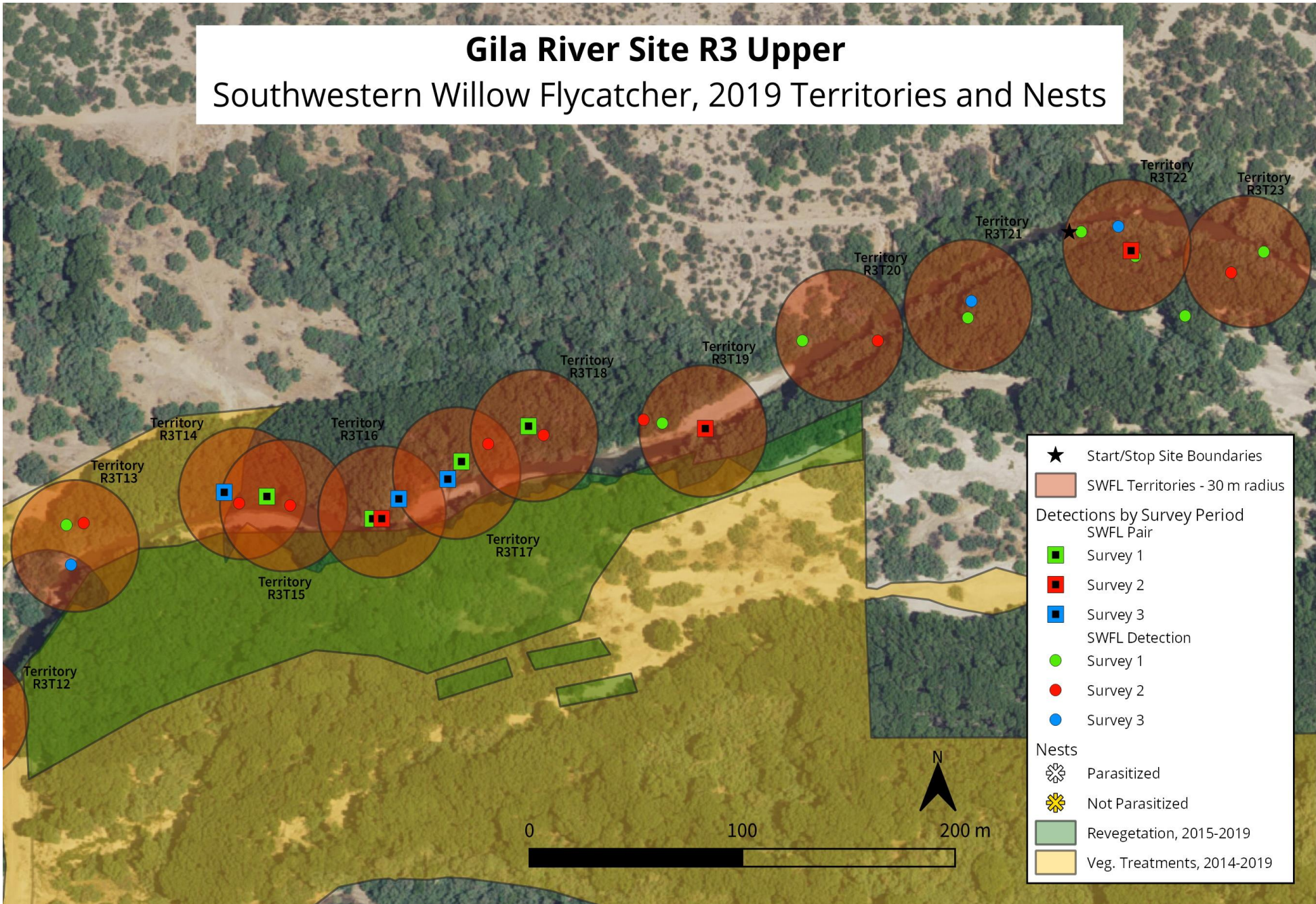


Gila River Site R3 Upper

Southwestern Willow Flycatcher, 2019 Territories and Nests

2019 Upper
n = 11
Territories

2019 Total
(n = 24
Territories)

