

Common Loon Research in Wisconsin – Preserving Loons for Future Generations



Mike Meyer, NOVA Ecological Services, Arbor Vitae, WI



Research Partners

Kevin Kenow, USGS La Crosse, WI

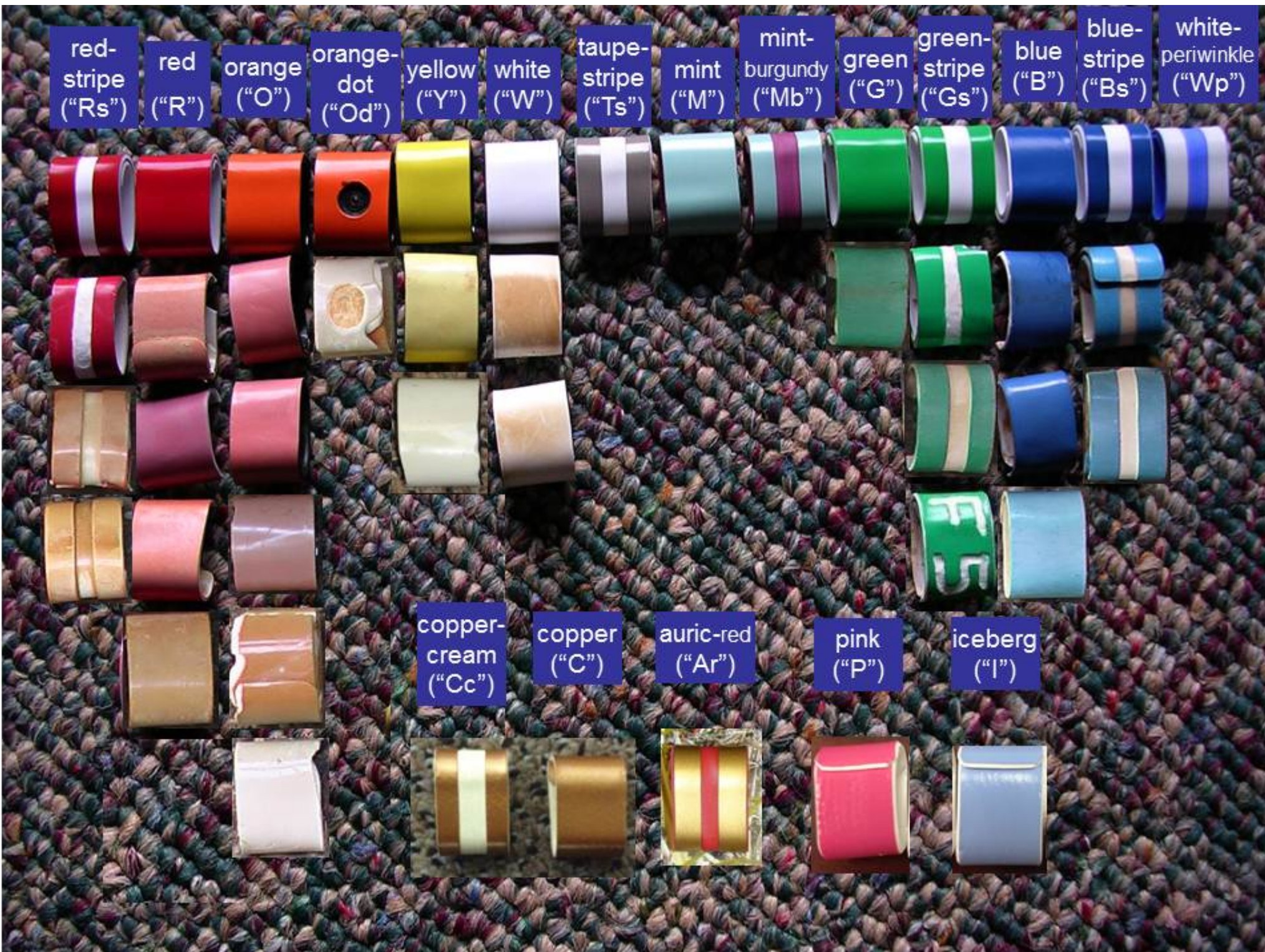
Dave Evers, Biodiversity Research Institute, Gorham, ME

