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Sublette Moose Project ♦ 2013 Parturition & Calf Survival



Background

In February 2011, we began research on Shiras moose (*Alces alces shirasi*) in the Hoback Basin to analyze demography, movement and nutrition of the largest population of Shiras moose in the continental US. The project has continued to evolve in response to potential energy development that may still occur in the region. One of our objectives is to provide a baseline characterization of moose habitat use and demographic performance prior to any energy development, should it occur in the near future.

During February captures, we took blood samples from every collared female to determine pregnancy status. With the results in hand, we then located all pregnant individuals to see if they gave birth to a calf in June (parturition) and then again during July to assess neonate survival. We located each moose via helicopter and calf presence was recorded. These demographic metrics will be used to analyze the population dynamics of the Sublette moose herd.

F42 keeps a close eye on her calf during a June flight in the Hoback Basin.

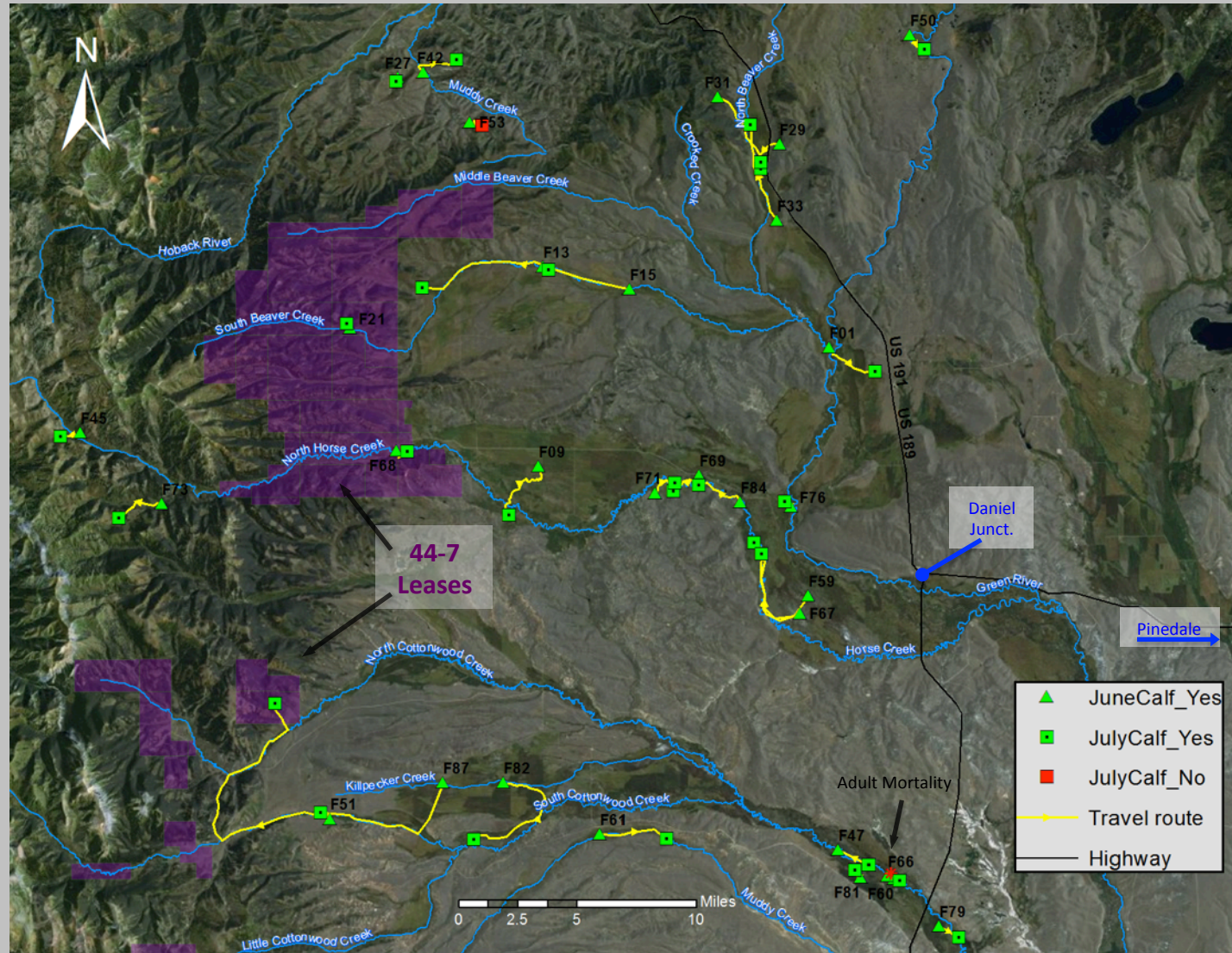


Pilot Dave Savage helps us locate moose with his Bell 47, affectionately named Annabell.



