

USFWS Triploid Grass Carp Certification Program



HDR

Presenter: Meghan Oh

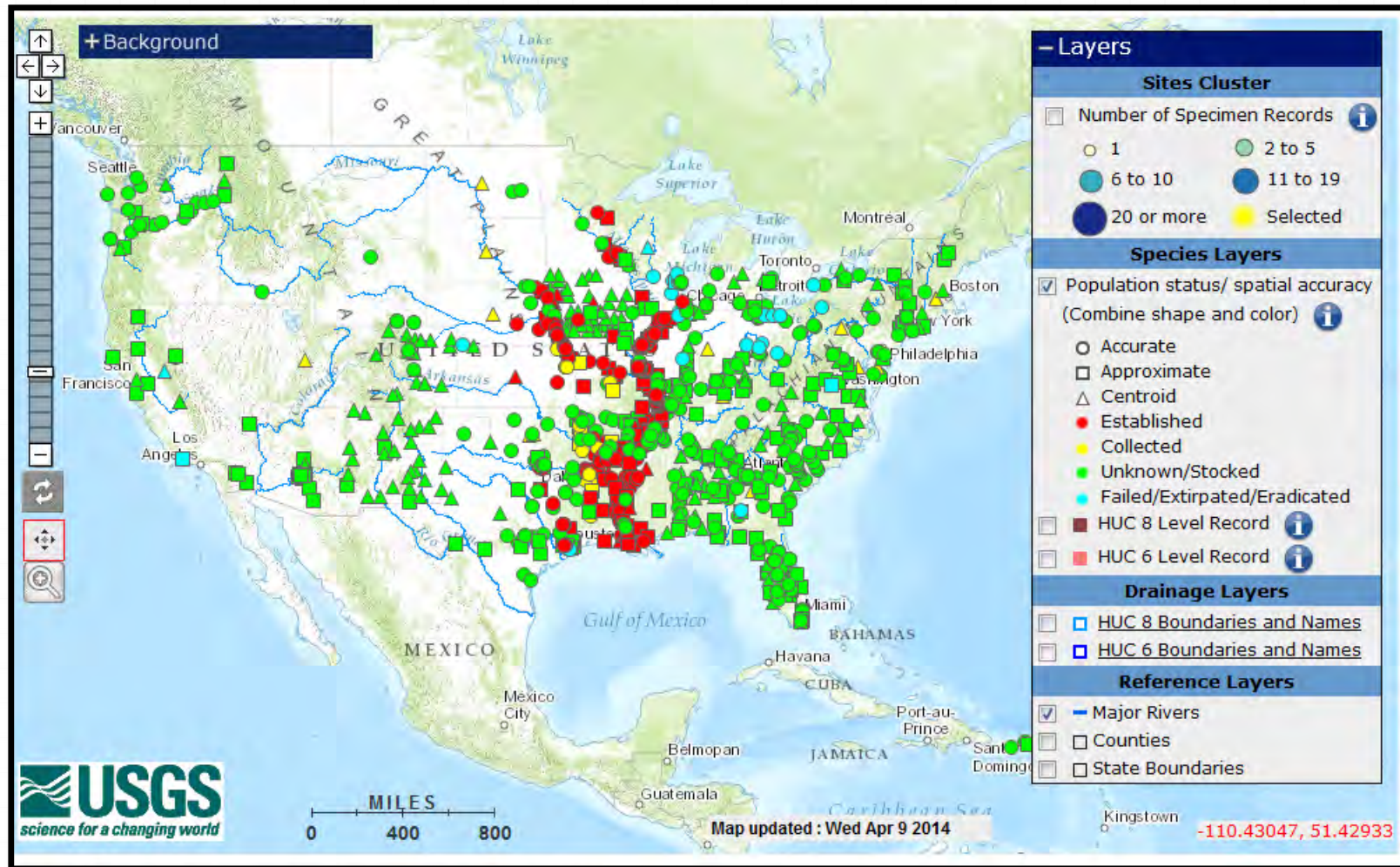
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Presentation Overview

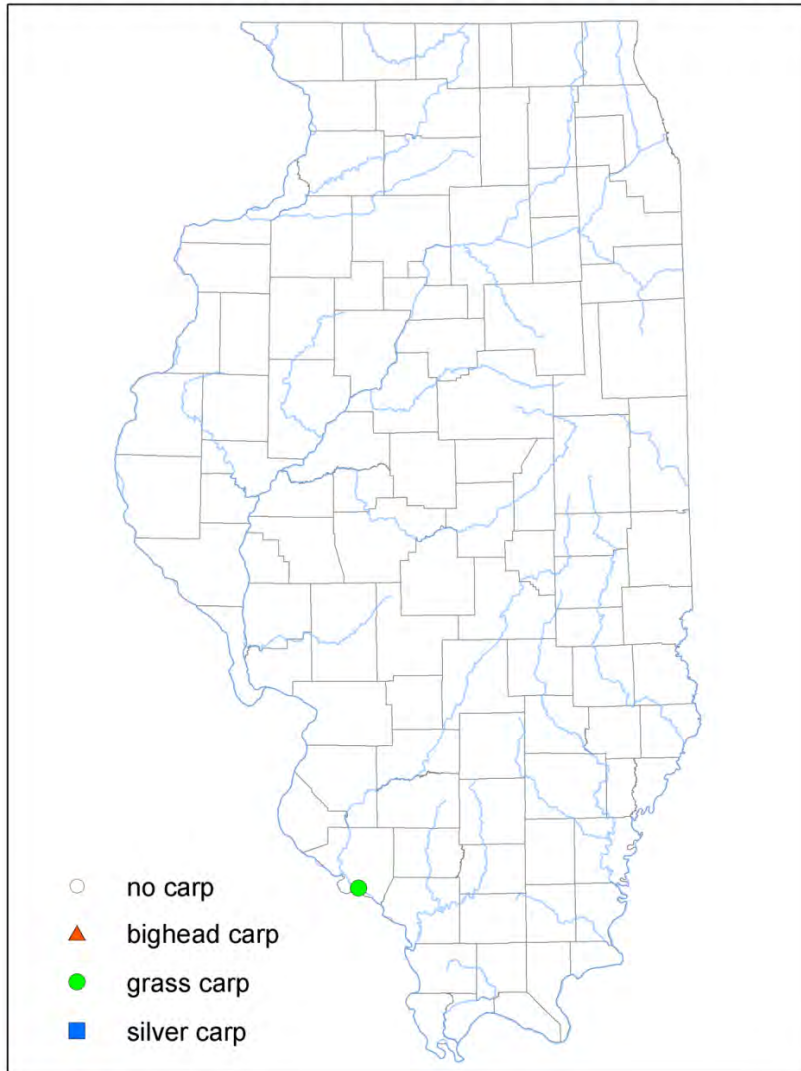
- Project and Species Background
- State Regulations and Rationales
- Producers and Distributors
- Challenges and Issues
- Potential Recommendations