Walter Piper, Chapman University

Erica LeMoine
LoonWatch, Ashland







red-
stripe
("Rs")

red
("R")

orange
("O")

orange-
dot
("Od")

yellow
("Y")

white
("W")

taupe-
stripe
("Ts")

mint
("M")

mint-
burgundy
("Mb")

green
("G")

green-
stripe
("Gs")

blue
("B")

blue-
stripe
("Bs")

white-
periwinkle
("Wp")

copper-
cream
("Cc")

copper
("C")

auric-red
("Ar")

pink
("P")

iceberg
("I")

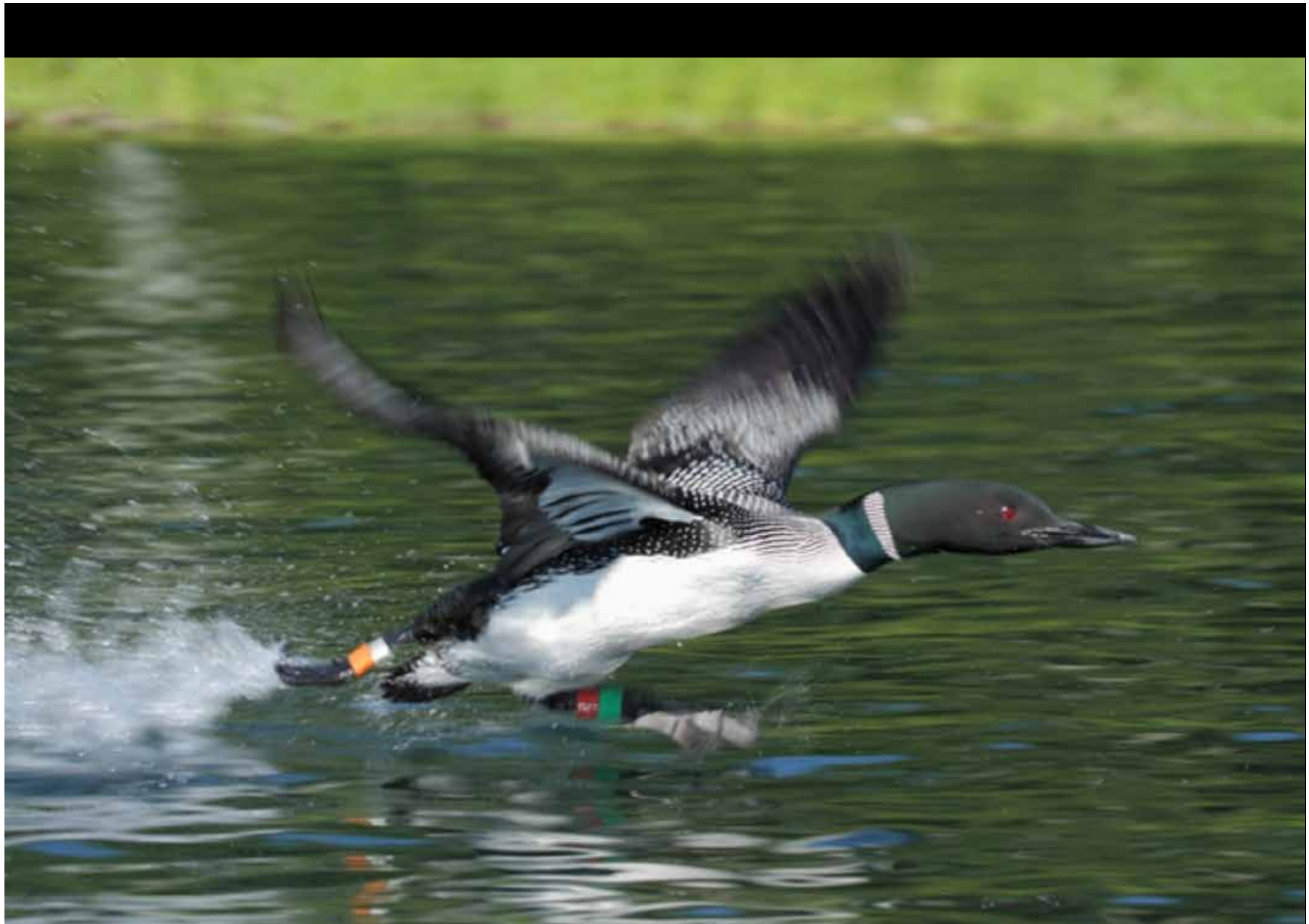


Photo – Matt Erlandson

Quantifying the Ecological Benefits of Mercury Emission Reductions in Wisconsin

Mike Meyer, WDNR SS, Woodruff
Kevin Kenow USGS UMESC, LaCrosse, WI
William Karasov, UW-Madison
Carl Watras, WDNR/UW-Trout Lake
Neil Burgess, Environment Canada, Mt. Pearl
NF, Canada



Photo credit: Doug Killian



Over 1000 adult common loons and chicks were captured and sampled for Hg exposure by WDNR and partners in the Northern Highlands 1992-2012.