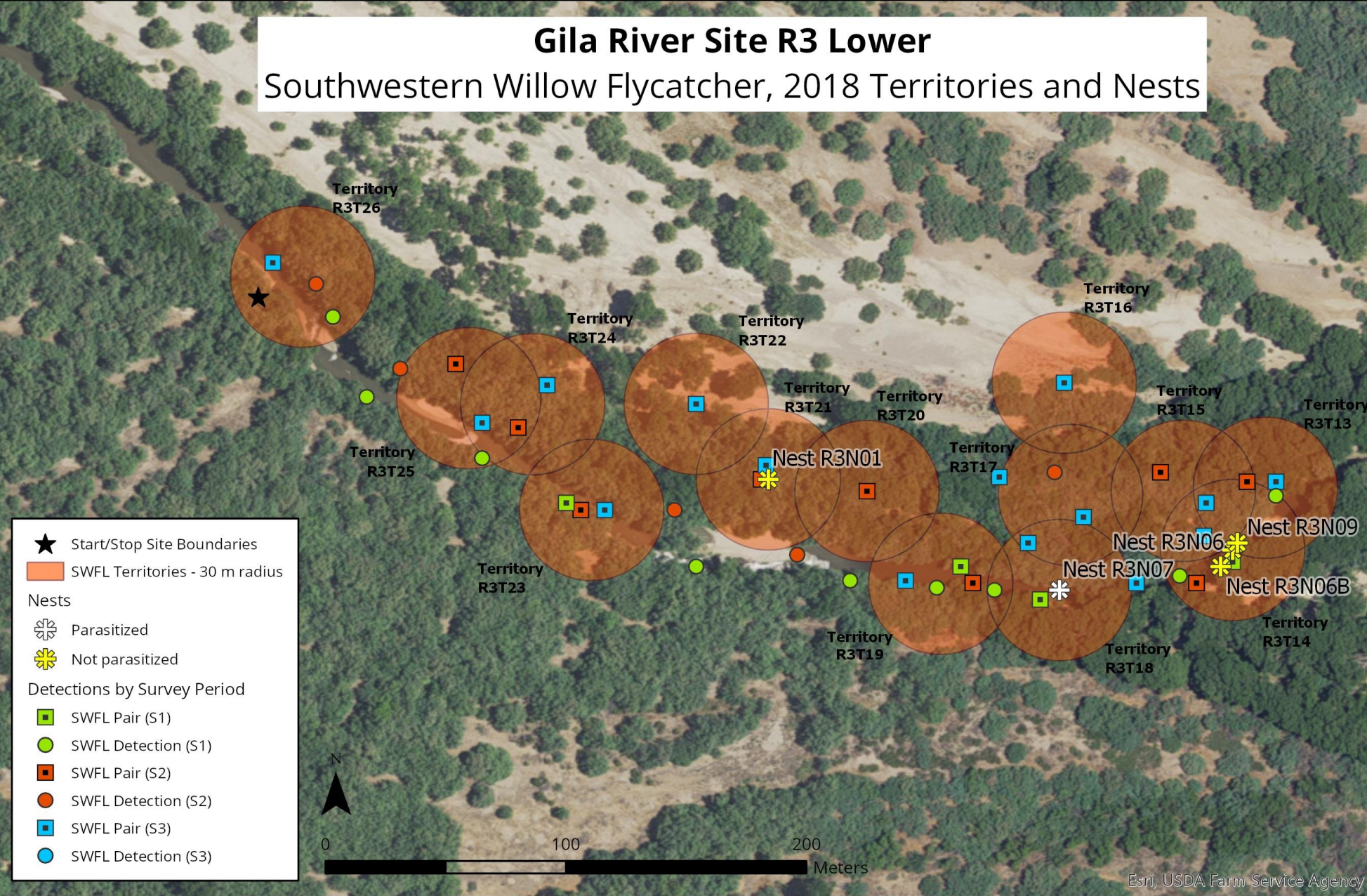


Gila River Site R3 Lower

Southwestern Willow Flycatcher, 2018 Territories and Nests

2018 Lower
(n = 14
Territories)

2018 Total
(n = 26
Territories)

