PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

NRCS

Amphibian and Reptile Conservation and Management





After this talk, you will know

- What PARC is
- Life history characteristics of herps
- How herps serve as indicators of ecological integrity
- Major issues affecting herps
- Importance of private lands for advancing herp conservation
- Success stories
- Resources for herp conservation

WHAT/ WHO is PARC ?

PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

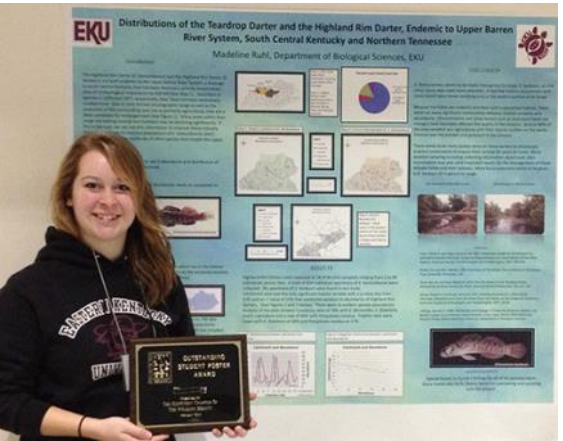
COLORADO PARKS • WILDLIFE

THE Orianne Society

ENVIRONMENTAL RESTORATION CONSULTANTS, INC.

FOREST SERVICE U S DEPARTMENT OF AGRICULTURE

HERPNATION



Weyerhaeuser

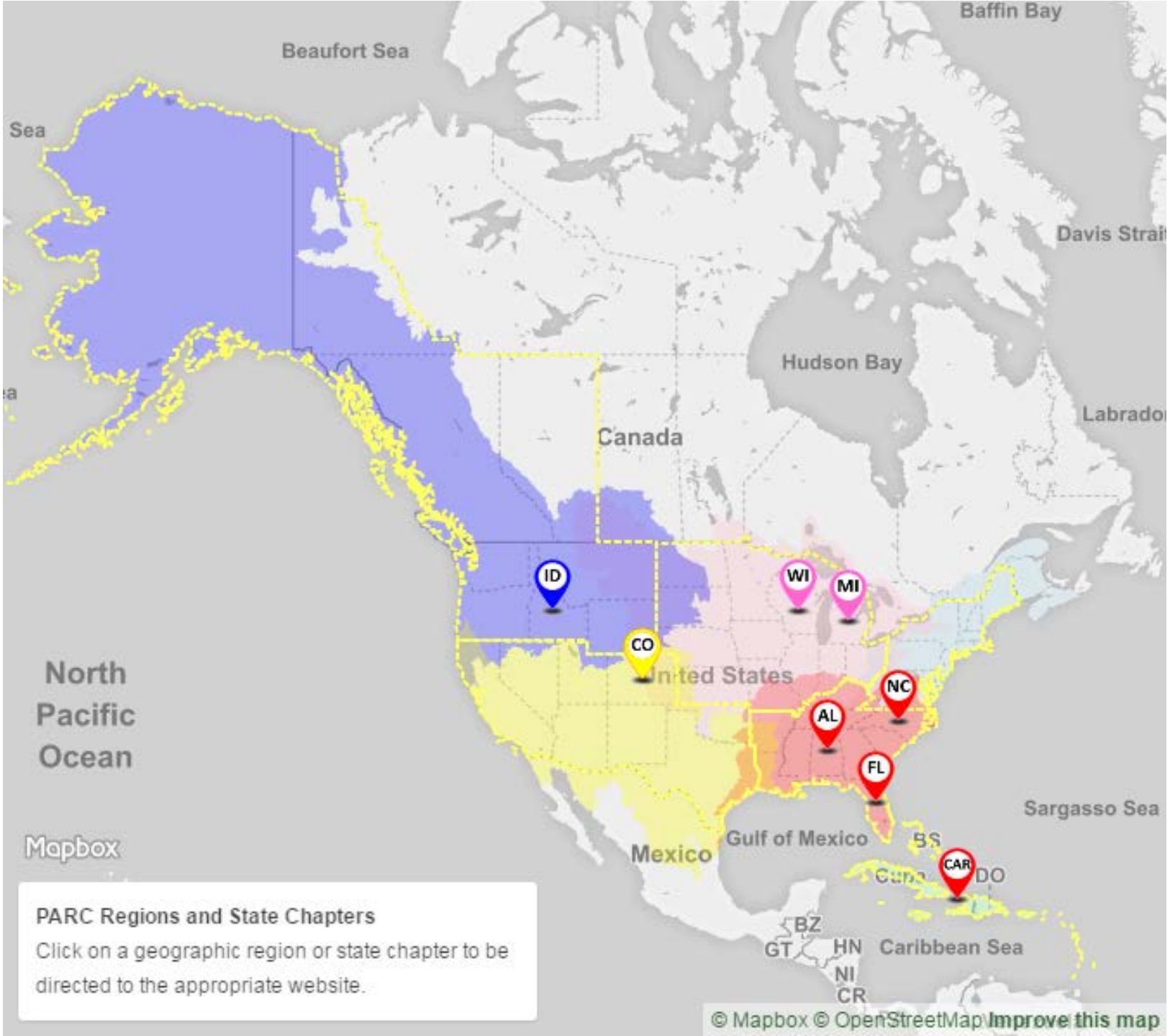

ALL INCLUSIVE
ALL INCLUSIVE
ALL INCLUSIVE

PARC National Coordinators

COMING SOON!

