

Avian Predation on Juvenile Salmonids on the Columbia Plateau: New Findings in 2012

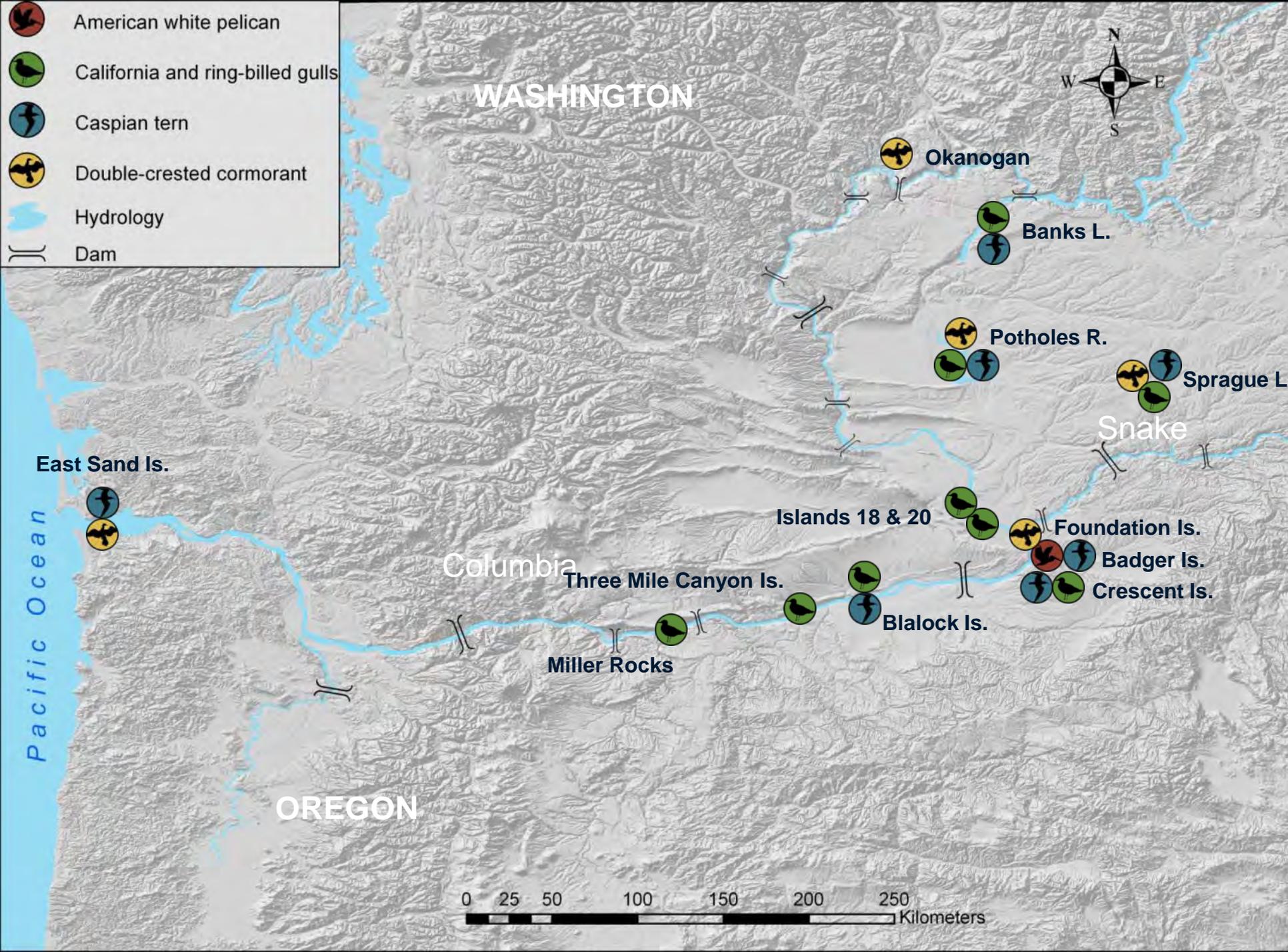
Oregon State University
Real Time Research, Inc.

USGS - Oregon Cooperative Fish & Wildlife Research Unit

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K. Dickson, G. Gasper, B. Cramer, Y. Suzuki, M. Hawbecker, and T. Lawes

