

## ***Wildlife Considerations in Brush Management***

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Much of Southern Arizona was once described as “open grassland” broken by riparian corridors, and dotted with Sky Islands of montane woodland. Decades of fire suppression, periodic drought, and grazing regimes incongruous with the desert ecosystem that began over a Century ago have resulted in the expansion of woody species such as mesquite and white-thorn acacia into areas that historically did not support high densities of shrub or tree cover.

Through the evolution of management techniques, and the financial aid of government agencies such as the Natural Resources Conservation Service, Arizona Department of Environmental Quality, and Arizona Game and Fish Department, those responsible for the management of these grassland ecosystems have begun restoring balance to the plant communities found there. However, not all grasslands look alike, and the different wildlife species utilizing them have different needs when it comes to the amount and variety of shrubs present on the landscape, even in historic conditions.

The Arizona Game and Fish Department manages a small handful of grassland dependent wildlife species, and also some dependent on a mosaic of grassland and shrubland. Over the past 20 years, we have been able to channel funding to land managers to reduce shrub densities, where appropriate, for these species, but choosing the right prescription that will benefit all of them equally continues to be a challenge. I will be presenting information on the similarities and differences in habitat needs of game species found in or near Arizona grasslands, and the different types of shrub management projects we have co-funded in Southern Arizona.

### ***Some Available Resources:***

AZGFD Statewide Pronghorn Management Plan (2011 version)

[http://www.azgfd.gov/h\\_f/documents/2011%20Pronghorn%20Management%20Plan%20-%20December%203%202011.pdf](http://www.azgfd.gov/h_f/documents/2011%20Pronghorn%20Management%20Plan%20-%20December%203%202011.pdf)

***Arizona's Pronghorn Antelope: A Conservation Legacy.*** David E. Brown and Richard Ockenfels. 2007. Arizona Antelope Foundation, Phoenix, Arizona, USA. 190 pp. ISBN 0-9794776-0-7 [http://www.azantelope.org/AAF\\_Store/aaf\\_store.html](http://www.azantelope.org/AAF_Store/aaf_store.html)

***Arizona Game Birds.*** David E. Brown. University of Arizona Press, 1989. ISBN 0-8165-1019-9 (Available on Amazon)

***Fall and Winter Habitat Use by Scaled Quail in Southeastern Arizona.*** Bristow, K. D., and Richard A. Ockenfels. Rangeland Ecology & Management 59(3):308-313. 2006. <http://www.bioone.org/doi/abs/10.2111/04-117R2.1>

***Habitat Management for Gambel's Quail.*** Natural Resources Conservation Service, e-FOTG.

[https://efotg.sc.egov.usda.gov/references/public/AZ/Quail,\\_Gambels.doc](https://efotg.sc.egov.usda.gov/references/public/AZ/Quail,_Gambels.doc)

[https://www.wafwa.org/Documents%20and%20Settings/37/Site%20Documents/Working%20Groups/Mule%20Deer/Publications/SW\\_Mule\\_Deer\\_Habitat\\_Guidelines\\_V2.pdf](https://www.wafwa.org/Documents%20and%20Settings/37/Site%20Documents/Working%20Groups/Mule%20Deer/Publications/SW_Mule_Deer_Habitat_Guidelines_V2.pdf)

<https://www.wafwa.org/Documents%20and%20Settings/37/Site%20Documents/Working%20Groups/Mule%20Deer/Publications2/Mule%20Deer%20Changes.pdf>

NRCS Species Descriptions and Wildlife Habitat Evaluation Guides <https://efotg.sc.egov.usda.gov/treemenuFS.aspx>  
(Select State, then County, then change the drop-down to “Section II”. Then click on the “Animal Resources” folder, or “Planning Worksheets”, “Biology Worksheets”, then WHEGs”)