Jen Williams, Federal Agencies

Priya Nanjappa, State Agencies


Baffin Bay
Beaufort Sea
Sea
Davis Strait
Hudson Bay
Labrador
Canada
ID
WI
MI
CO
United States
NC
AL
FL
North
Pacific
Ocean
Sargasso Sea
Mapbox
Gulf of Mexico
Mexico
BS
CAR
DO
BZ
GT
HN
Caribbean Sea
NI
CR
PARC Regions and State Chapters
Click on a geographic region or state chapter to be directed to the appropriate website.
© Mapbox © OpenStreetMap Improve this map

Federal Agencies Steering Committee

PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

APHIS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FOREST SERVICE US DEPARTMENT OF AGRICULTURE

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FSA
FARM SERVICE AGENCY

NRCS
Natural Resources Conservation Service

DEPARTMENT OF DEFENSE
UNITED STATES OF AMERICA

NATIONAL PARK SERVICE

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

USGS
science for a changing world

MOU

I. Purpose

The purpose of the MOU is **to provide a framework for cooperation and coordination among the Agencies in achieving the objectives of the Partners in Amphibian and Reptile Conservation (PARC) Federal Steering Committee**.

SPECIAL THANKS TO DoD FOR PERMISSION TO USE THIS SLIDE!

Amphibians vs Reptiles

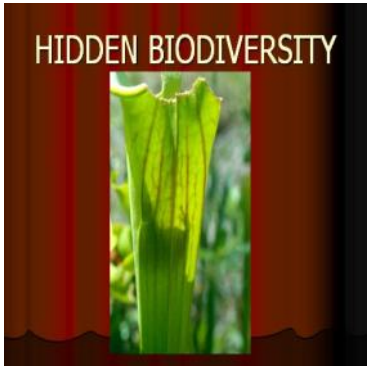
SLIDE ORIGINALLY CREATED BY DR. JOE MITCHELL FOR A DoD TRAINING MODULE

Amphibians

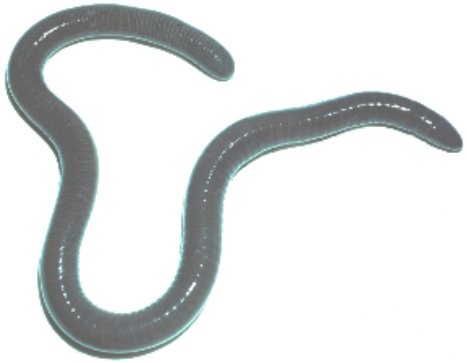
- Most lay unshelled (gelatinous) eggs in moist to wet environments
- Skin always moist; allows exchange of oxygen and carbon dioxide
- Pollution uptake possible through their skin in water and on land
- Most activity is rain-dependent
- Frogs usually eat frequently; salamanders less so
- Calls of male frogs are readily heard
- Salamanders are seldom seen and prefer hidden retreats

Reptiles

- Mostly lay shelled eggs in terrestrial env.
- Several snakes are live-bearers
- Skin dry with no oxygen exchange
- Pollution uptake usually in diet
- Activity does not always depend on rain
- Lizards and turtles eat frequently
- Most snakes need to eat only a few times/yr
- Lizards and turtles readily observable
- Snakes are secretive



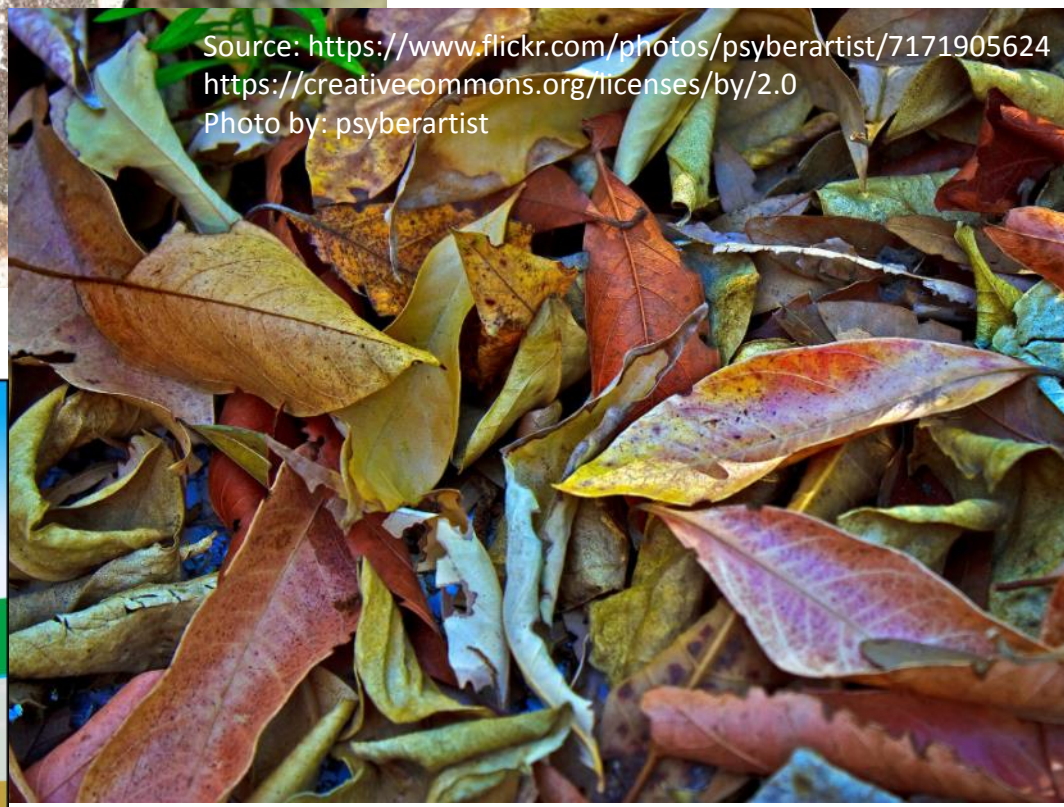
Amphibians and Reptiles represent our Hidden Biodiversity