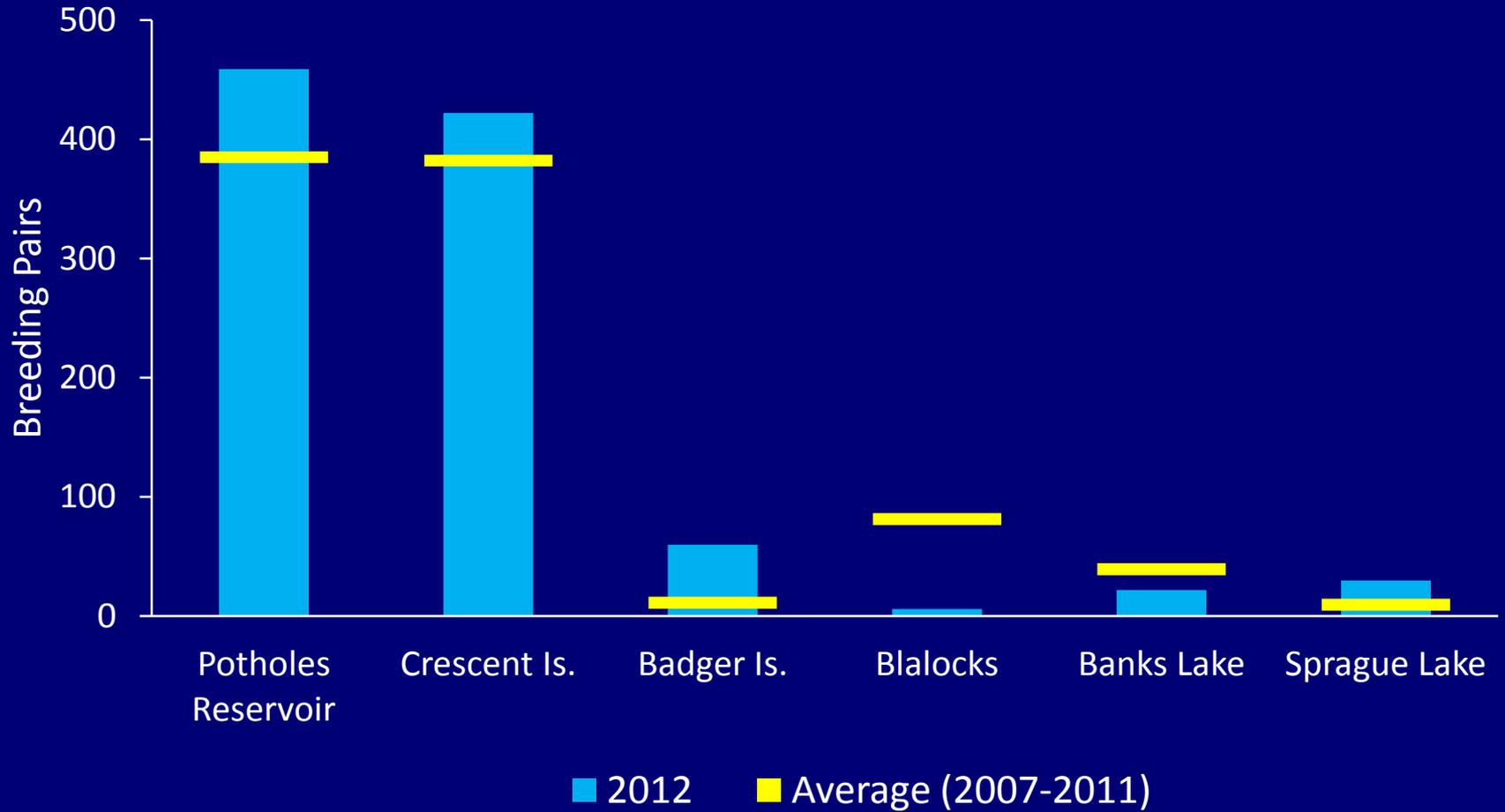


-  American white pelican
-  California and ring-billed gulls
-  Caspian tern
-  Double-crested cormorant
-  Hydrology
-  Dam



