

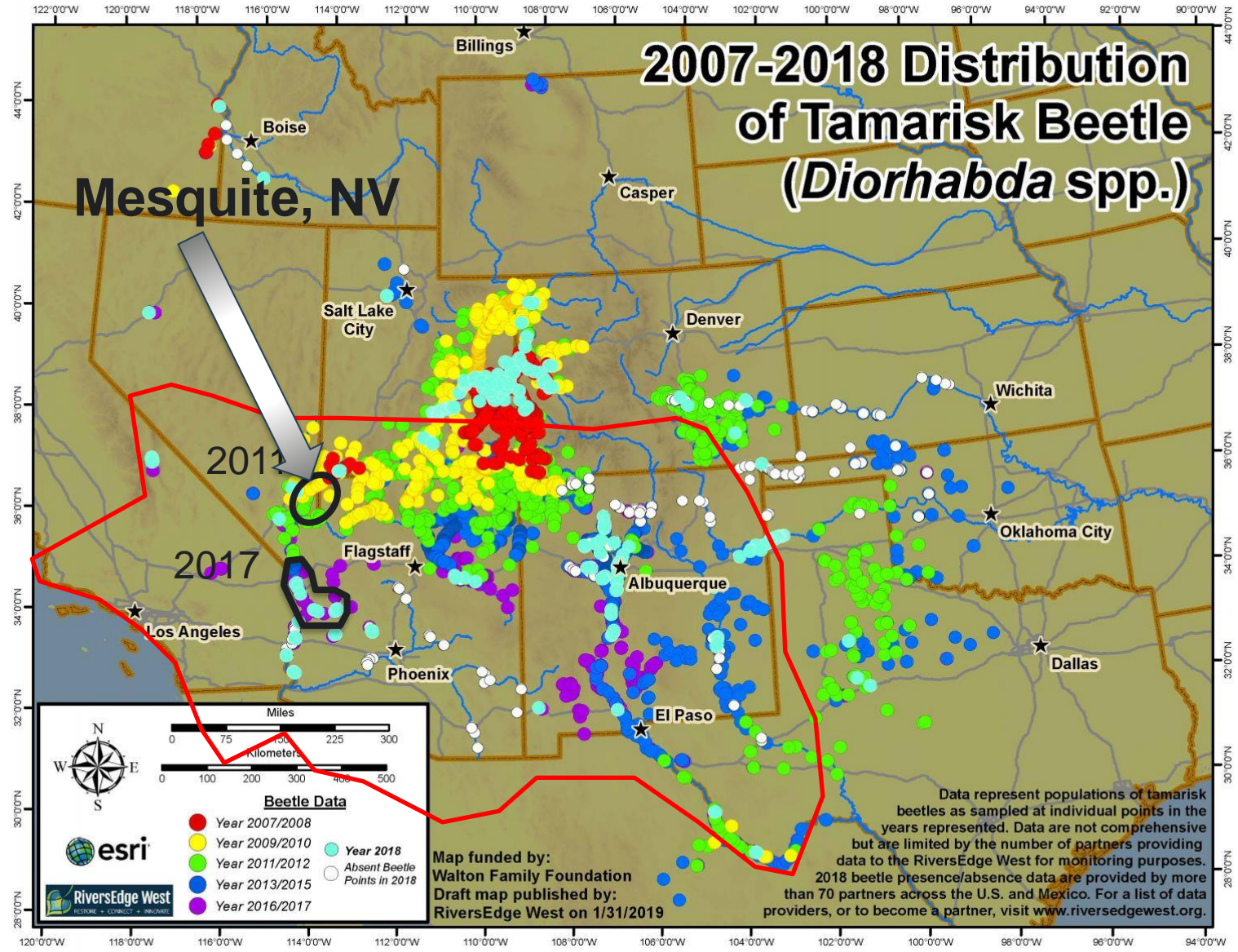


Animal and Plant Health Inspection Service
U.S. DEPARTMENT OF AGRICULTURE

SOUTHWESTERN WILLOW FLYCATCHER STATUS UPDATE—LOWER COLORADO

2007-2018 Distribution of Tamarisk Beetle (*Diorhabda* spp.)

Mesquite, NV



2011

2017

Beetle Data

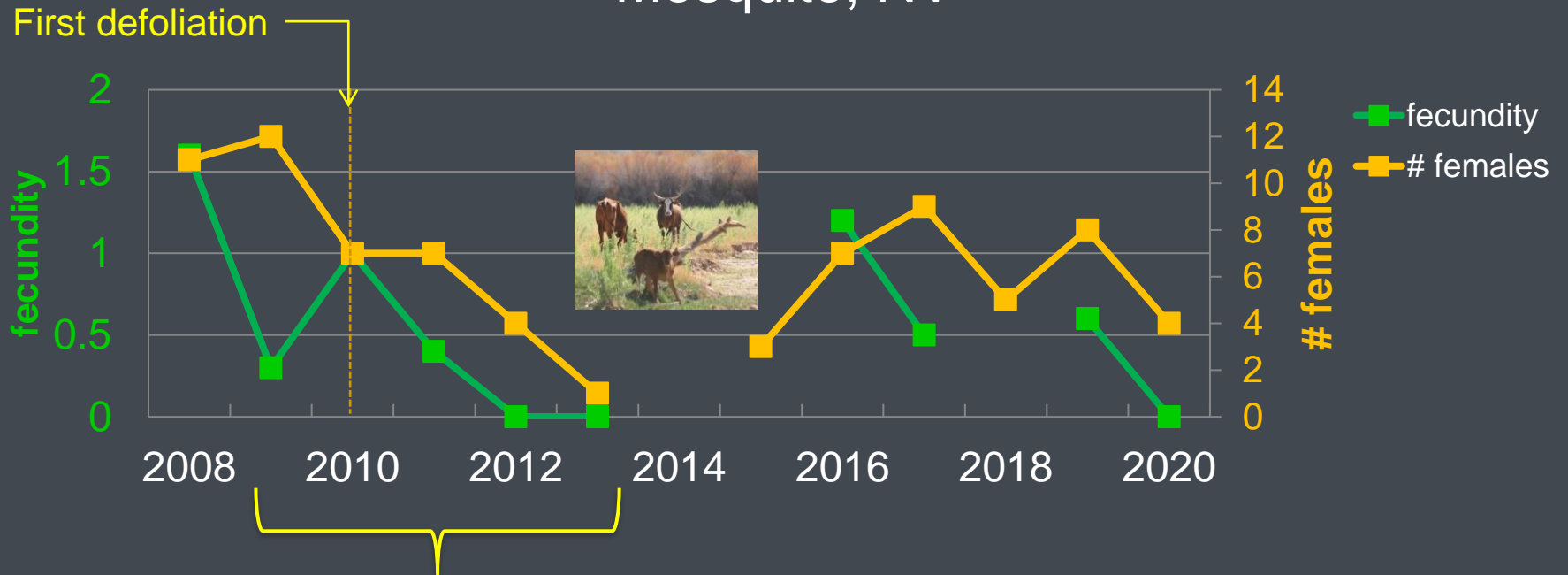
- Year 2007/2008
- Year 2009/2010
- Year 2011/2012
- Year 2013/2015
- Year 2016/2017
- Absent Beetle Points in 2018