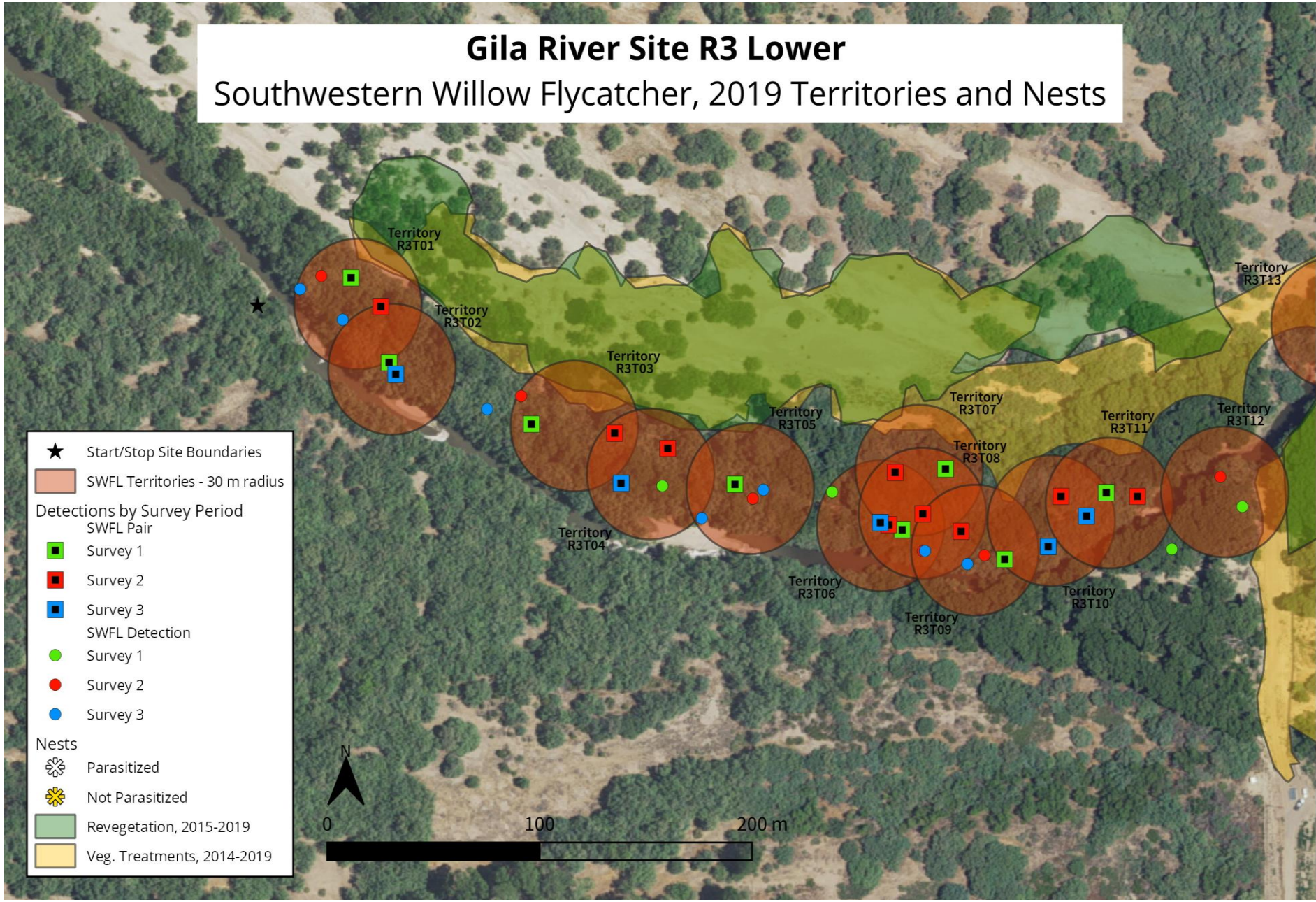


Gila River Site R3 Lower

Southwestern Willow Flycatcher, 2019 Territories and Nests

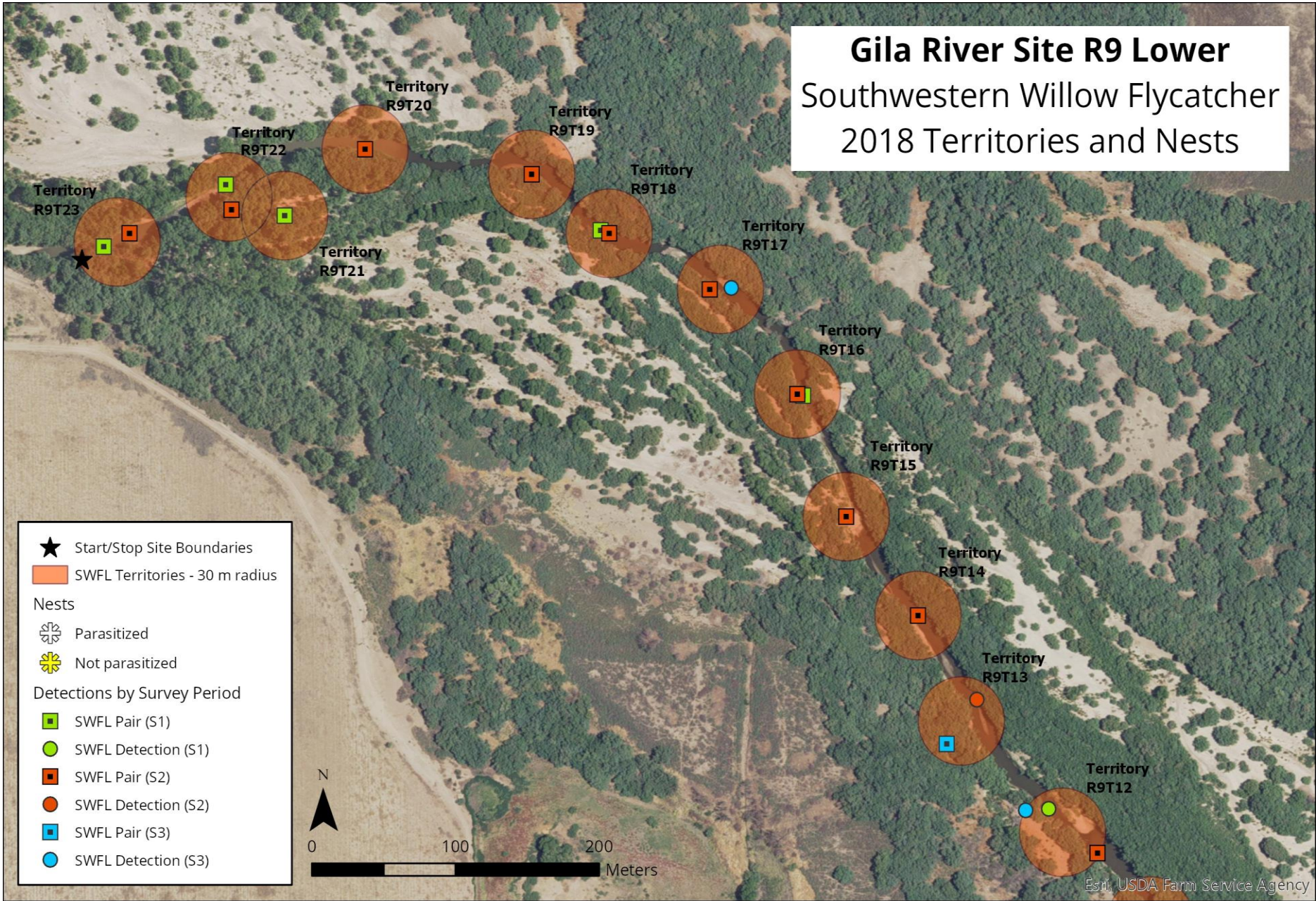
2019 Lower
(n = 13
Territories)

