

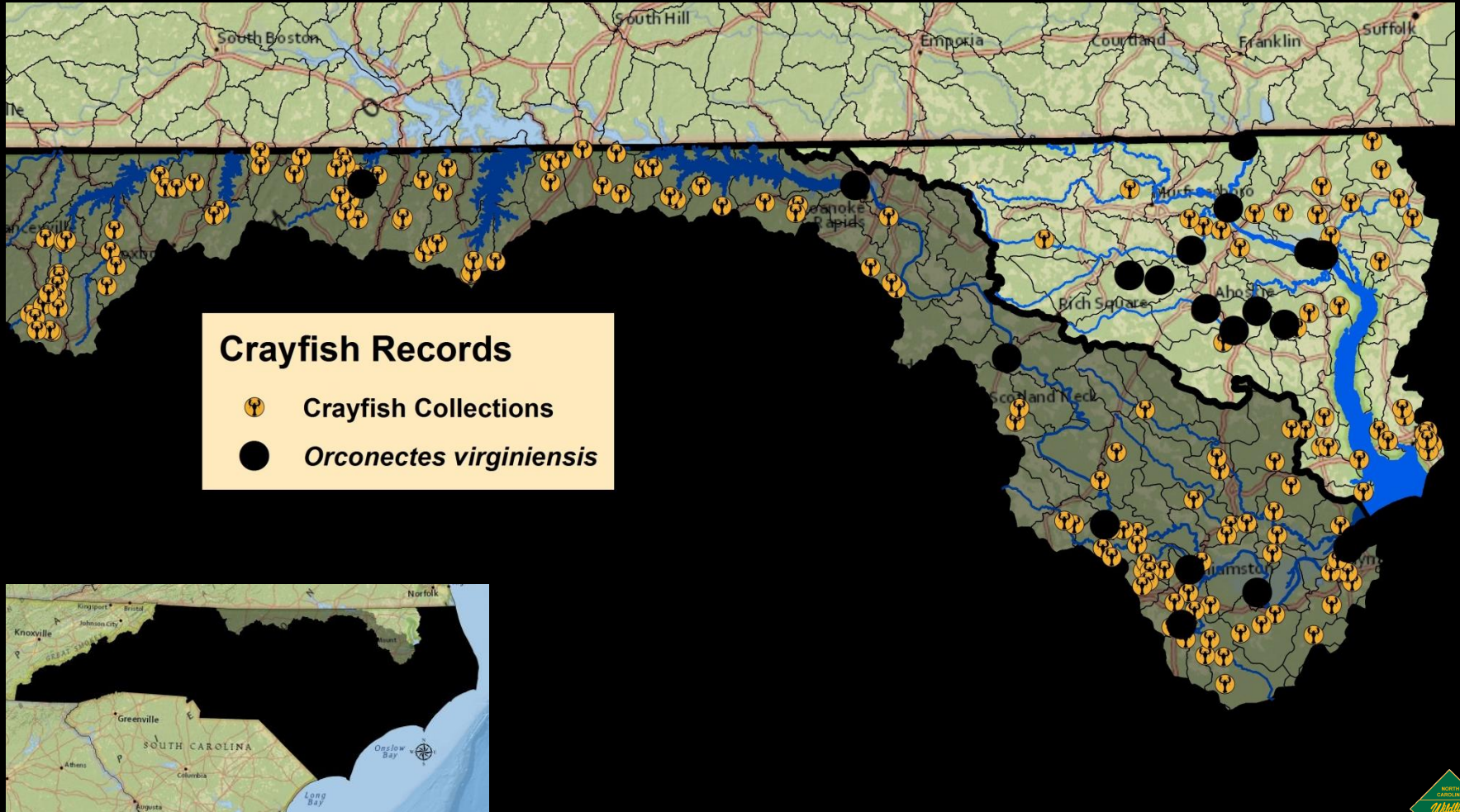
Distribution of *Orconectes virginiensis* (Chowanoke Crayfish) in the Chowan and Roanoke River Basins of North Carolina



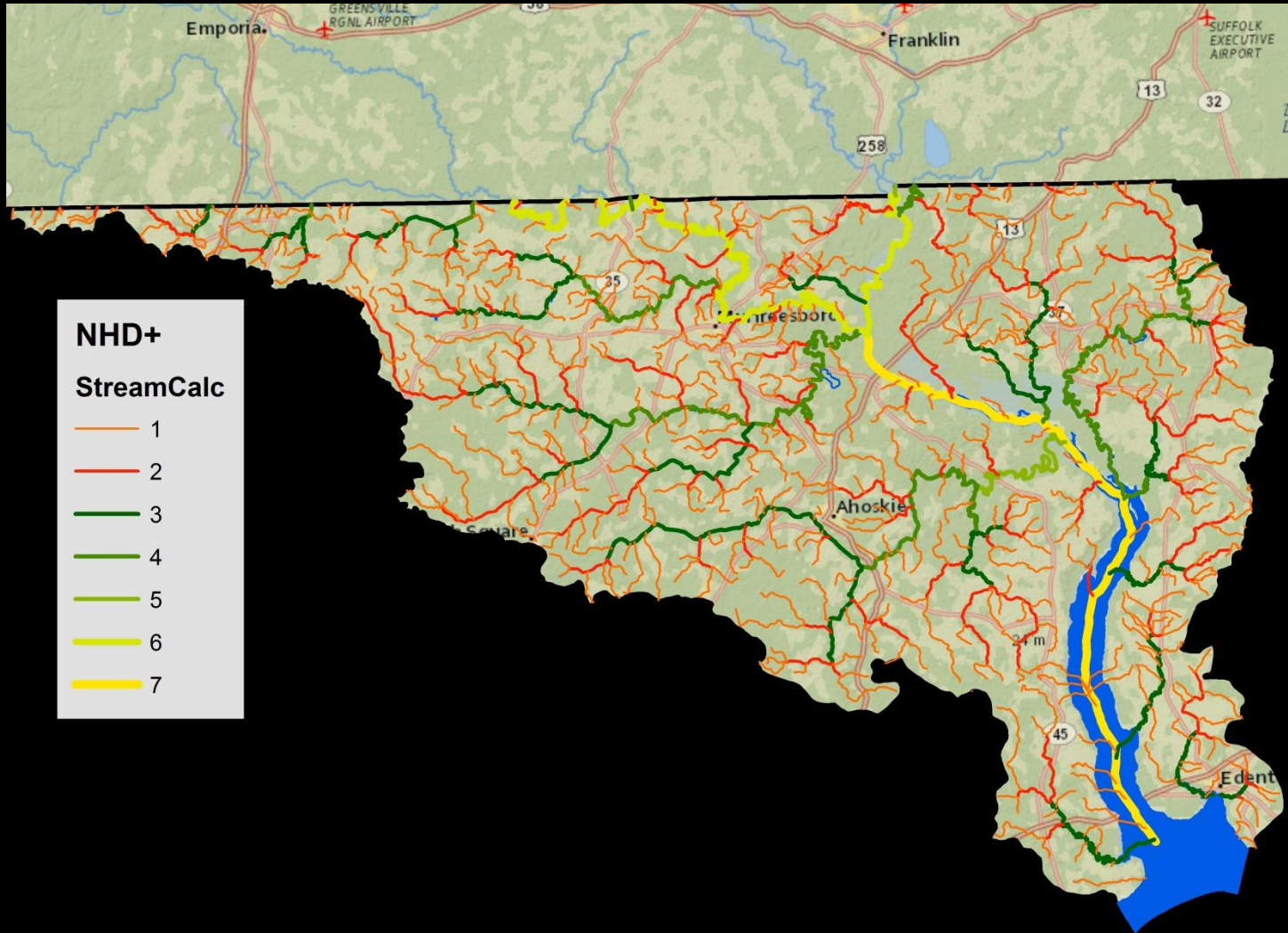
Tyler R. Black* and Robert B. Nichols
Eastern Region Aquatic Diversity
NC Wildlife Resources Commission



