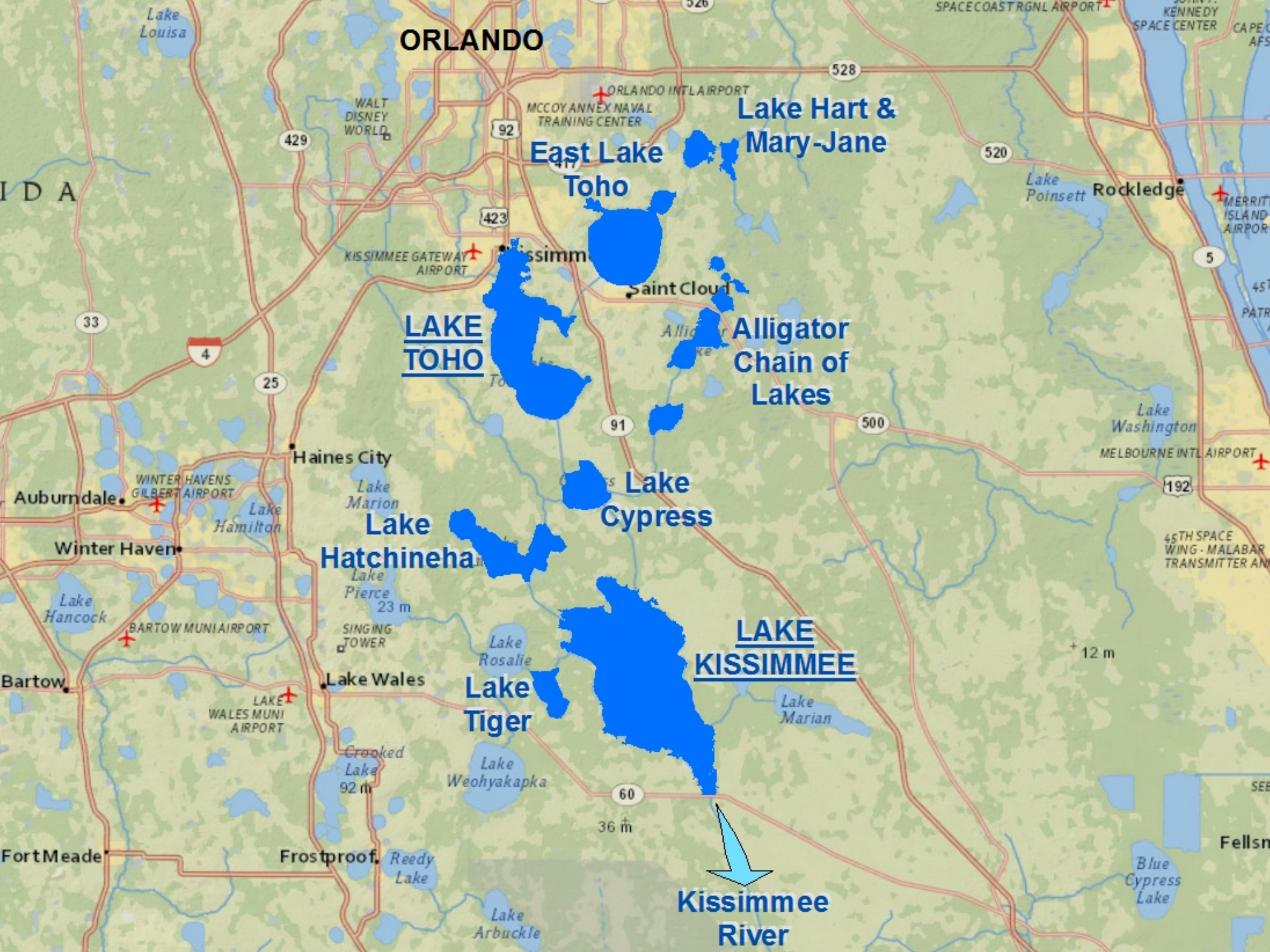


Vegetation Status of the Kissimmee River Headwaters Lakes

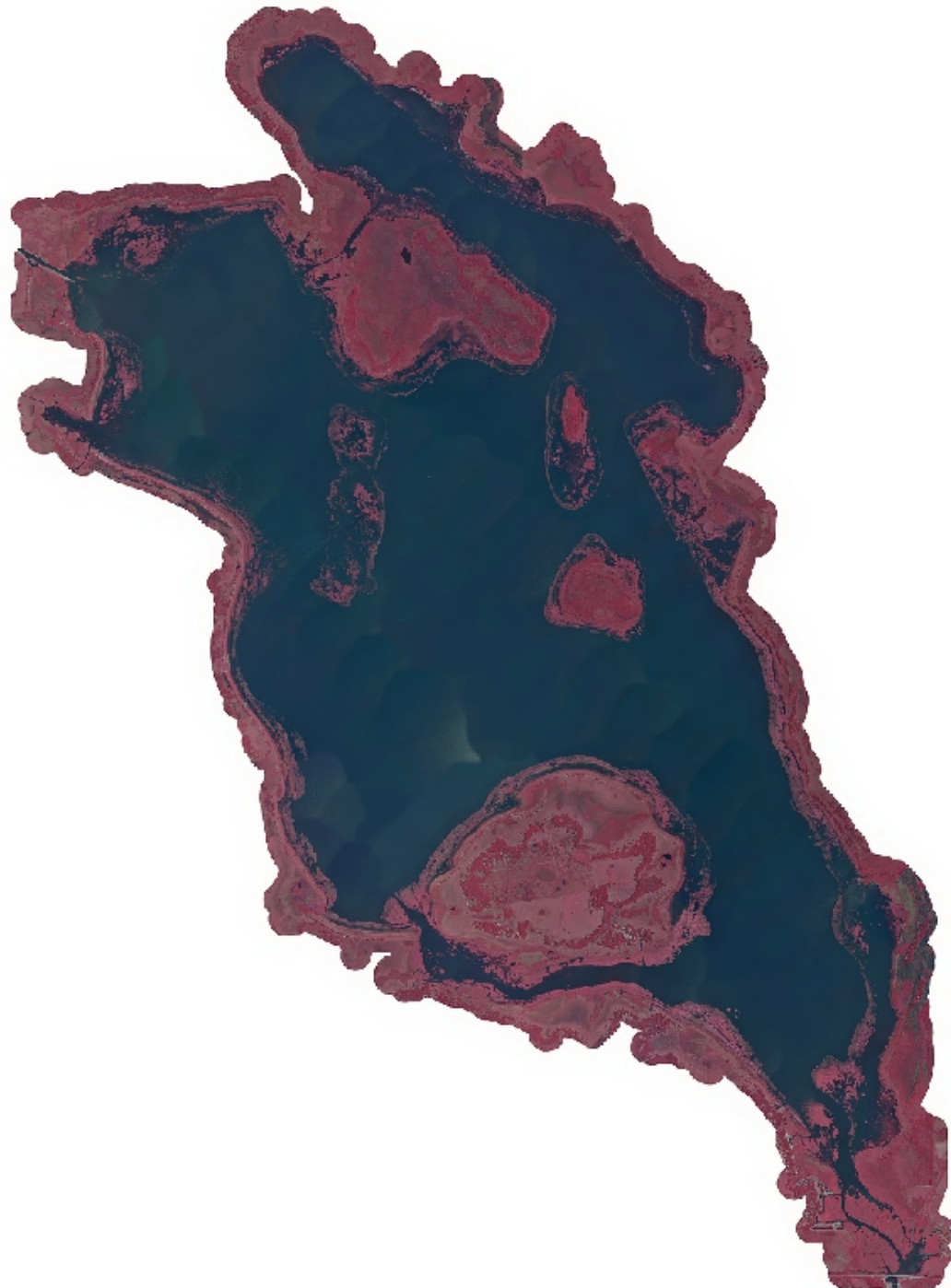


Craig Mallison
Fish & Wildlife Research Institute



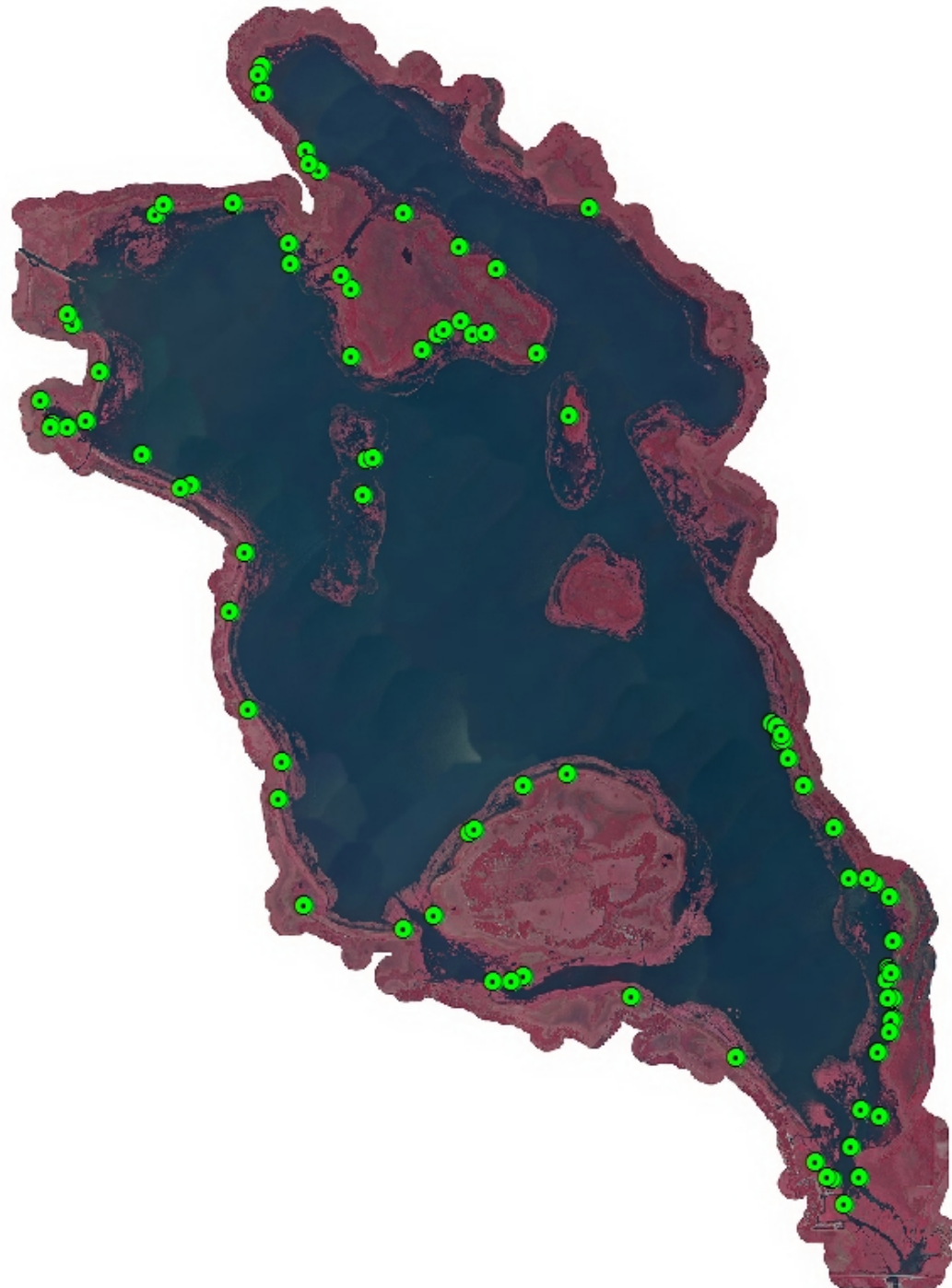
Lake Kissimmee 2015

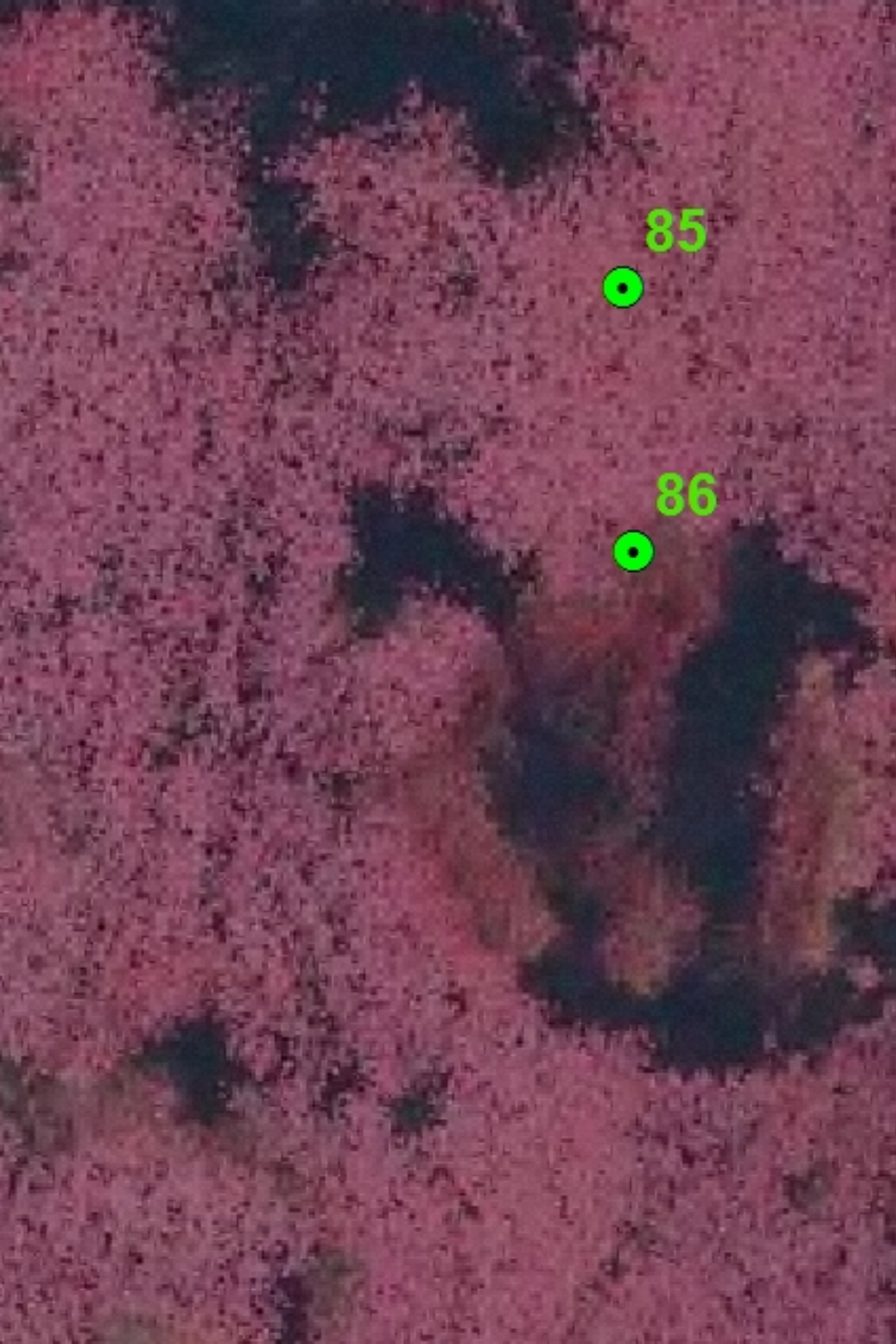
Aerial CIR Photography



Lake Kissimmee 2015

Field survey locations



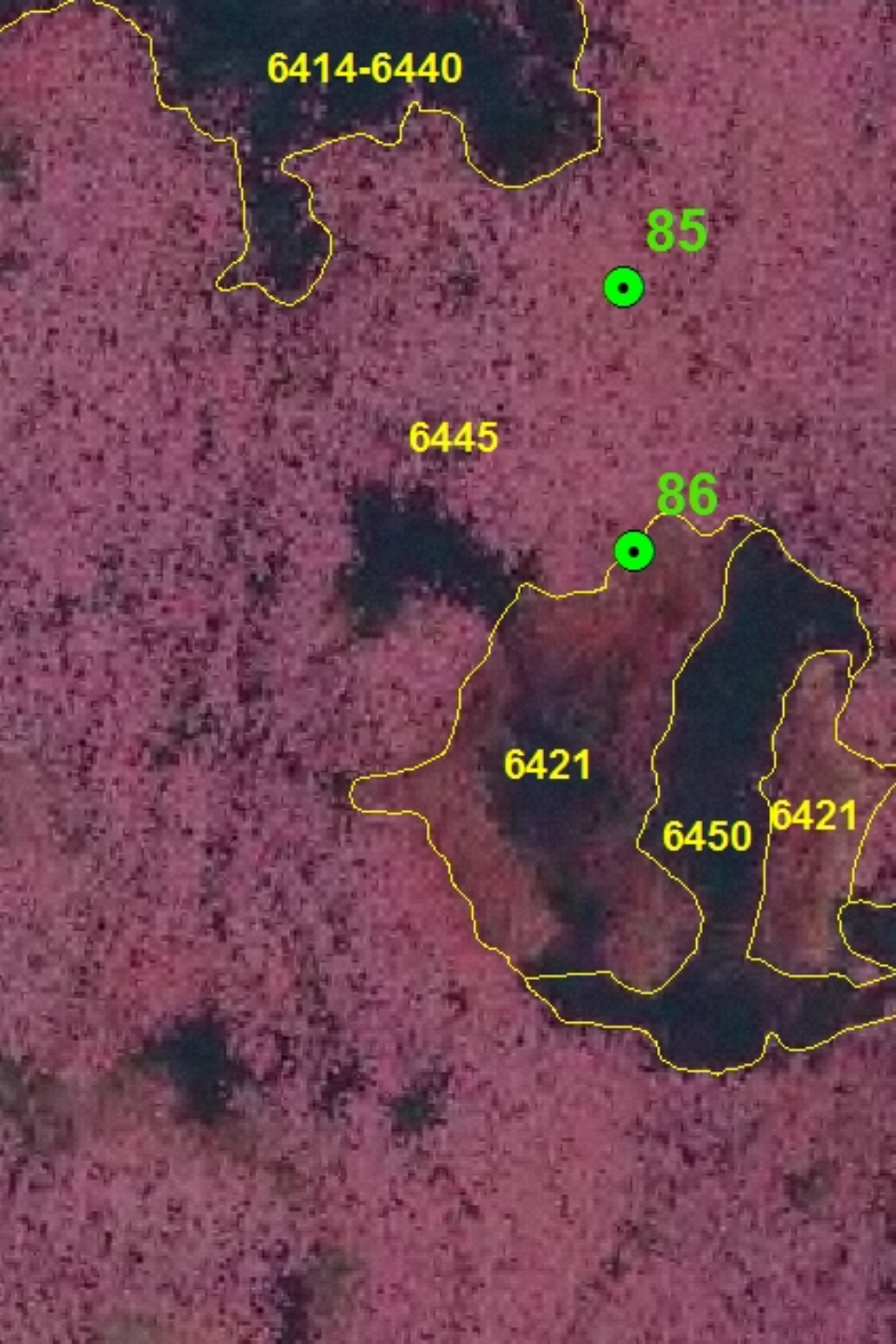


85



86

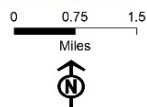




Vegetation Class

