

DETERMINING TROPHY HARVEST QUOTAS THROUGH A STATUS SURVEY
OF URIAL (*OVIS ORIENTALIS*) IN THE KALABAGH GAME RESERVE,
PUNJAB PROVINCE, PAKISTAN¹

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¹Accepted May 23, 2005

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In April 2001, a population survey of Urial (*Ovis orientalis*) was conducted in the Kalabagh Game Reserve, in northwest Pakistan, to determine its suitability for sustainable use management. During the survey, 259 Urial were observed (143 females, 20 lambs, 96 males). The 96 males were classified as 30, 19, 19, and 28; Class I, Class II, Class III, and Class IV rams, respectively. The number of lambs observed was low (7.7%) because the survey was conducted at or near the peak of lambing, when observing lambs is difficult. However, the high frequency of lambing activity we observed during the survey and proportion of Class I rams (male lambs of the previous year) indicates a productive population. An overall density of 13 Urial per sq. km was observed on the Reserve, but ranged from 7-23 per sq. km among sectors. Urial were abundant with good survival of lambs and yearling rams during recent years, and good survival of rams into older age classes. An initial conservative harvest quota of 5 Class IV rams could be established without negative consequences. Specific recommendations for sustainable use management are provided.

Key words: Urial, *Ovis orientalis*, sustainable use, population dynamics