Grass Carp (*Ctenopharyngodon idella*) occurrences tracked by USGS

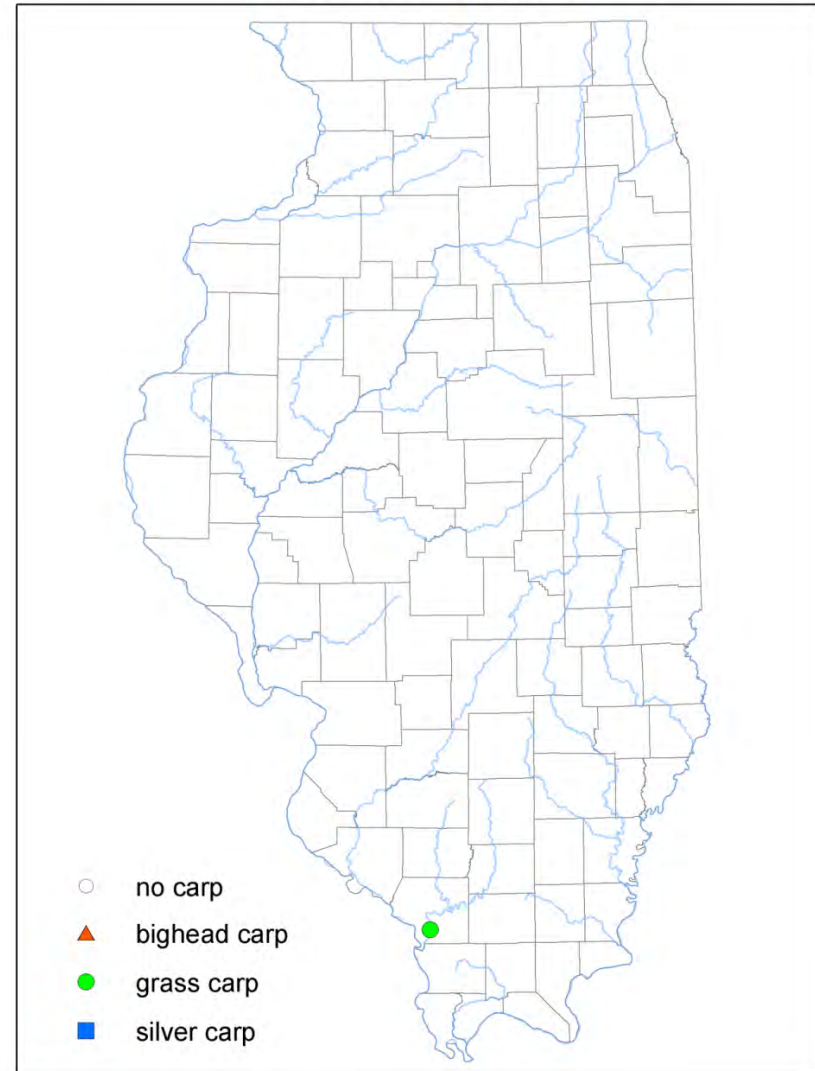


Imported to Alabama and Arkansas in 1963

Grass Carp Occurrences in the Illinois and Mississippi Rivers from 1971 to 1975

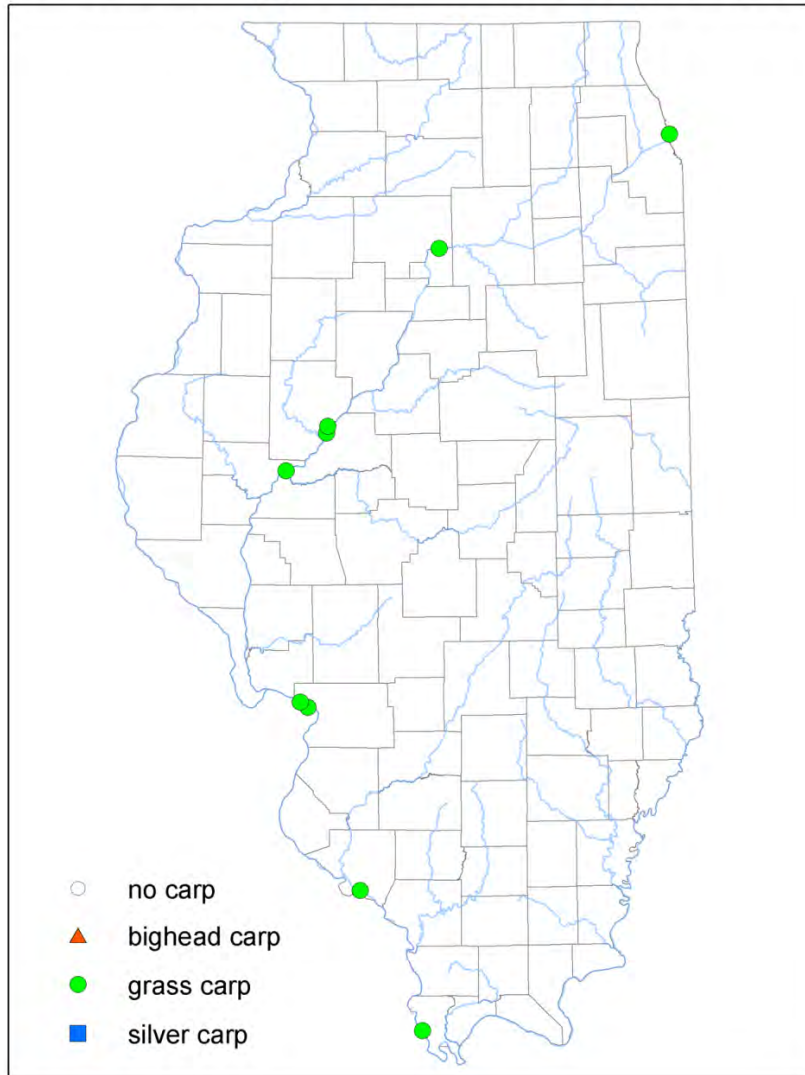


Grass Carp Occurrences in Illinois and Mississippi River Tributaries from 1971 to 1975

