

Monitoring Avian Predators: Development and Implementation of a Standardized Data Collection Protocol



USACE - Fish Field Unit

Nathan Zorich

Mike Jonas

Patricia Madson



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Intro: BiOp requirements

- Inland Avian RPA's

 - 47. Manage avian predators on Corps lands

 - 48. **Continue deterrents & monitor at dams**

 - 68. Monitor avian predators & smolt impacts

- Corps Needs

 - Long term monitoring at 8 LC & SR dams

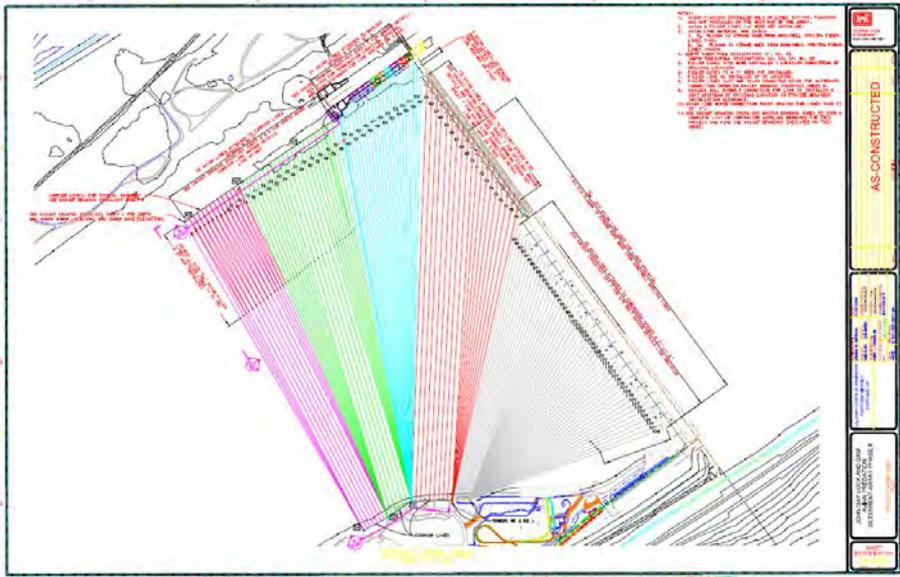
 - Deterrent evaluation

 - Prioritize avian deterrent spending



Intro: Deterrent Program

Avian Lines



Pyrotechnic Hazing



Objective

- Collect comparable bird counts
 - ▶ Establish standardize protocol
 - numbers, behavior, and location

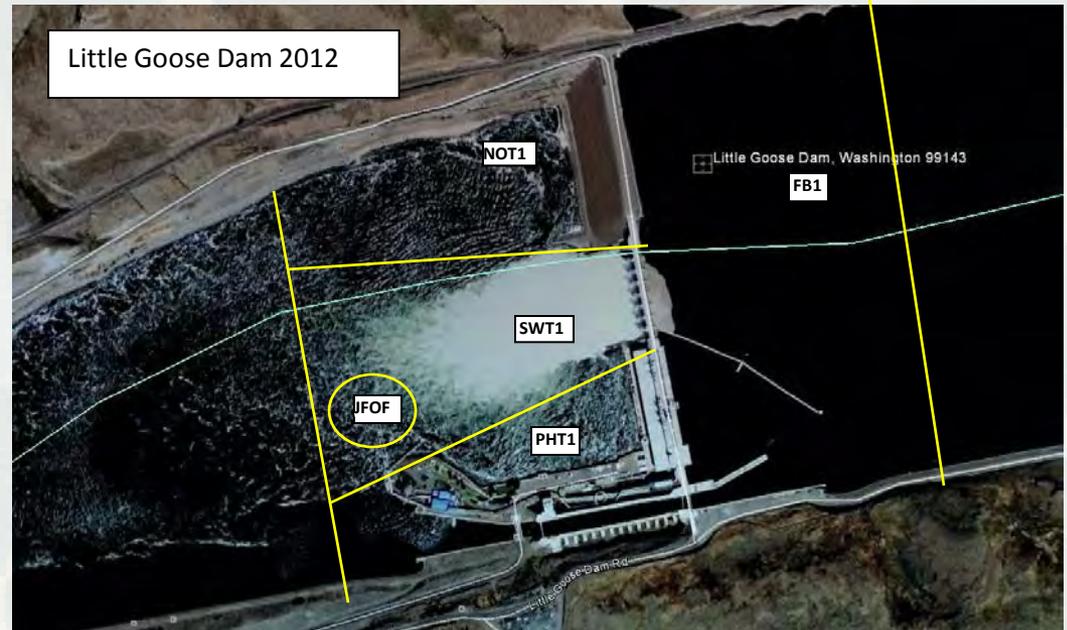
- Manage data
 - ▶ Multiple observers in multiple locations

- Monitor in-season and long term trends
 - ▶ Quick look analysis
 - ▶ Summary Data Report



Methods: Trainer's

- On-site trainings
 - ▶ Bird ID
 - ▶ Zone maps
 - ▶ Data Sheets
 - ▶ Written protocols
 - Data Collection
 - Data Entry
 - ▶ Practical exercise



- Monthly site visits

Methods: Observer's

- Electronic or manual data collection of bird counts during fishway inspections or daily activity.



