

Co-Managing Goats and White-tailed Deer: Lessons for Habitat Management

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Can you Co-Manage
Goats and White-tailed Deer?

You
Betcha!

Hold up there, hoss...

Overview

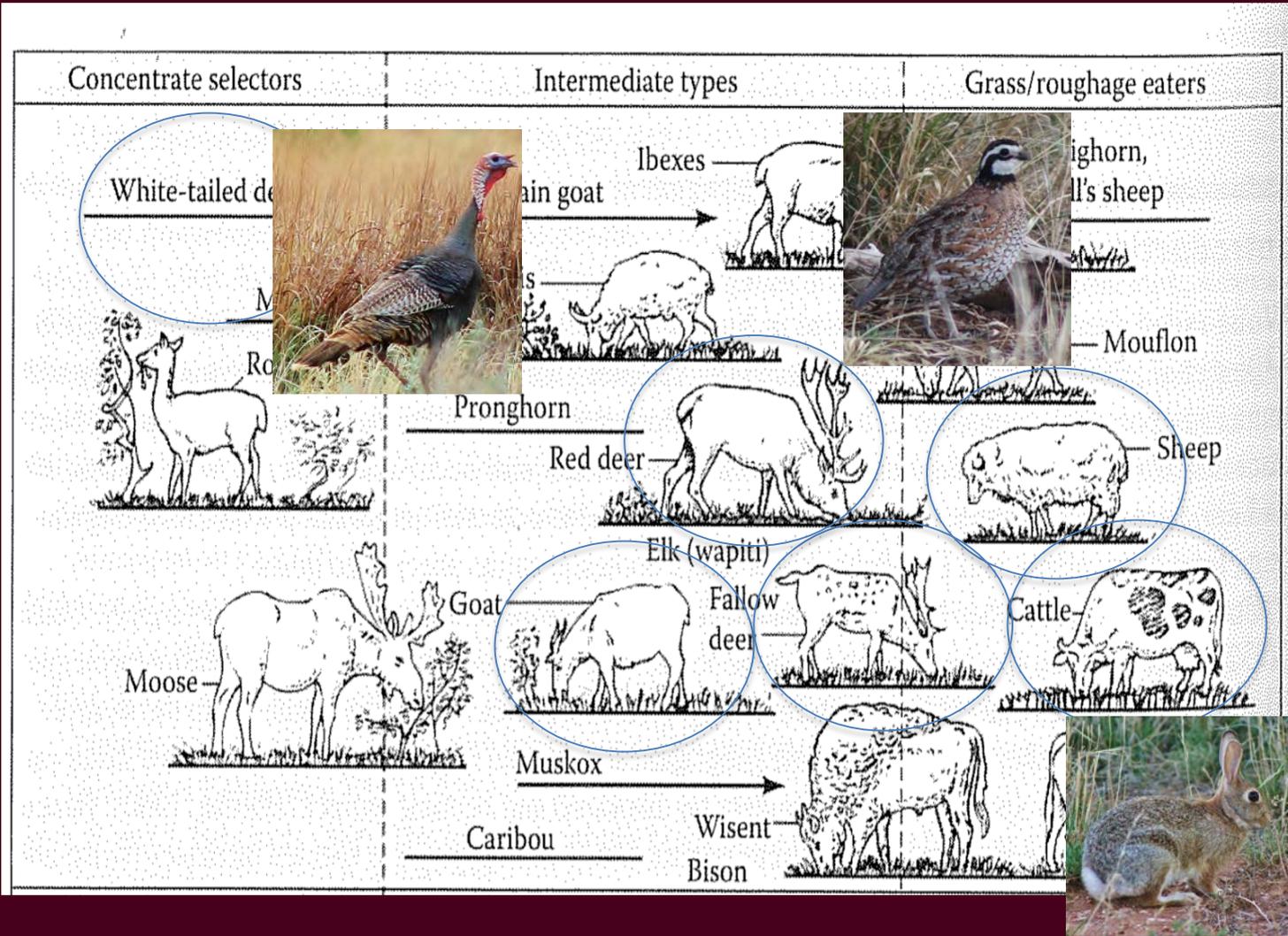
- Species Selection
- Diet Overlap
- Habitat Requirements
- Rotational Structures
- Spacing Techniques
- Monitoring
- Fencing



Interactions Between Livestock and Wildlife

- Diet
 - Overlap
 - Species-specific
 - Competition
 - Food
 - Other Habitat Needs (That can be food!)
 - Physical/Spatial
 - Security
 - Access

Species Selection



Species Selection

- What are you stocking?
- Goats? What kind?
 - Spanish Goats?
 - Angoras?
 - Hunting Goats?
- Deer? What kind?
 - White-tailed
 - Axis
 - Fallow
 - Etc etc....