esri
RiversEdge West

Map funded by:
Walton Family Foundation
Draft map published by:
RiversEdge West on 1/31/2019

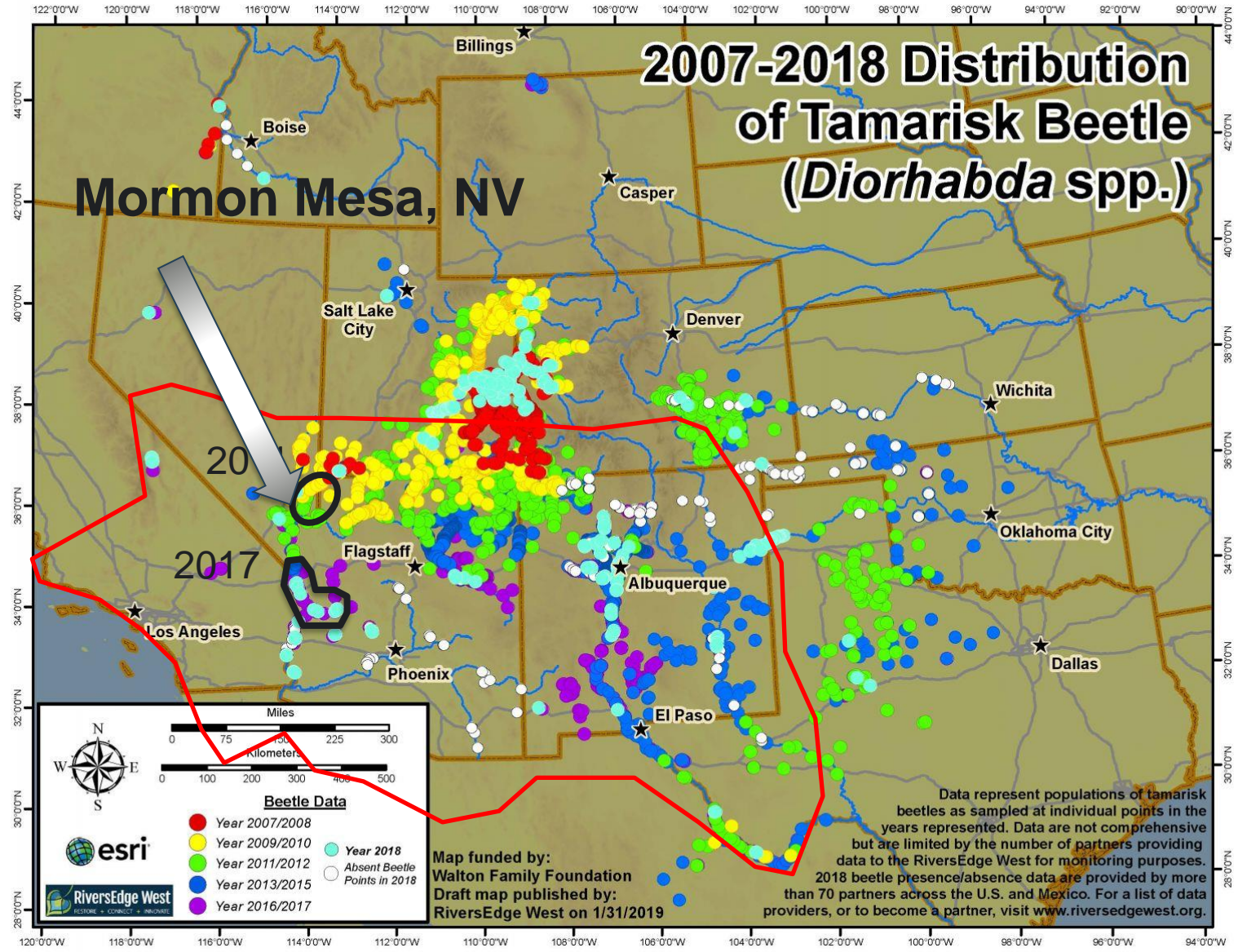
Data represent populations of tamarisk beetles as sampled at individual points in the years represented. Data are not comprehensive but are limited by the number of partners providing data to the RiversEdge West for monitoring purposes. 2018 beetle presence/absence data are provided by more than 70 partners across the U.S. and Mexico. For a list of data providers, or to become a partner, visit www.riversedgewest.org.

Mesquite, NV



2007-2018 Distribution of Tamarisk Beetle (*Diorhabda* spp.)