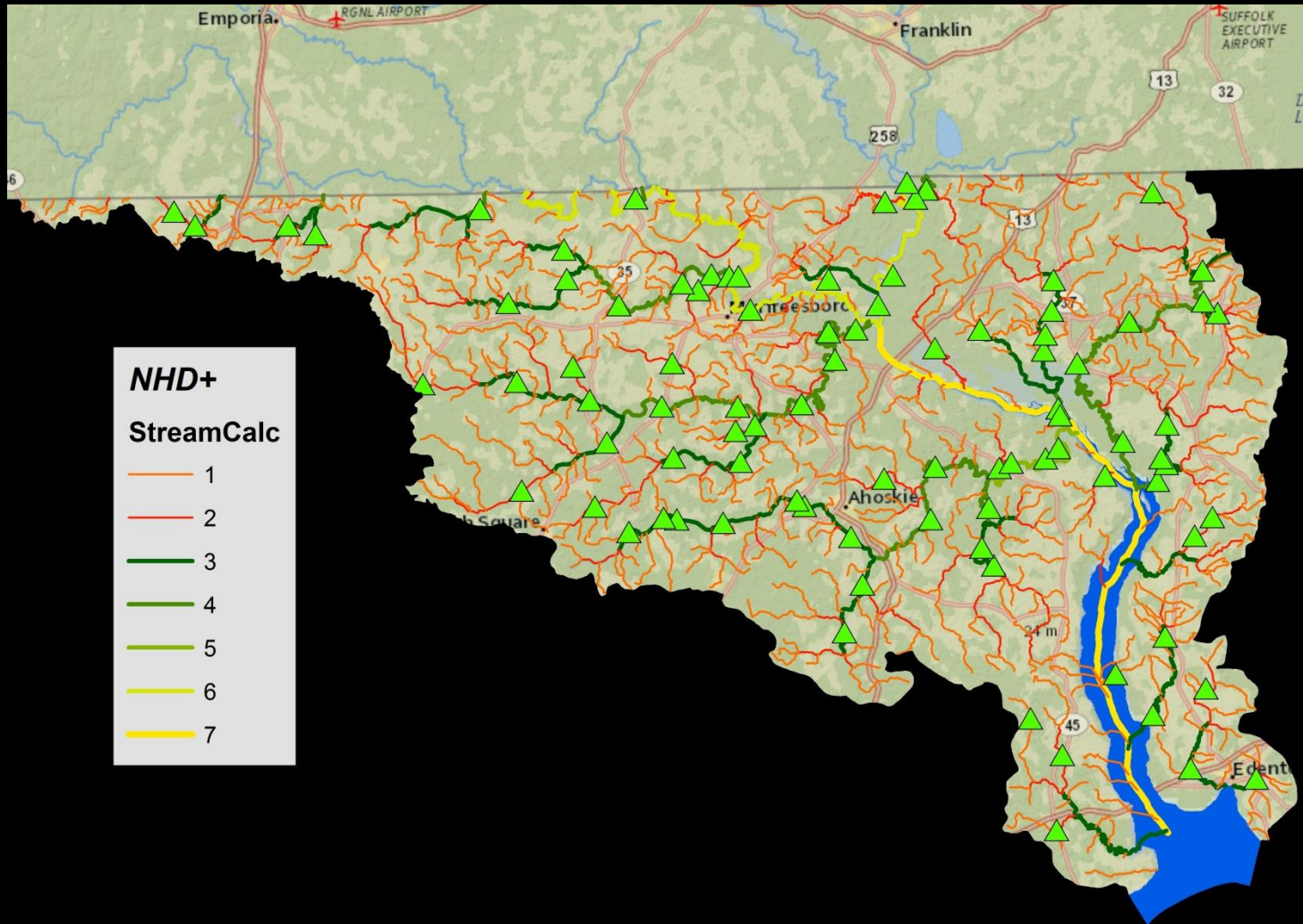
Crayfish Collections



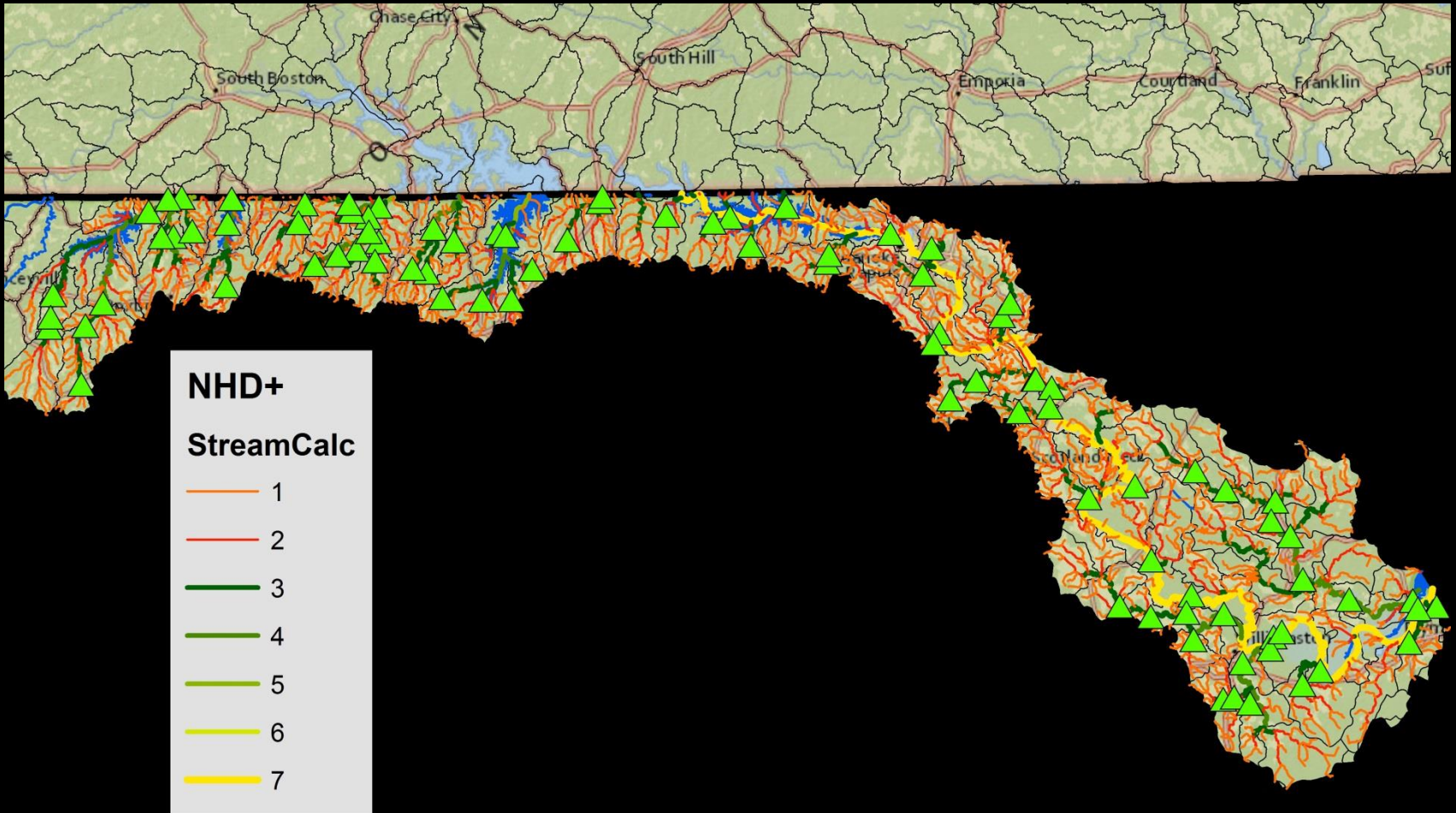
National Hydrography Dataset Plus



Chowan River Basin

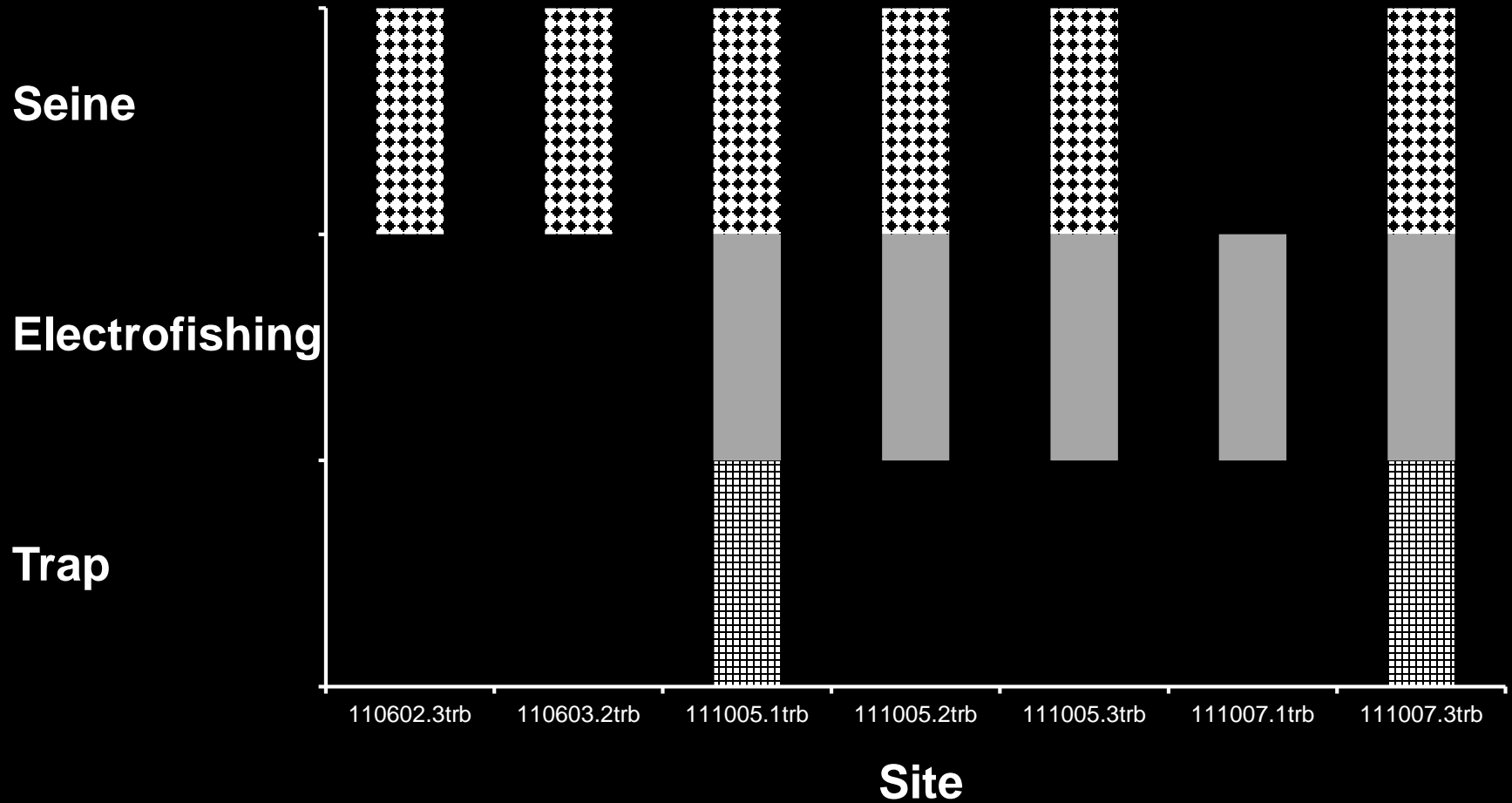


