

Checks and Balances

Background

White-tailed Deer in Texas

Weather Influences

Positive:

- Mild summers allow food plants to flourish
- Above average rainfall in the spring leads to abundant acorns in fall and winter
- Mild winter – not too cold or windy – makes foraging easier

Negative:

- Drought reduces food quantity and quality (good food plants dry up and die)
- Torrential rain causes flooding and erosion of feeding and shelter places
- Late freeze destroys new spring growth

Habitat Influences

Positive:

- Removal of non-native animals such as axis, sika, fallow, blackbuck antelope, and aoudad reduces competition for resources
- Rotating cattle grazing allows for grasses to be grazed by cattle and forbs to thrive while grasses are down
- Fencing to exclude cattle from woodlands protects allows understory biodiversity to thrive
- Controlled burning encourages growth of food plants while removing dried grasses and juniper seedlings

Negative:

- Housing and commercial development cover up habitat
- Cattle ranching encroaches on woodlands, cattle overgraze the understory damaging food plants and shelter
- Building reservoirs floods wooded bottomlands, covering habitat with water
- Overpopulation of deer leads to overgrazing and damage to the food plants so they can't grow back
- Water usage; pumping well water from the aquifer causes springs to dry up and eliminating previously reliable water sources
- Pine plantations turn forest into monoculture without the understory plants for food and shelter
- Non native animals such as axis, sika, fallow, blackbuck antelope, and aoudad compete for food

Research

- Population studies about number of deer or the ages in the herd – the percentage of young, old, male and female animals in a herd determines reproduction rate food requirements
- Forage studies about what plants make the best food – removal and planting of some plants can improve the nutrition of available forage, which in turn can influence reproduction rate
- Effectiveness of parasite control – ticks, flies, and such can transmit disease, weaken animals, and be indicators of overall health
- Genetic and nutritional affects on antlers – if the health of a population is measured by the size and shape of the antlers, knowing to what degree the condition is genetic and to what degree it is dependent on environment helps in making herd management decisions.

Education

- Public understanding of hunting regulations allows for hunting to be used as a more effective management tool.
- Public understanding of the damage non-native exotic animals and plants can do to the ecosystem reduces the quantity of introduced species, allowing the native balance to be maintained.
- Public understanding of the problems with overpopulation reduces inappropriate feeding of wild deer.