Mormon Mesa, NV



2017

Beetle Data

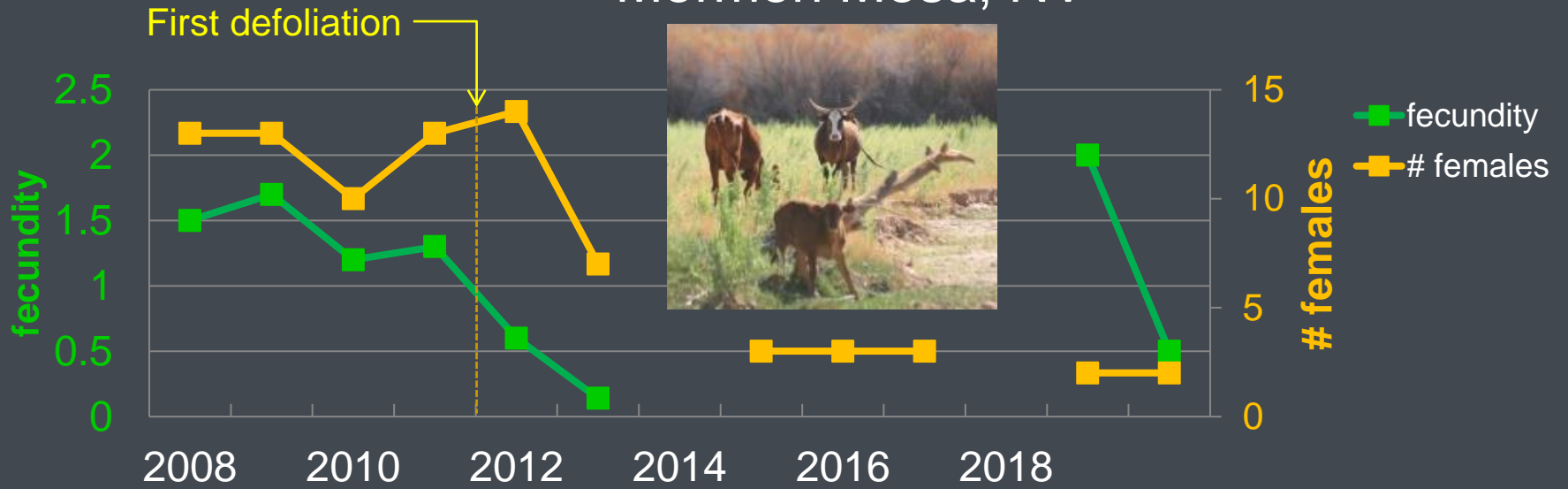
- Year 2007/2008
- Year 2009/2010
- Year 2011/2012
- Year 2013/2015
- Year 2016/2017
- Year 2018
- Absent Beetle Points in 2018

esri
RiversEdge West

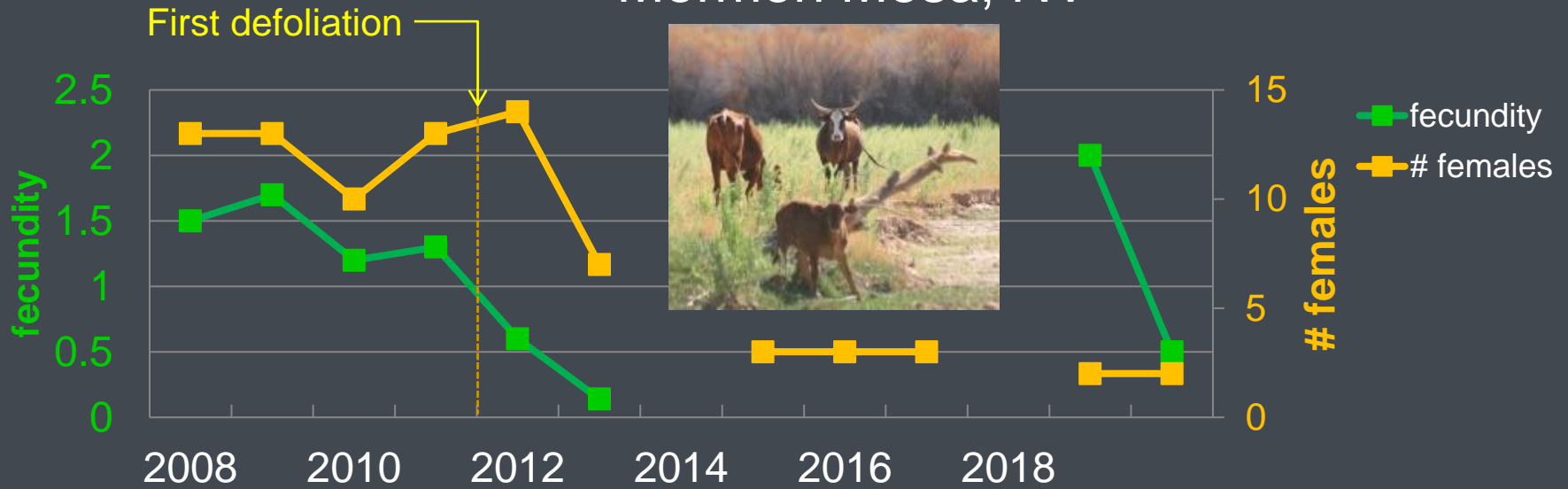
Map funded by:
Walton Family Foundation
Draft map published by:
RiversEdge West on 1/31/2019

Data represent populations of tamarisk beetles as sampled at individual points in the years represented. Data are not comprehensive but are limited by the number of partners providing data to the RiversEdge West for monitoring purposes. 2018 beetle presence/absence data are provided by more than 70 partners across the U.S. and Mexico. For a list of data providers, or to become a partner, visit www.riversedgewest.org.