- Standard protocol
 - ▶ Species list
 - ▶ Behaviors: Foraging, Resting, Fly-by, Scavenging
 - ▶ Observation Zones



Results: Effort

Trainer's

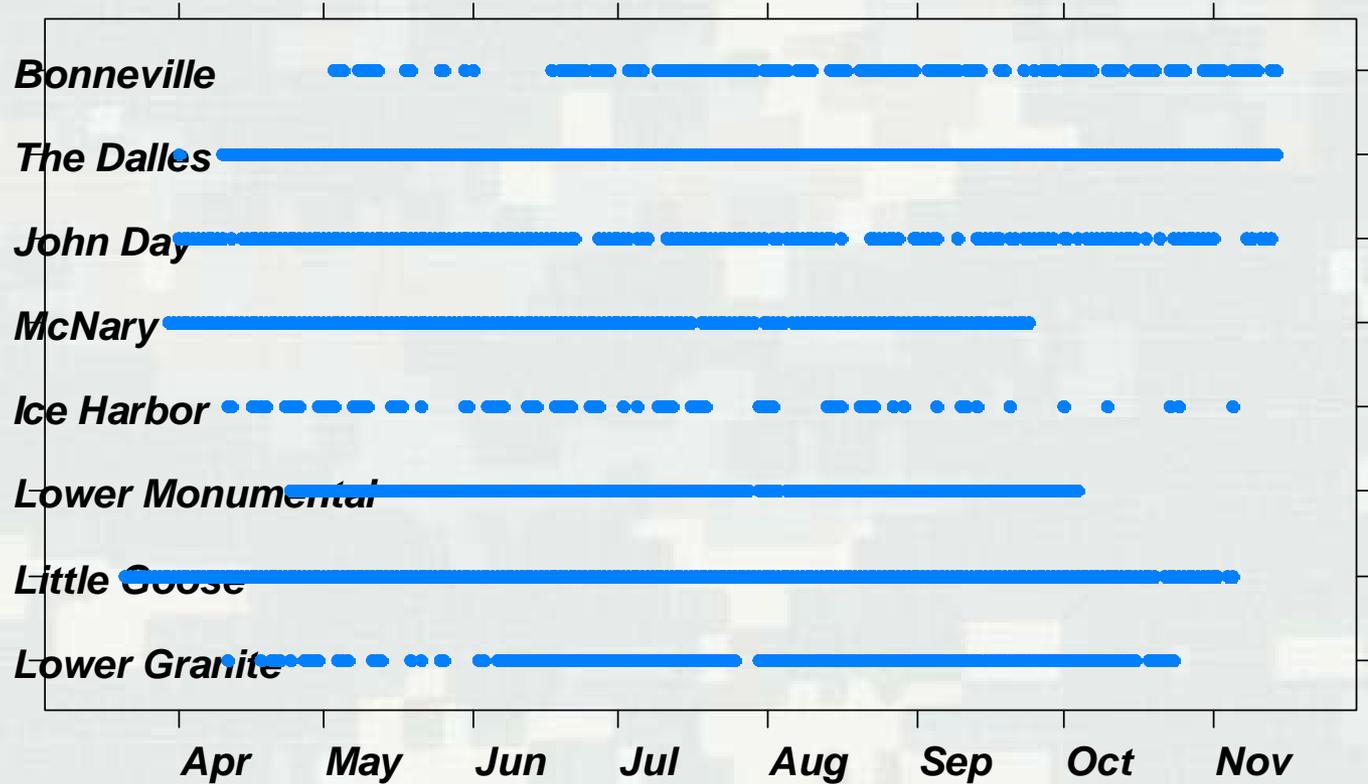
- Eight on-site trainings
- 32 monthly site visits
- 37 portal accounts
- Data Collection Protocol
- Data Entry Protocol
- Zone Maps
- Data report – *in prep*

Observer's

- Eight sites
- 56 Observers
- 17,063 records
 - ▶ 3 March – 20 Nov 12
- *In-season* data entry