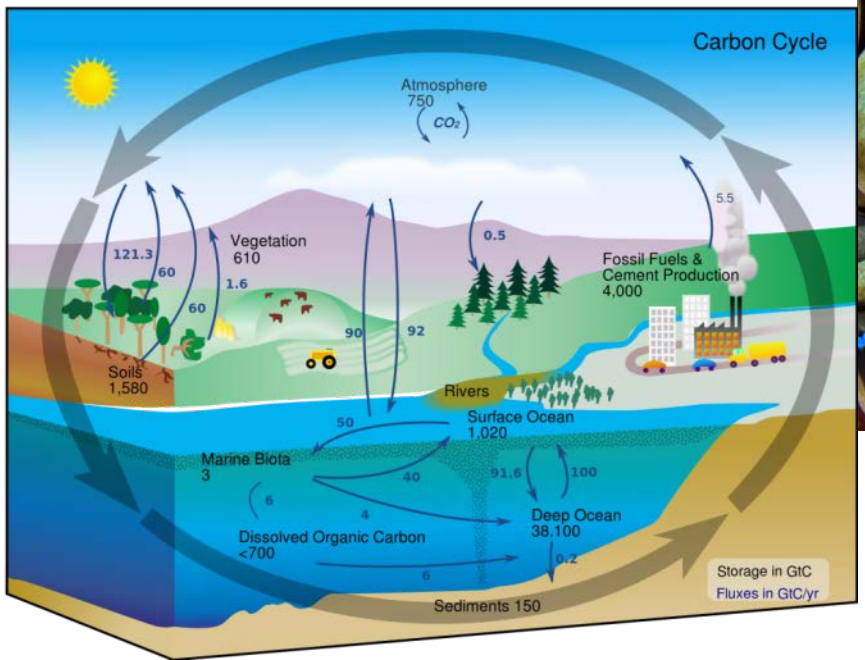


>7,400

>10,000

Photo by Mark Sullivan


Source: https://www.flickr.com/photos/psyberartist/7171905624
https://creativecommons.org/licenses/by/2.0
Photo by: psyberartist


Carbon Cycle
Atmosphere
750
CO_2
121.3
60
60
1.6
Vegetation
610
0.5
5.5
Fossil Fuels &
Cement Production
4,000
90
92
Soils
1,580
Rivers
50
Surface Ocean
1,020
Marine Biota
3
40
91.6
100
6
4
Dissolved Organic Carbon
<700
Deep Ocean
38,100
0.2
6
Sediments 150
Storage in GtC
Fluxes in GtC/yr

Major Issues Affecting Herps

Somewhat Unique to Herps

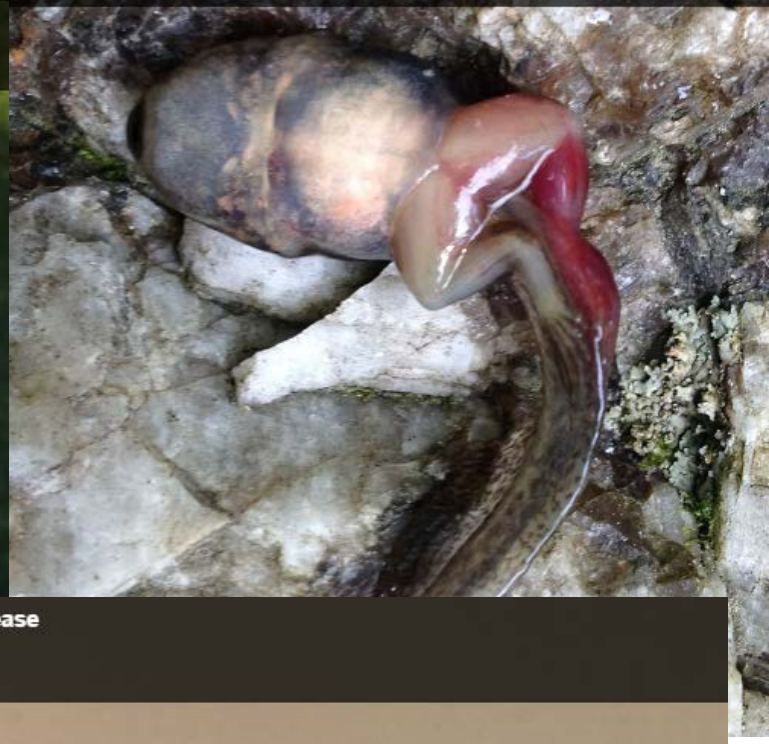
LIVE AMPHIBIANS AND
REPTILES IN KEY CHAINS SOLD
IN CHINA

Overcollection
Lack of Regulation
Illegal Trafficking

Photos by Bald Head Island Conservancy.

Wood Frog with Ranavirus

Howard Co. MD Photo by: Scott Smith

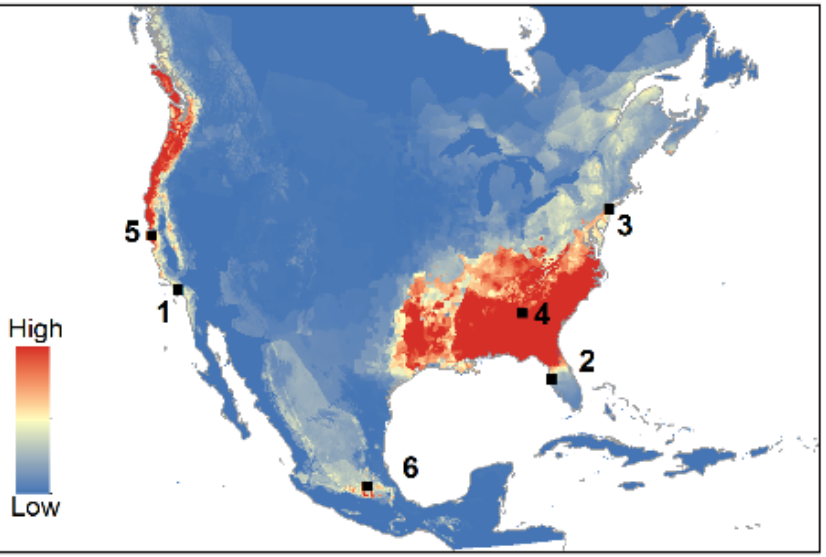


Frog Swabbing

Photo by: Matt Allender

Massasauga Rattlesnake with Snake Fungal Disease

Photo by: Matt Allender



Bsal Vulnerability Model for North America (Yap et al. 2015)