Roanoke River Basin





Gear Comparison



Results



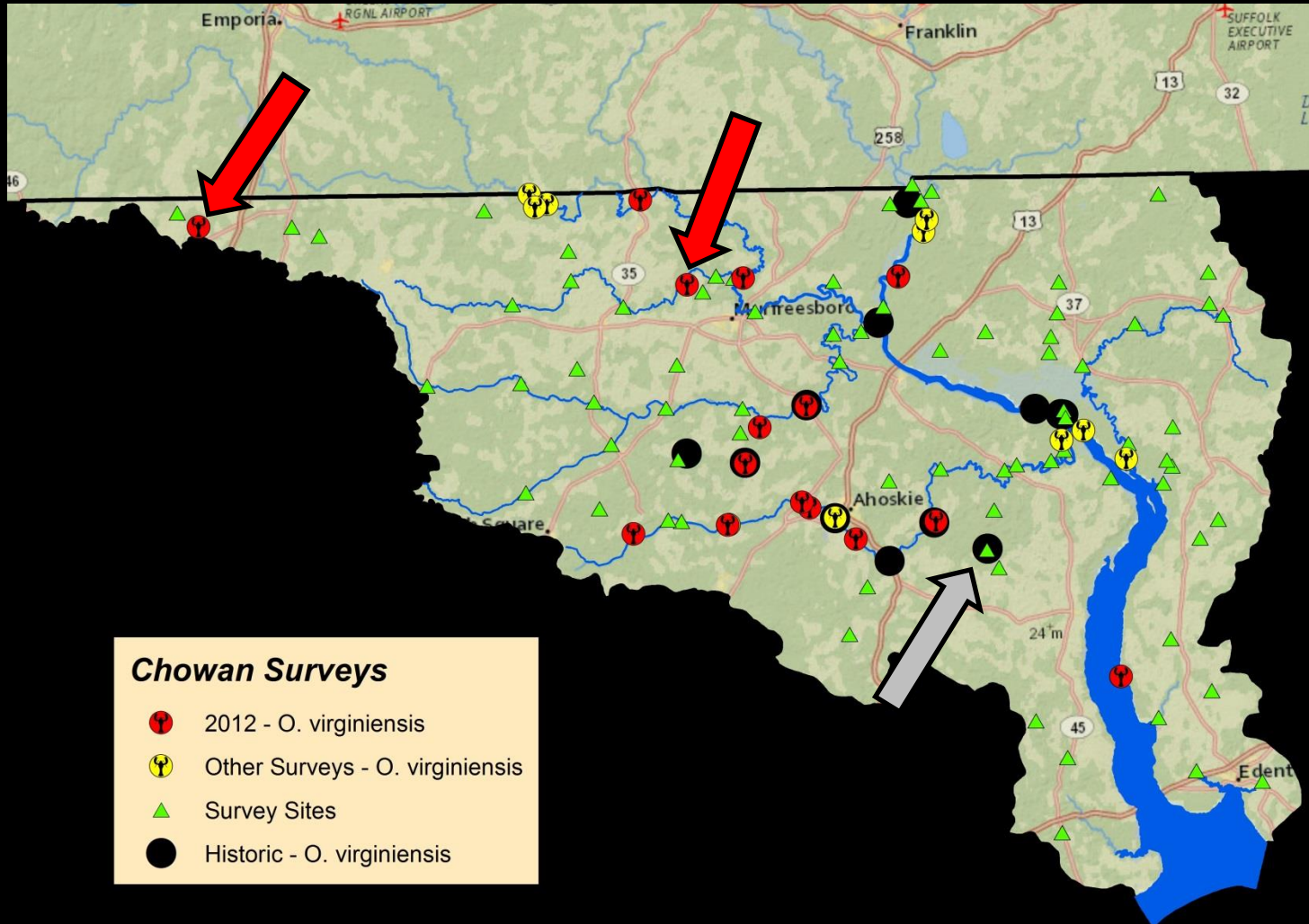
➤ 8 species
(2,966 crayfish)

CHO

ROA

■ <i>Cambarus davidi</i>		X
■ <i>Cambarus diogenes</i>	X*	X*
■ <i>Cambarus</i> species C.	X*	X*
■ <i>Fallicambarus fodiens</i>	X	X*
■ <i>Orconectes virginienensis</i>	X	X
■ <i>Orconectes virilis</i>		X*
■ <i>Procambarus acutus</i>	X*	X*
■ <i>Procambarus clarkii</i>	X*	X