Data entries to On-line Portal as of 2012-11-20



Results: Standardization

Avian Consumption Study Data Portal

Dashboard | In-Season | File Manager | Administration | nzorich

In-Season Data

Bird Counts

Add New... Delete Edit Apply Changes Cancel Changes Export Custom Filter

Observer	Project	Date	Session Date Time	Spill	Surface Passage	Hazer Present	Juvenile System	Juven
JIM DILLON	John Day	8/23/2012	8/23/2012 11:19:11 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
JIM DILLON	John Day	8/23/2012	8/23/2012 11:19:11 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
JIM DILLON	John Day	8/23/2012	8/23/2012 11:19:11 AM	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Bird Counts Session

Session

First Name: Nathan Last Name: Zorich

Location:

Spill? Surface Passage? Hazer Present?

Juvenile System? Juveniles Outfall? Juveniles Transport?

Notes:

Time Stamp: 8/23/2012 11:22 AM

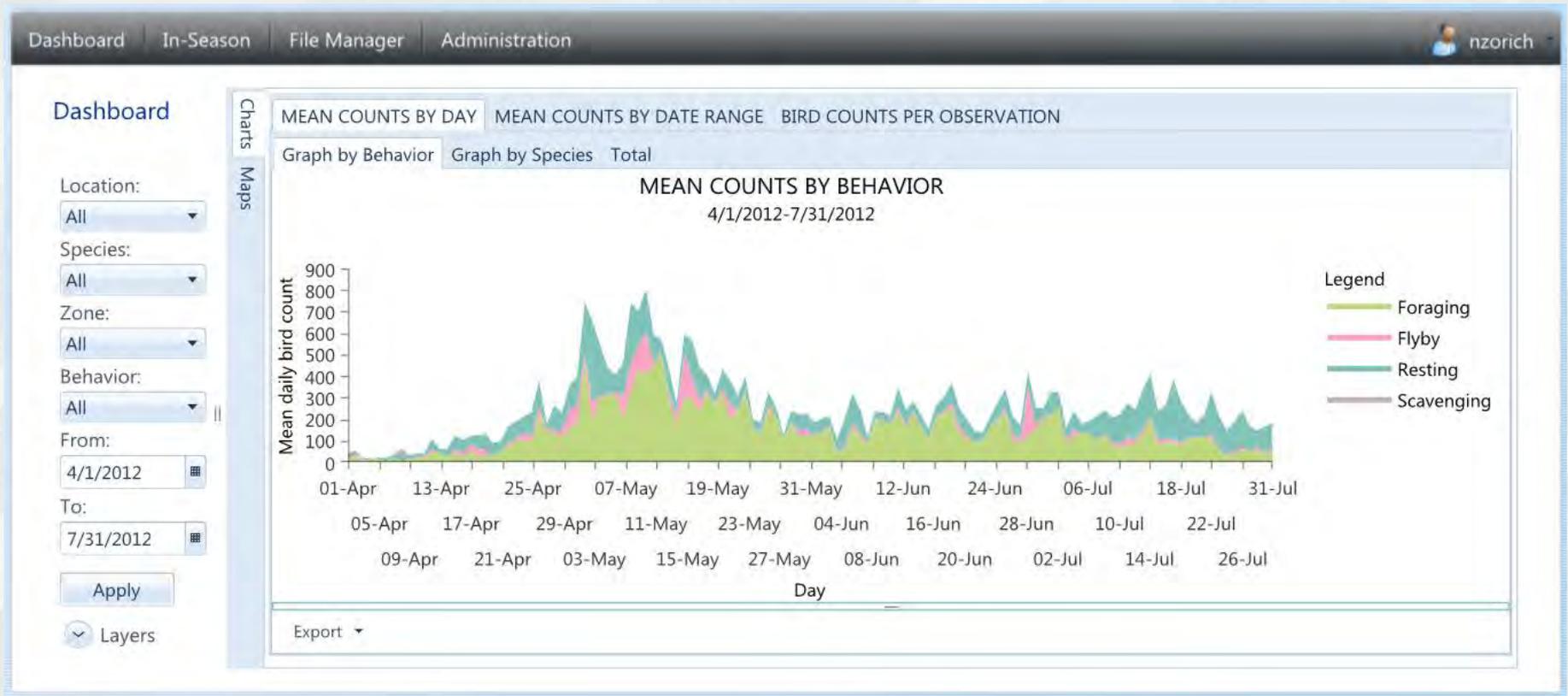
Counts Auto Populate?