Map and table from Yap et al. (2015)

Major U.S. ports for salamander imports

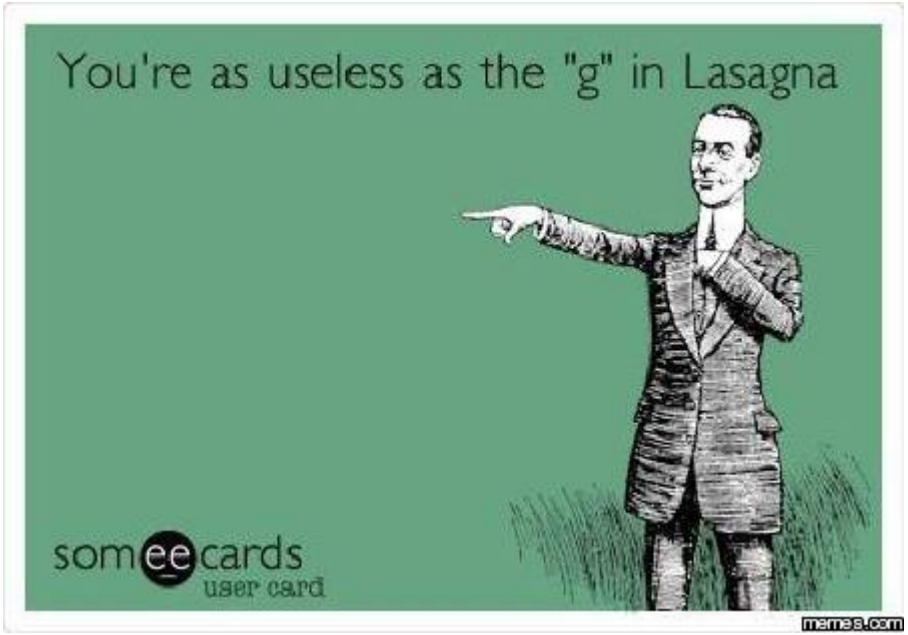
PORT	*Bsal* THREAT	NON-*Bsal* THREAT	ALL SHIPMENTS
1 Los Angeles, CA	418,692	1,198	419,890
2 Tampa, FL	272,338	1,140	273,478
3 New York, NY	55,441	70	55,511
4 Atlanta, GA	13,272	40	13,312
5 San Francisco, CA	3,164	6,459	9,623
Total (top 5 U.S. ports)	762,907	8,907	771,814
All U.S. ports combined	768,572	10,430	779,002

Imported salamanders were considered a *Bsal* threat if they have native ranges in Asia or were in shipments that passed through Asian ports before entering the United States. Those not considered a *Bsal* threat are not native to Asia and never passed through an Asian port before entering the United States. All values are number of salamanders (*22*).


100
Safe-Touch™
Powder-Free
Vinyl Examination Gloves
Sans Poudre
Gants d'examen en vinyle
dynarex


X


Black ADVANCE
Powder Free Textured
NITRILE Examination Gloves
IF 63
diamond Gloves
Disposable - Ambidextrous - Single Use Only


You're as useless as the "g" in Lasagna
someecards
user card
memes.com


ew,
gross.

USDA United States Department of Agriculture

Natural Resources Conservation Service

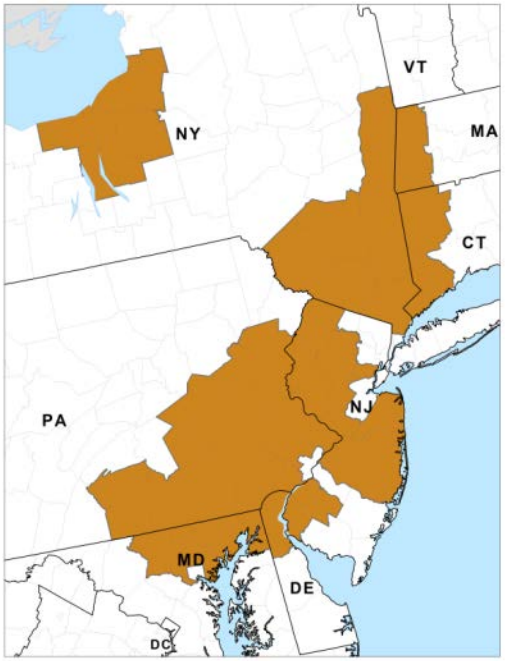
A Partnership for Conservation Landscapes, Communities & Wildlife

WORKING LANDS FOR WILDLIFE

GOPHER TORTOISE

WORKING LANDS FOR WILDLIFE

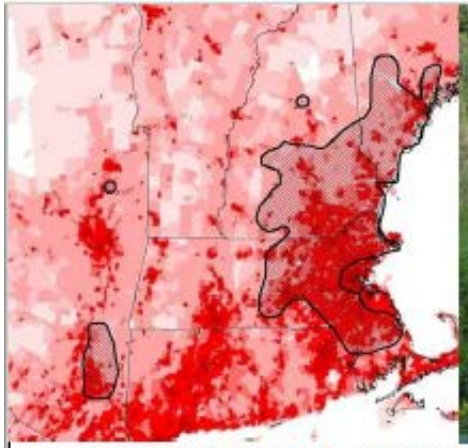
The gopher tortoise is the keystone species of America's longleaf pine forest, providing shelter for more than 350 species in its underground burrows.