Habitat Diversity

Needs met by a **variety of plants** through seasons, conditions (drought, heat, cold, predation, etc.)



Habitat Limits



- Deer have limits
 - Physical security
 - Thermal protection
 - Browsing height
- Have you pushed the available browse too far back?
- What is your stocking rate for deer and goats?

White-tailed Deer Biology

- Nutrition
 - Water
 - Protein
 - Carbohydrates
 - Lipids (fat)
 - Vitamins
 - Minerals
 - **6-7% crude protein for rumen function**
 - **13-16% crude protein for growth, antler production, reproduction**



Deer Forage

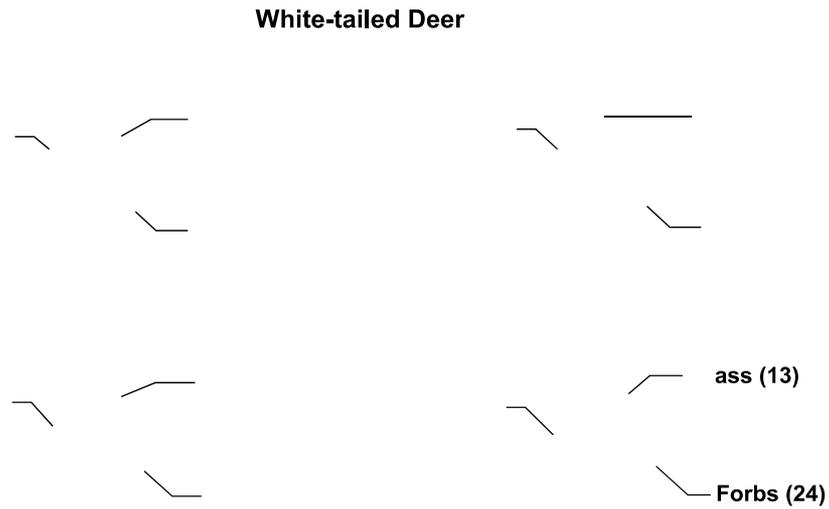


Figure 1. Seasonal white-tailed deer diets in Texas by plant group (percent).

Comparative Diets in the Edwards Plateau

- Angora vs. Deer
 - Sonora Research Station
- Forage Overlap
 - Seasonal Variation
 - Use of Rare Plants
- Foraging Effort
 - Deer willing to range further
- Influence of Habitat



Rotational Browsing

- No different than grazing.
- Careful monitoring is essential with deer and goats.
- Develop a rotation plan, and understand where goats do/don't travel in pastures.



Managing with High Fencing



Making Nutritional Deer Habitat

- 40–60% in forb-rich clearings
- Brushy Thickets for Food/Concealment/Movement
 - Diversity of Palatable Browse
- Large Trees for Heat Cover
- Fawning Cover at least 24" tall



Deer Browse-Structure Matters!



Table 1. White-tailed deer preference for woody plants, vines and cactus of the Edwards Plateau.

High	Moderate	Low	Least Used
Carolina buckthorn	Bumelia	Black brush	Agarito
Hawthorn	Blackcherry	Catclaw acacia	Baccharis
Inland ceanothus	Blackhaw	Common buttonwood	Catclaw mimosa
Kidneywood	Blackjack oak	Evergreen sumac	Juniper (cedar)
Little leaf leadtree	Bluewood (Brasil)	Feather dalea	Cenizo
Mistletoe	Carolina snailseed	Flameleaf sumac	Guajillo
Mountain mahogany	Chinqapin oak	Fragrant mimosa	Honey mesquite
Plum	Clematis	Hogplum	Javelinabush
Rusty blackhaw	Elbowbush	Live oak	Little walnut
Shrubby boneset	Elm	Littleleaf sumac	Lotebush
Texas madrone	Ephedra	Peachbrush	Mexican buckeye
Texas mulberry	Fourwing saltbush	Pecan	Mountain laurel
Texas oak	Grape	Roughleaf dogwood	Pricklyash
Texas sophora	Greenbriar	Silktassle	Prickly pear
White honeysuckle	Hackberry	Skunkbush sumac	Texas persimmon
Wild plum	Ivy treebine	Vasey shin oak	Whitebrush
	Lacey oak	White shin oak	Yucca
	Netleaf forestiera		
	Poison ivy		
	Possumhaw		
	Post oak		
	Redbud		
	Roemer acacia		
	Virginia creeper		
	Western soapberry		