Zone	Species	Foraging	Resting	Flyby	Scavenging	Total Count	Count Time	Notes
<input type="button" value="Click here to add new item"/>								

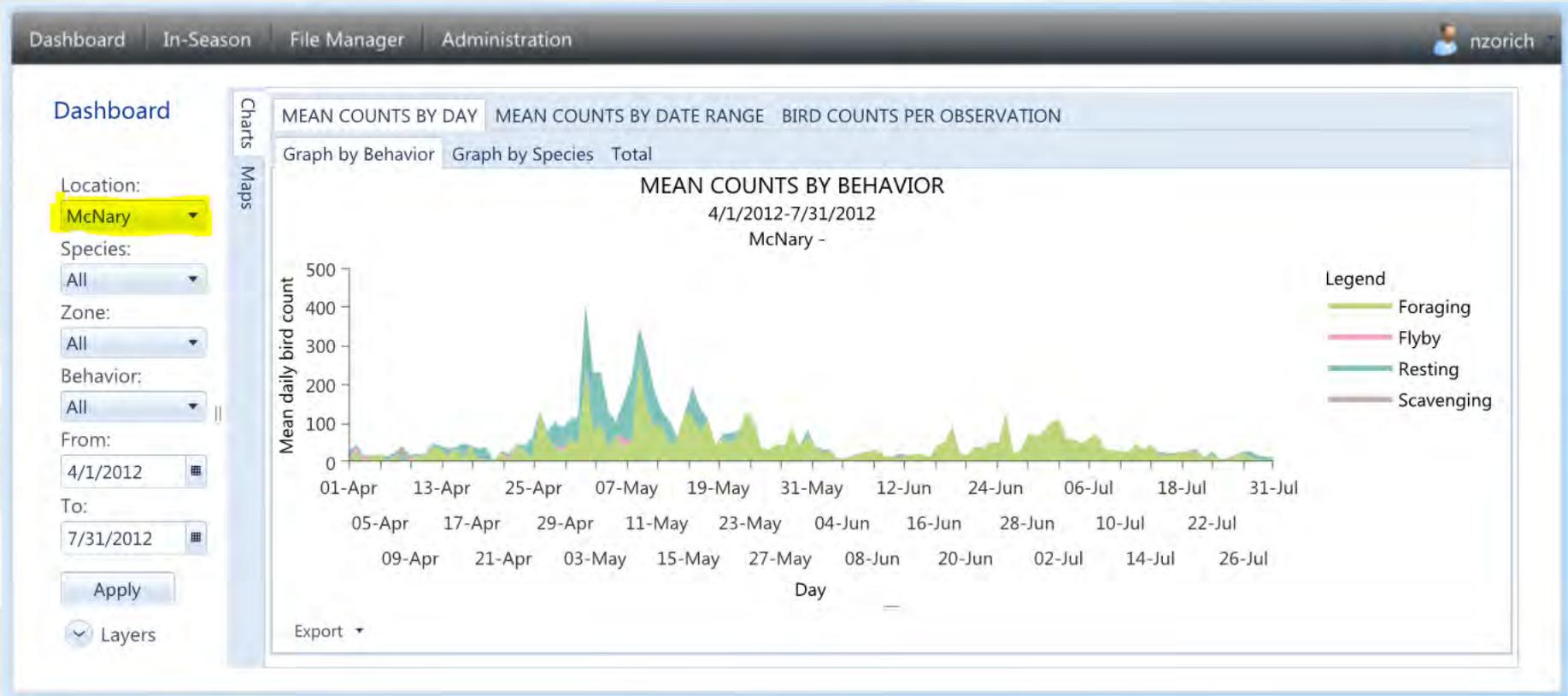
Record 1 of 10579 Page 1 of 106



Results: Dashboard Mean Daily Counts