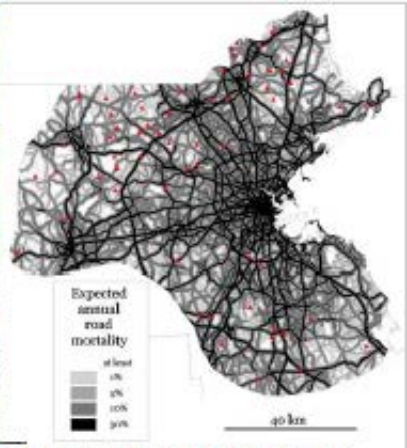


BOG TURTLE

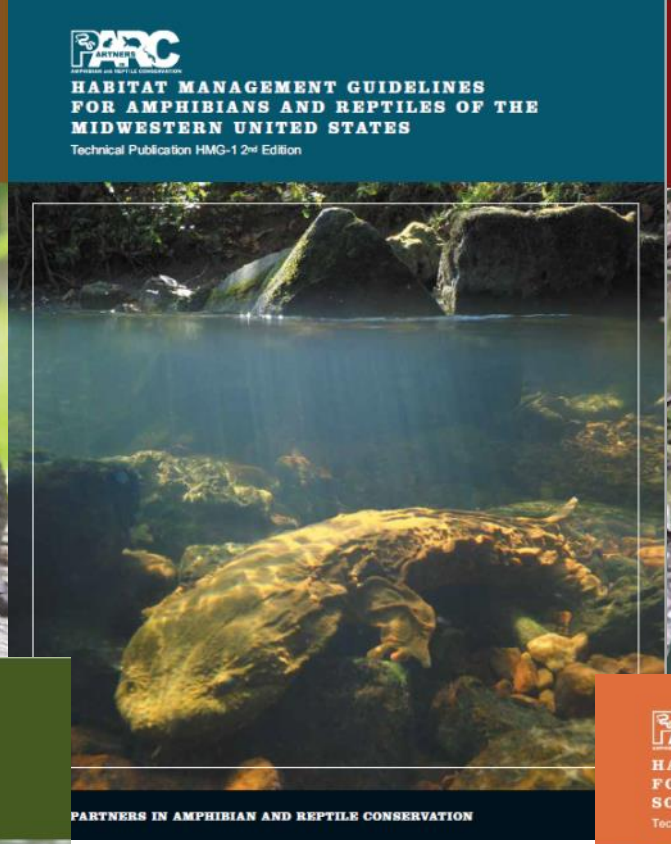
WORKING LANDS FOR WILDLIFE

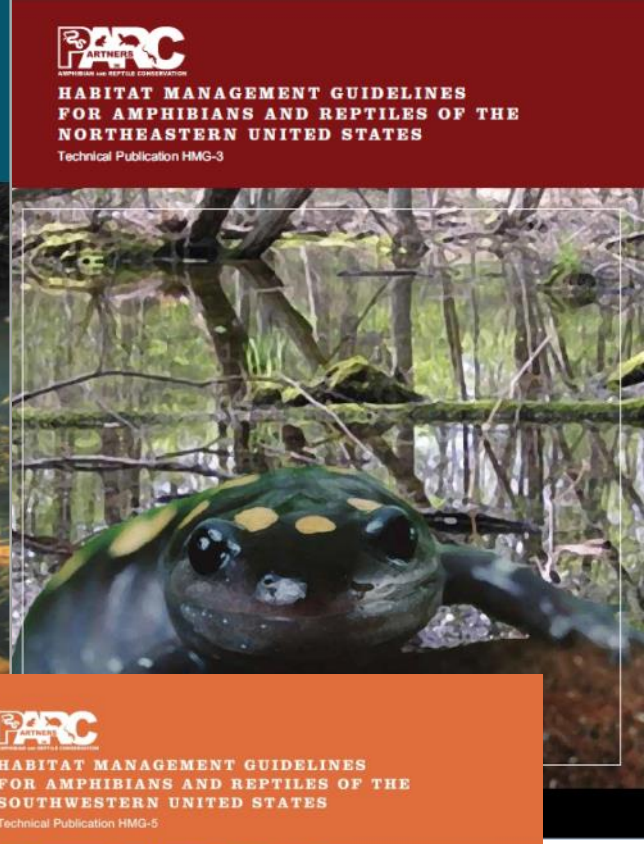
The world's smallest turtle, the bog turtle, inhabits wetlands of the Mid-Atlantic.



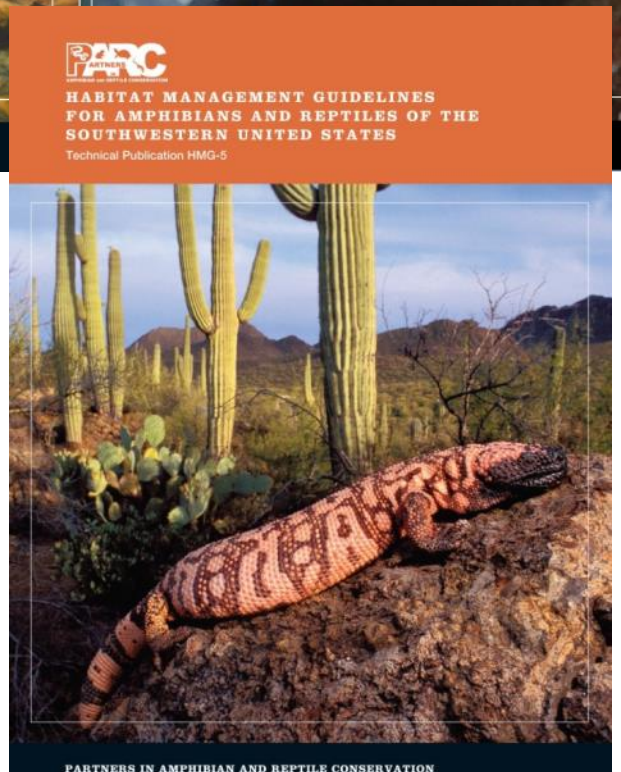


CONSERVATION OF BLANDING'S TURTLE AND ASSOCIATED WETLAND SGCN IN THE NORTHEAST





NEW IN AUGUST 2016: SW HMG



MAXIMIZING COMPATIBILITY:
Timberlands, Farmlands, Recreational Lands, and Other Integrated Land Uses
Consider the following options if benefiting amphibians and reptiles is secondary to other management objectives.