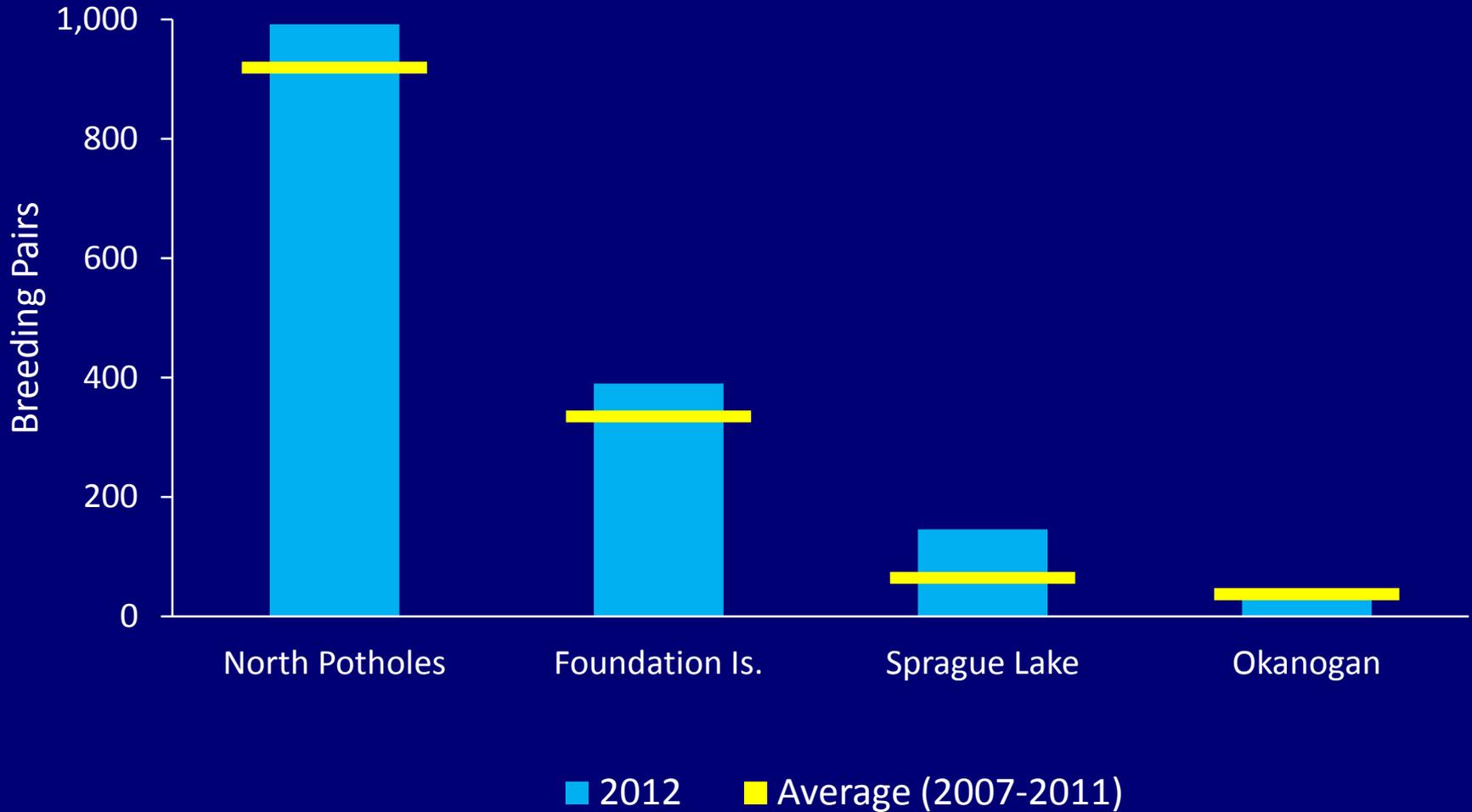


Caspian Tern Colony Size on the Columbia Plateau



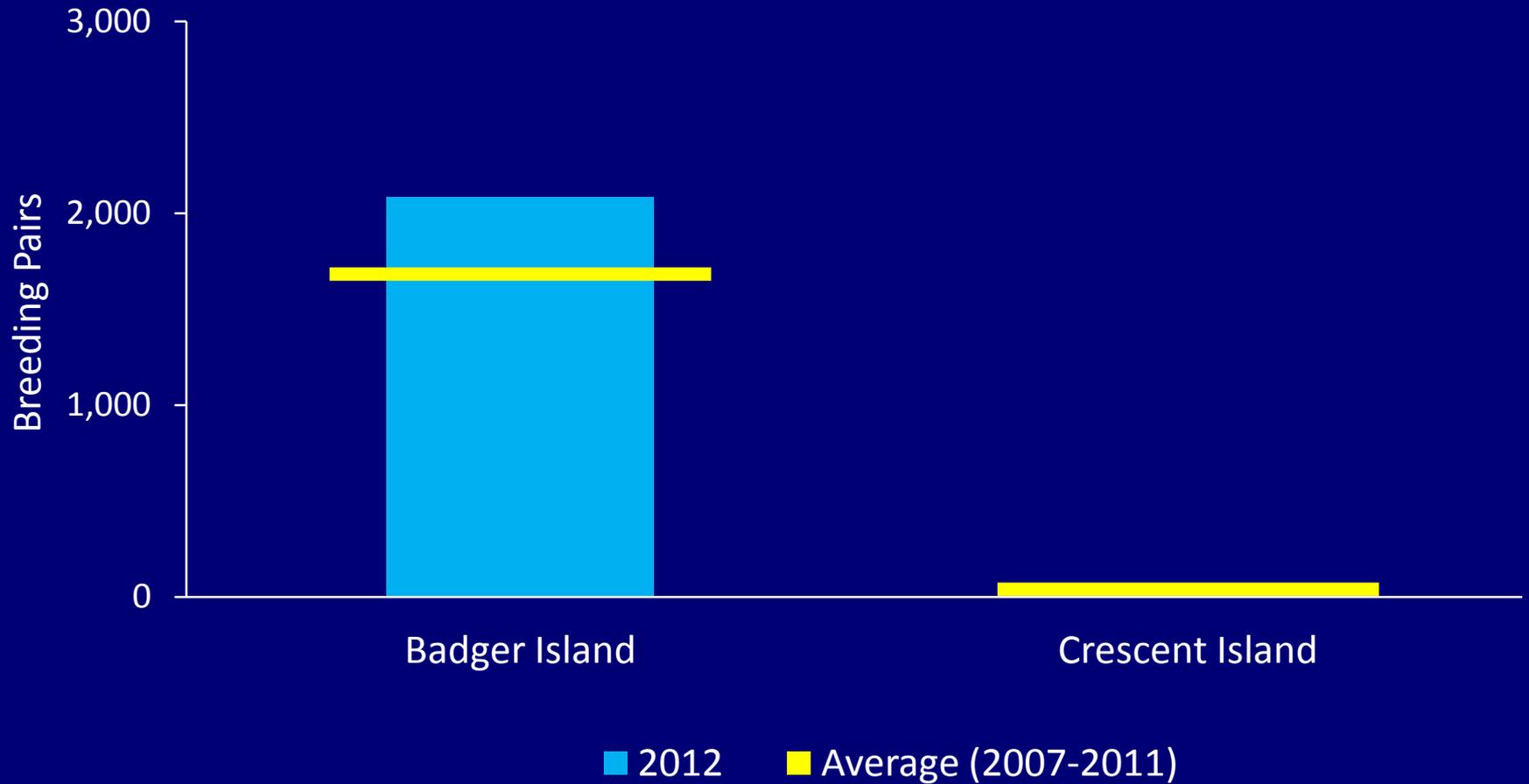


Double-crested Cormorant Colony Size on the Columbia Plateau