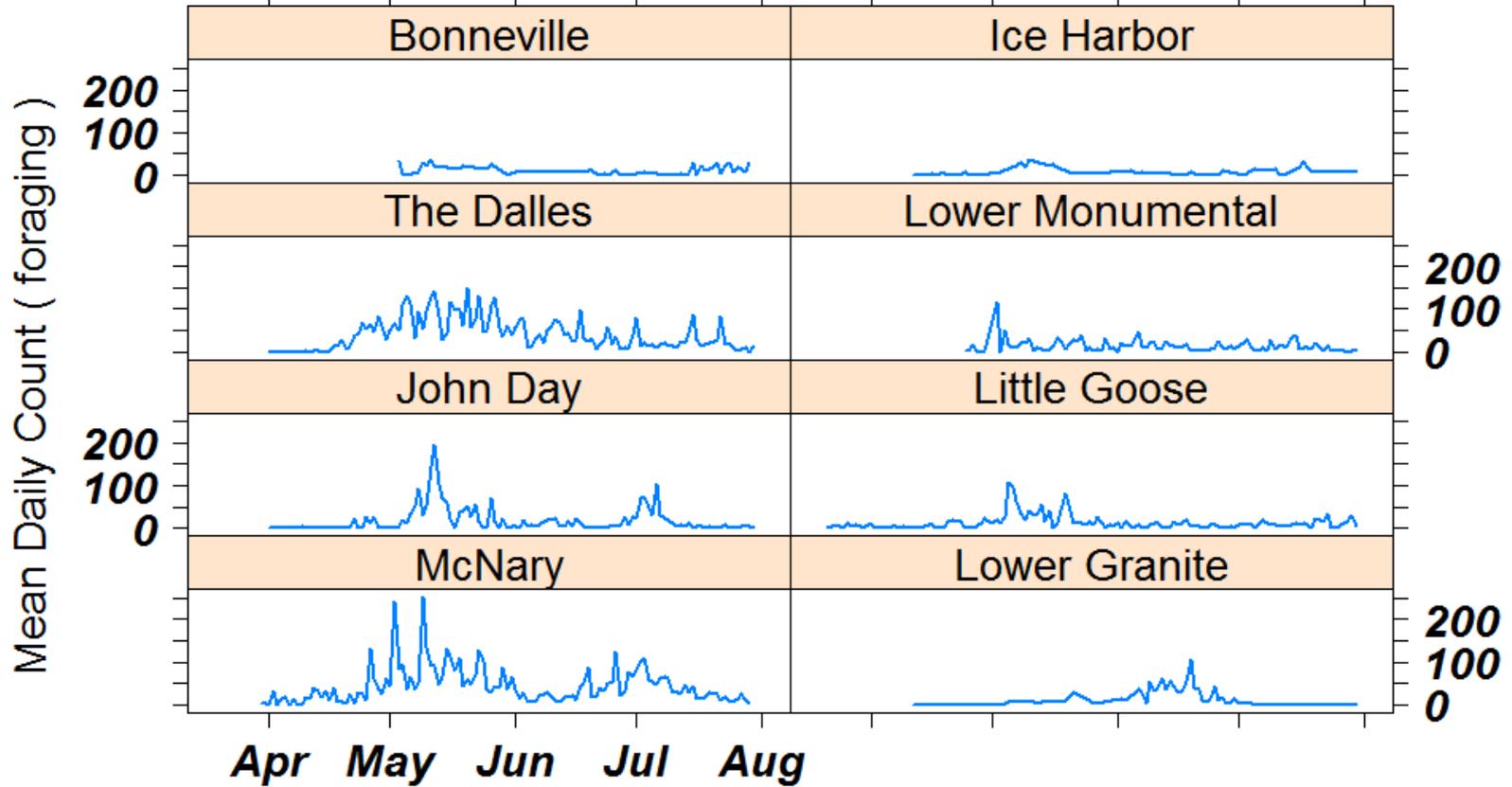


Results: Dashboard Single Site

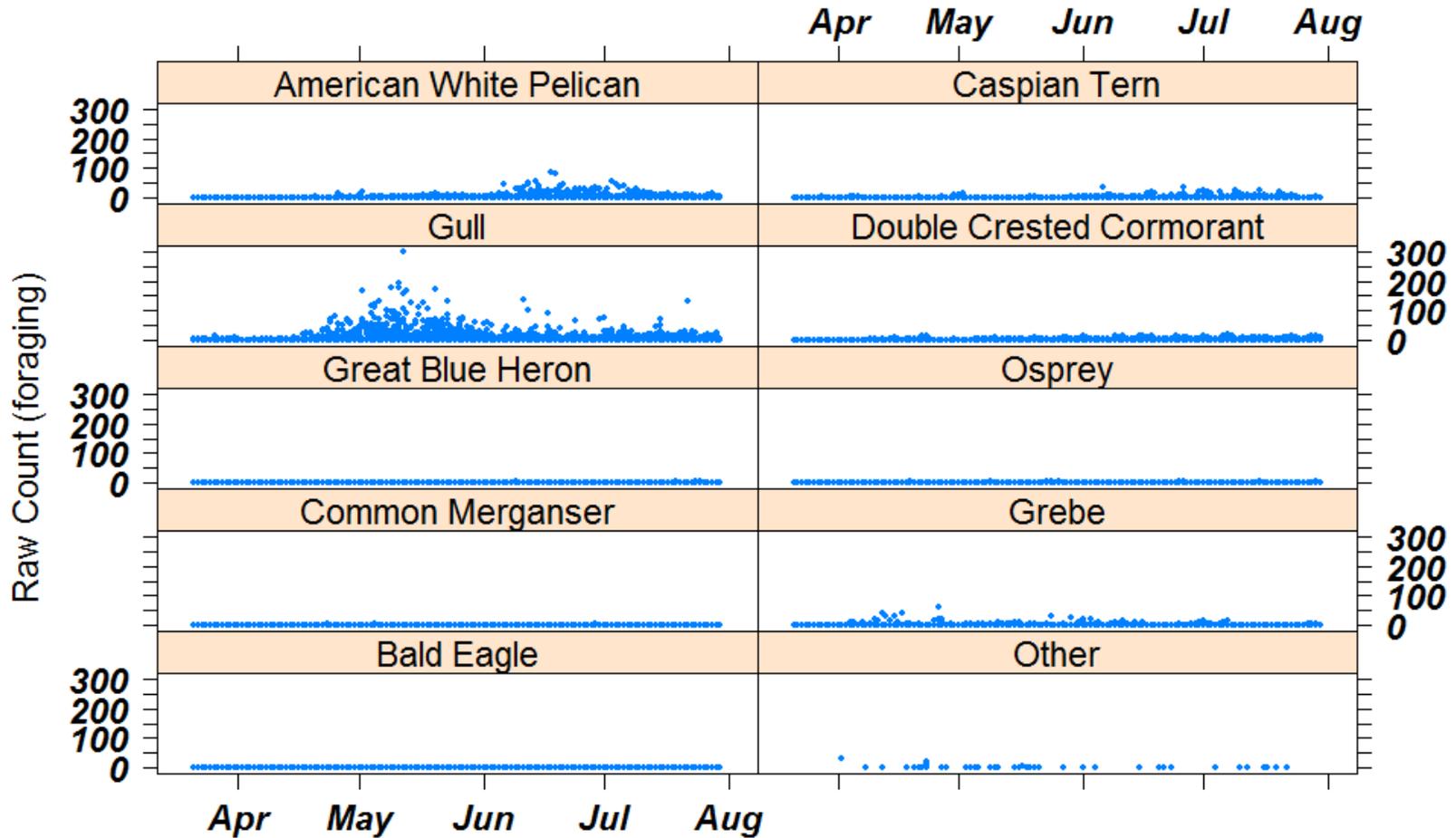


2012

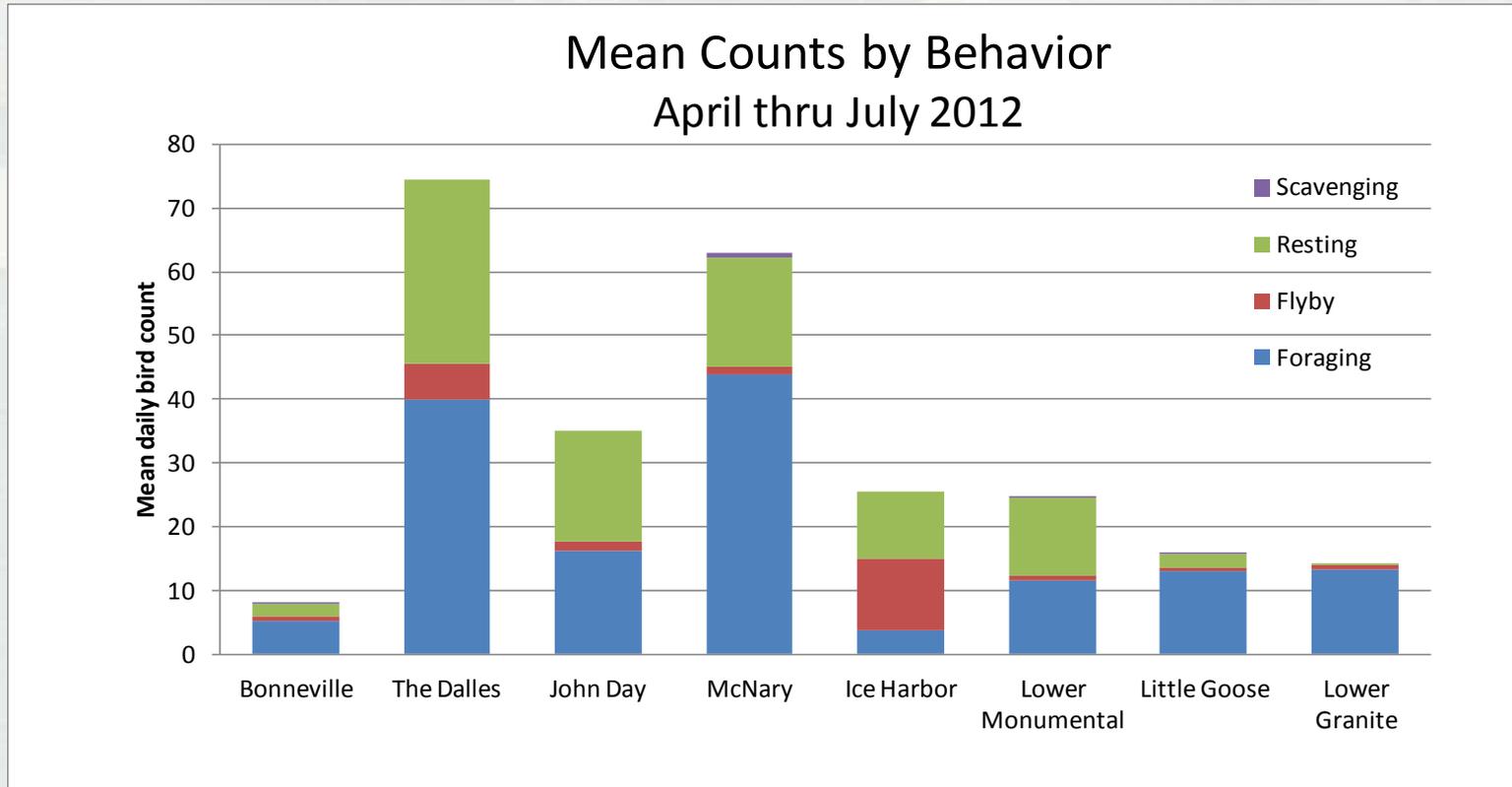
Apr May Jun Jul Aug



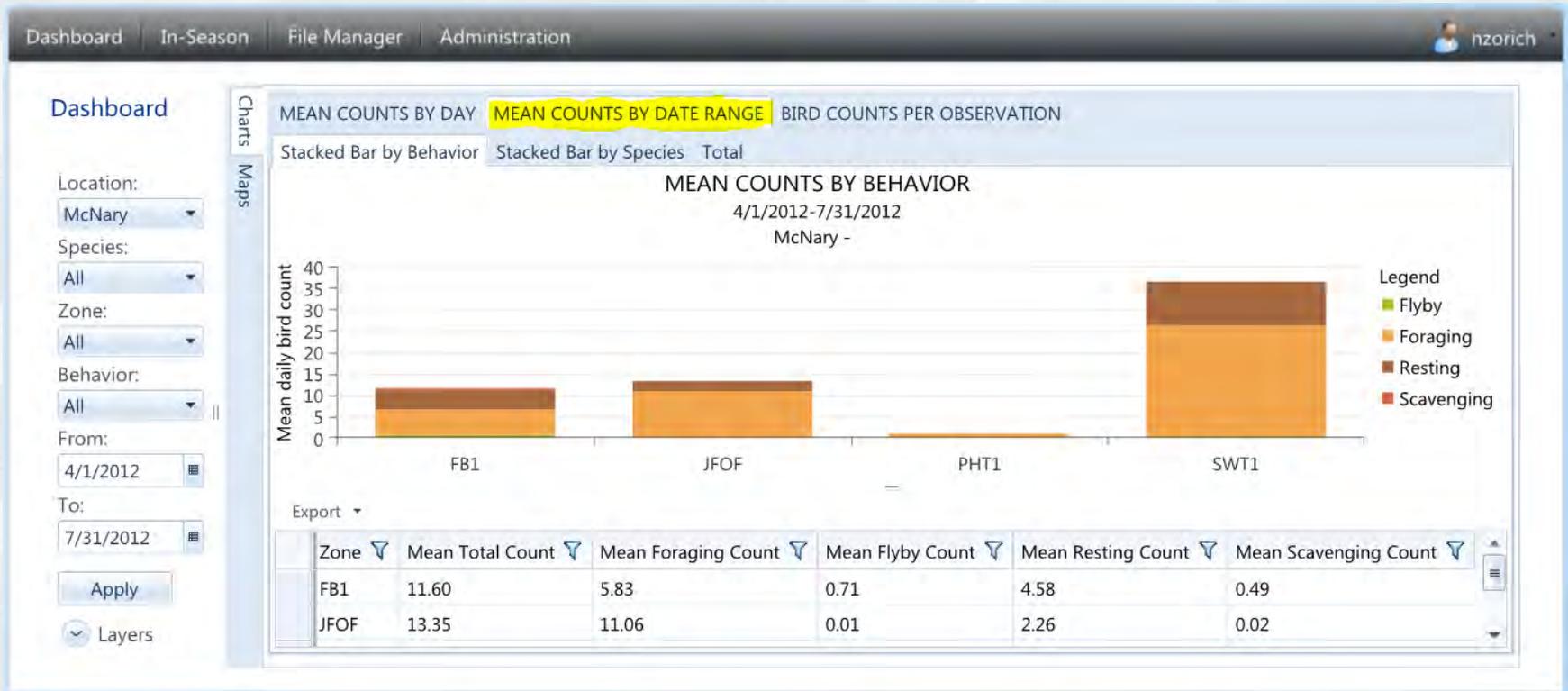