Chowan River Basin

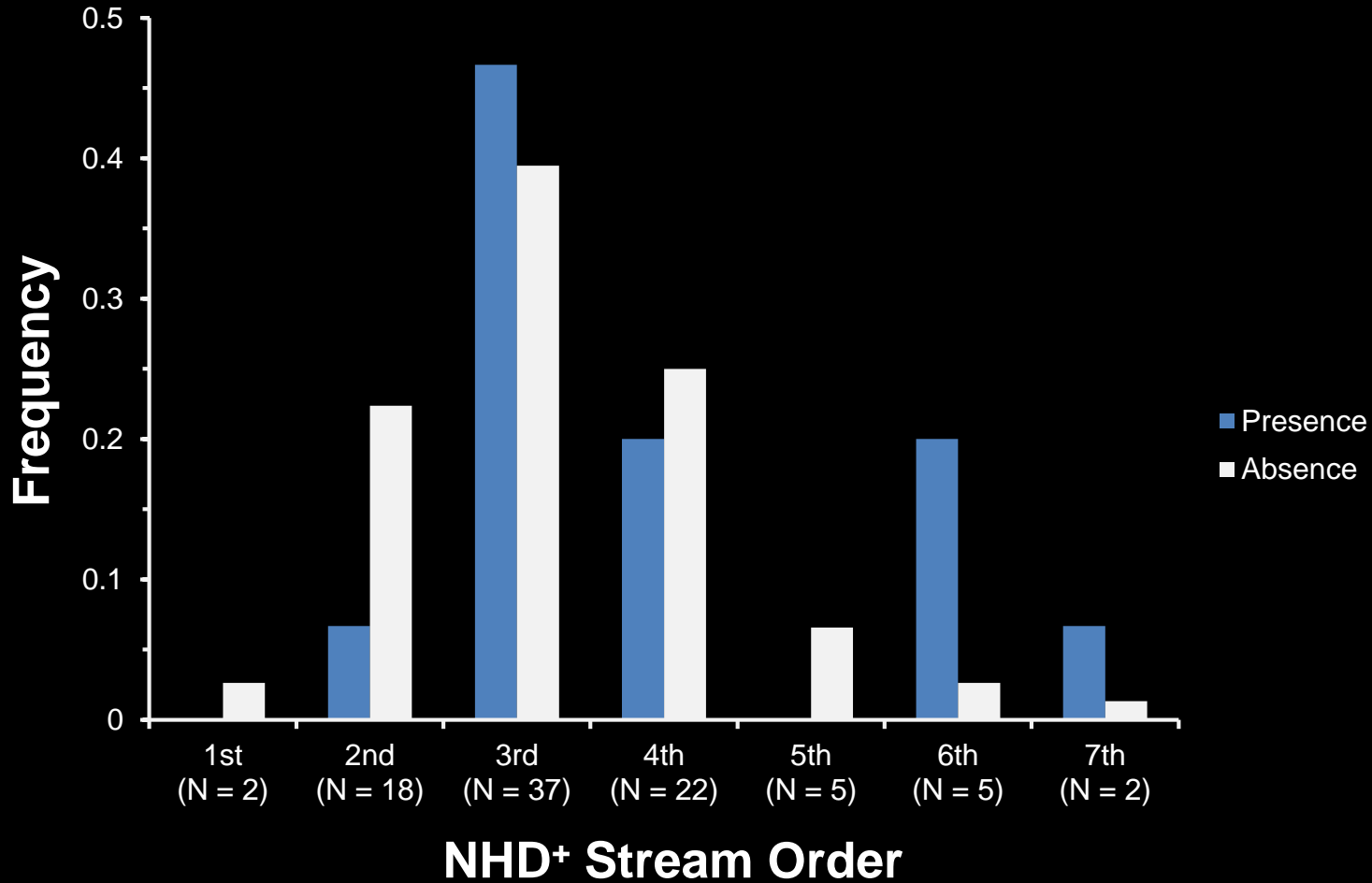


Results

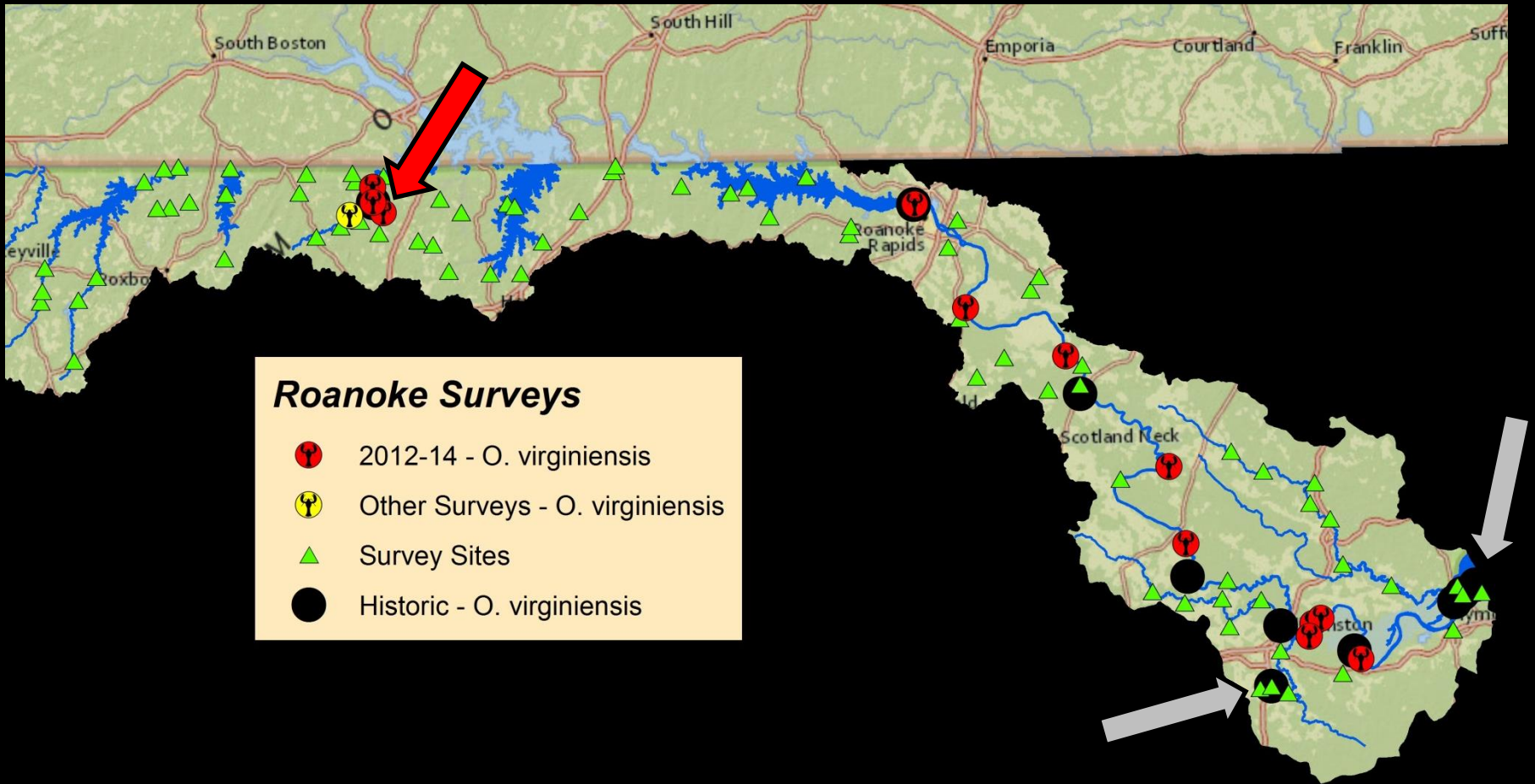
➤ Chowan River Basin

- Crayfish at 66 of 91 sites (73%)
- *O. virginiensis* at 15 of 91 sites (16%)
- *O. virginiensis* in 7 of 45 waterways (15%)
- Concentrated in six areas:
 - Ahoskie Creek / Wiccacon River
 - **Beaverpond Creek**
 - Chowan River (>25 rkm)
 - Potecasi and Cutawhiskie creeks
 - **Kirbys Creek**
 - Meherrin River (>70 rkm)