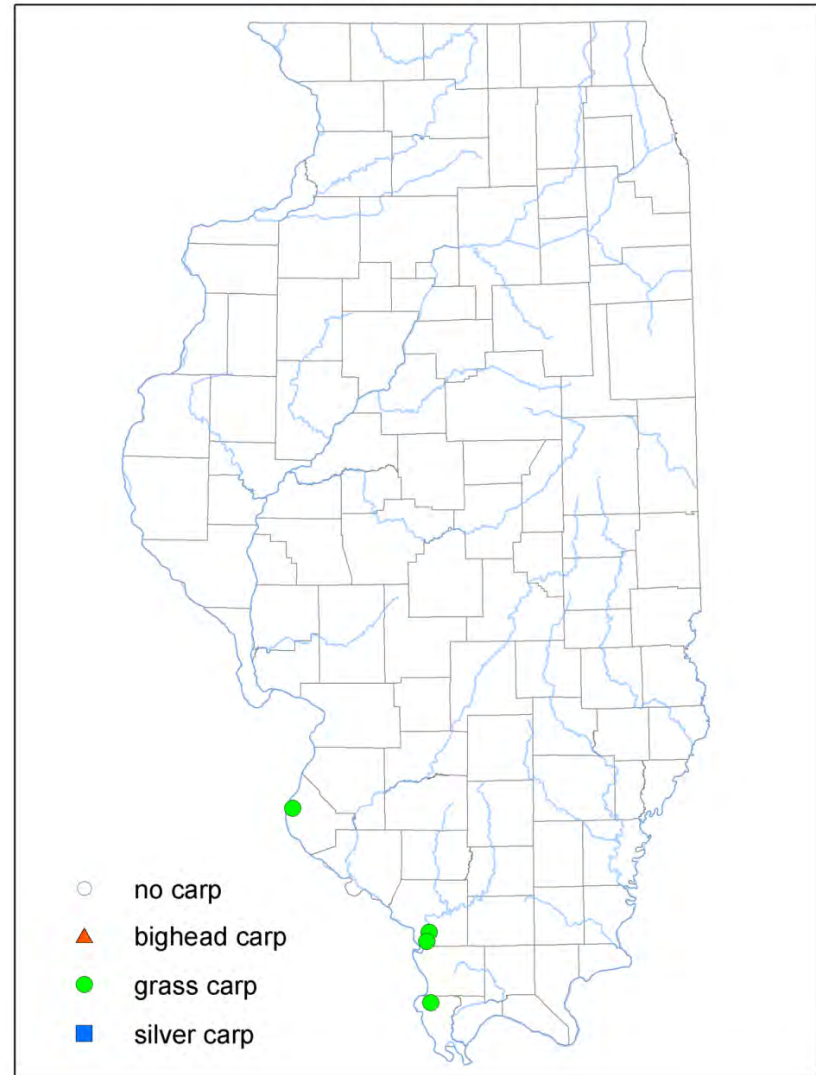


Data from the IDNR, INHS, LTRMP, and Long-term Illinois, Mississippi, Wabash and Ohio Rivers Fish Monitoring Program, courtesy of Mike Wilson, Illinois Natural History Survey, University of Illinois

Grass Carp Occurrences in the Illinois and Mississippi Rivers from 1971 to 1992

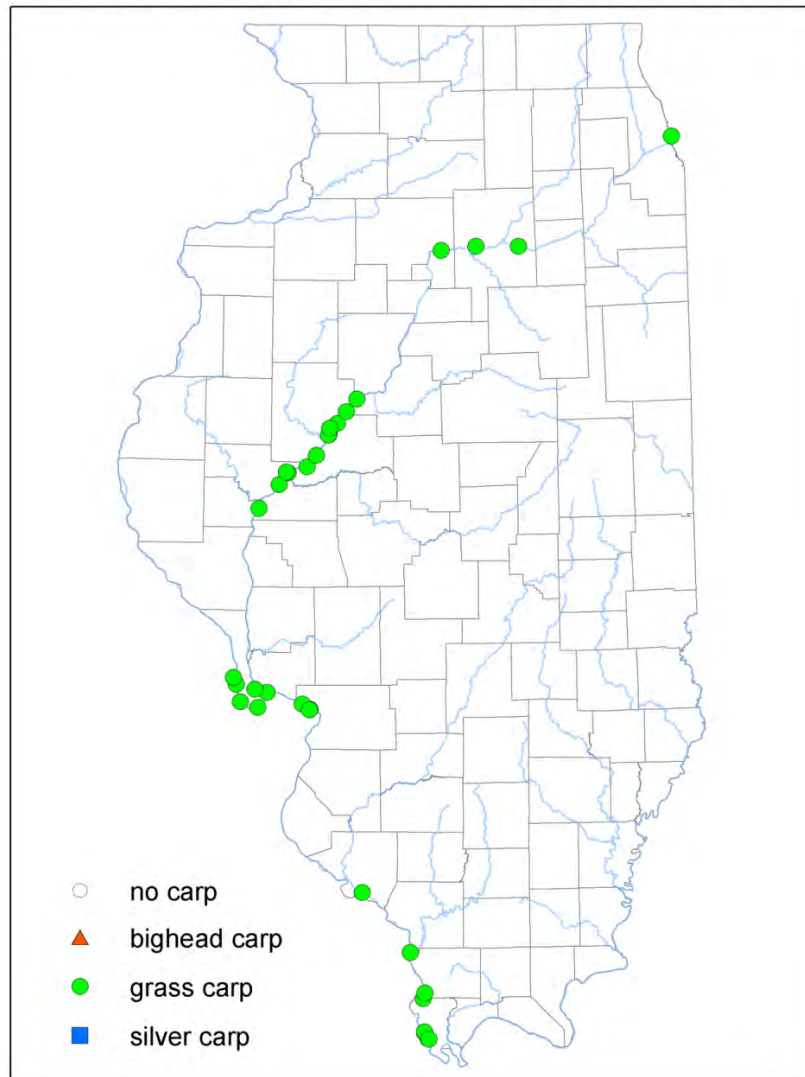


Grass Carp Occurrences in Illinois and Mississippi River Tributaries from 1971 to 1992

