



Introduced Fish Species: “What do the locals think?”



R. Trent Jett
M.S. Candidate
University of Tennessee-Knoxville
Forestry, Wildlife, and Fisheries



Outline

- Current status of introduced fish
- Forms of introduction
- Two local examples of introduced fish
- Future management directions

Currently

- 675 species of introduced fish in US waters
- 269 exotic to the US



pacu



bluegill





armored catfish
Leo Nisco

<http://nas.er.usgs.gov/Default.asp>

Currently

- >250 species of fish in Florida waters
- 73 exotic to US

grass carp peacock bass

<http://myfwc.com/>

Currently

- 56 species of introduced fish in Tennessee waters
- 12 exotic to US



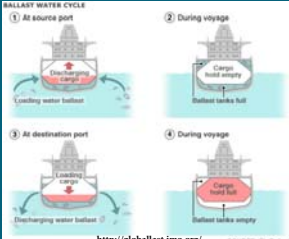

common carp muskellunge

<http://nas.er.usgs.gov/Default.asp>

Forms of introduction

- Ship (ballast release)


BALLAST WATER CYCLE



<http://globalballast.imo.org/>



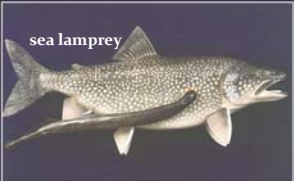
NOT WANTED

Zebra Mussel Outlaws



Forms of introduction

- Barrier removal (canals)
- Biological control



J. Trop. Med. Hyg. 88: 175-178


Forms of introduction

- Aquarium release
- Bait bucket
- Game fish introductions




Procambarus acutus

Two local examples



striped bass



brook trout


striped bass (*Morone saxatilis*)

- Anadromous fish native to Atlantic and Gulf coasts
- Up to 100 lbs
- Damming of the Santee River, SC resulted in landlocked reproducing population (1940s)




striped bass (*Morone saxatilis*)

- Norris Reservoir experienced a declining fishery in the 1960's
- Angler concerns were associated with walleye/sauger
- TWRA created a striped bass fishery starting in 1966
- Goal: New pelagic fishery in a waning system
- Result: Angry Anglers



Fisheries 27/10-49



striped bass (*Morone saxatilis*)

- TWRA stocked 1.1 million fingerlings this year in 8 reservoirs
- Trade striper fingerlings for musky and paddlefish
- Sportsmen are often fish specific




brook trout (*Salvelinus fontinalis*)



- Dominant salmonid in the park prior to 1910
- Found from 1600-2000 ft and up to the headwaters

Jour. Tenn. Acad. of Sci. 12:351-361

brook trout (*Salvelinus fontinalis*)

- Extensive logging in early 1900s reduced population
- Fishing by means of baits, nets and dynamite

- Introductions of rainbow trout (1910) and brown trout (1940s) compete for stream

Jour. Tenn. Acad. of Sci. 12:351-361

brook trout (*Salvelinus fontinalis*)

Restoration

- Stopped introductions in 1975
- Native strain of trout
- Antimycin used in 2000
- Restored 30 of 40 original miles of native trout stream



http://www.nps.gov/grsm/naturescience/dff409-focusnpsi.htm

Future management of introductions



Awareness:

- AFS introduced fish section (www.afsifs.vt.edu)
- USGS nonindigenous aquatic species (<http://nas.er.usgs.gov/>)




Future management of introductions

- Removal of introduced fish (www.nps.gov/grsm/)
- Local fishing groups taking action

Questions?