2019 Total
(n = 24
Territories)



Gila River Site R9 Lower Southwestern Willow Flycatcher 2018 Territories and Nests

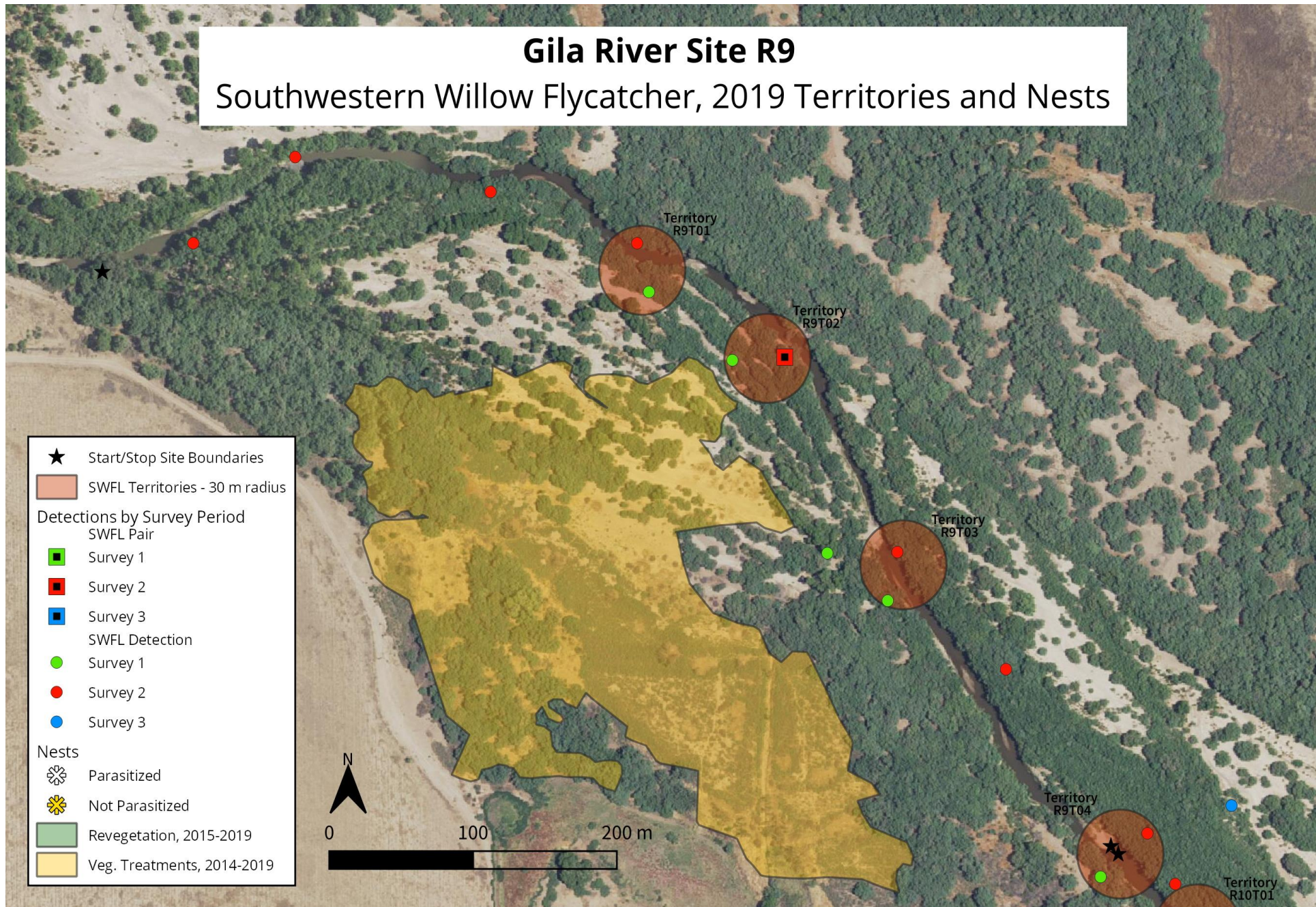
2018 Total
(n = 12
Territories)