Mormon Mesa, NV



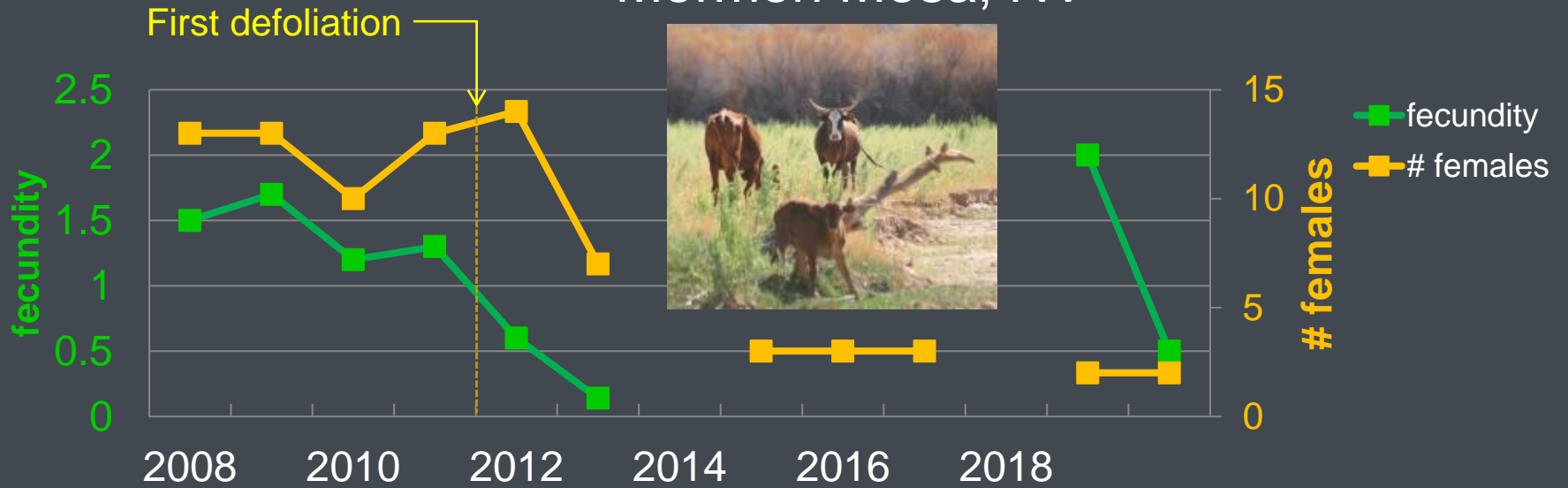
Mormon Mesa, NV



Abandonment
Nest desertion during laying

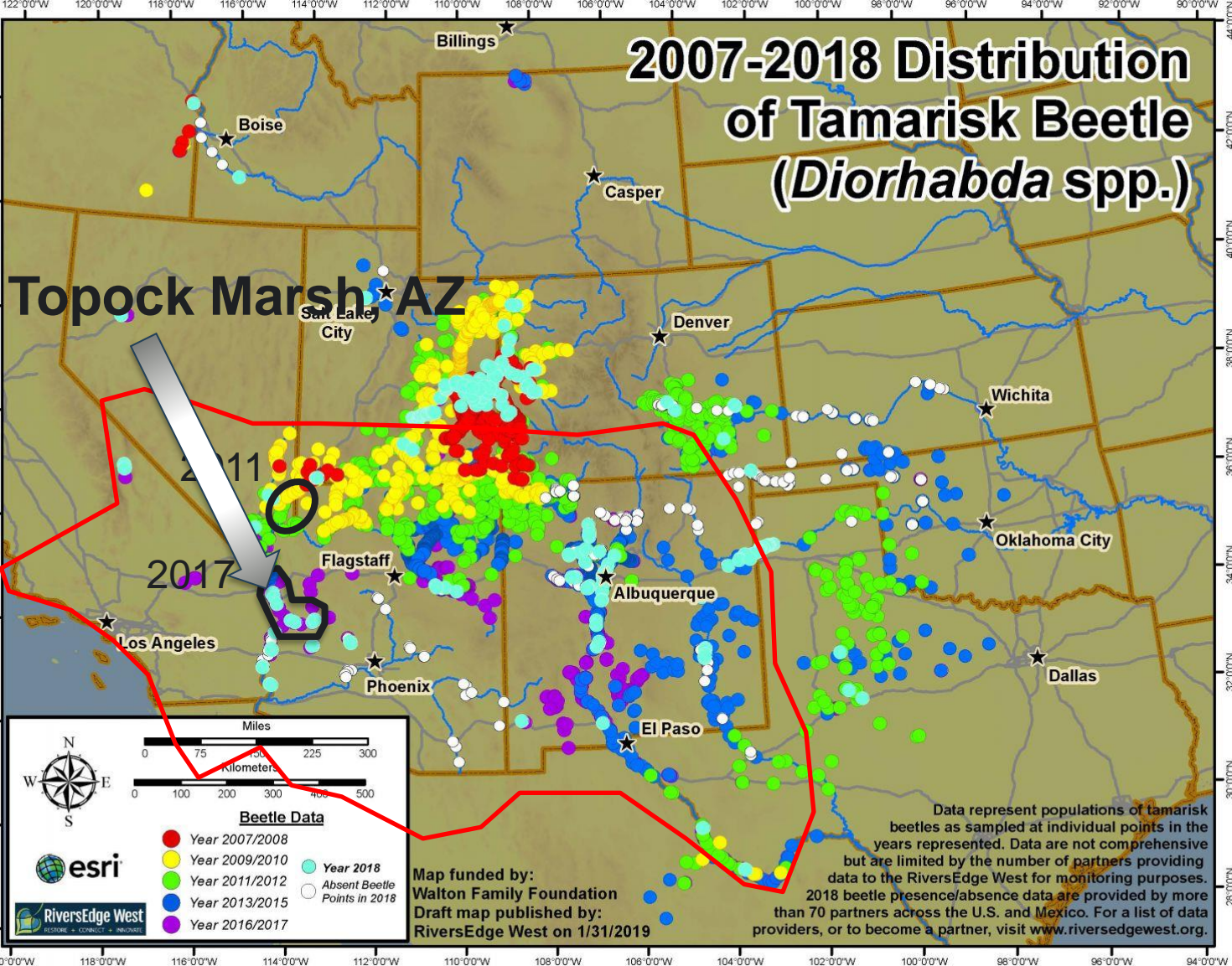
Fewer renests
Parasitism

Mormon Mesa, NV



2007-2018 Distribution of Tamarisk Beetle (*Diorhabda* spp.)