IDEAL: Refuges, Sanctuaries, and Preserves
Consider the following options if benefiting amphibians and reptiles is a primary objective and when landowners and managers wish to optimize herpetofauna diversity and abundance.

Conservation and Management of Regional Park U...

by Partners in Amphibian and Reptile Conservation • 1/4

Conservation and Management of Amphibians and Reptiles for US National
by Partners in Amphibian and Reptile Conservation

2 

Park Units in the Midwestern US: Restoration and Recovery for Amphibians and Reptiles
by Partners in Amphibian and Reptile Conservation

3 

Park Units in the Northwestern US: Restoration and Recovery for Amphibians and
by Partners in Amphibian and Reptile Conservation

4 

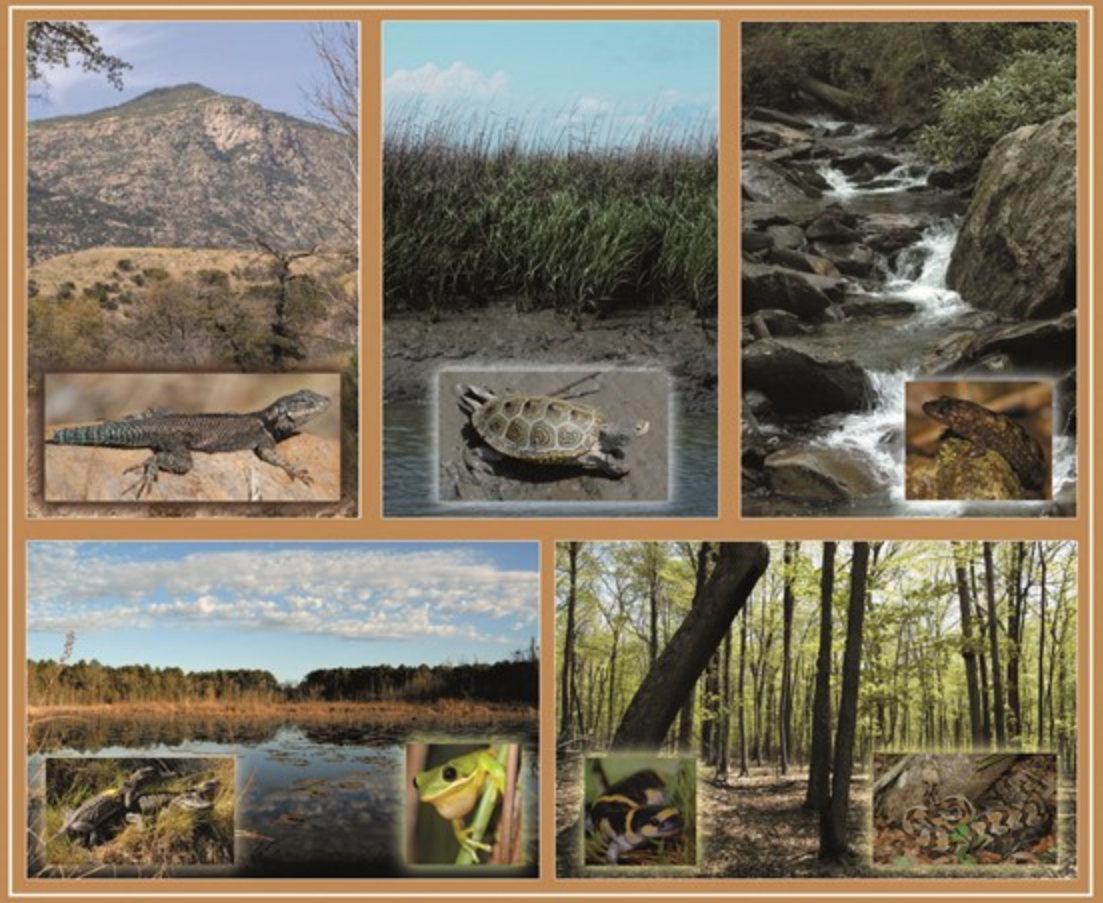
Conservation and Management of Amphibians and Reptiles for US National
by Partners in Amphibian and Reptile Conservation

PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

INVENTORY AND MONITORING:

RECOMMENDED TECHNIQUES FOR REPTILES AND AMPHIBIANS

With Application to the United States and Canada



PARC Technical Publication IM-1

PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

Gabrielle J. Graeter | Kurt A. Buhlmann | Lucas R. Wilkinson | J. Whitfield Gibbons

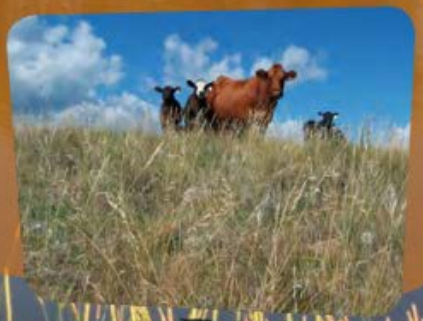
$50

+ S&H

for sale on Amazon!

Amphibians on my Land

Habitat Stewardship in Agricultural Landscapes



"If frogs aren't thriving around the dugout and along the creek it says something about our management. Maybe we have done some things right, because the frogs are still here. But can we do things better?"