Chowan



Roanoke River Basin

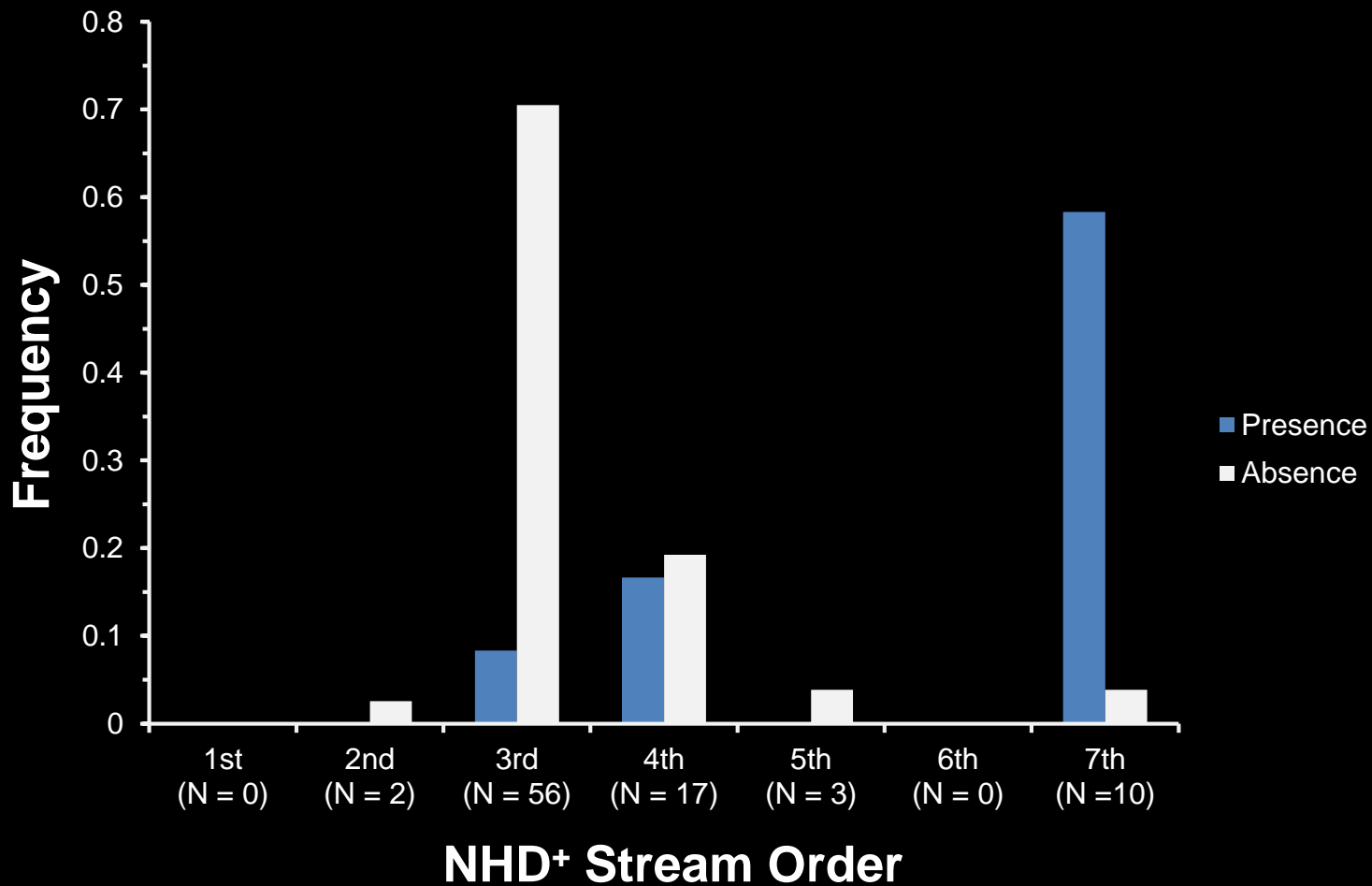


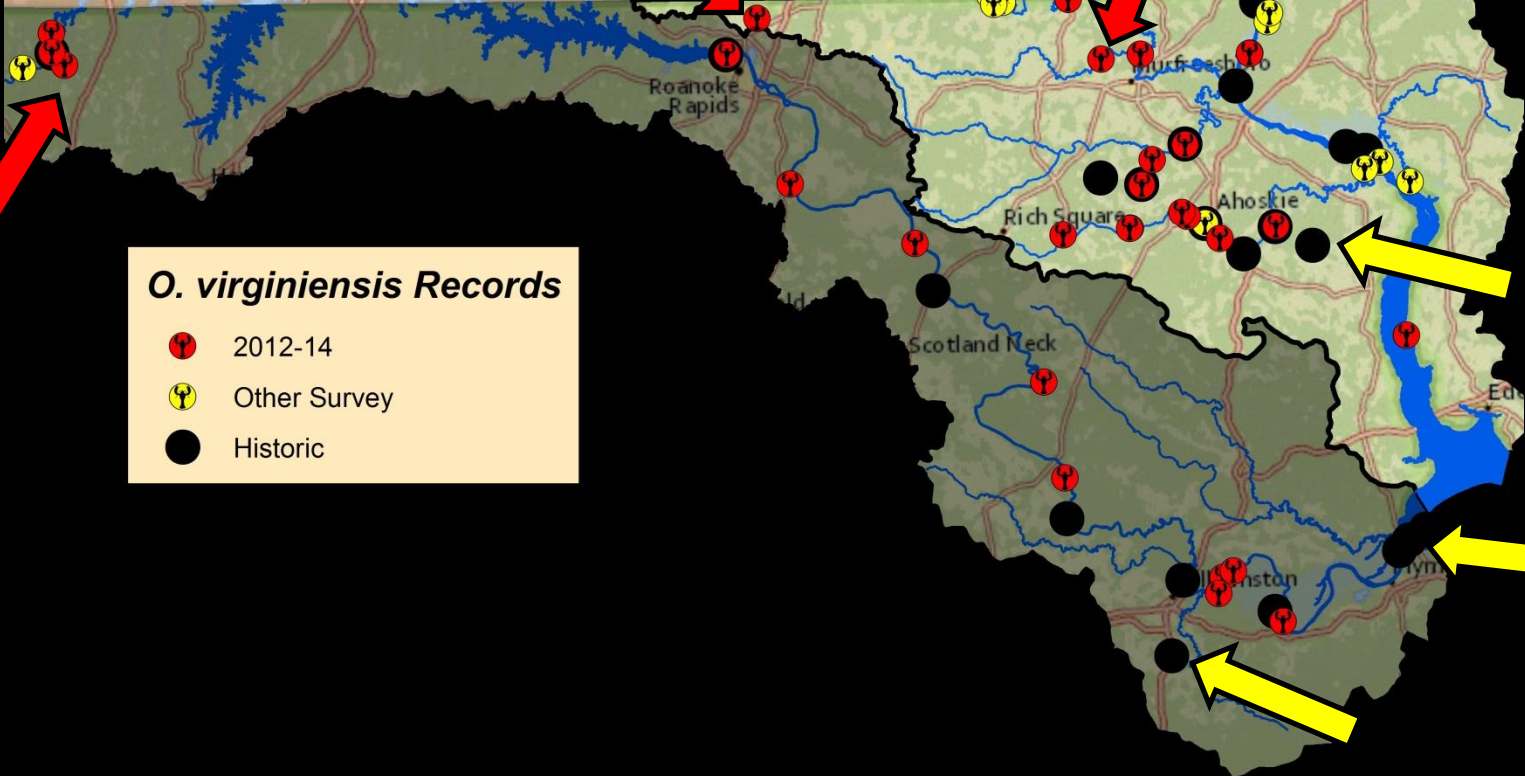
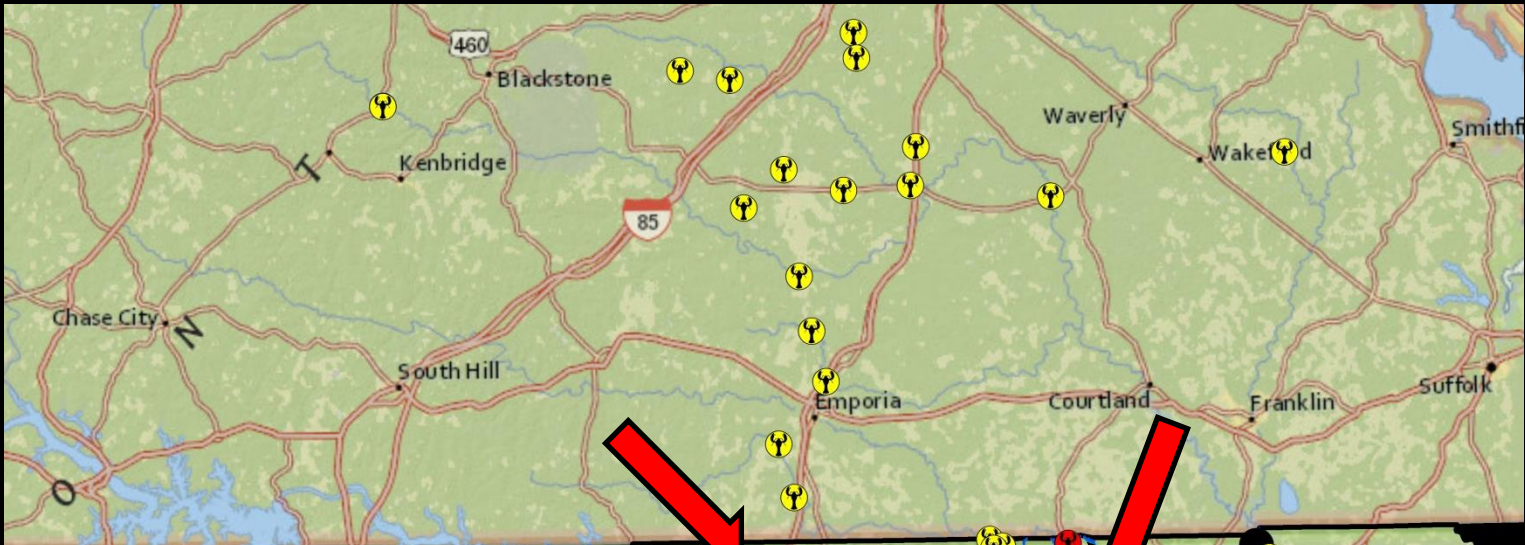
Results

➤ Roanoke River Basin

- Crayfish at 81 of 91 sites (90%)
- *O. virginianus* at 12 of 90 sites (13%)
- *O. virginianus* in 5 of 52 waterways (10%)
- Concentrated in two areas:
 - Roanoke River
 - Grassy/Little Grassy creeks

