Maternal Behavior and Productivity of an Indigenous Desert Bighorn Sheep Population on the Navajo Reservation[TWS]

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The Fish and Wildlife Department of the Navajo Nation initiated this study to determine population size and trend, habitat requirements, and range capacity for a native desert bighorn sheep population inhabiting the San Juan River Canyon on the

Navajo Reservation in Southeastern Utah. Year 1 plant growth and forage availability was excellent due to above average precipitation related to El Nino weather patterns and light cattle grazing on the bighorn range. Year 2 precipitation was near average and heavy cattle grazing occurred on parts of the bighorn range. Observed lamb production was 1.00 lambs/ewe Year 1 and 0.76 lambs/ewe Year 2. Lamb survival from birth to 1 year was 0.71 Year 1, and 0.77 from birth to 8 months (Year 2). One set of twins was documented. Allo-mothering was common. Bonds between mothers and lambs were highly variable. One ewe apparently abandoned her lamb at less than 1 week of age. Scramble competition among lambs for milk was observed. The lambing period was extended year 1 (from 15 April through the 22 June) and shorter year 2 (from 11 April through May 25. Possibly due to excellent foraging conditions, some late lambs (including the latest one born each year) survived to mid-winter.