Topock Marsh AZ



Beetle Data

- Year 2007/2008
- Year 2009/2010
- Year 2011/2012
- Year 2013/2015
- Year 2016/2017
- Absent Beetle Points in 2018

esri
RiversEdge West

Map funded by:
Walton Family Foundation
Draft map published by:
RiversEdge West on 1/31/2019

Data represent populations of tamarisk beetles as sampled at individual points in the years represented. Data are not comprehensive but are limited by the number of partners providing data to the RiversEdge West for monitoring purposes. 2018 beetle presence/absence data are provided by more than 70 partners across the U.S. and Mexico. For a list of data providers, or to become a partner, visit www.riversedgewest.org.

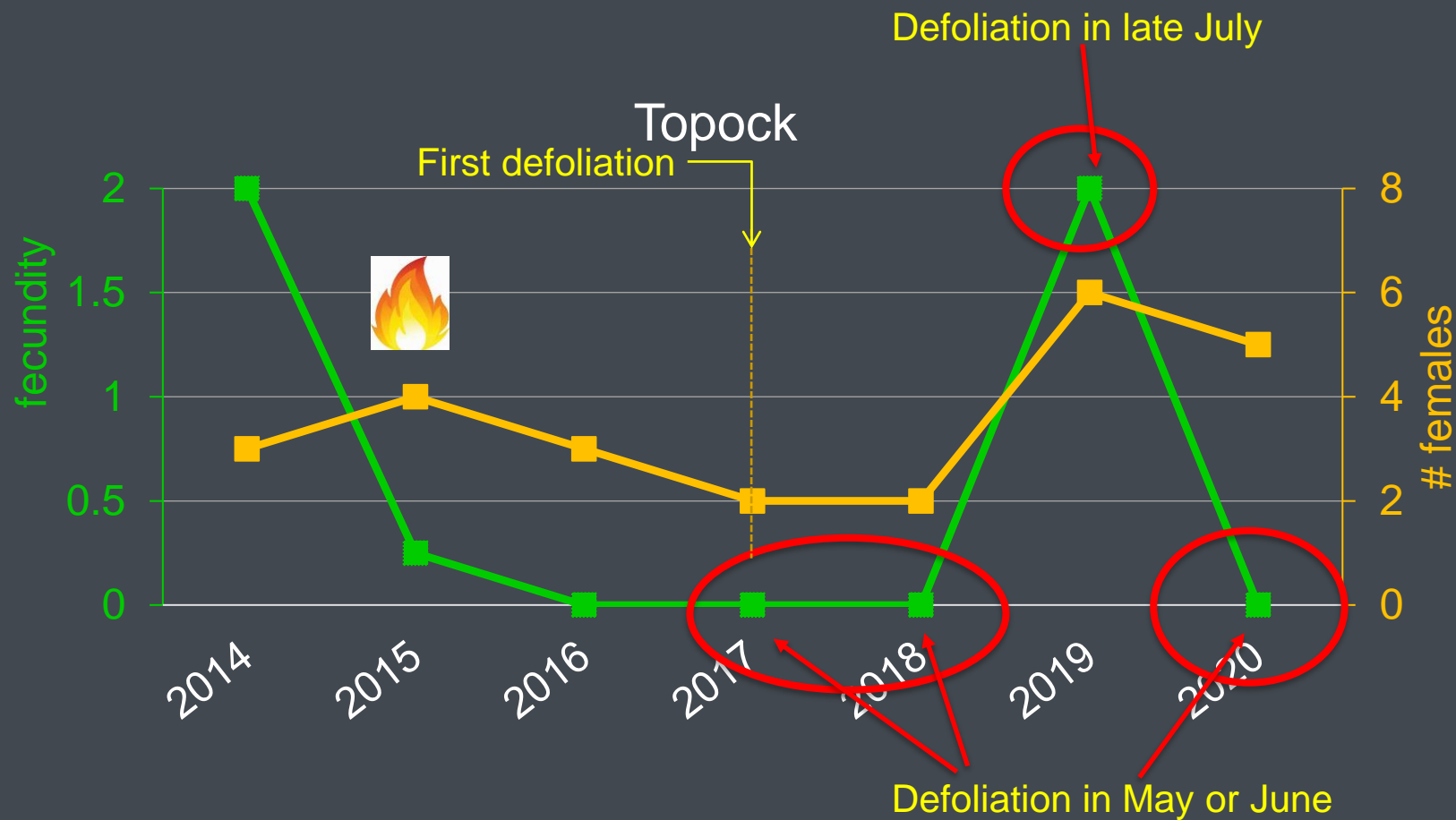
Topock Marsh, AZ



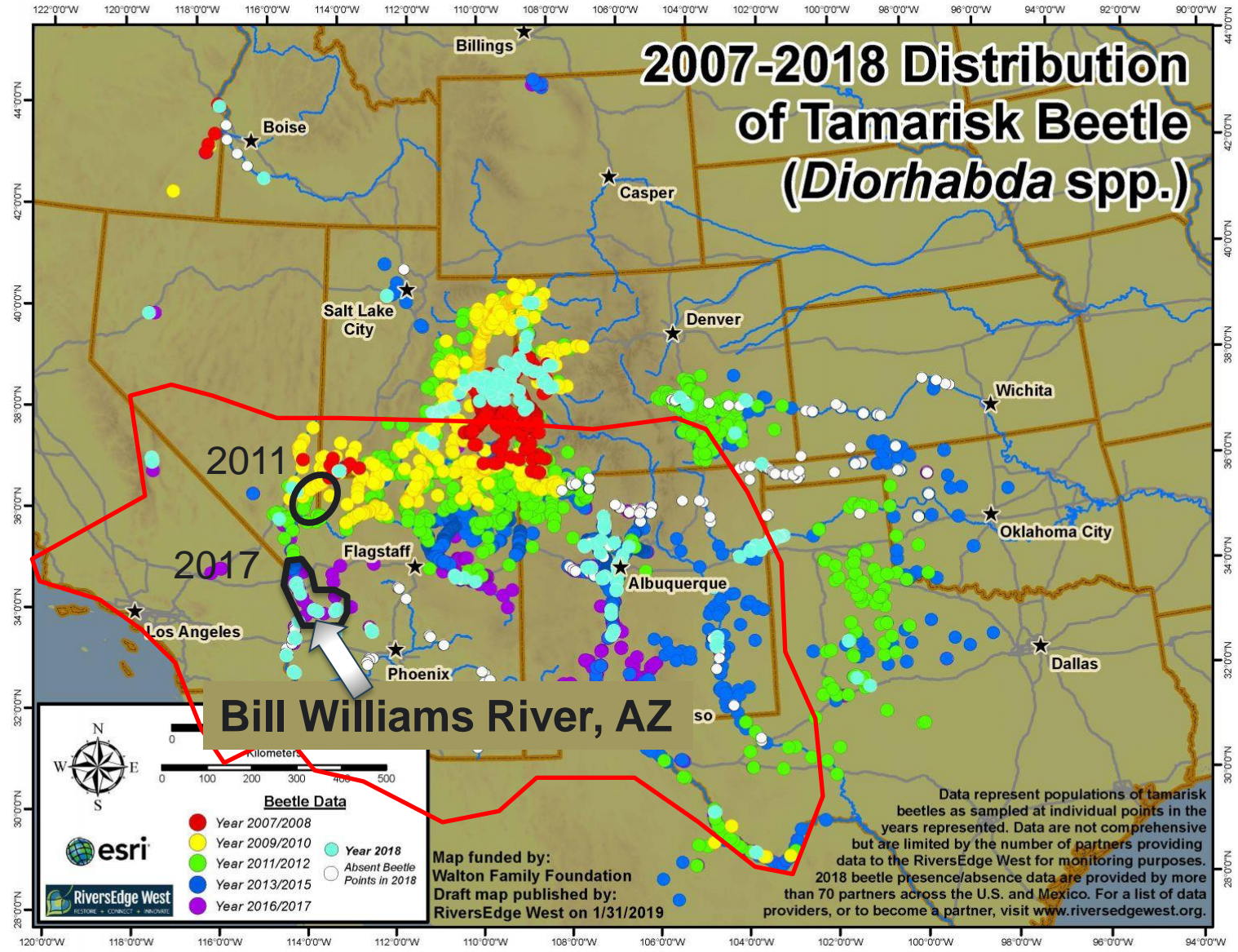
Lower marsh levels
Huge fire
Beetles



June 2017



2007-2018 Distribution of Tamarisk Beetle (*Diorhabda* spp.)