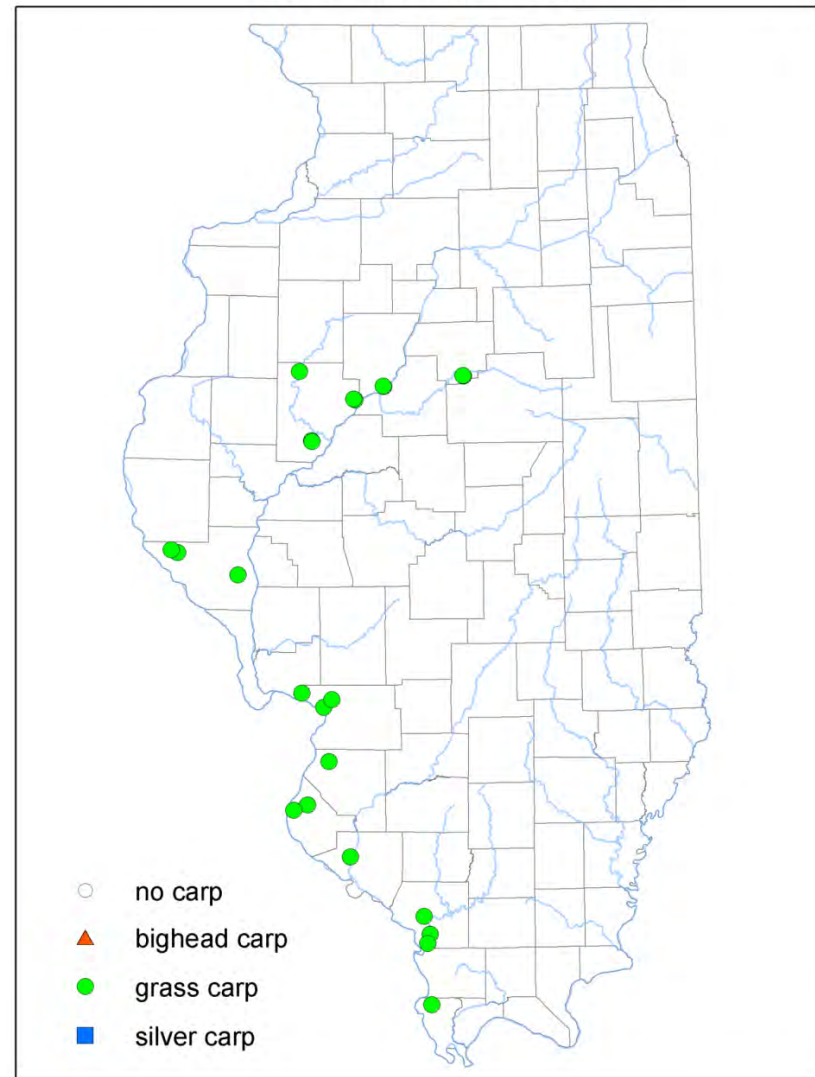


Data from the IDNR, INHS, LTRMP, and Long-term Illinois, Mississippi, Wabash and Ohio Rivers Fish Monitoring Program, courtesy of Mike Wilson, Illinois Natural History Survey, University of Illinois

Grass Carp Occurrences in the Illinois and Mississippi Rivers from 1971 to 1998

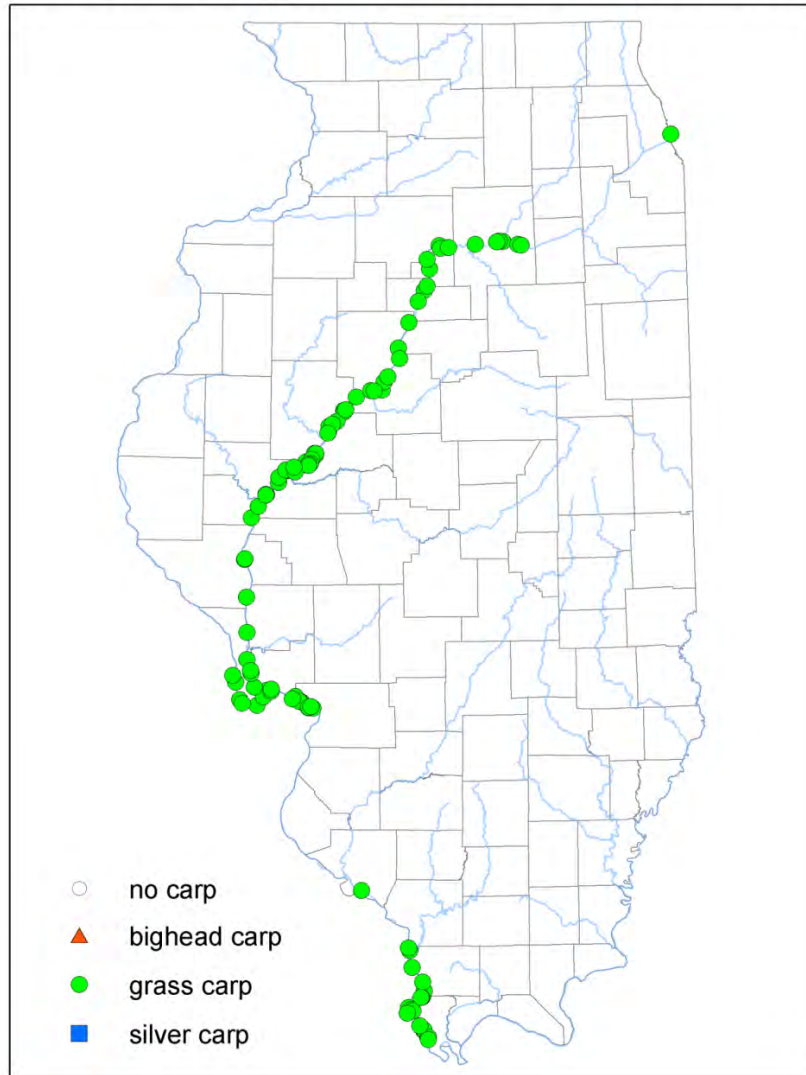


Grass Carp Occurrences in Illinois and Mississippi River Tributaries from 1971 to 1998

