# NATIVE PLANTS: WHY THEY ARE IMPORTANT & THE IMPACT OF THE EAGLE FORD SHALE

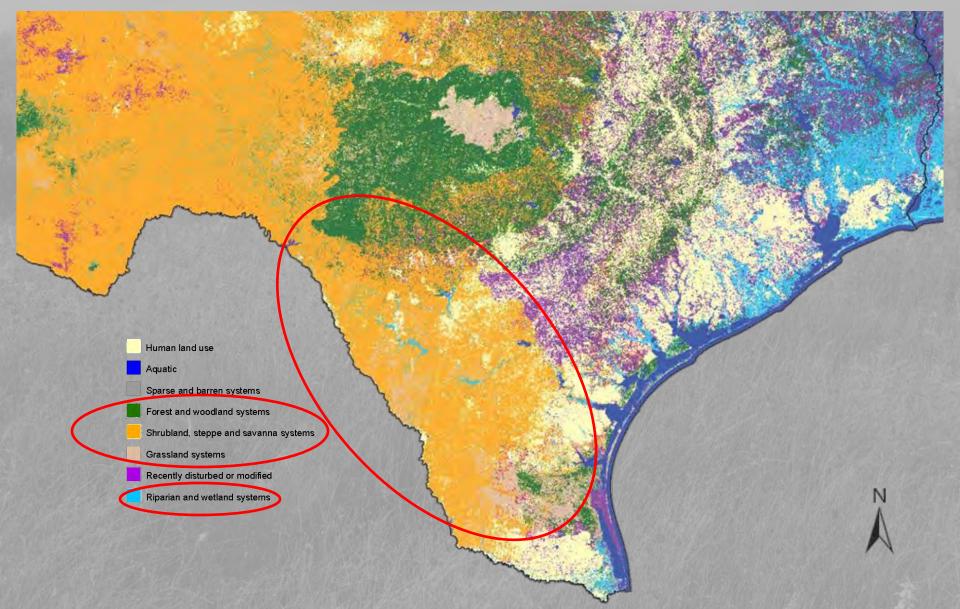


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#### NATIVE PLANT DIVERSITY











#### PLANT SPECIES RICHNESS

































#### SOUTH TEXAS IS HYPER-DIVERSE





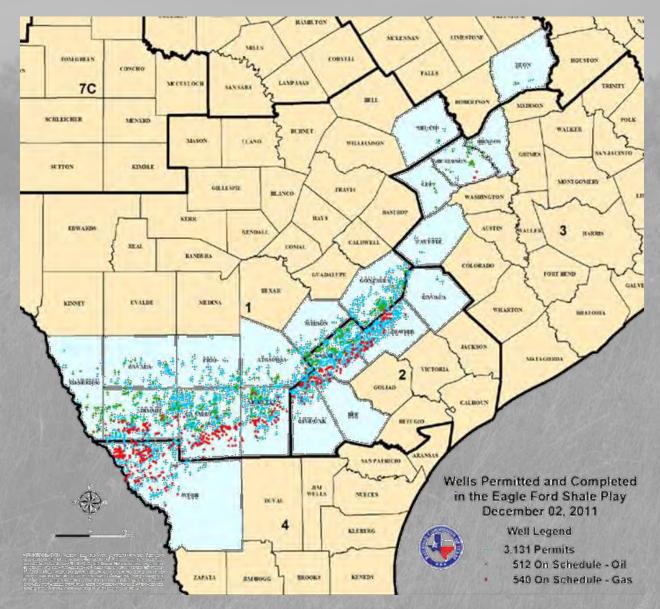
#### THIS IS NOT DIVERSE



#### THIS IS SPECIES POOR



#### THE EAGLE FORD SHALE



#### EAGLE FORD SHALE IMPACTS

#### **PIPELINES**

- PROLIFERATION OF
   BUFFELGRASS & OTHER
   EXOTICS BECAUSE OF USE
   IN REVEGETATION
- SOIL DISTURBANCE ALSO FACILITATES INVASION

### EXPLORATION AND PRODUCTION

- FRAGMENTATION OF HABITAT
- ROADS, FLOW LINES, PADS, PITS, & GATHERING FACILITIES, DISTURB AND BISECT HABITATS



#### What the Eagle Ford Looks Like



#### WHY THE EAGLE FORD MATTERS?



"EXOTIC GRASS INVASIONS RESULT IN SIMPLIFIED ECOLOGICAL COMMUNITIES (KUVLESKY ET. AL. 2002)."

#### NATIVE VS. EXOTIC

**EXOTIC GRASS DOMINANT** 

NATIVE PLANT COMMUNITY



"REDUCTIONS IN DIVERSITY MAY HAVE LARGER IMPLICATIONS REGARDING ECOSYSTEM FUNCTION AND AVAILABLE USEABLE SPACE AND DENSITIES OF BIRD SPECIES SUCH AS NORTHERN BOBWHITES (SANDS ET. AL. 2009)."

#### A CHAIN REACTION?



"EXOTIC GRASSES MAY PROVIDE LESS FOOD FOR BREEDING BIRD COMMUNITIES BECAUSE NATIVE PLANT SPECIES RICHNESS IS EVIDENTLY SUPPRESSED BY EXOTIC GRASS INFESTATIONS, THEREBY REDUCING THE NUMBER OF NICHES AVAILABLE FOR ARTHROPODS (FLANDERS ET. AL. 2006)."



#### SEED COLLECTION



#### POPULATION EVALUATION



#### SEED INCREASE



#### COMMERCIAL PRODUCTION



## RESULT: AVAILABILITY OF NATIVE SEEDS TO CONSUMERS





#### DEMONSTRATION & TESTING







## OUR FUTURE: **TEXAS NATIVE SEEDS**

