

INVESTIGATING DOMESTIC CATTLE HABITAT SELECTION ON SOUTH FLORIDA RANGELANDS

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Abstract

We studied resource selection by enclosed domestic cattle (*Bos taurus*) on a private ranch in southern Florida. Little information is available regarding how cattle select and utilize native grazing lands in the southeastern US; knowing how cattle may affect landscapes that are occupied by certain wildlife species is an important concern. During the years 2005 and 2006 cattle locations were collected via a GPS collar, programmed to send position coordinates every twenty minutes from the host cow. Cattle were able to move freely throughout all habitat types of the 2500 ha study area. Positions were then overlaid onto a land cover map in a Geographic Information System (GIS) in order to spatially join locations to the specific habitat types. Other information was incorporated into the GIS such as locations of fences, supplemental feeding stations, and roads. GPS positions that did not meet the pre-defined criteria for accuracy were censored from the data set. Treatments of pasture management were implemented (e.g. roller chopping and prescribed fire) to sustain early successional vegetation conducive to grazing.

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Cattle utilization relative to these treatments was also evaluated. We hypothesize cattle resource selection will not be random and will change depending on time of year as forage becomes available. Determining resource selection by cattle will allow ranchers to implement management practices that will decrease potential impacts of livestock on rangelands and increase habitat for certain wildlife species.

[Abstract Only]