Gila River Site R9

Southwestern Willow Flycatcher, 2019 Territories and Nests

2019 Total
(n = 7
Territories)



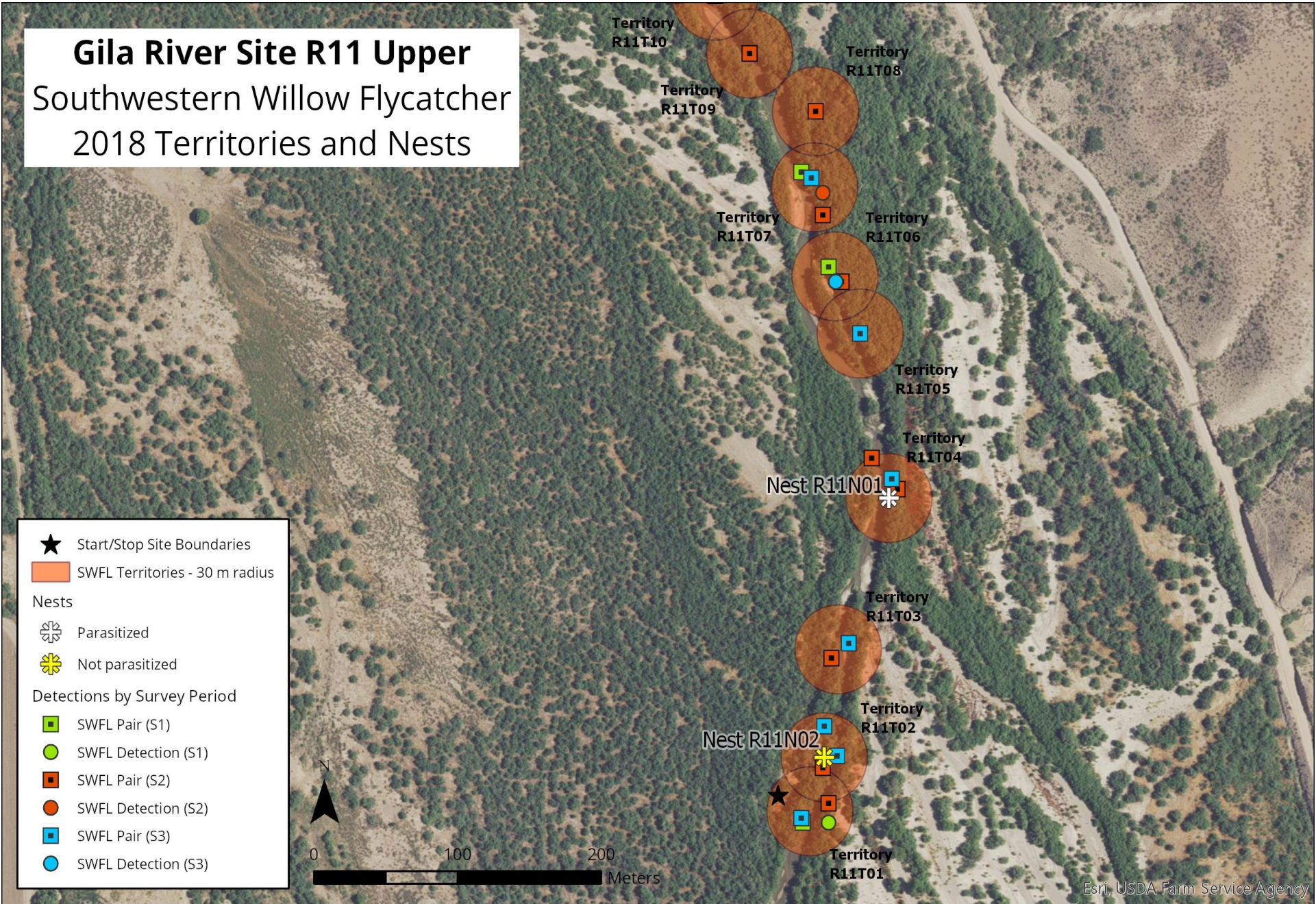
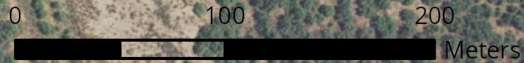
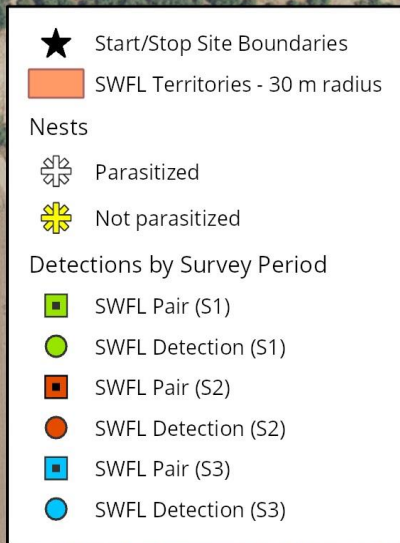
Gila River Site R11 Upper