Calf Locations & Movement

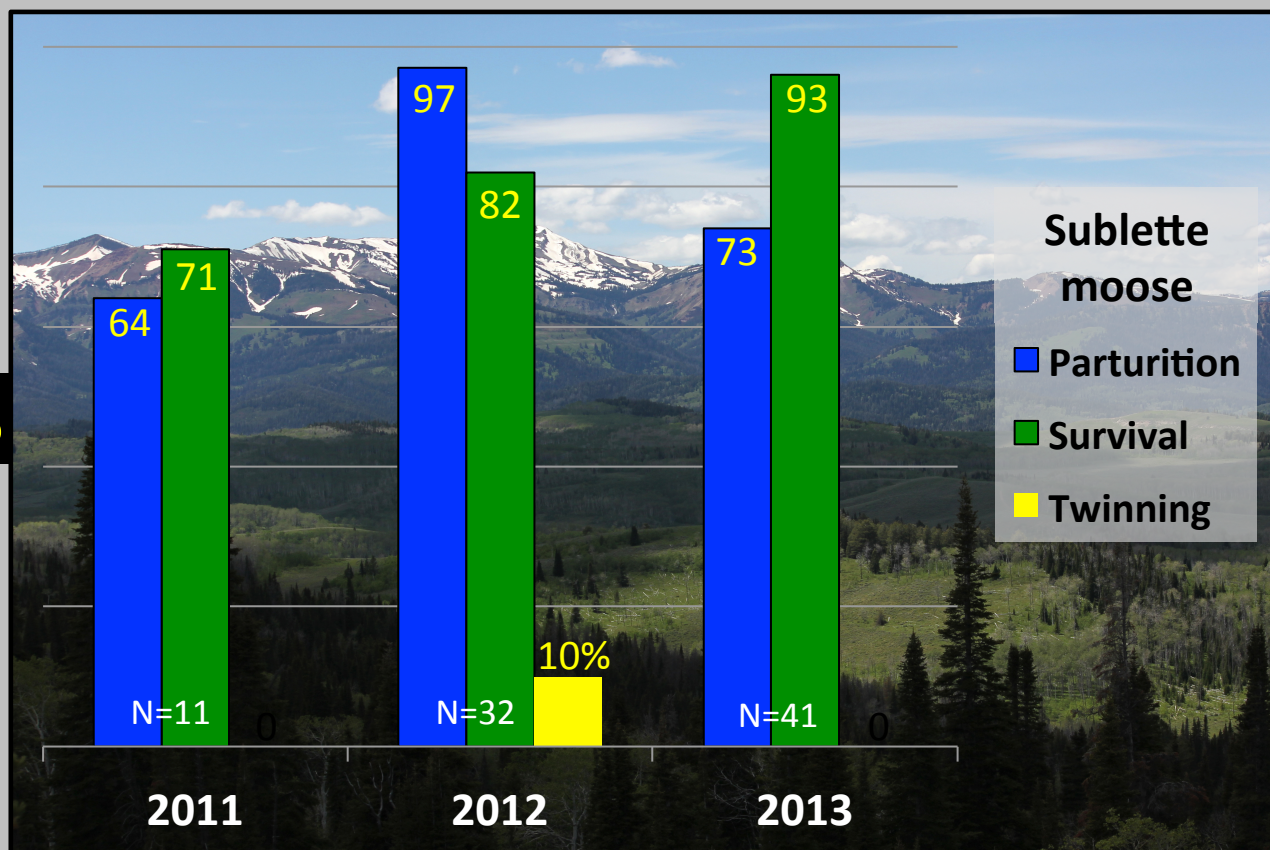
June locations (parturition) are symbolized by green triangles with an animal ID (e.g., F33). Travel routes of adult females with calves between June and July (green squares) are represented by yellow lines with arrows indicating direction of movement. Many females stayed localized with their calves, while others made movements as far 10 miles or more from their June location. Only one female (F53), who resided in the Hoback basin, lost her calf between June and July calf surveys. Several moose are using the 44-7 leasing zone (purple polygons) for calf parturition and rearing.



Results

Females produced fewer calves (73% parturition) than in 2012 (see graph below), however calf survival (93%) was the highest it has been since monitoring began in 2011. This year, sample size for pregnant females was also larger (n=41) due to our larger capture effort in February.

No twinning was evident in 2011 or 2013 and only 10% was observed in 2012, suggesting moose along the Wyoming Range front are experiencing a nutritional limitation. Healthy moose populations that are not limited by habitat often experience twinning rates greater than 40%. Sublette moose have also exhibited 3 years of low pregnancy rates (<75%) and high calf survival (>70%). While habitat quality remains a concern in Sublette, the relative influence of disease (e.g., *Elaeophora*) on the nutritional condition of adult females remains unknown.



Partners and Funding

Collecting valuable data on parturition and neonate survival would not be financially or logistically possible without the collaboration of our partners. ***We extend sincere thanks the numerous landowners for their continued support for this project.*** Many thanks to the Wyoming Game and Fish Department, Bridger-Teton National Forest, Wyoming Governor's Office, Wyoming Governor's Big Game License Coalition, Sublette County Outfitters and Guides Association Inc., Plains Exploration and Production Company, and Wyoming Outfitters and Guides Association.