- Upland
- Water, open water
- Wetland
- Forested wetland
- Freshwater marsh
- Cattail
- Mixed cattail, maidencane / Egyptian paspalum
- Mixed cattail, pickerelweed / arrowhead
- Mixed cattail, bulrush
- Mixed cattail, water primrose / knotweed
- Mixed cattail, mixed pads
- Maidencane / Egyptian paspalum
- Mixed maidencane / Egyptian paspalum, pickerelweed / arrowhead
- Mixed maidencane / Egyptian paspalum, bulrush
- Mixed maidencane / Egyptian paspalum, torpedograss
- Mixed maidencane / Egyptian paspalum, mixed pads
- Freshwater marsh with shrubs, brush, vines
- Shrubs
- Shrubs, pickerelweed / arrowhead
- Pickerelweed / arrowhead
- Mixed pickerelweed / arrowhead, bulrush
- Mixed pickerelweed / arrowhead, torpedograss
- Mixed pickerelweed / arrowhead, water primrose / knotweed
- Mixed pickerelweed / arrowhead, mixed pads
- Bulrush
- Mixed bulrush, water primrose / knotweed
- Mixed bulrush, mixed pads
- Torpedograss
- Water primrose / knotweed
- Mixed water primrose / knotweed, cuscuta grass
- Mixed water primrose / knotweed, mixed pads
- Mixed pads
- Spatterdock
- Lilies
- American lotus
- Submersed aquatic vegetation
- Dead vegetation / forested areas

URS



Lake Kissimmee Littoral Vegetation Mapping 2015

Prepared For
Florida Fish and Wildlife Conservation Commission
By URS



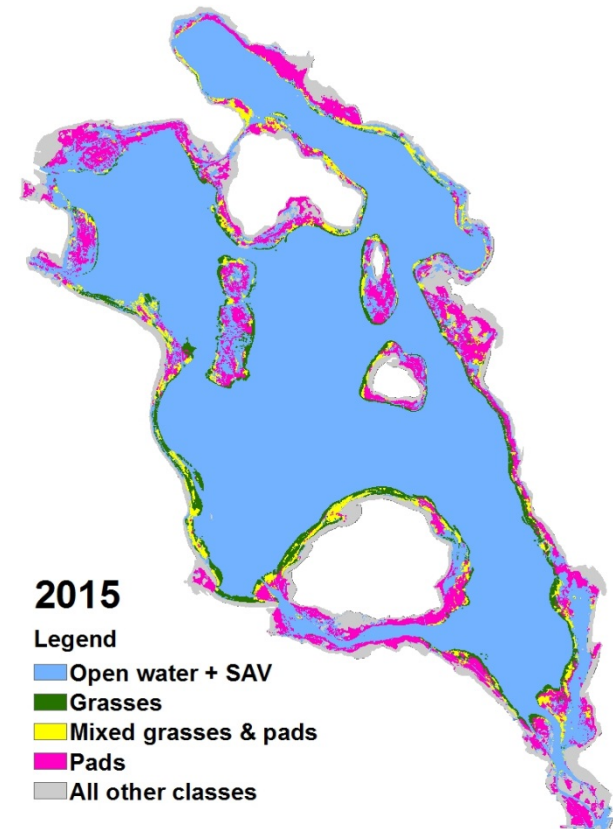
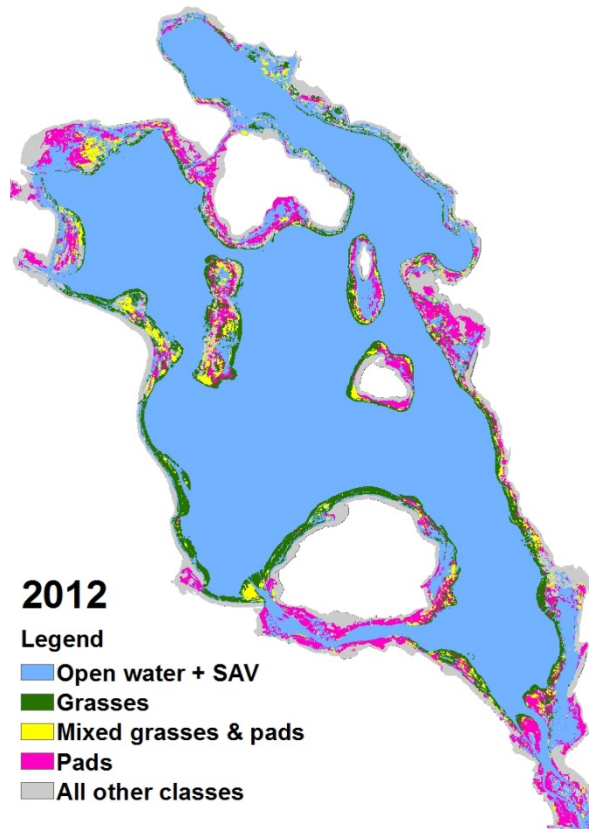
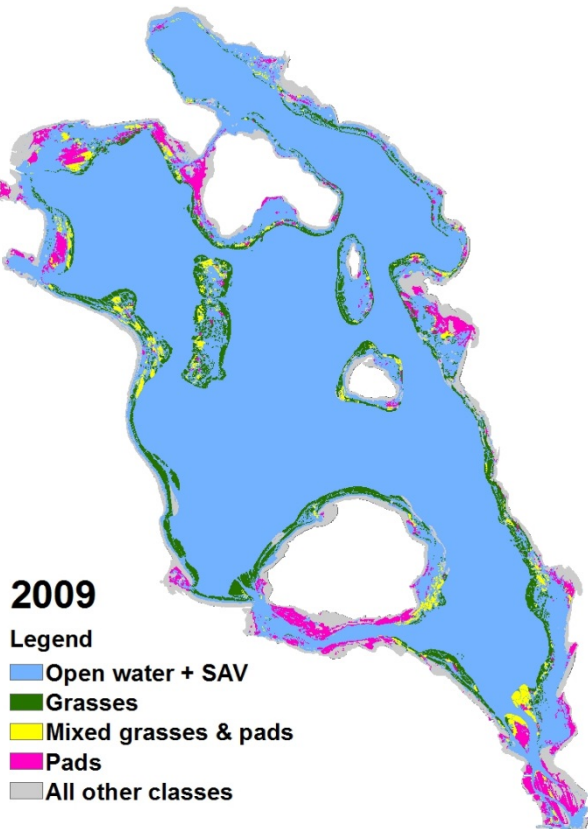
2015

Lake Kissimmee – lakewide coverage (acres)