Southwestern Willow Flycatcher

2018 Territories and Nests

2018 Upper
(n = 10
Territories)

2018 Total
(n = 23
Territories)



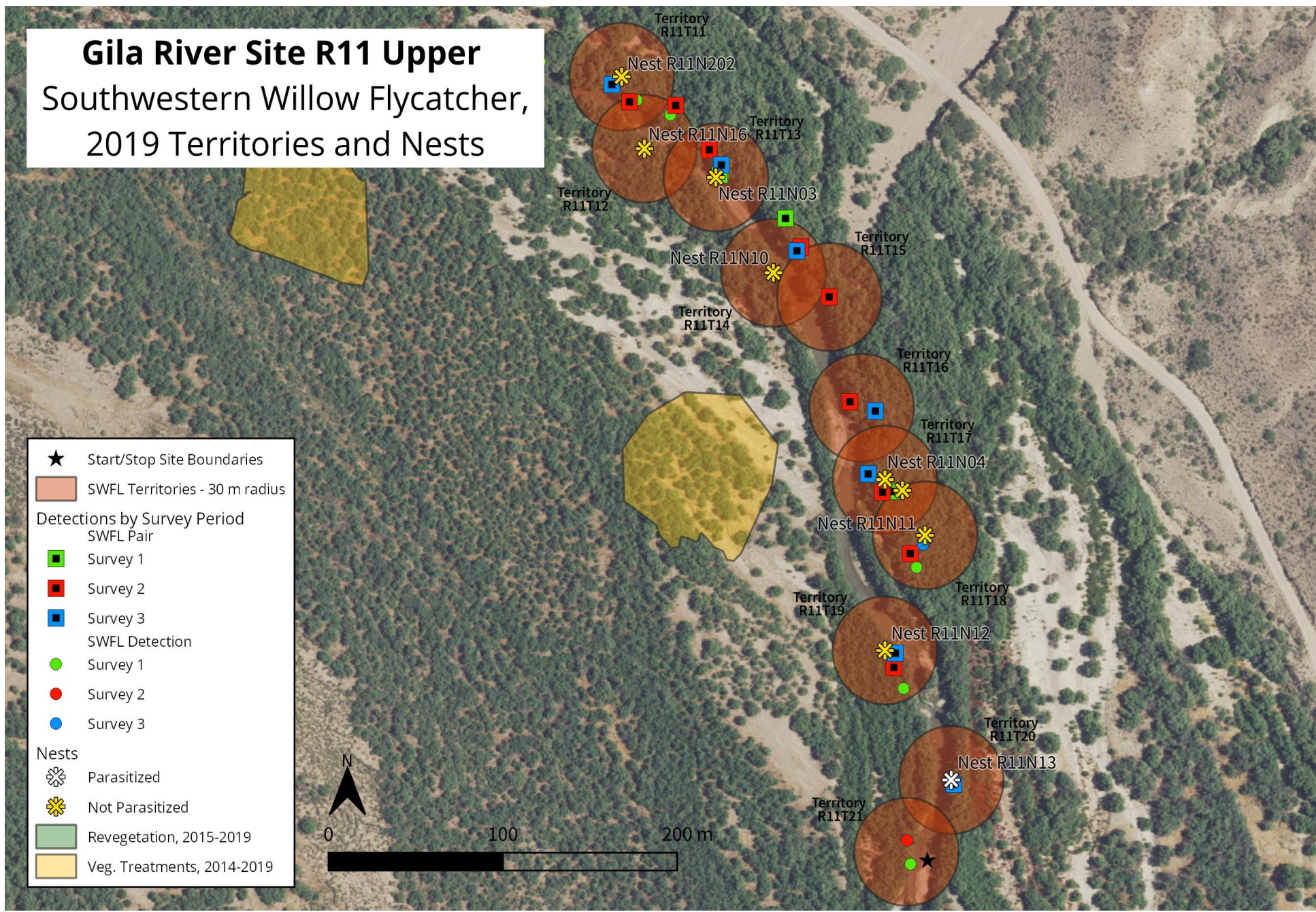
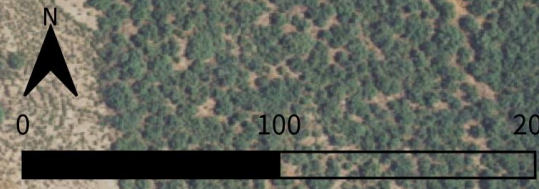
Gila River Site R11 Upper