Bill Williams River, AZ

2011

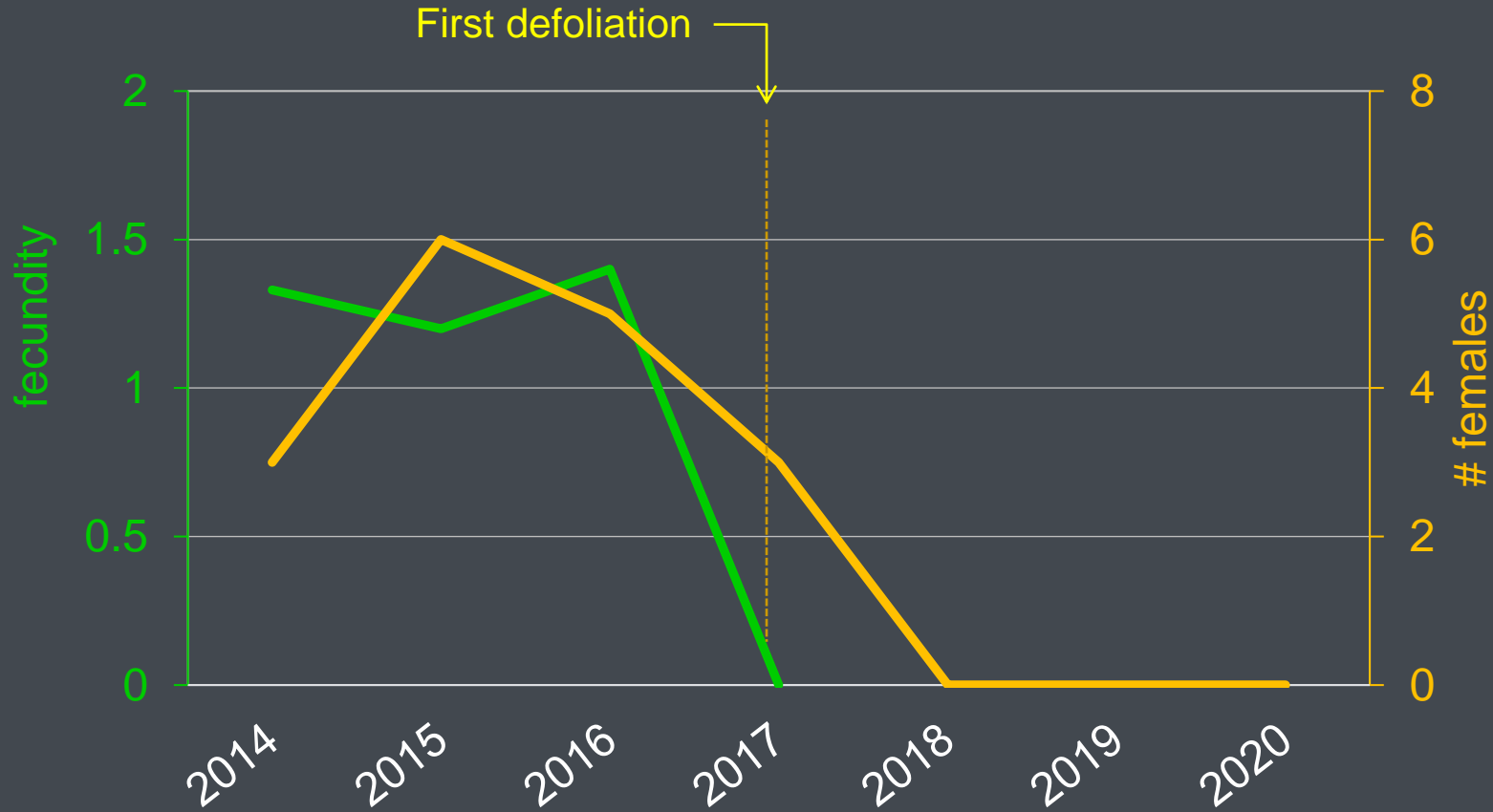
2017

- Beetle Data**
- Year 2007/2008
 - Year 2009/2010
 - Year 2011/2012
 - Year 2013/2015
 - Year 2016/2017
 - Absent Beetle Points in 2018

Map funded by:
Walton Family Foundation
Draft map published by:
RiversEdge West on 1/31/2019

Data represent populations of tamarisk beetles as sampled at individual points in the years represented. Data are not comprehensive but are limited by the number of partners providing data to the RiversEdge West for monitoring purposes. 2018 beetle presence/absence data are provided by more than 70 partners across the U.S. and Mexico. For a list of data providers, or to become a partner, visit www.riversedgewest.org.

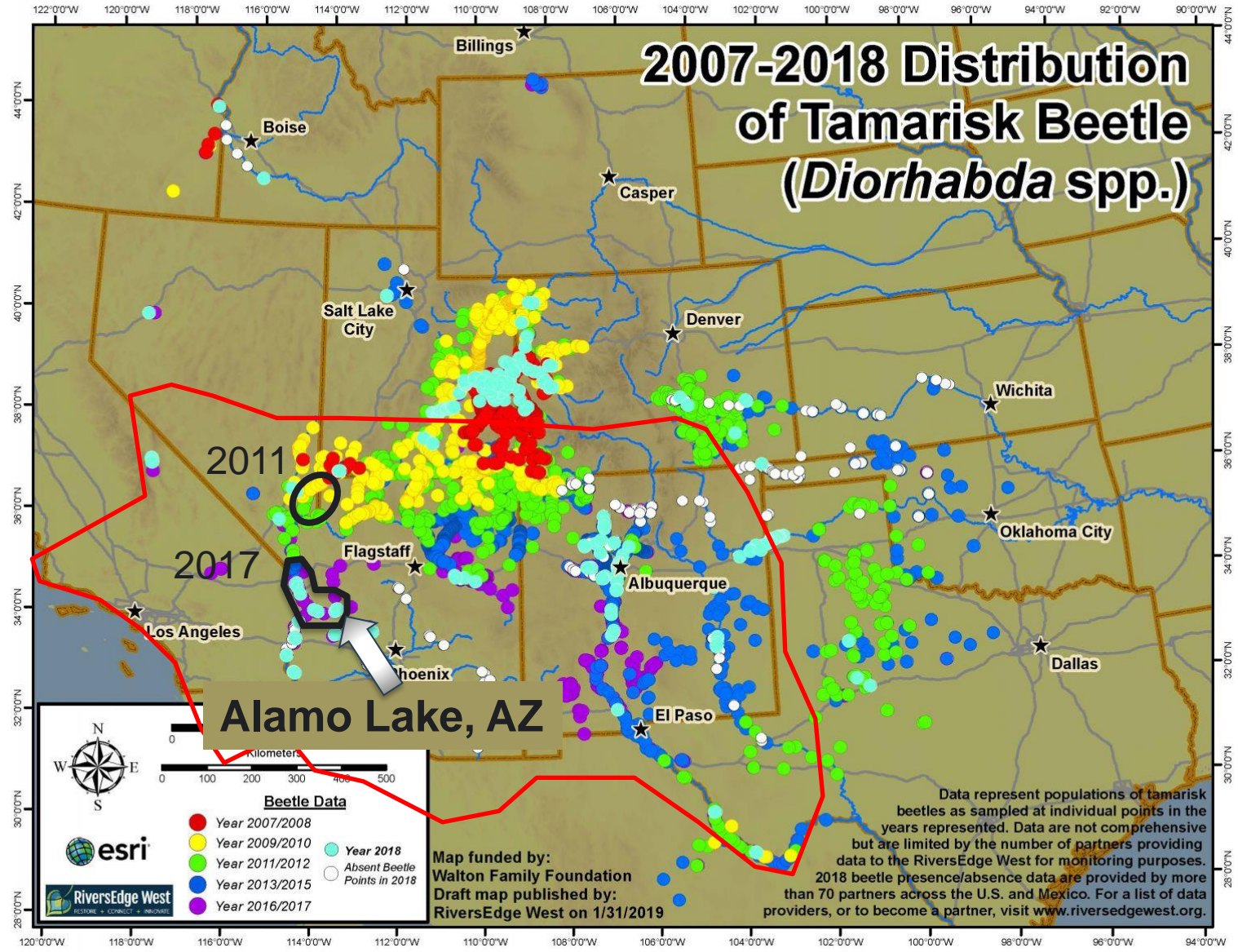
- Bill Williams – mix of tamarisk and coyote willow