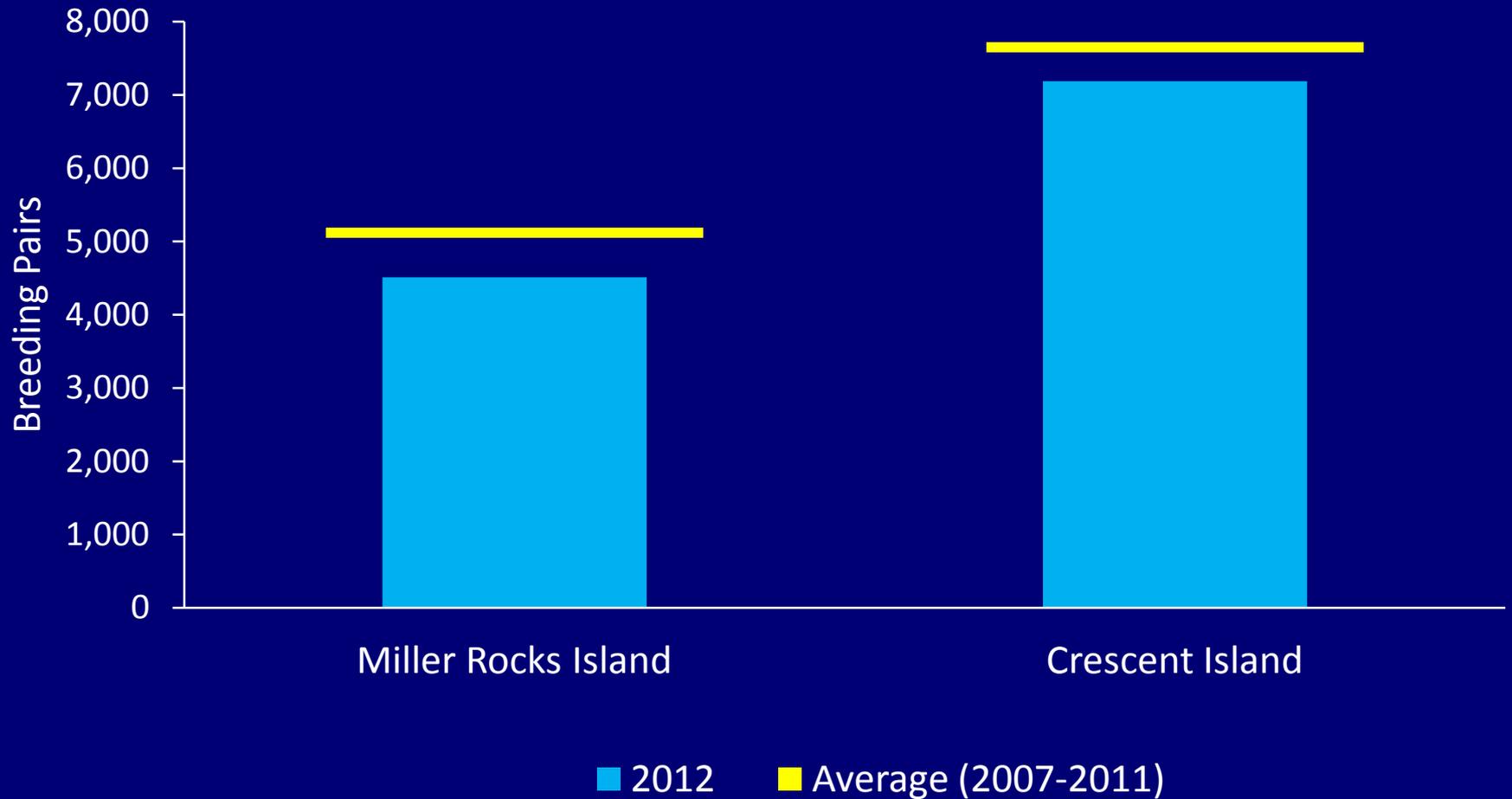


American White Pelican Colony Size on the Columbia Plateau





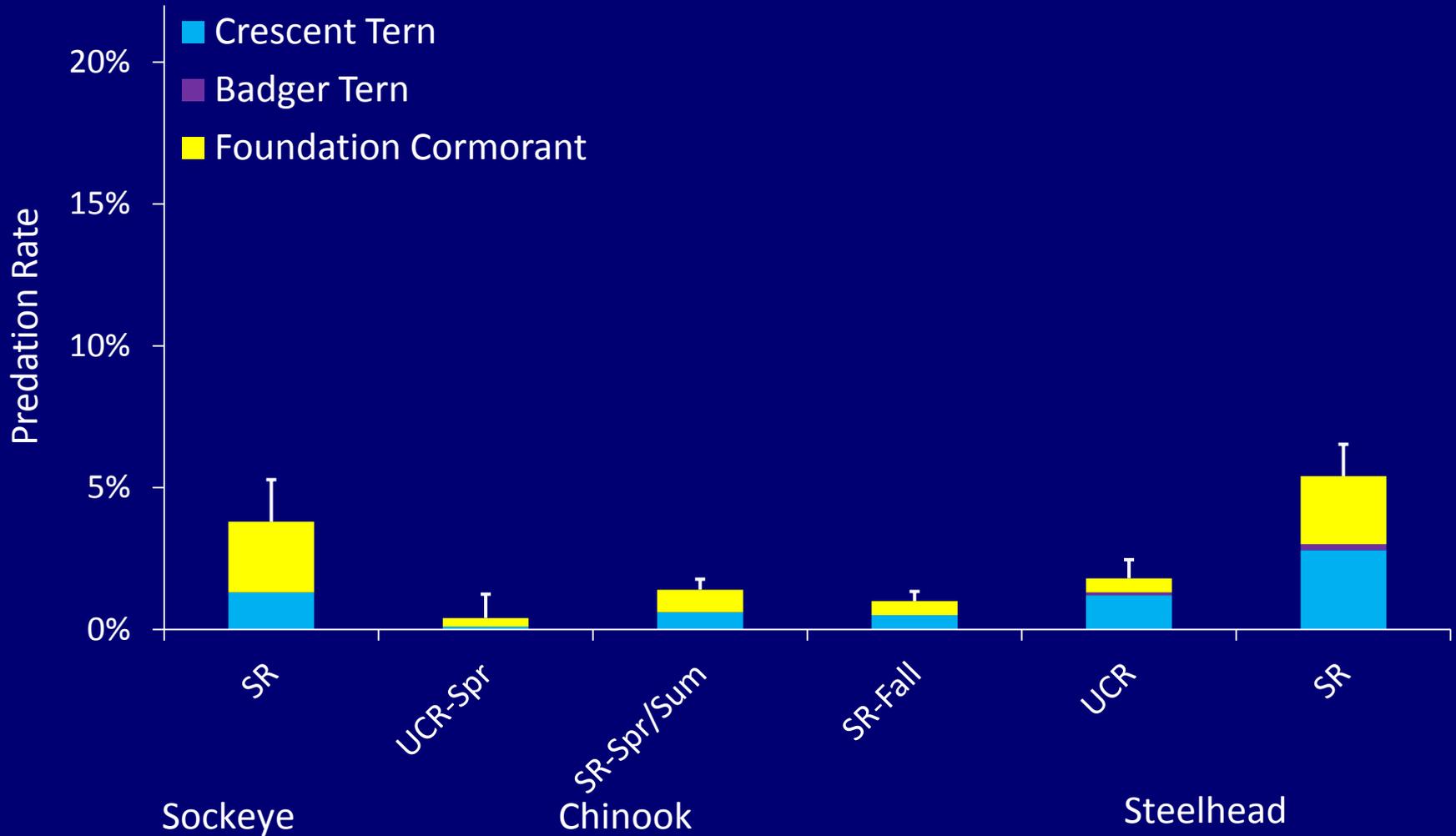
Miller Rocks and Crescent Gull Colony Size on the Columbia Plateau