Southwestern Willow Flycatcher, 2019 Territories and Nests

2019 Upper
(n = 11
Territories)

2019 Total
(n = 22
Territories)

- ★ Start/Stop Site Boundaries
- SWFL Territories - 30 m radius
- Detections by Survey Period**
- SWFL Pair
- Survey 1
- Survey 2
- Survey 3
- SWFL Detection
- Survey 1
- Survey 2
- Survey 3
- Nests**
- ✳ Parasitized
- ✳ Not Parasitized
- Revegetation, 2015-2019
- Veg. Treatments, 2014-2019

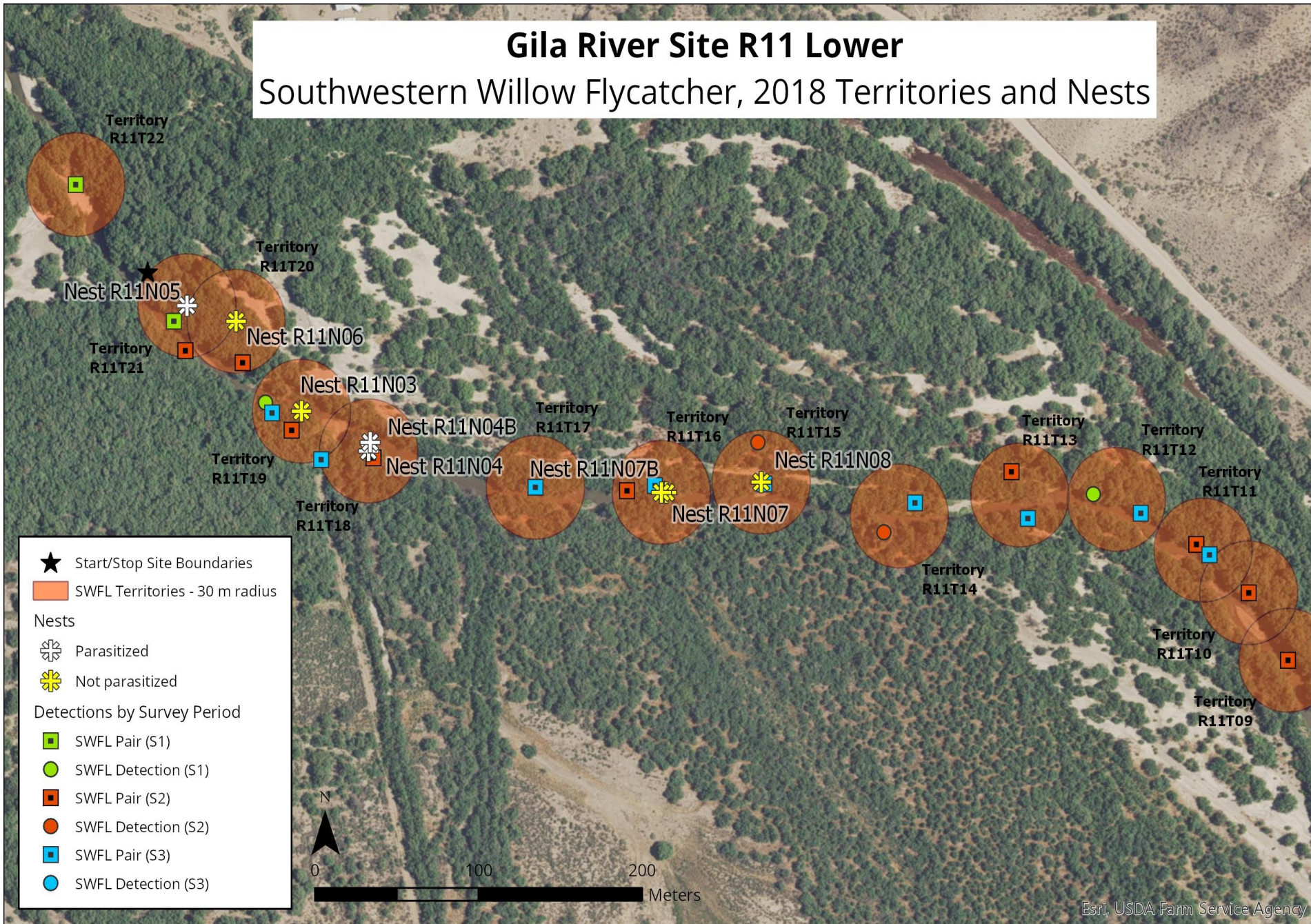


Gila River Site R11 Lower

Southwestern Willow Flycatcher, 2018 Territories and Nests