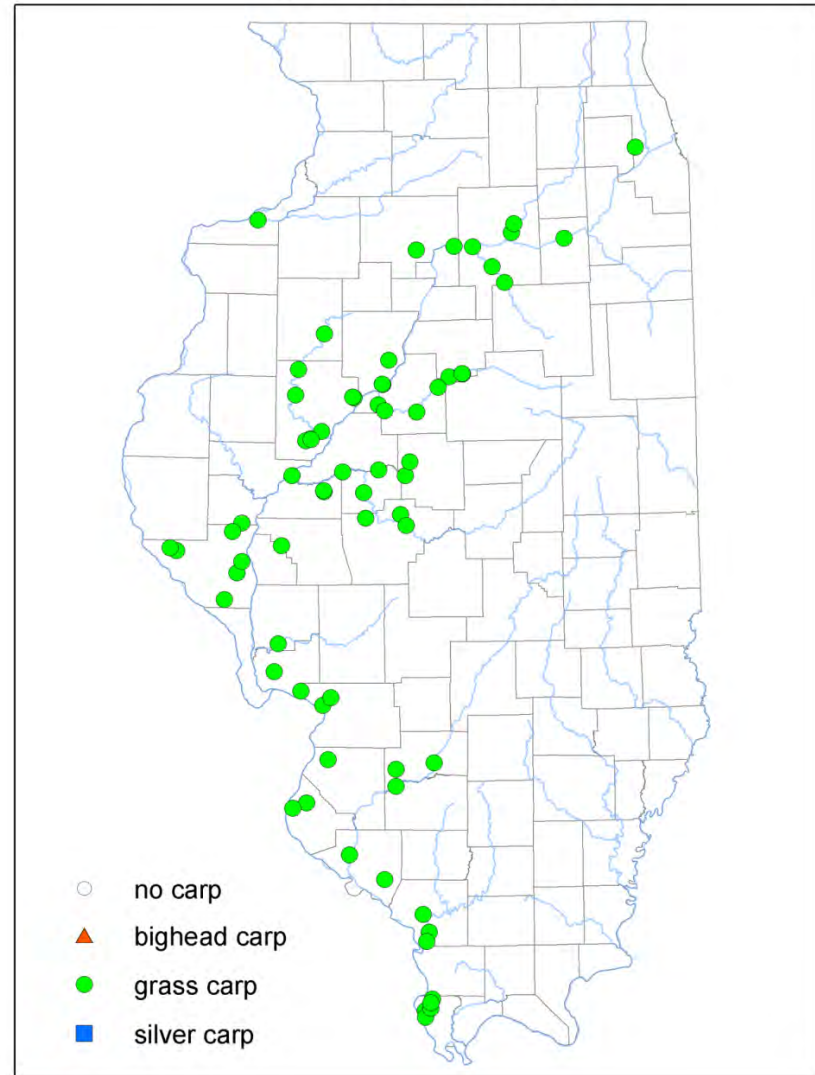


Data from the IDNR, INHS, LTRMP, and Long-term Illinois, Mississippi, Wabash and Ohio Rivers Fish Monitoring Program, courtesy of Mike Wilson, Illinois Natural History Survey, University of Illinois

Grass Carp Occurrences in the Illinois and Mississippi Rivers from 1971 to 2009



Grass Carp Occurrences in Illinois and Mississippi River Tributaries from 1971 to 2009



Data from the IDNR, INHS, LTRMP, and Long-term Illinois, Mississippi, Wabash and Ohio Rivers Fish Monitoring Program, courtesy of Mike Wilson, Illinois Natural History Survey, University of Illinois

Reported poundage of grass carp caught by commercial fishermen in Illinois Rivers

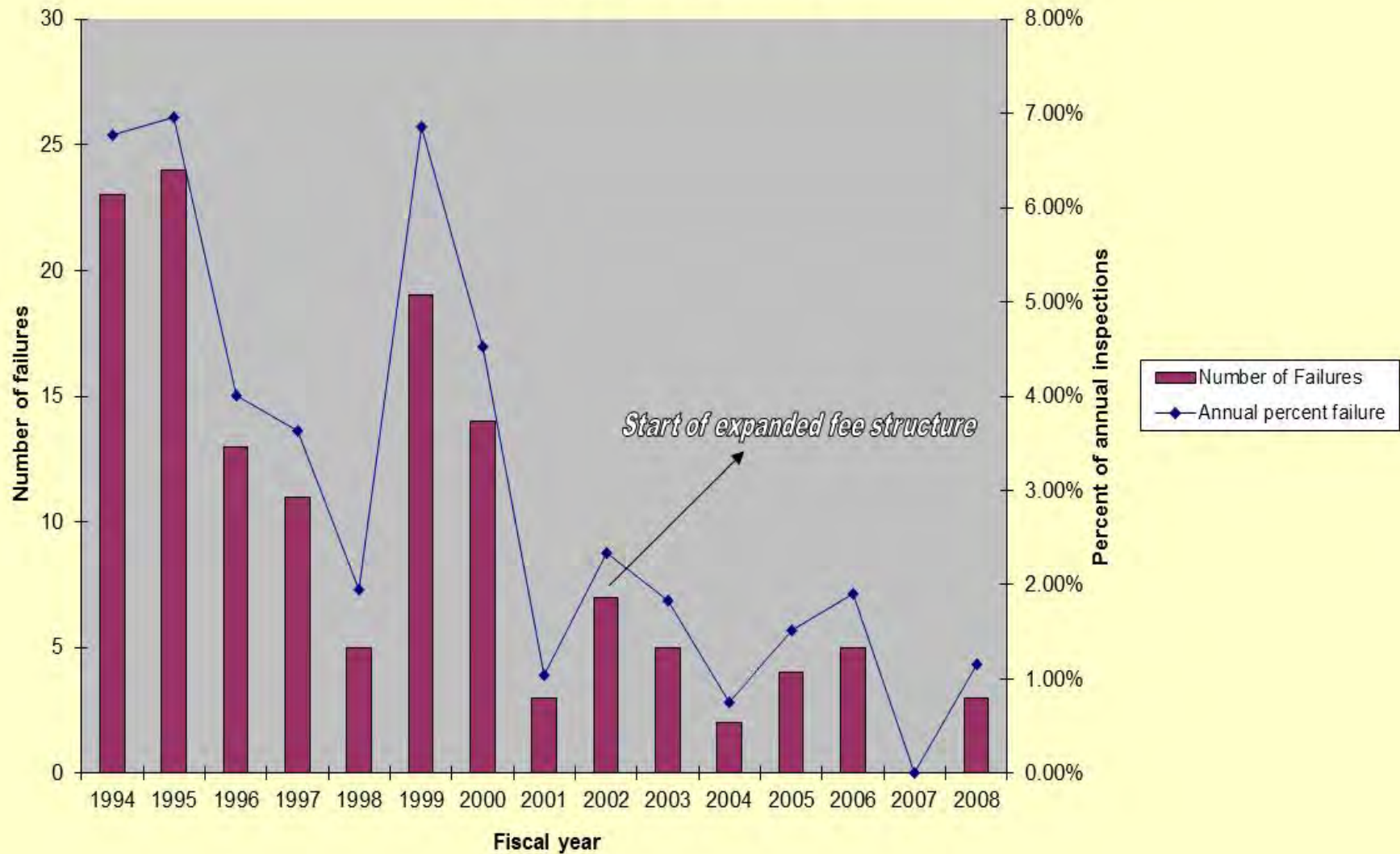
Year	Mississippi	Illinois	Kaskaskia	Wabash	Ohio	Rock
2003	58,381	48,203	1,116	210	30	0
2004	58,653	110,764	1,124	0	0	462
2005	34,265	113,987	499	0	1,451	122
2006	40,235	37,484	1,028	400	323	485
2007	73,116	63,851	150	50	0	292
2008	134,912	119,774	1,709	50	103	1,533
2009	256,305	152,723	807	0	2,179	6,506
2010	254,782	198,131	650	235	0	4,364
2011	181,693	231,377	460	920	0	NA