Ken and Nora Balog, Balog Ranch

STATE OF THE UNION:

Legal Authority Over the Use of Native Amphibians and Reptiles in the United States

LAND USE AND PLANNING REFERENCES FOR NORTHEASTERN AMPHIBIANS AND REPTILES



NORTHEAST PARC
PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION

DoD PARC Group and Photo Site

Photo Albums

Higher Resolution Photographs may be available on certain photos. Contact Site Administer for availability.

Alligators and Allies

November 10, 2011

View album (10)

Frogs and Toads

October 27, 2011

View album (195)

Lizards

October 27, 2011

View album (271)

Library Organization

Library is organized in Albums based on famililiar groups of herpetiles such as frogs, snakes and such. Within the Albums the photos are arranged alphabetically by scientific name. To get the current list of scientific names and their associated common names please visit the Library page and download the Excel file. Specific photo information can be found by clicking on each individual photo. Download and use for your needs but please follow the photo policy also found on the Photo Library Instruction page.

Contacts

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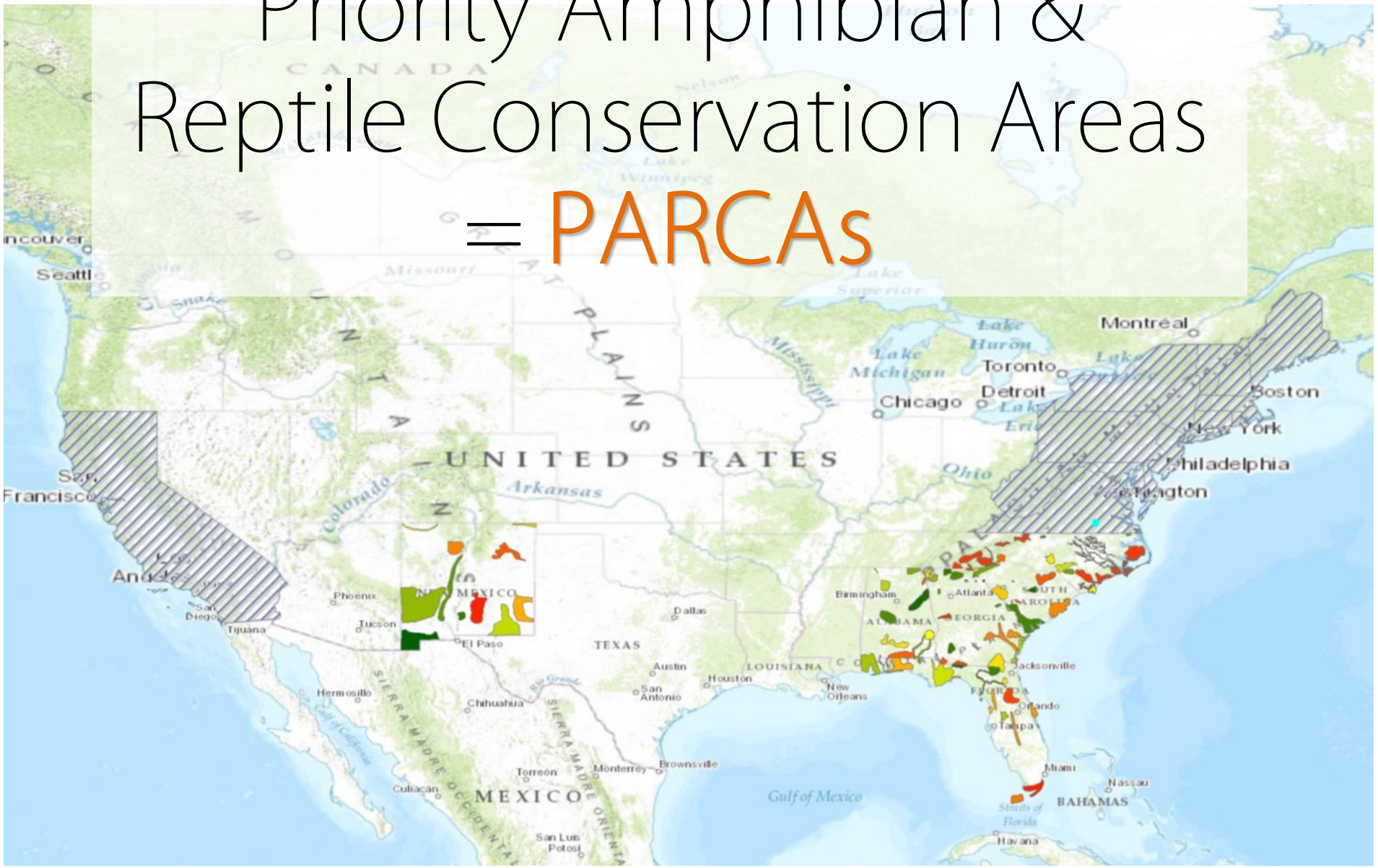
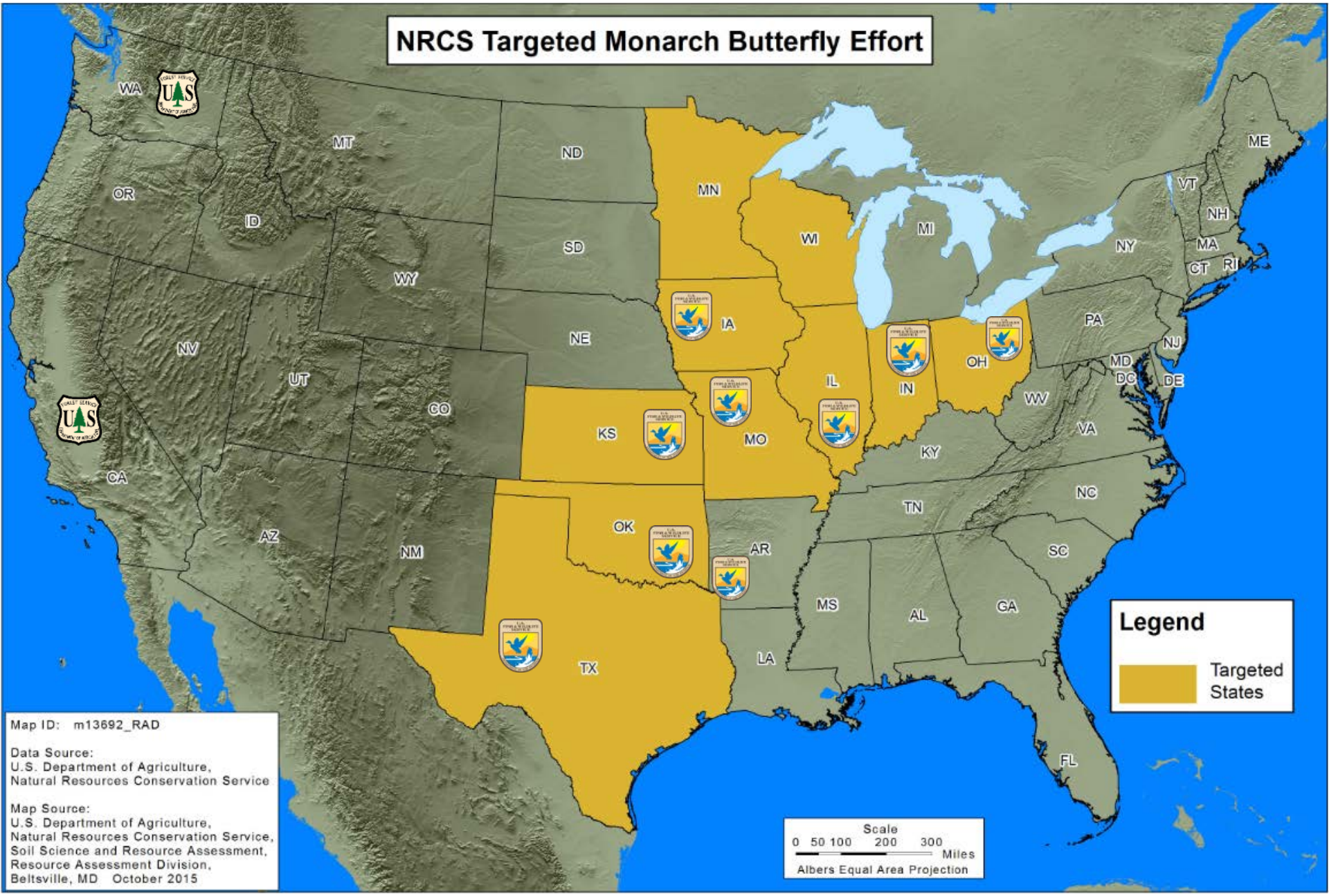
757-322-8499
Chris Petersen
chris.petersen@navy.mil
757-322-4560

