

Invasives 101

Invasive Species: Major Conservation Threats



Frightmare!

BORN OF
JUNGLE WITCHCRAFT!
CREATED BY
A CURSE!

From HELL IT Came

AN ALLIED ARTISTS PICTURE
starring **TOD ANDREWS - TINA CARVER** with LINDA WATKINS - JOHN McNAMARA
Produced by MICHAEL CURTIZ - JOHN HULLYER - VICTORINO DE VITO - EDWARD WELLS

Major Threats to Native Species in Oklahoma

- Threats:
 - Loss of habitat
 - Habitat degradation
 - **Invasive species**
 - Inappropriate fire regime
 - Inappropriate grazing regime
 - Altered hydrologic regime

Invasive Species – What are they?

- Definition:

- They don't belong in a given place
- They cause economic or ecological harm

Terms

- **Invasive** = causes ecological harm by out-competing native species
- **Exotic** = not native, foreign
- **Noxious** = legally designated as undesirable
- **Nuisance** = inconvenient

Invasive species do not have to be “exotic”

- Altered local conditions can allow native species to become invasive:
 - eastern redcedar
 - mesquite

Some invasive species are, or were, USED widely

- Bermuda grass
- tall fescue
- Old World bluestem
- sericea
- salt cedar
- eastern redcedar
- Chinese privet
- Japanese honeysuckle
- kudzu

How do they get here?

- introduced intentionally
 - as cattle forage – sericea
 - for soil stabilization – kudzu, sericea
 - as ornamentals – salt cedar, eastern redcedar
 - for hunting/fishing – bait fish, exotic deer
 - for invasives control - Asian grass carp
- escapees
 - from pet trade – hydrilla, koi, feral cats
 - from gardens or landscaping – honeysuckles, ornamental trees
 - from livestock – feral hogs
- accidental hitchhikers
 - in cargo – emerald ash borer
 - in transportation vessels, vehicles – zebra mussel, aquatic plants
- altered natural regimes allow their entrance
 - fire suppression – eastern redcedar, mesquite

The worst in Oklahoma - plants

(based on invasiveness, difficulty of control, distribution, harm caused, etc.)

eastern redcedar
sericea

Johnson grass
Old World bluestem
hydrilla
salt cedar
kudzu
musk thistle
privet
field bindweed
cheat grass
multiflora rose

The worst in Oklahoma - animals

- feral hog
- zebra mussel
- Asiatic clam
- European starling
- house sparrow
- carp
- fire ant

TNC preserves and invasive species

- Tallgrass Prairie – SERICEA, Osage orange, feral hog. Sericea research.
- Nickel – SERICEA, Nepalese browntop, callery pear, multiflora rose, teasel, feral hog
- Pontotoc Ridge – SERICEA, EASTERN REDCEDAR, watercress, Johnson grass, feral hog, fire ant
- Four Canyon – salt cedar, revennagrass, Old World bluestem, Osage orange, black locust

Invasive species and Oklahoma

- 700 acres PER DAY are lost to eastern redcedar in Oklahoma!
- TNC spends \$100,000+ per year on sericea control... at Tallgrass Prairie Preserve alone.
- Invasives negatively impact rangeland, ag crops, recreation sites, industries, human health and native wildlife species

Challenges

- Ignorance
- Apathy
- Cost
- Poor legal structure
- Lack of coordination among entities
- Poor information

What's being done

- Preserves have active programs of control
- Public lands - sporadic efforts
- State noxious weed law
- Private land efforts:
 - If affordable/economic impact
 - Aerial spraying
 - Limited nuisance efforts

OkIPC

Oklahoma Invasive Plant Council

- Based on TNC Invasive Plant Audit for the state - 2009
- Mission is to facilitate efficient and effective management of invasive plant species for the protection of the economic and natural resources of Oklahoma 's private and public land and water.

OkIPC strategies:

- Identify invasive species in OK and assess their threat.
- Educate and create awareness.
- Encourage legislative and regulatory improvements that increase invasive plant control effectiveness in the state.
- Promote coordination among stakeholders.
- Serve as a clearinghouse of information
- Encourage sources of funding for invasives education and management.

OkIPC founders:

TNC

OSU

OK Native Plant Society

OK Farm Bureau

ODWC

OK State Parks

NRCS

OK Dept of Ag

Noble Foundation

OK Conservation Commission

OK Assoc of Conservation Districts

OK Nursery and Landscape Assoc

OK Biological Survey

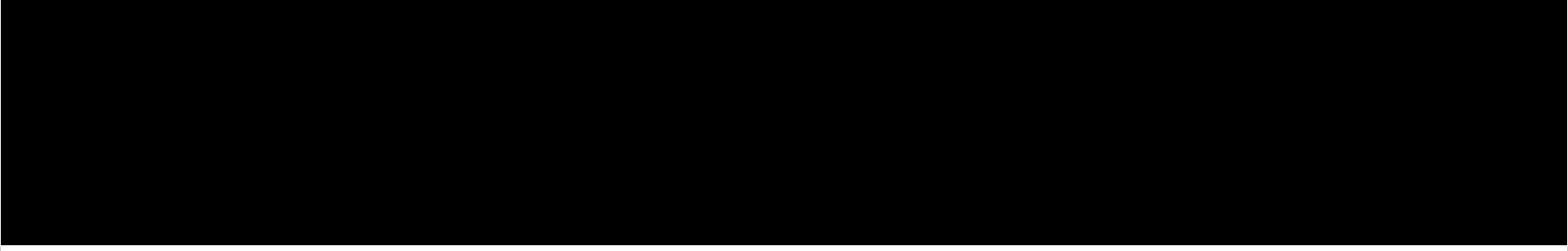
US Army Corps of Engineers

OkIPC actions:

- Developing lists of invasive plants
- Meeting with 30+ entities involved with invasive plants
- Developing education/awareness programs for various audiences
- Working with legislature to improve OK noxious weed law
- Developing training for invasives ID
- Created website

Conclusions

- Invasive species are a major threat to conservation of native species
- It will take a great deal of effort and funds for control
- Early detection is key to future “invasions” management
- Management will require efforts by all in Oklahoma
- Education will be critically important

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- Invasive species will be a major conservation problem...
 - Everywhere...
 - Forever!
 - But we have to do all that we can do to manage them if conservation is to be successful!

Makes KING KONG look like a Midget!

SEE!

A monstrous sea-beast . . . surging up from the ocean!

. . . . a city of six-million wiped out by its death ray blast!

. . . Giant ships swamped! Jet planes swept from the skies! Trains ripped from the rails!

GODZILLA

KING OF THE MONSTERS

CERT. **X** ADULTS ONLY

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SHATTERING THRILL!

starring
RAYMOND BURR
and a Cast of Thousands!

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