Common Loon Migration



Kevin Kenow – USGS

Upper Midwest Environmental Science Center

La Crosse, WI

Satellite Telemetry - Fine-resolution location data

- Implantable satellite transmitters (Microwave Telemetry model PTT-100) in 10 adult male loons used to provide fine resolution (e.g., <250 m accuracy) location data
 - Abdominal implant with exteriorized antenna
 - 64 grams (~1.5% of BW) volume = 32 cc
- 1,500 hours, duty cycles:
 - Breeding- 8 hrs on:72 hrs off
 - Fall migration- 8on:24off
 - Wintering- 6on:96off
 - Spring migration- 8on:24off
 - 8on:96off thru Oct 2011



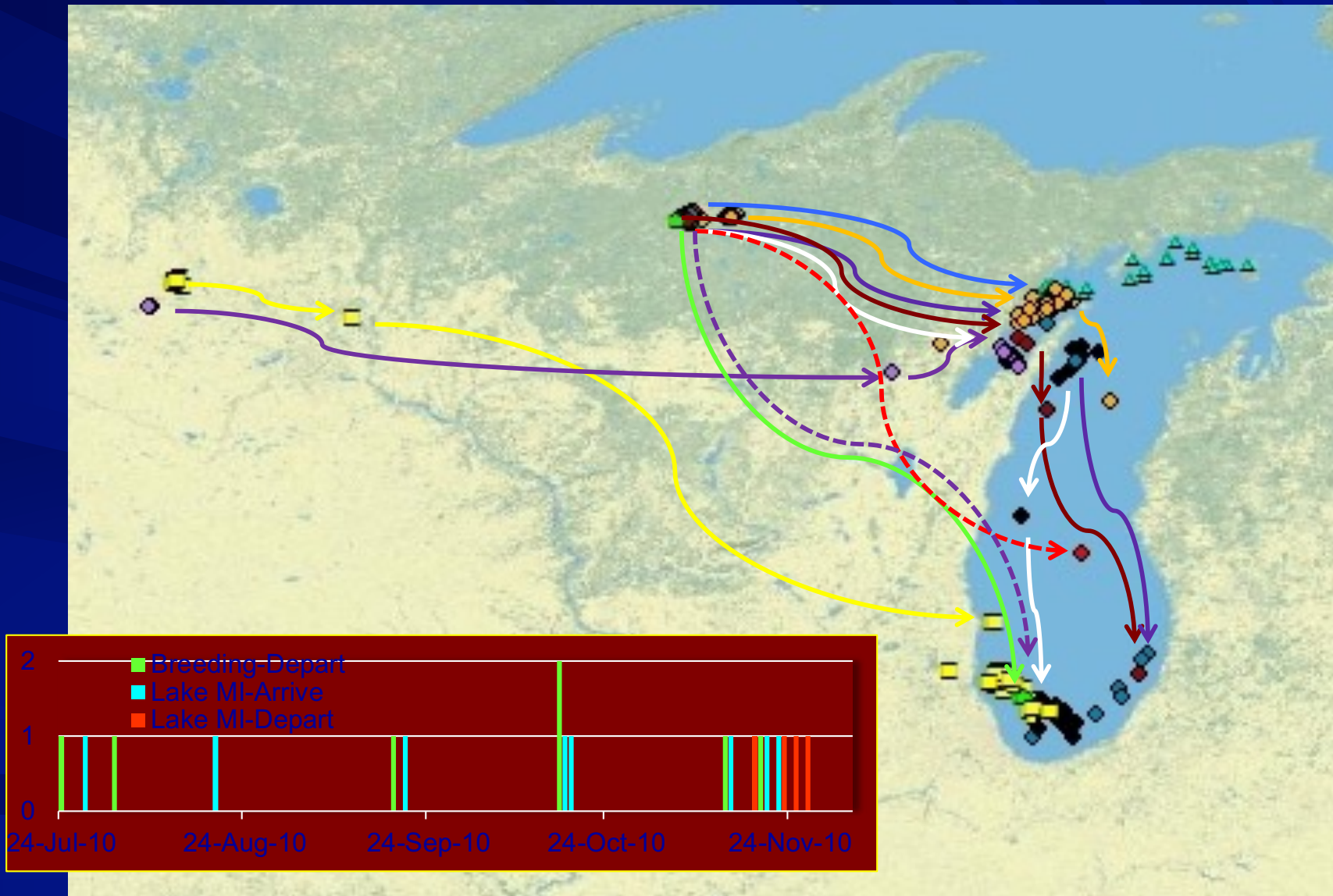
Evaluating Migration and Wintering Ground Threats for Wisconsin Common Loons