Class	2009	2012	2015	2009 to 2015 change	
				acres	%
Open areas (open water, SAV)	26,816	24,755	24,634	-2,182	-8%
Pads (spatterdock, water lily)	1,307	<u>2,405</u>	<u>3,350</u>	2,043	156%
Grass (maidencane, Egypt. paspalidium)	<u>2,098</u>	2,146	1,277	-822	-39%
Mixed grasses + pads	573	844	1,074	500	87%
Freshwater marsh	1,119	1,047	1,060	-59	-5%
Willow/shrubs	667	633	712	45	7%
Pickerelweed	193	330	352	159	82%
Mixed knotweed/primrose + pads	112	130	227	115	102%
Mixed cattail + pickerelweed	109	134	181	72	66%
Knotweed/primrose	129	581	178	49	38%
Mixed pickerelweed + knotweed/primrose	12	83	158	146	1239%
Cattail	216	271	151	-65	-30%
Lotus	0	2	104	104	-
All other emergent classes	397	383	225	-173	-43%

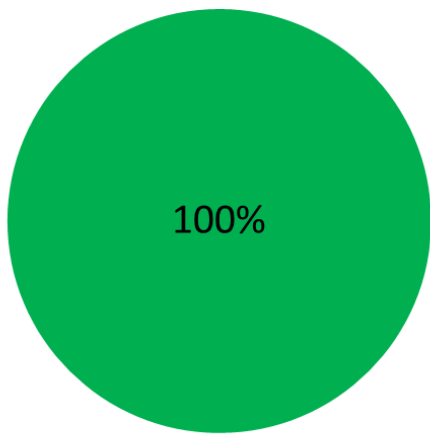


Lake Kissimmee

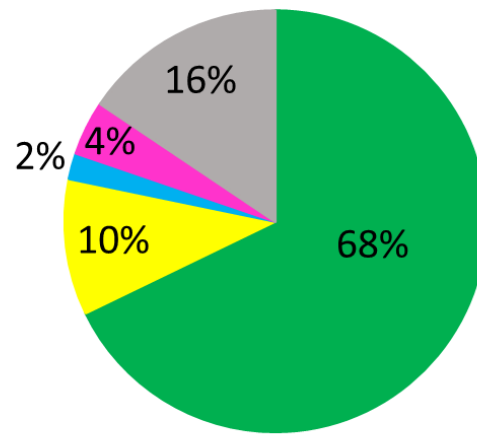


Lake Kissimmee – Grass (maidenecane, Egyptian paspalidium) 2,098 acres mapped in 2009