2018 Lower
(n = 13
Territories)

2018 Total
(n = 23
Territories)

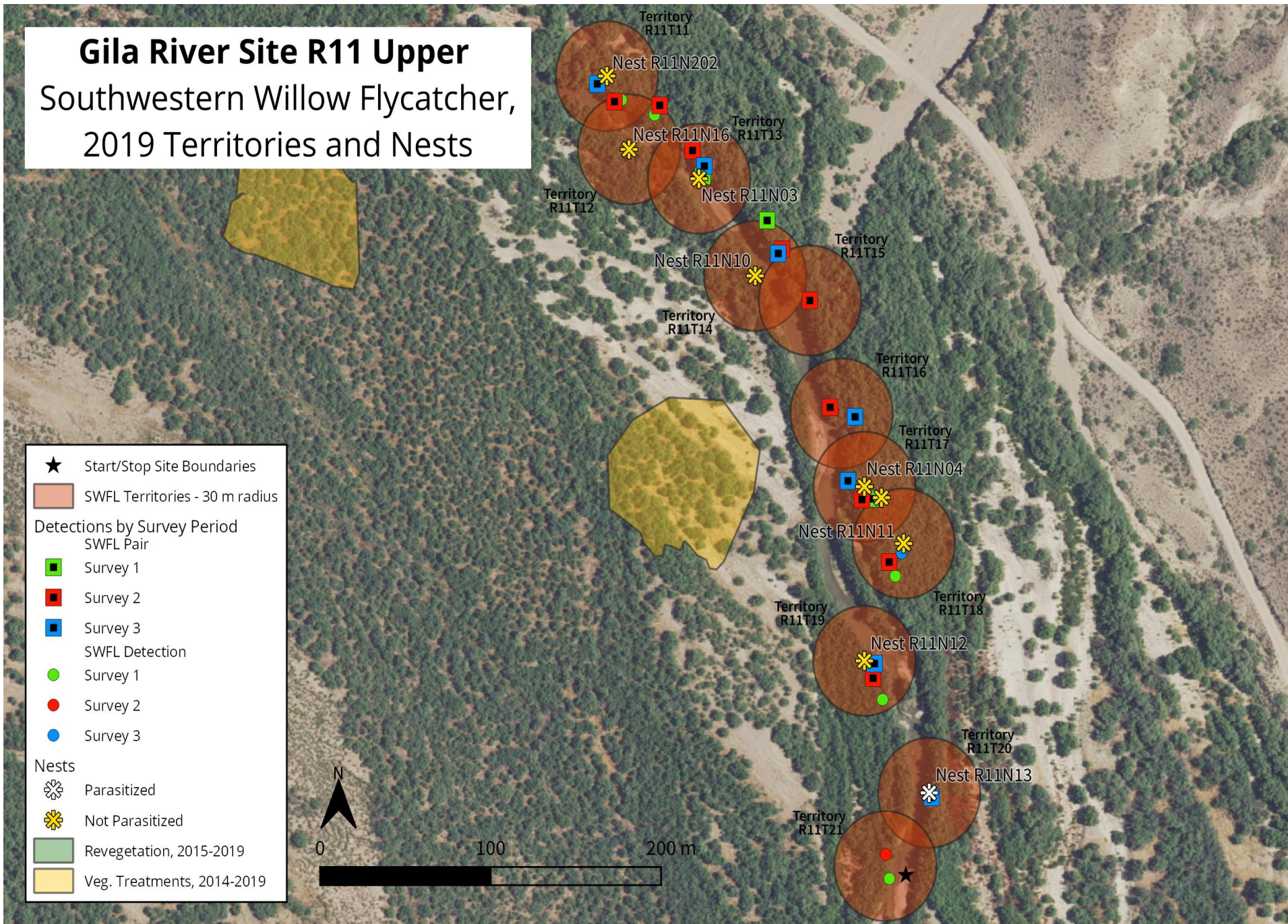
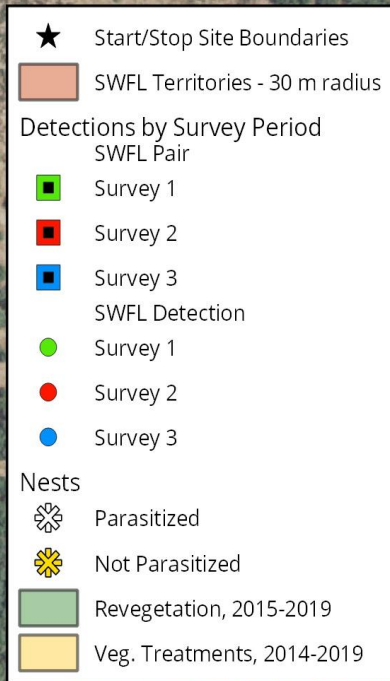


Gila River Site R11 Upper

Southwestern Willow Flycatcher, 2019 Territories and Nests

2019 Upper
(n = 11
Territories)

2019 Total
(n = 22
Territories)



April 2018 photo upstream (river right) of burned area along the upper Gila River, AZ at site R4.



April 2018 photo of tamarisk habitat south side (river right)
burned along the upper Gila River, AZ at site R4