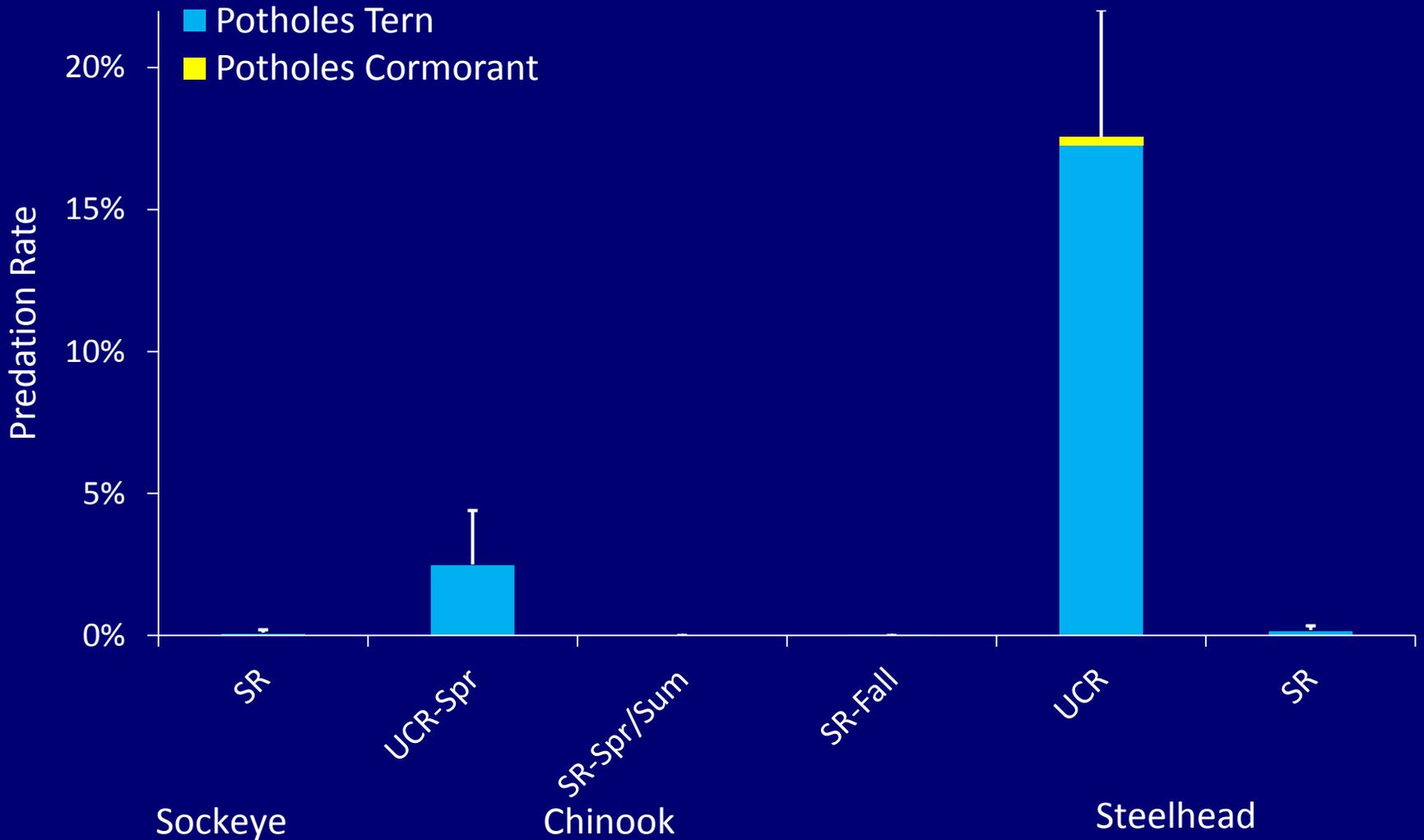
2012 Salmonid Impacts



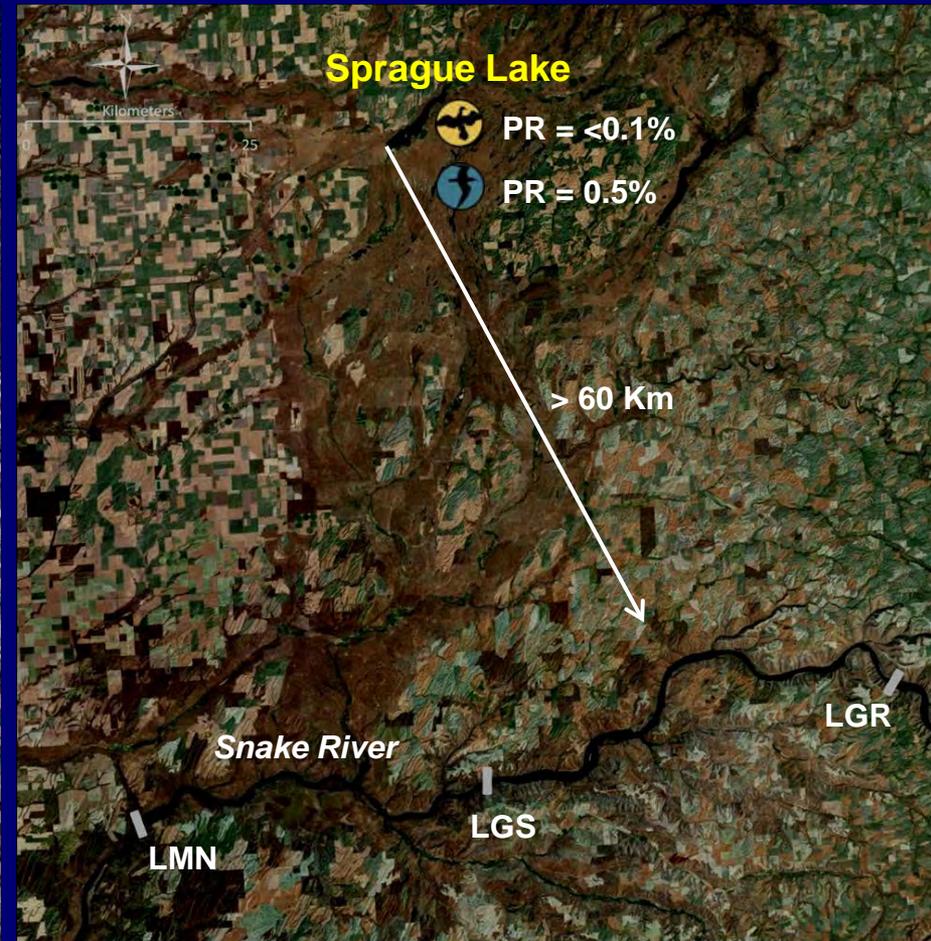
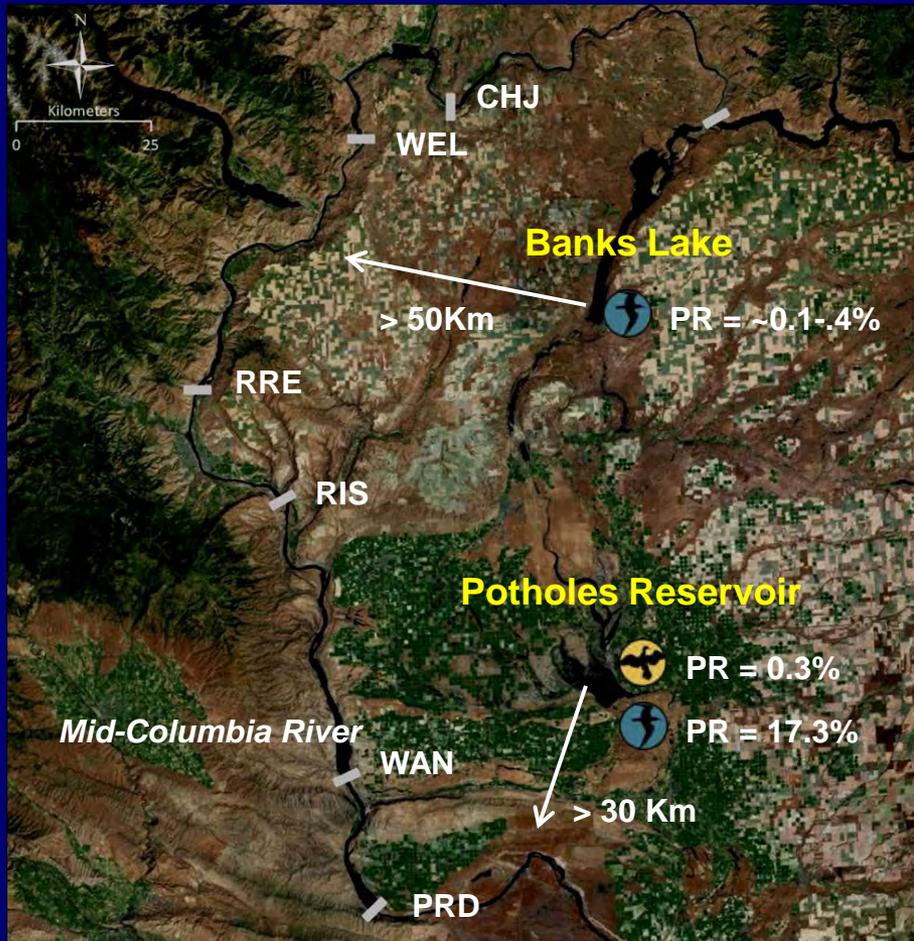
2012 PIT Tag Predation Rates – McNary Pool Colonies