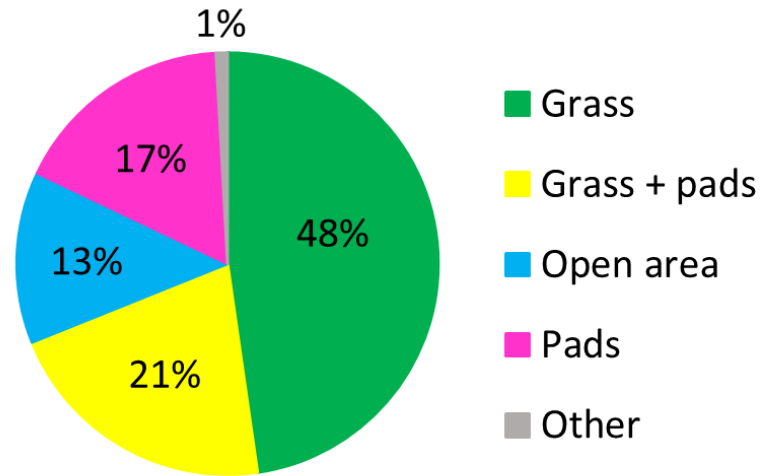
2009



2012



2015

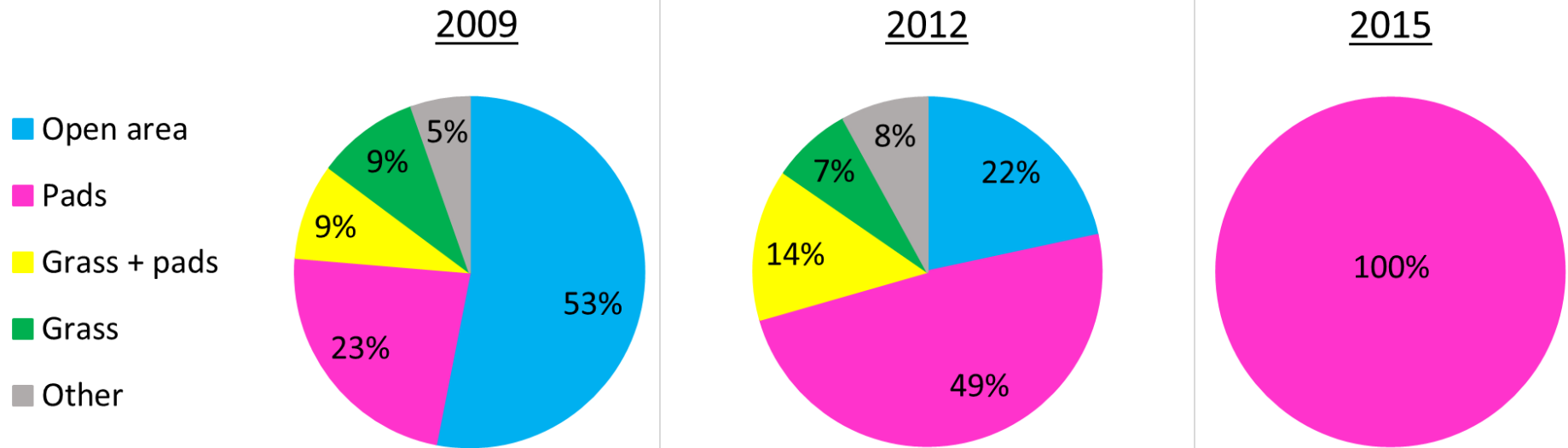


- Grass
- Grass + pads
- Open area
- Pads
- Other



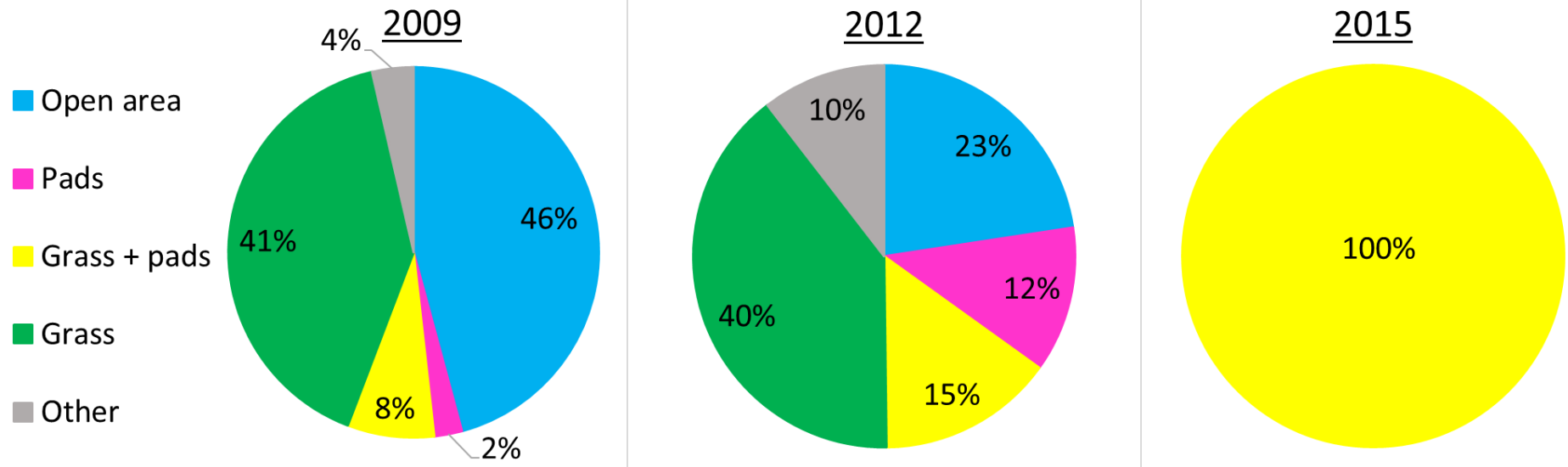
Lake Kissimmee – Pads (spatterdock, water lily)

3,350 acres mapped in 2015



Lake Kissimmee – Mixed grasses + pads

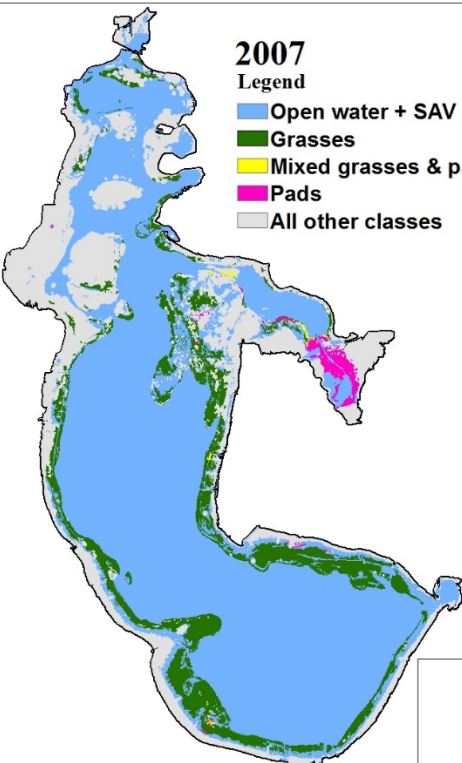
1,074 acres mapped in 2015



2007

Legend

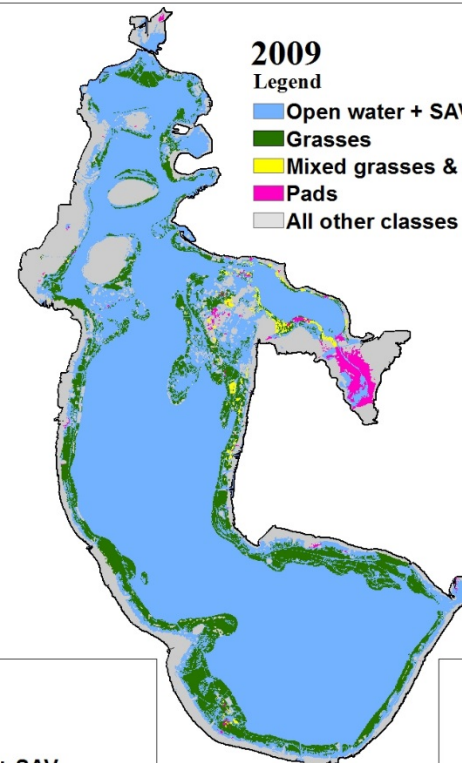
- Open water + SAV
- Grasses
- Mixed grasses & pads
- Pads
- All other classes



2009

Legend

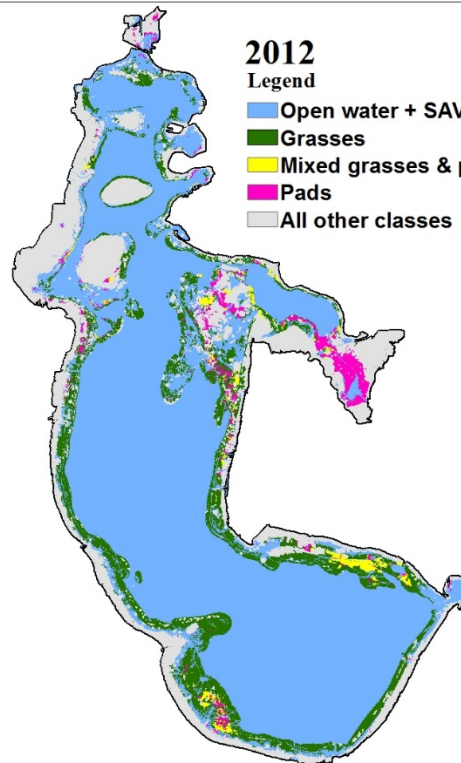
- Open water + SAV
- Grasses
- Mixed grasses & pads
- Pads
- All other classes



2012

Legend

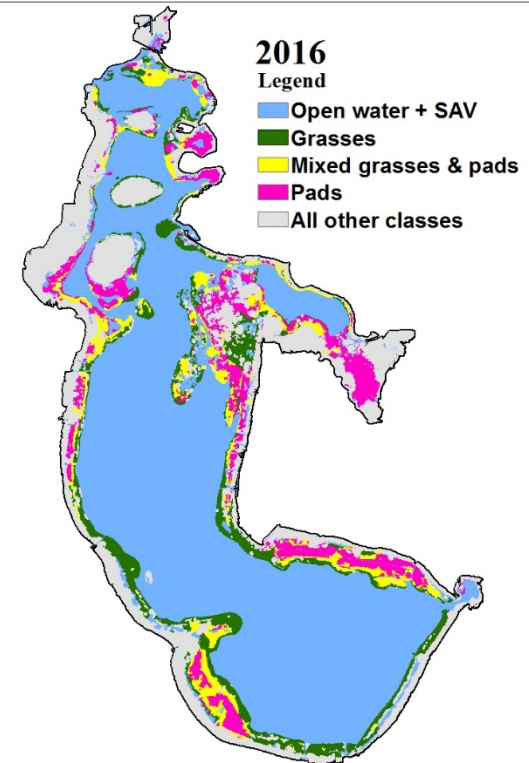
- Open water + SAV
- Grasses
- Mixed grasses & pads
- Pads
- All other classes