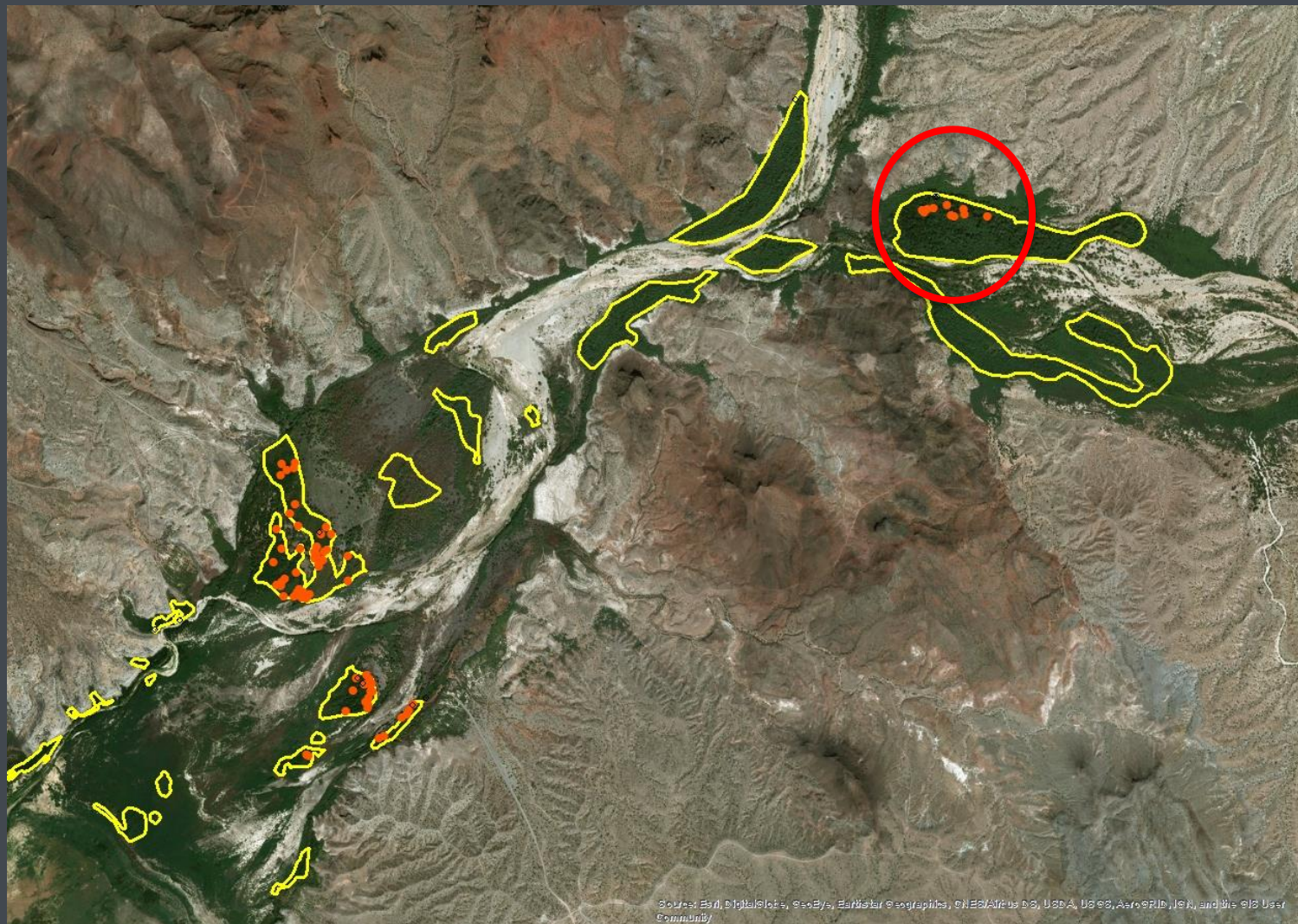
Bill Williams



2007-2018 Distribution of Tamarisk Beetle (*Diorhabda* spp.)



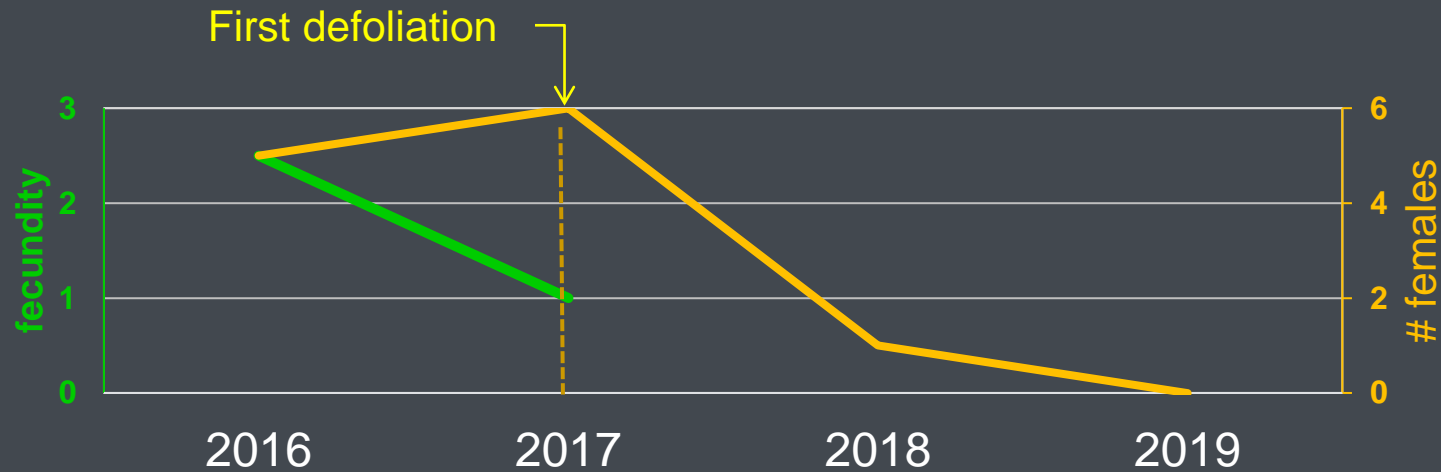
- Alamo Lake



- Alamo Lake



- Alamo Lake



2017 – the only successful nests were early ones; incubation and part of nestling period completed before defoliation

2018 – fecundity unknown (no nest monitoring)

2019 – no flycatchers detected; tamarisk mostly dead

Summary

Where flycatchers nest in tamarisk:



+



≠



Unless

There is no substantial tamarisk mortality

AND

Defoliation does not occur until late in breeding season

Questions?