2012 PIT Tag Predation Rates – Potholes Colonies



2012 Steelhead Predation by Other Off-River Colonies



Caspian Tern Site Assessment

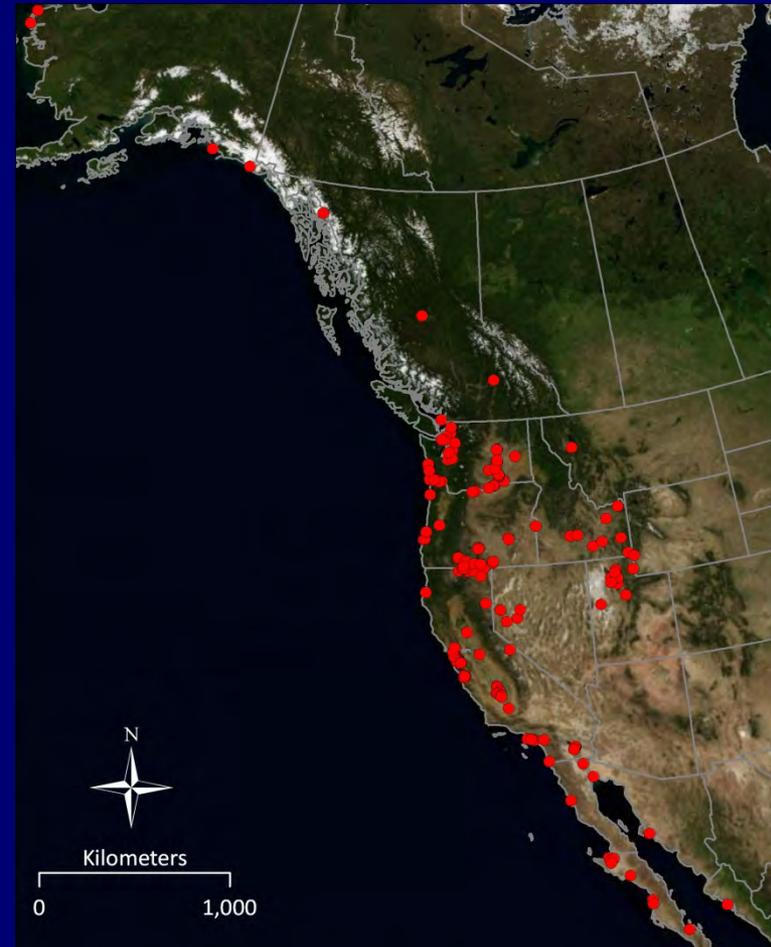
U.S. Army Corps of Engineers – Walla Walla District

Caspian Tern Colony Site Assessment: Management Opportunities in Western North America

Final Report



Collis, K., D.D. Roby, N.J. Hostetter, A.F. Evans, D.E. Lyons, J.Y. Adkins, Y. Suzuki, P. Loschl, and T. Lawes. 2012. Caspian tern colony site assessment: Management opportunities in Western North America. A report to the U.S. Army Corps of Engineers, Walla Walla District. Bird Research Northwest.

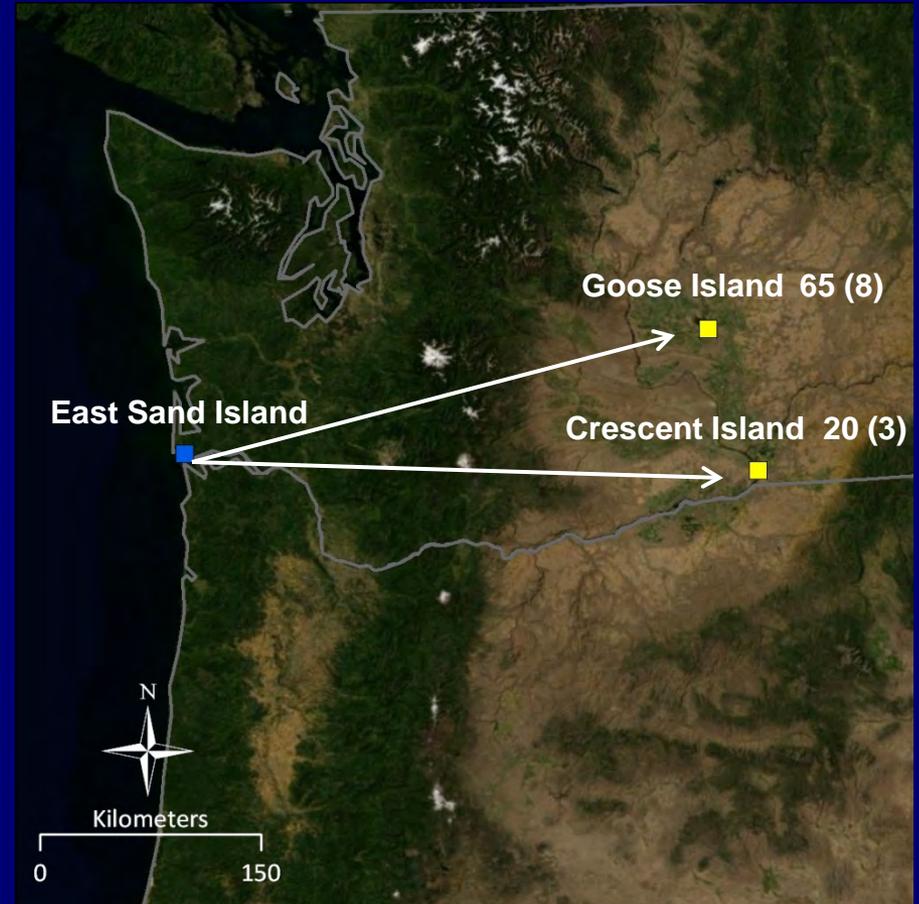


- 145 current, former, or potential Caspian tern colony sites
- Caspian tern nesting potential, movement data, fisheries conflicts
- Data compiled in ArcGIS and Access databases

Connectivity in the Columbia Plateau



Crescent and Goose Island banded terns have been observed at other colonies throughout Western North America



East Sand Island banded terns have been observed (confirmed breeding) at Crescent and Goose Islands

Summary and Conclusions



- In general, colonies were slightly larger in 2012
- Greatest impacts in 2012 were on UCR/SR steelhead by terns; SR sockeye by cormorants; NA for gulls and pelicans
- Impacts to salmonids vary based on the species, location, and size of the colony
- Site assessment identified several, biologically suitable alternative Caspian tern colony sites
- Connectivity data suggest that management actions at one colony may influence other colonies

Acknowledgments

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USFWS: Lamont Glass



Questions?