2016

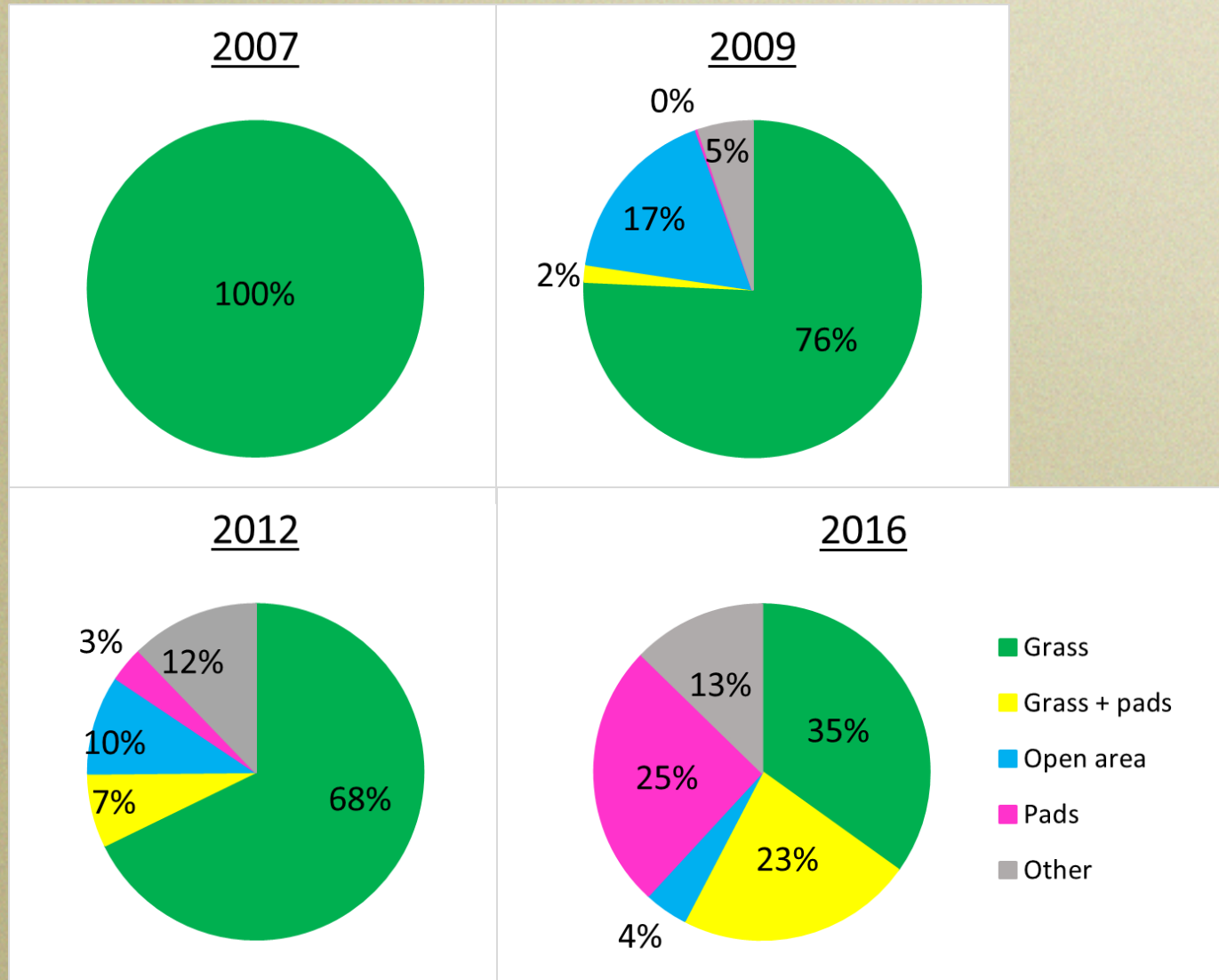
Legend

- Open water + SAV
- Grasses
- Mixed grasses & pads
- Pads
- All other classes



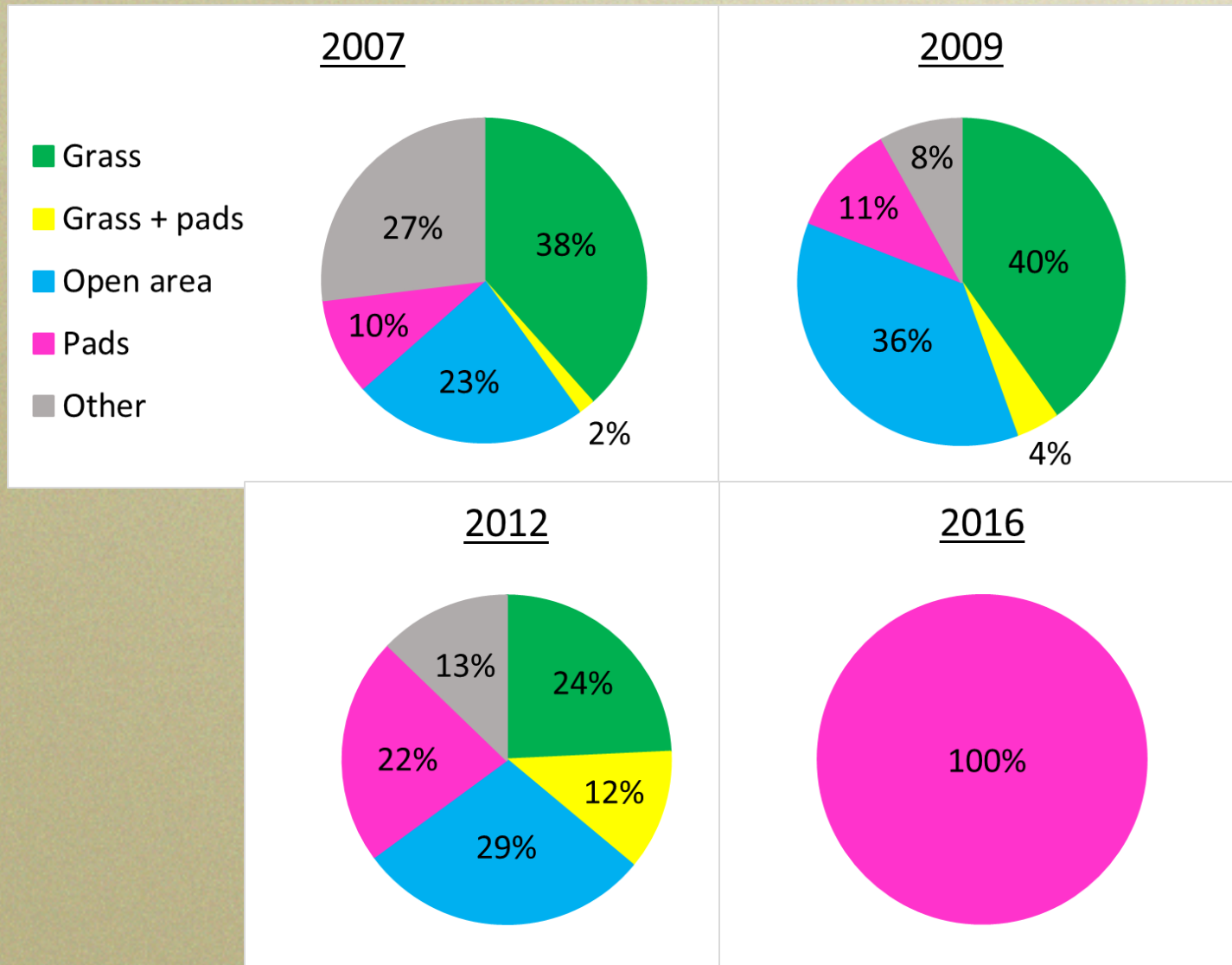
Lake Toho – Grass (maidencane, Egyptian paspalidium)