Kevin Kenow and Colleagues, USGS La Crosse



Photo courtesy Paul Lueders

Migration of Radiomarked Common Loons in 2010





Upper Midwest Environmental Sciences Center

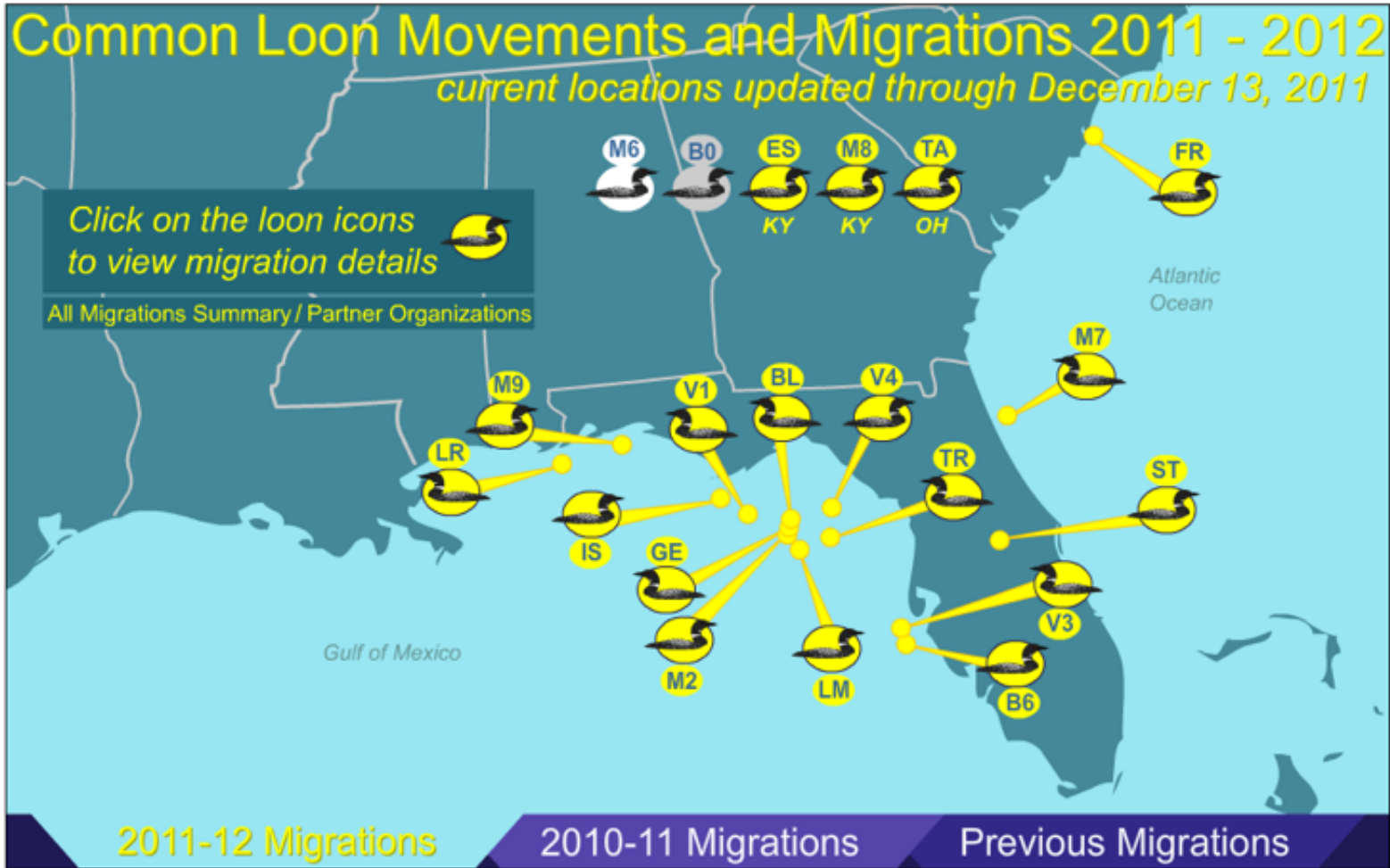
Common Loon Movements and Migrations 2011 - 2012