USFWS Triploid Grass Carp Certification Program Overview

- 0 Triploids production began in early 1980s
- 0 Certification program was established in 1995
- 0 *“The purpose of the USFWS inspection program is to provide assurance to natural resource agencies, and others concerned about protecting aquatic resources, that shipments of grass carp alleged to be all triploid, do not, within the confidence limits of the inspection program, contain diploids.”* (USFWS, 2014)
- 0 Certified 5 million triploids in the last 10 years
- 0 Voluntary participation



USFWS Certified Triploid Grass Carp Annual Failures Rates Stuttgart 1994-2008



Project Introduction

- Purpose of Study
 - Evaluate effectiveness of USFWS Triploid Grass Carp Certification Program
 - Gain a nation-wide perspective
 - Carry out recommendation of 2007 National Plan
- Scope of Study
 - Interviews with State and Federal agencies
 - Interviews with private producers and distributors
 - Site Visits
 - Data Analysis
 - Recommendations



Data Collection

DATA NEEDS

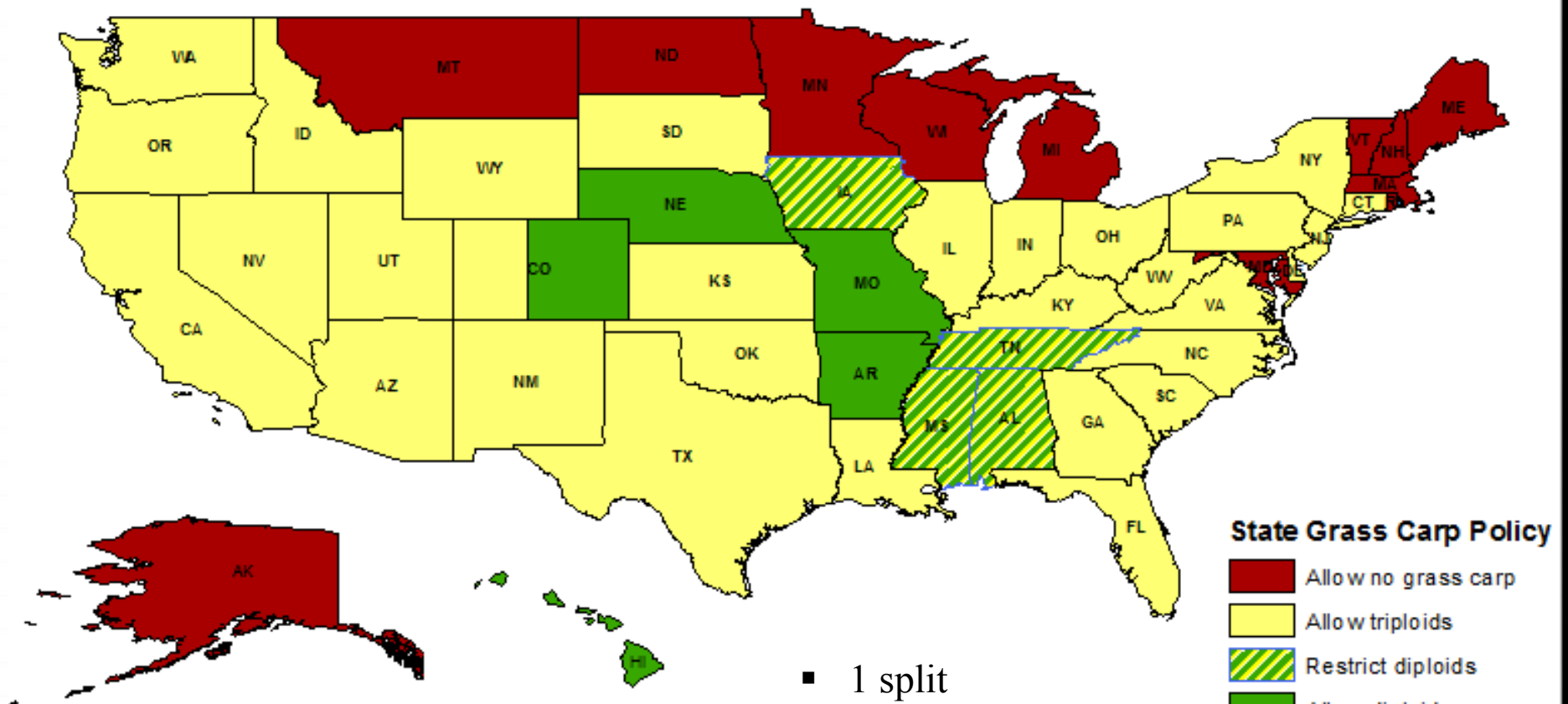
- Regulations
- Production
- Triploid Certification
- Shipping
- Stocking
- SOPs/BMPs