A partnership between Oregon State University, Real Time Research, and the USGS - Oregon Cooperative Fish and Wildlife Research Unit

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FEATURE STORY

UNIQUE FLOATING ISLAND CONSTRUCTED FOR CASPIAN TERN NESTING AT SUMMER LAKE WILDLIFE REFUGE »

Will Caspian terns and other colonial waterbirds be attracted to nest on a floating island built to serve as nesting habitat in an area where no natural islands exist?

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NOTES FROM THE FIELD

- [Zen Cormie Capture](#)
15 July, 2009
- [Shaqqing for cormorants](#)
12 June, 2009
- [Caspian Haiku: Japanese poetry taking a tern for the worse](#)
9 June, 2009

PROJECT DATA

- [Caspian Terns](#)
- [Double-crested Cormorants](#)
- [Colony Comparisons](#)

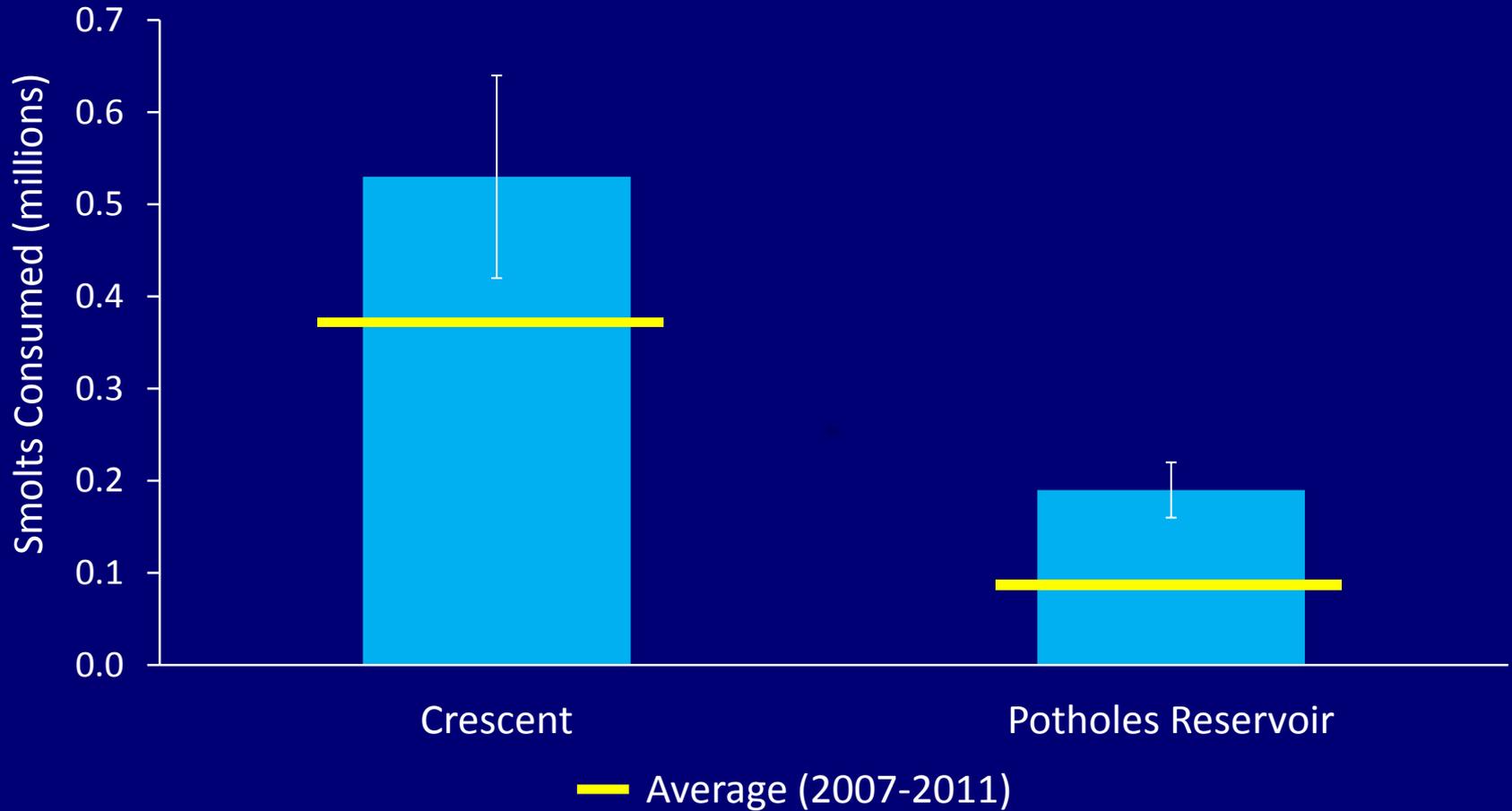
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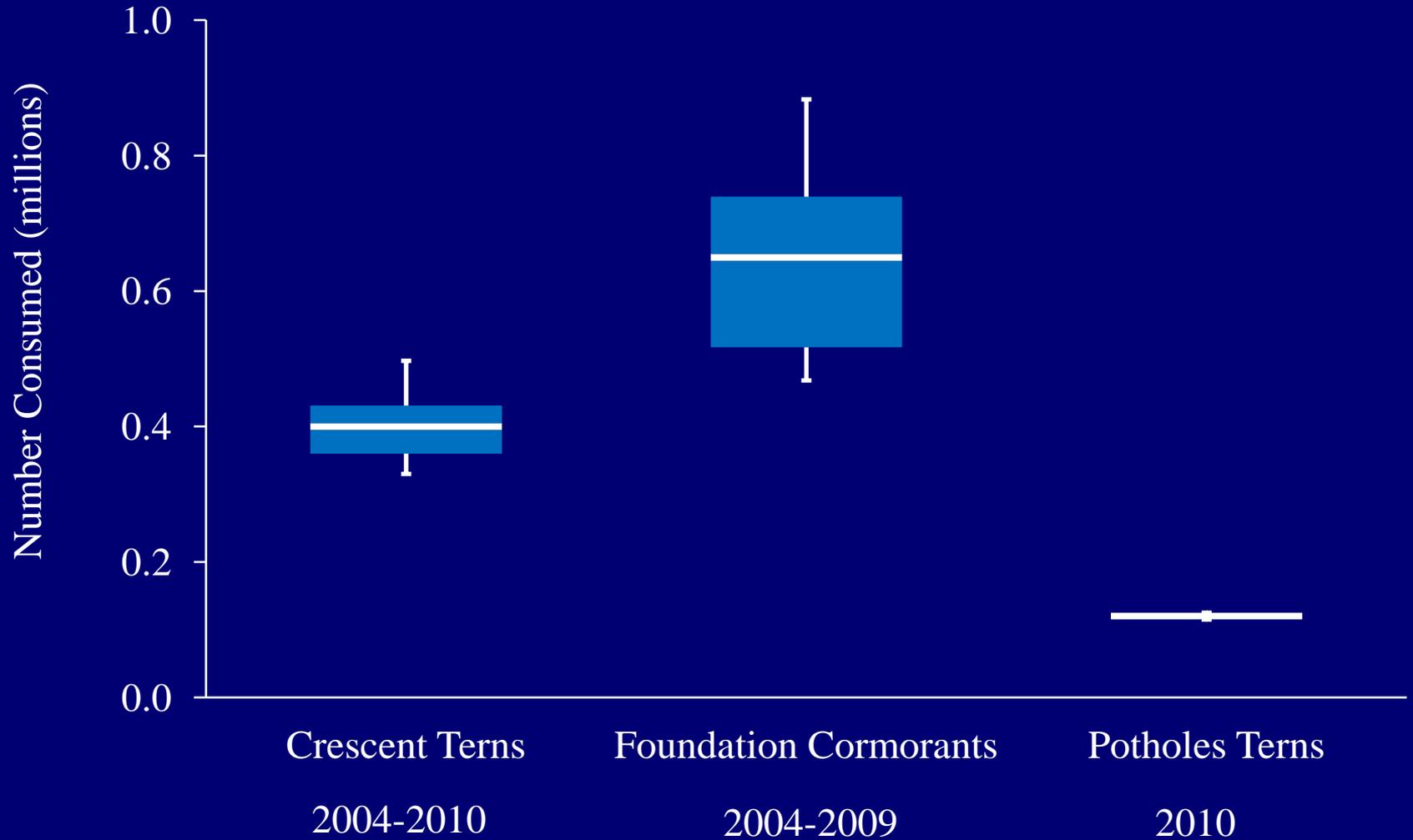
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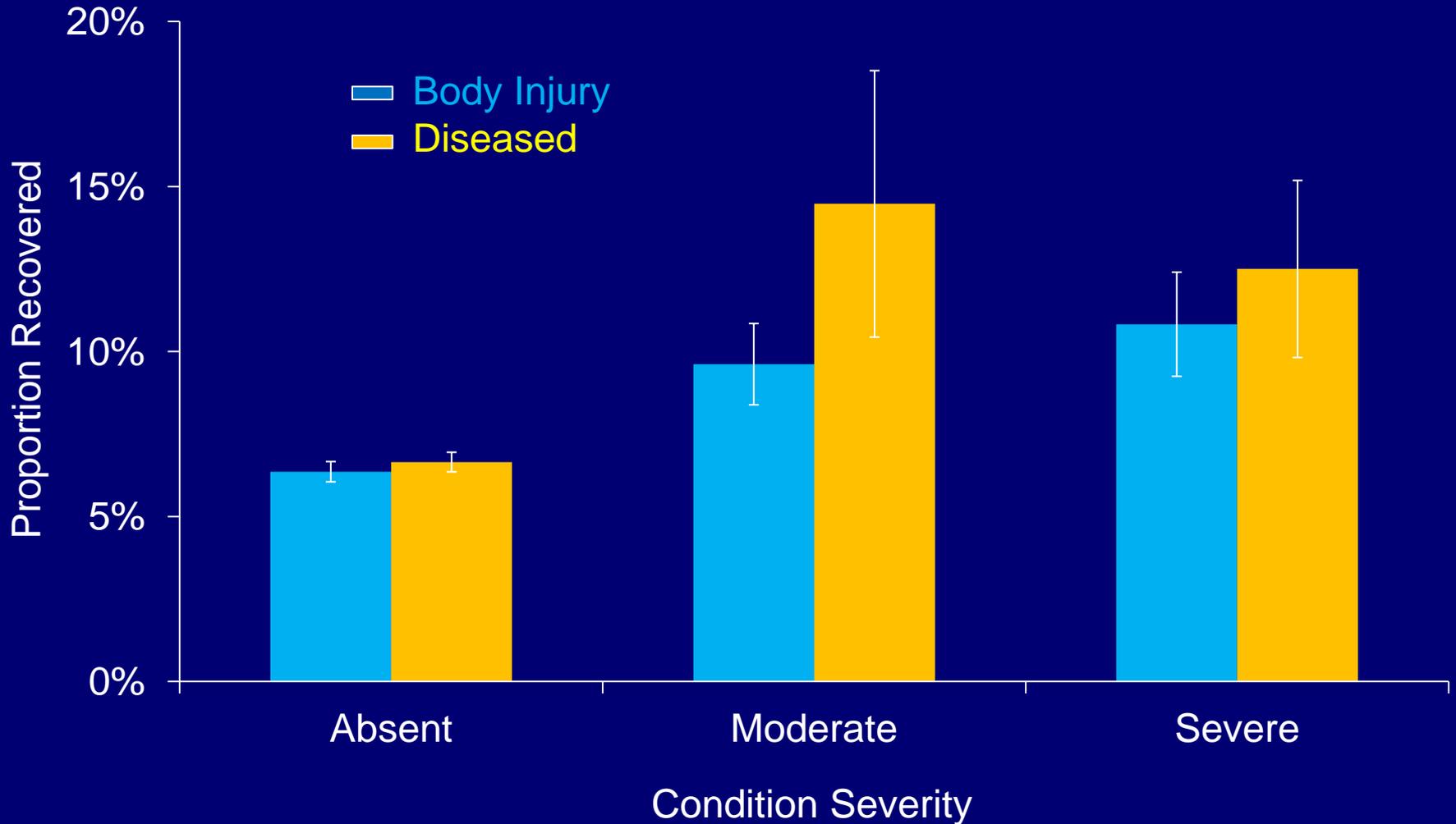
Caspian Tern Smolt Consumption on Crescent and Potholes Reservoir in 2012



Juvenile Salmonid Consumption



Steelhead Susceptibility to Avian Predators Based on External Smolt Condition, 2007-2010



Steelhead Susceptibility to Terns and Cormorants Based on Fish Length, 2007-2010