Priority Amphibian & Reptile Conservation Areas = PARCAs




NRCS Targeted Monarch Butterfly Effort
WA
OR
CA
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OK
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VA
PA
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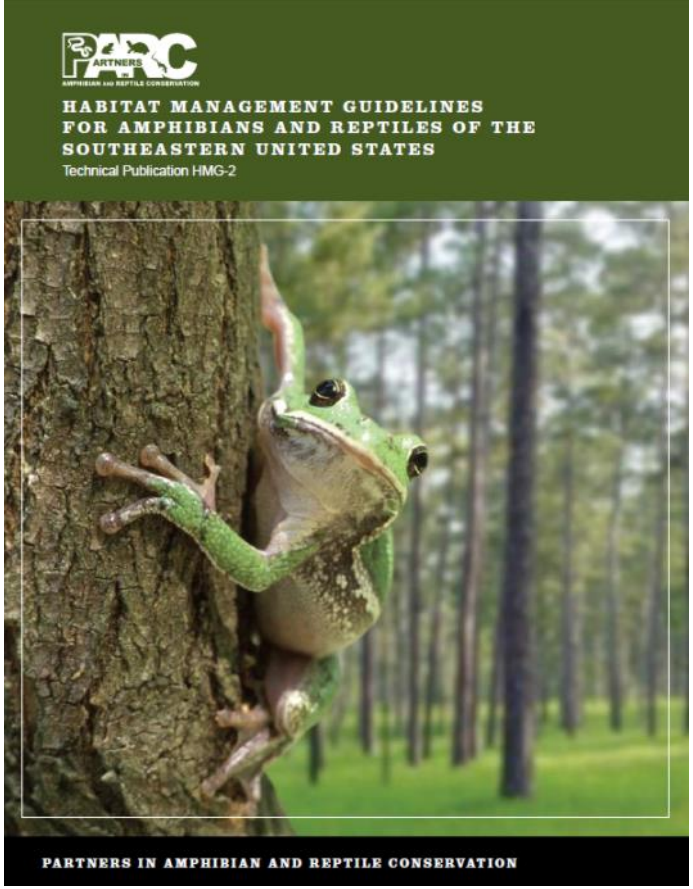
MD
DC
DE
NJ
CT
RI
MA
VT
NH
ME
Legend
Targeted States
Map ID: m13692_RAD
Data Source:
U.S. Department of Agriculture,
Natural Resources Conservation Service
Map Source:
U.S. Department of Agriculture,
Natural Resources Conservation Service,
Soil Science and Resource Assessment,
Resource Assessment Division,
Beltsville, MD October 2015
Scale
0 50 100 200 300
Miles
Albers Equal Area Projection

NRCS

Natural Resources Conservation Service

APHIS

Amphibian and Reptile Conservancy



SE HMG Workshop

In its short history, PARC can attribute over

$4.1 million

in grants and contributions to be directly related to PARC conservation activities and products.

Alison Haskell

(1956 – 2006)

Award

for

Excellence

in

Herpetofaunal Conservation

Questions?

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