current locations updated through December 13, 2011

Click on the loon icons to view migration details



All Migrations Summary / Partner Organizations



2011-12 Migrations

2010-11 Migrations

Previous Migrations

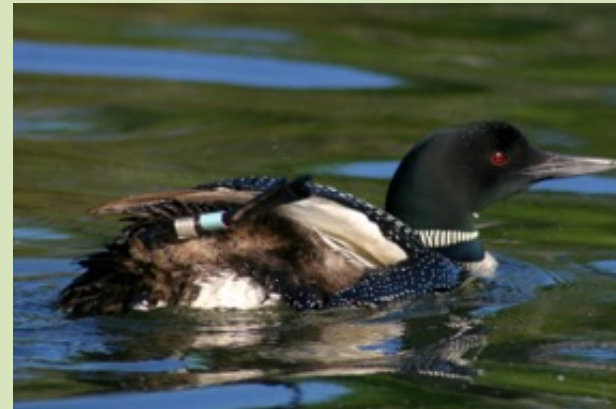


Thousands of loons have been killed by botulism toxicity during fall migration through the Great Lakes 2006-2012



Walter Piper & The Loon Project

- Investigation of territorial behavior in 100+ lakes in Oneida County since 1993.
- Intensive banding of adults and chicks.
- Systematic search for banded breeders and intruders over a 800 km² area.
- Collaborations with Mike Meyer, Charlie Walcott, Jay Mager.
- Scores of field assistants have helped. Thanks, you guys!
- Blog at loonproject.org.



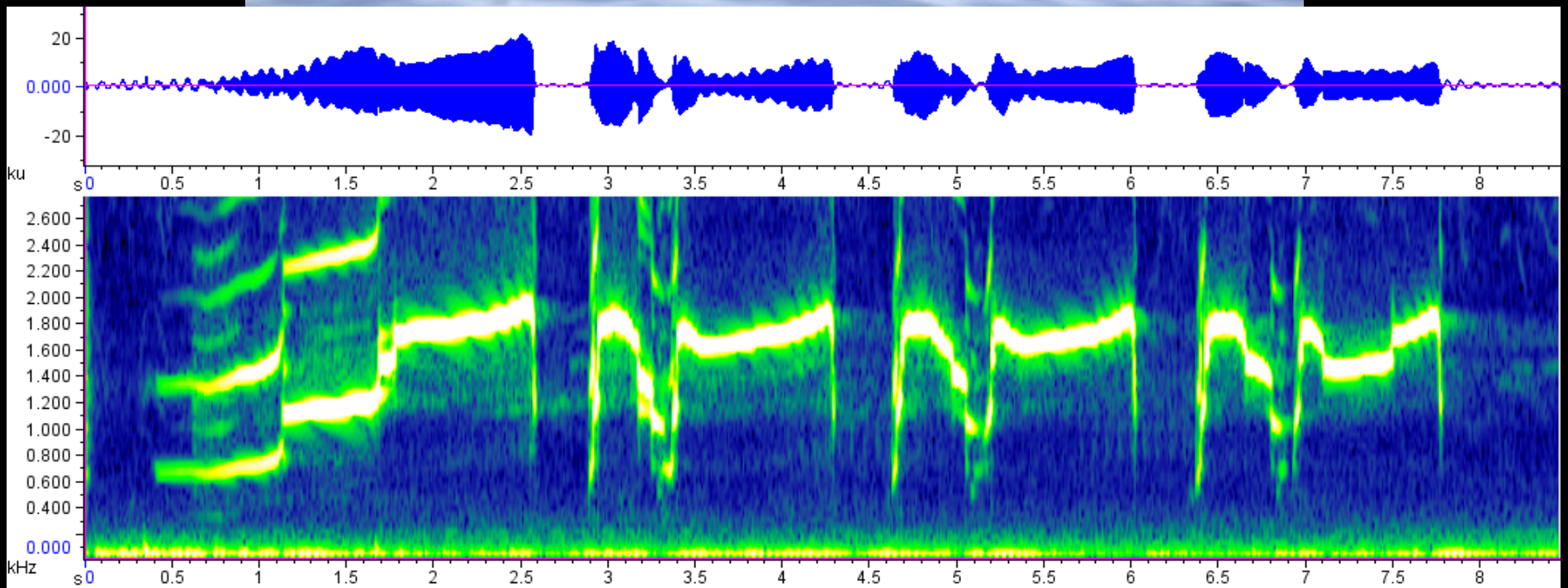
Territorial takeover is common!