Roanoke



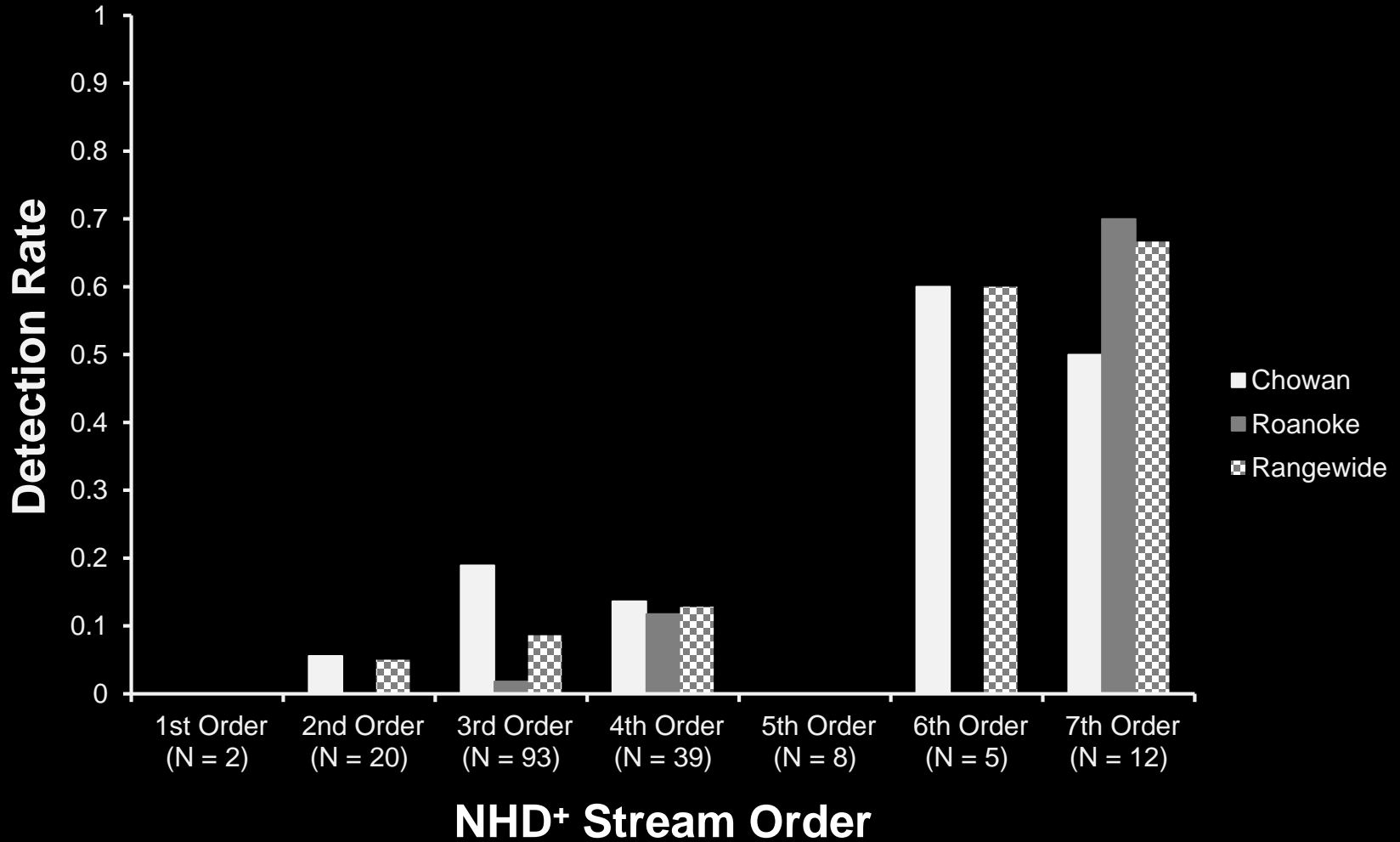


***O. virginiensis* Records**

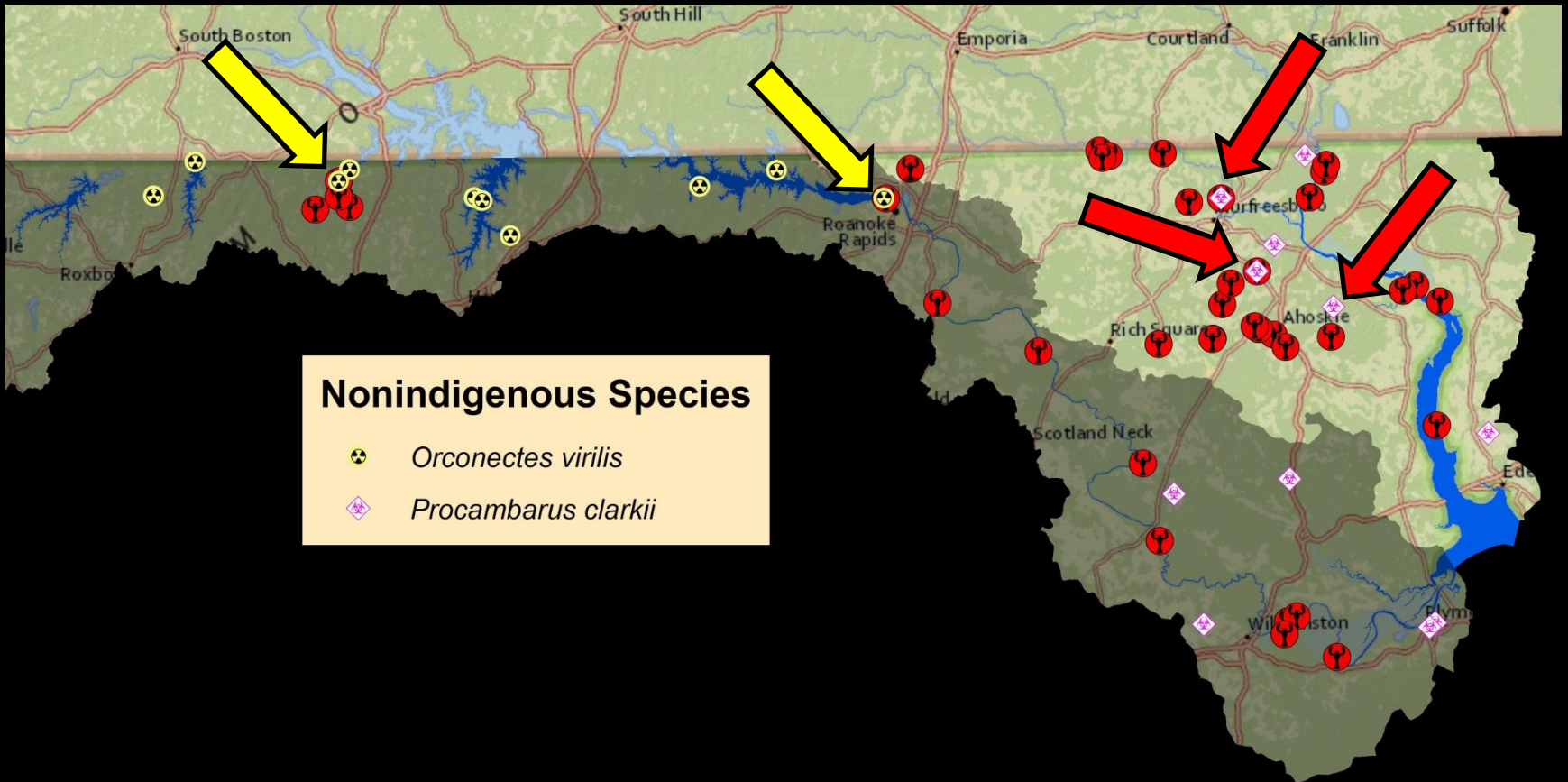
- 2012-14
- Other Survey
- Historic





Results



Threats



Nonindigenous Species

-  *Orconectes virilis*
-  *Procambarus clarkii*

Summary

- Crayfish at 147 of 181 sites (81%)
- 246 *O. virginianensis* collected
- *O. virginianensis* at 27 of 181 sites (15%)
 - Catch rate for 9 *O. virginianensis* per site
- *O. virginianensis* in 12 of 97 waterways (12%)
 - Restricted to mainstem rivers and major tributaries



The End