All Projects 2012



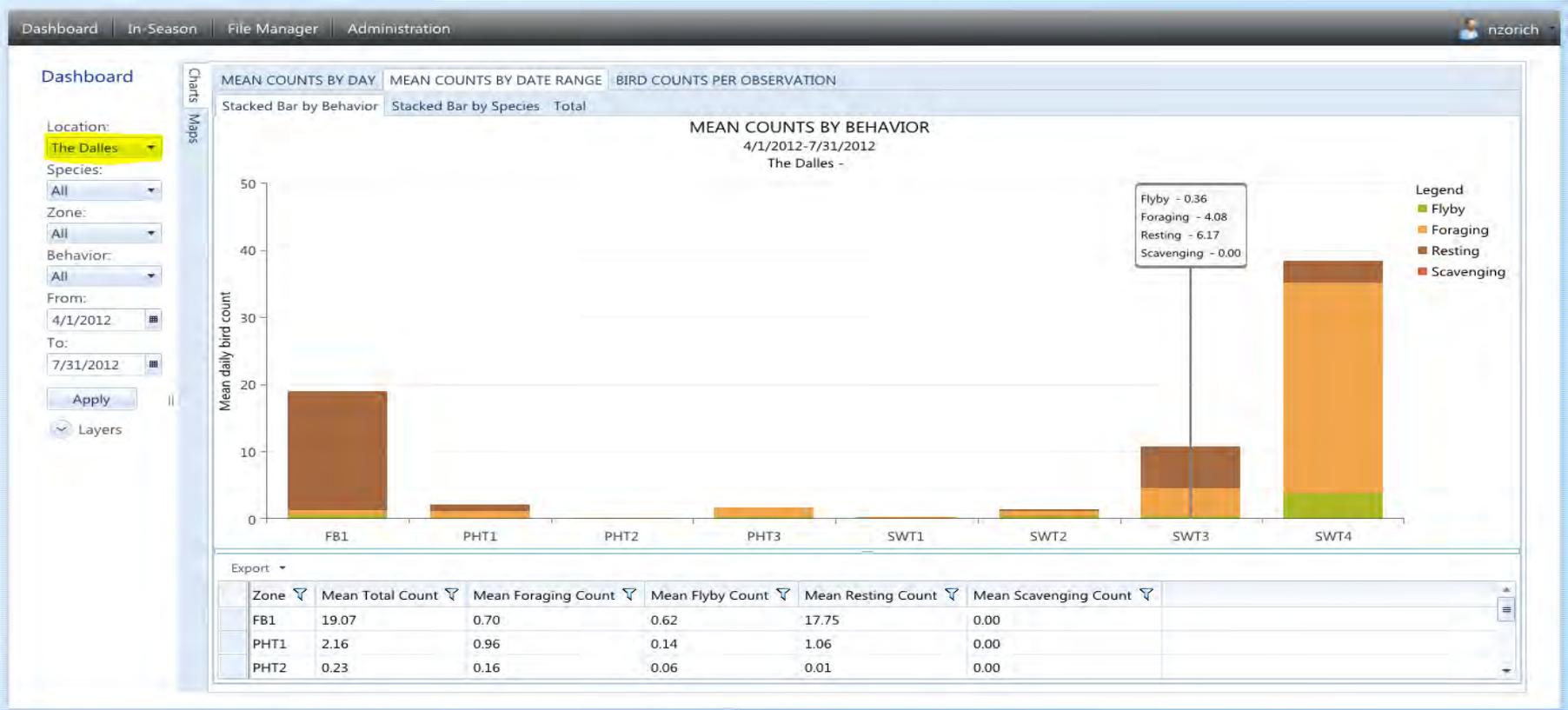
Results: Seasonal Comparison



Results: McNary Zones



Results: The Dalles Zones



Conclusions 2012 season

- Standardizing bird monitoring was successful
 - ▶ Collected comparable data
 - ▶ Available in real time via data portal
 - ▶ Long-term monitoring = steady funding
- The Dalles & McNary highest potential predation
 - ▶ Gull were main predator, terns forage off project
 - ▶ To reduce gulls numbers
 - More lines or increased hazing



Thank You!

- All data collected by others:
 - ▶ (16) Project biologist & assistants
 - ▶ (40) Observers
- Support from Walla Walla District
 - ▶ David Trachtenbarg
 - ▶ Ken Fone
 - ▶ Cindy Boen & Tim Fleeger