- Males often die after eviction.
- Females seldom die.
- Evicted birds must relocate.



Drs. Jay Mager and Charlie Walcott

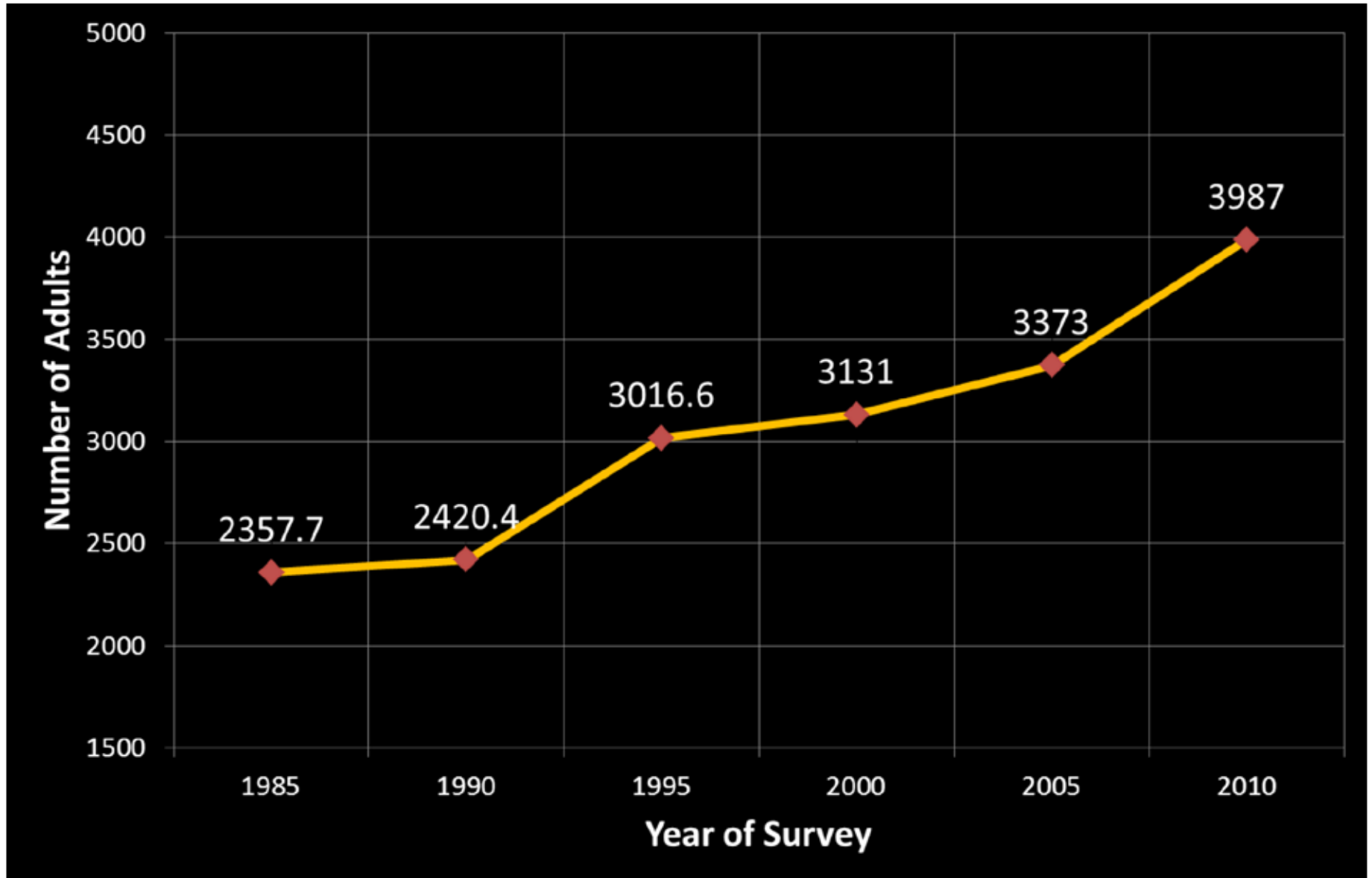




Loon Citizen Scientists

LoonWatch, Sigurd Olson Environmental
Institute, Northland College, Ashland

Population Estimates of Adult Common Loons in Wisconsin





Mike Meyer, Doug Killian, Dennis Stockwell
WDNR Science Services
Rhineland