SOURCES

- USFWS
- State Agencies
- Producers
- Distributors
- Site visits



State Grass Carp Regulations



State Grass Carp Policy

- Allow no grass carp
- Allow triploids
- Restrict diploids
- Allow diploids

- 1 split
- 4 restrict diploids
- 4 green
- 12 red
- 29 yellow states

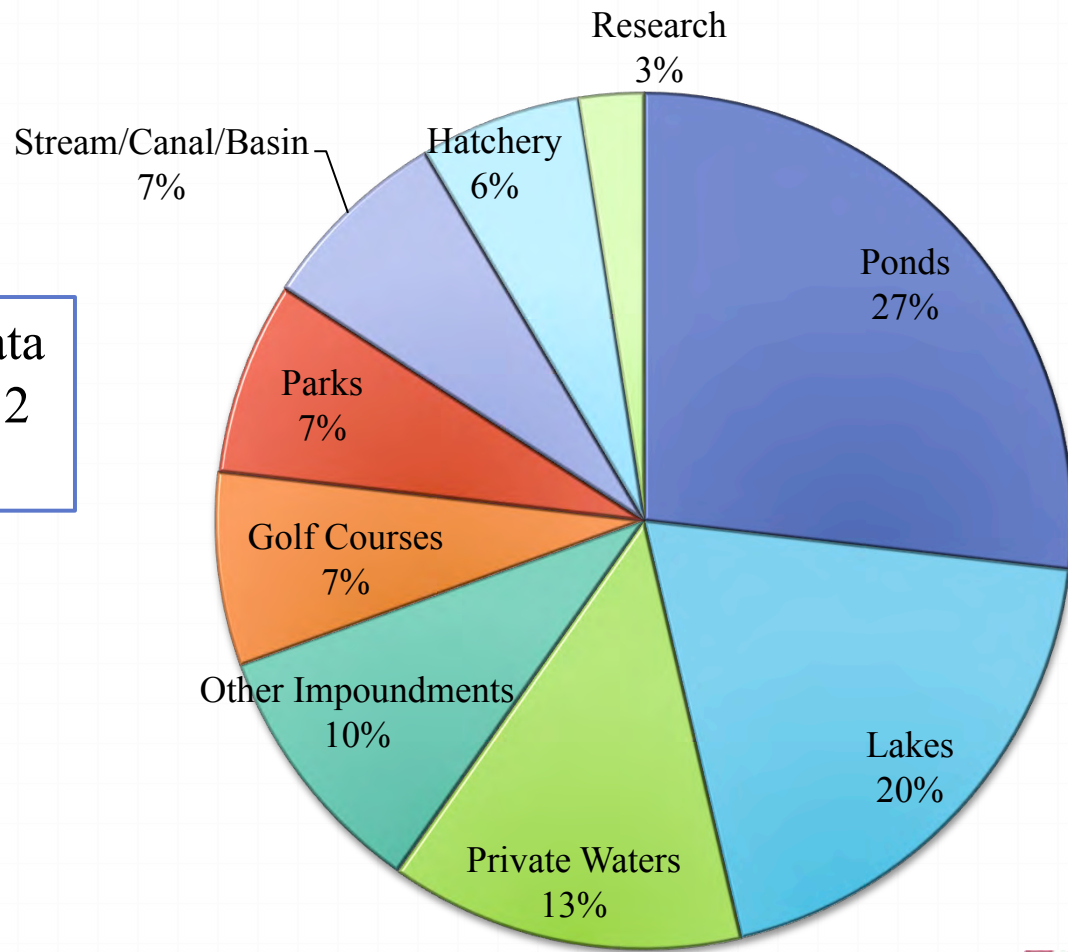
State Rationales



- Why prohibit grass carp?
 - Don't want extra work of regulating
 - Don't want any aquatic invasive species
- Why allow/require triploids?
 - Sterile
 - Biological alternative to chemicals for weed control
- Why allow diploids?
 - Cat is out of the bag and other states allow
 - Too difficult to regulate triploids

Disposition of Grass Carp

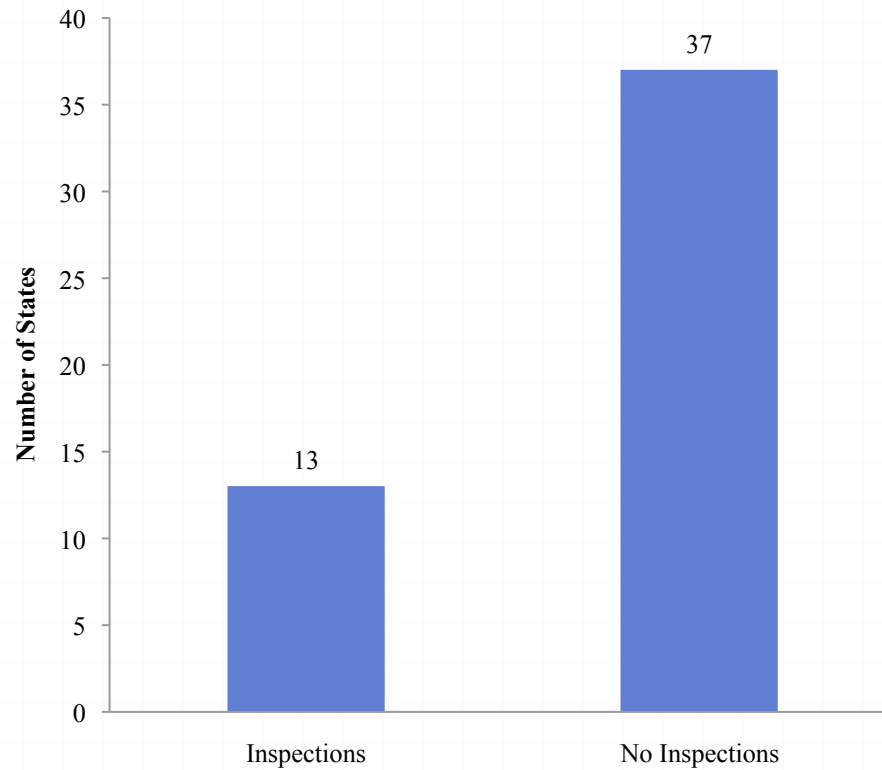
Requested 10 years of data
and obtained data from 32
states