Whitetail Habitat Needs

- Clear small (~20 acres) irregularly shaped patches throughout the landscape
- Clearings should total ~40%
- Leave relatively wide corridors of brush separating patches that total ~60%
- Manage for Palatable Brush
- Areas of tall, dense, diverse brush with canopy cover ~85% interspersed throughout
 - Thermal Cover



Guzzlers for Expanding Deer Habitat



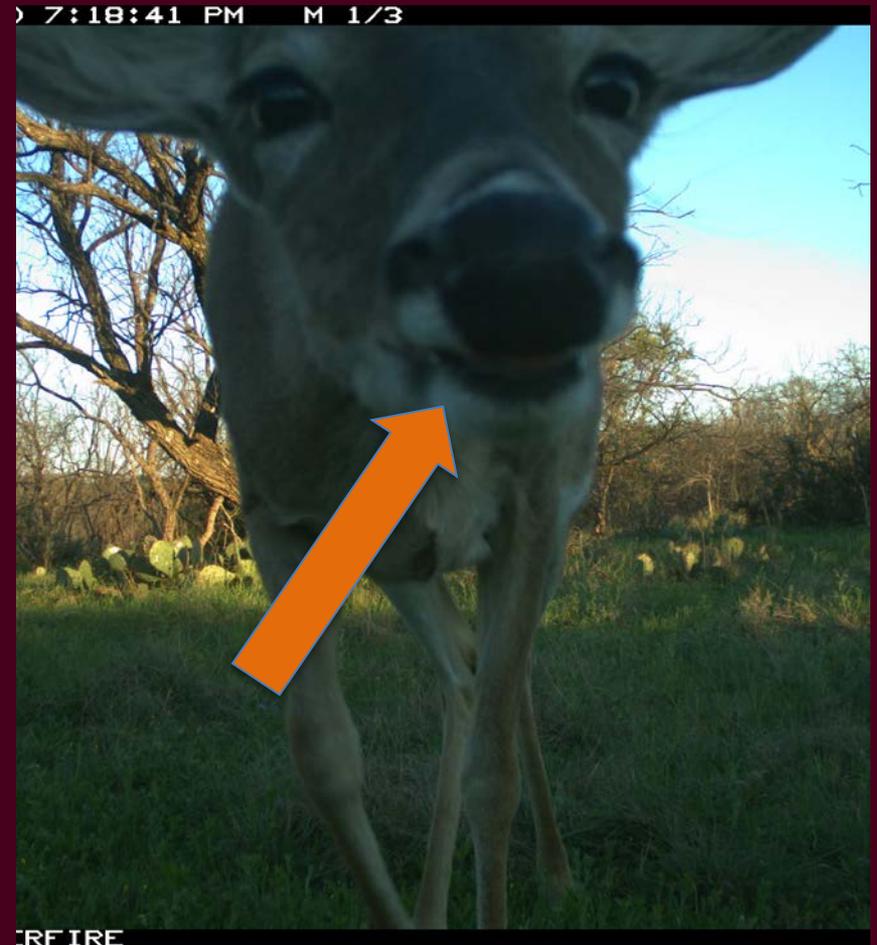
Monitoring

- Need to know if your property management matches wildlife goals
- Browse Monitoring:
 - Diversity and Palatability
 - Standing Crop
 - Exclosures
 - Photo points
 - *Browse Line Surveys*



Monitoring

- We need to monitor our deer over time to know situation.
- Monitoring Techniques
 - Deer Stand Counts
 - Spotlight Counts
 - Age/Weight/Antler Data
 - Camera Surveys



Supplemental Forages

- Habitat in a Bag?
- Are they necessary?
 - Myth vs. Fact
 - Effects of Rainfall
- What are my goals?
 - Providing Nutritional Supplement
 - Baiting
 - Increasing Deer Carrying Capacity



Wildlife and Agricultural Terrorist #1



Summary

- Deer and Goat Diets can overlap.
 - Understand diet needs and resources on your land
 - Monitor of range resources
 - Pattern where your goats do and don't go.
 - Rotate browsing and avoid prime hunting areas right before hunting season.
- Management under high fence intensive
- Monitor condition of deer over time

Thank you! Questions?