2,180 acres mapped in 2007



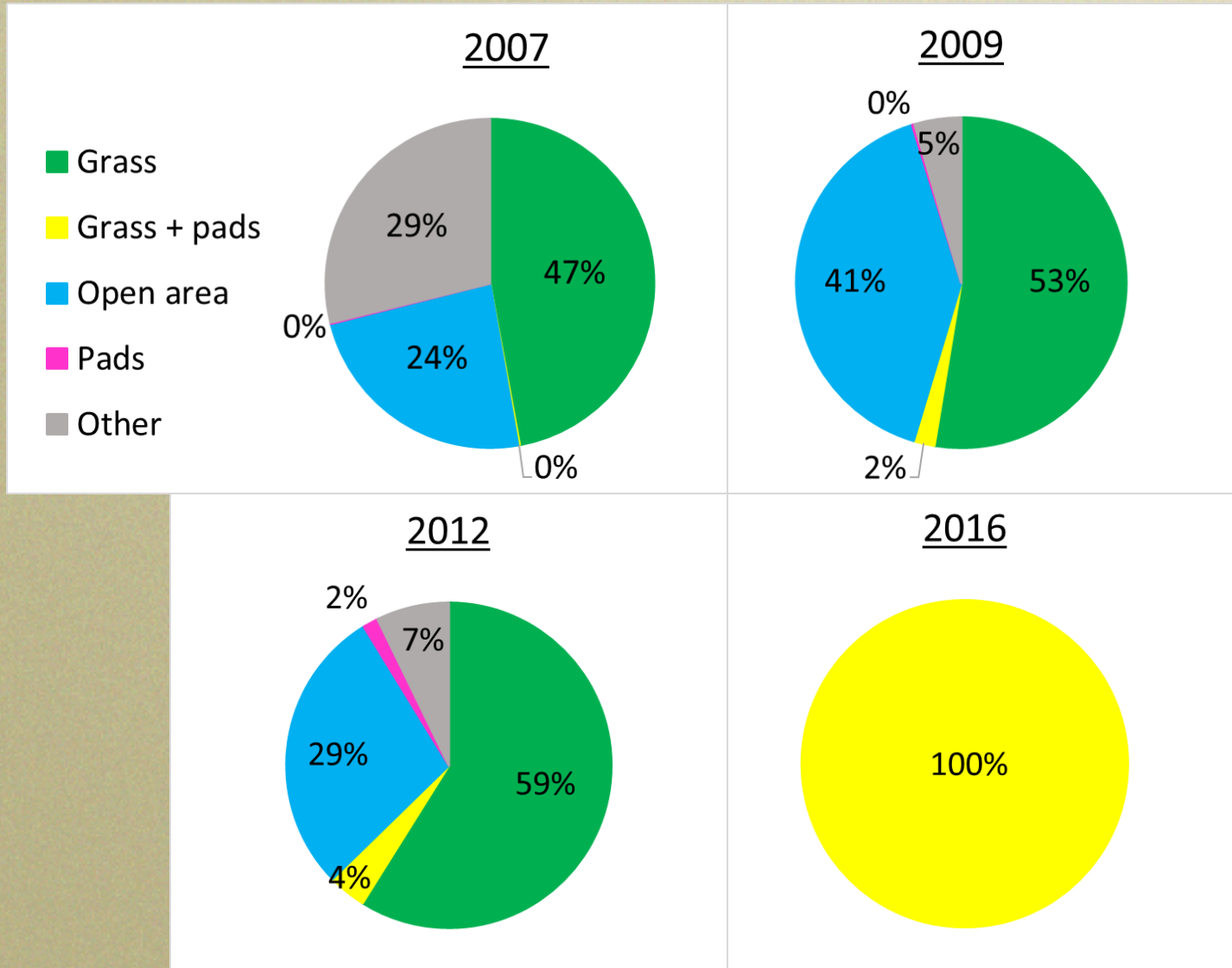
Lake Toho – Pads (spatterdock, water lily)

1,444 acres mapped in 2016



Lake Toho – Mixed grass + pads

1,053 acres mapped in 2016



Summary

Grasses declined

Kissimmee: -40% (2012-2015) - replaced by mix (21%), pads (17%), open (13%)
Toho: -35% (2012-2016) - replaced by pads (25%), mix (23%), other (13%)

Pads increased

Kissimmee: +156% (2009-2015) - replaced open (53%), mix (9%), grass (9%)
Toho: +259% (2012-2016) - replaced grass (38%), other (27%), open (23%)

Mixed grass + pads increased

Kissimmee: +87% (2009-2015) - replaced open (46%), grass (41%)
Toho: +381% (2012-2016) - replaced grass (47%), other (29%), open (24%)





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