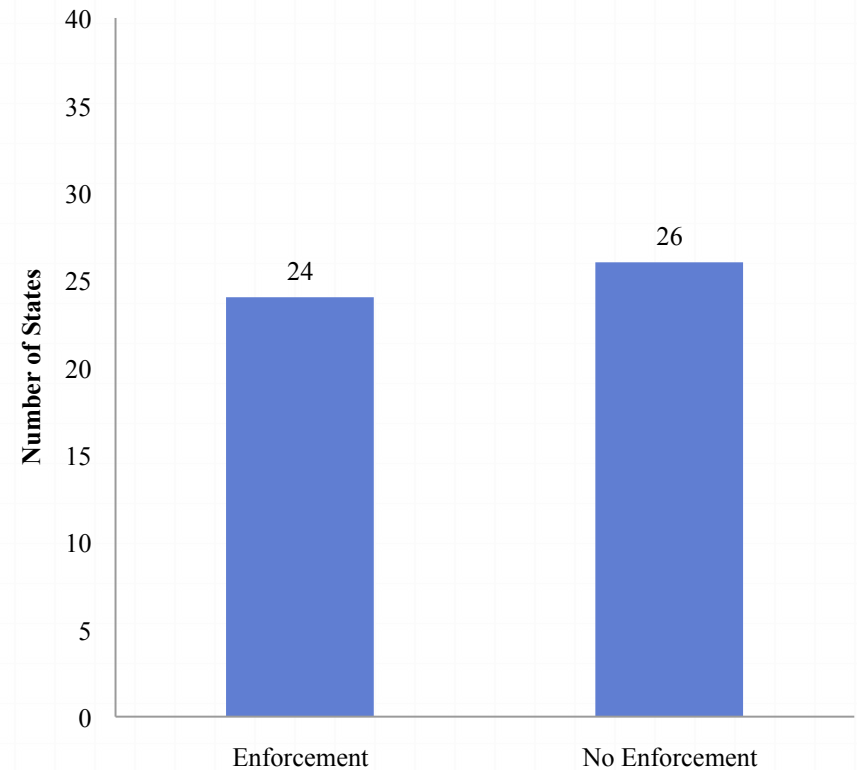
State Inspection and Enforcement

Approximately 50% of states require a permit

Number of States with Manual Inspections

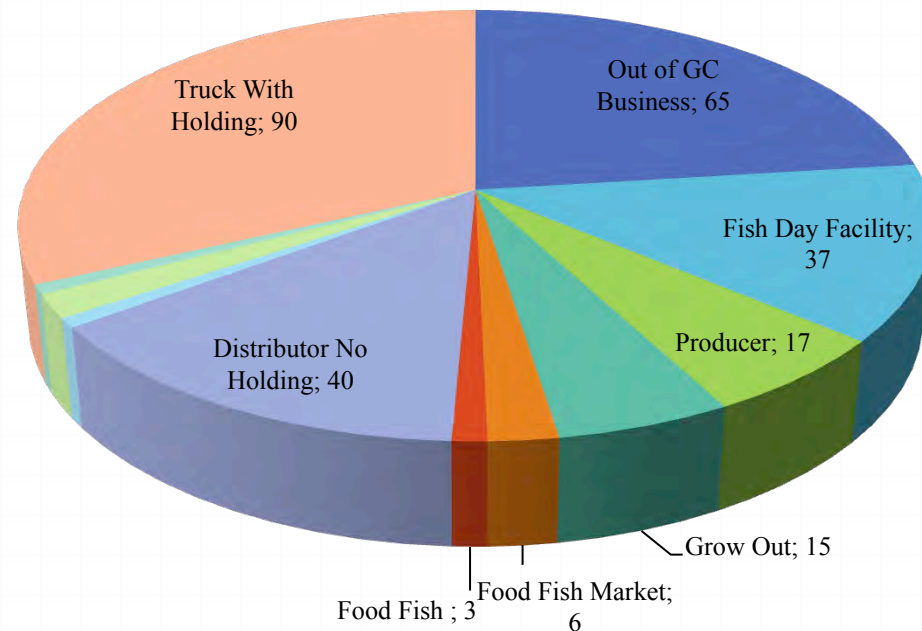


Number of States with Enforcement Protocols



Producer & Distributor Types

- Producers
- Grow-out facilities
- Shippers
 - Holding facility
 - No holding facility
- Fish day facility
- Fish market



30% produce/distribute USFWS certified triploids
10% produce/distribute diploids

Site Visits

- Large and small operations
- Diploid and triploid operations
- 8 states across midwest
- Observed USFWS testing procedures



Potential Avenues for Introductions

- Flooding
- Unknowingly stocking illegal species
- Triploid production efficiency
- Mixed distribution lots
- Black market



Challenges Gathering Information

- General
 - Making contact
 - Getting the RIGHT person
 - Is it the TRUTH?
- States
 - Obtaining data
- Producers/Distributors
 - Gaining trust
 - Having patience



Potential Issues

- 0 Lack of consistency between state regulations
 - 0 Grass carp species allowed/prohibited
 - 0 Required paperwork
 - 0 Commercial fishing
- 0 Limited number of inspections and enforcement
- 0 Lack of education and awareness
- 0 Lack of documented SOPs/BMPs
- 0 Participation in USFWS certification is voluntary

Conclusions

- Many states have good regulations in place to prevent illegal and/or accidental introduction of diploid grass carp
- Other states do not have any regulations
- USFWS program has good operating procedures
- Inconsistencies between states still exist
- Multiple pathways for introductions still exist



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THE BUFFALO NEWS
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