

## **Present status of Hangul *Cervus elaphus hanglu* Wagner, 1884**

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Kashmir deer is a close relative of European red deer *Cervus elaphus elaphus* Linnaeus of which North American wapiti or Tule elk *C. canadensis nannodes* is also a representative. Hangul, a critically endangered deer (Semon, 1966) is the only Asiatic survivor of this genus, since Shou or Sikkim stag *C. elaphus wallichii* Cuvier is believed to have disappeared from eastern Himalayas (Cumby valley of Sikkim, adjacent valleys of Bhutan and south eastern Nepal).

The habitat of Kashmir stag was once widely distributed from Bringhi to Kishanganga enrouting Lidder and Sindh catchments as well, traversing from south-east to north-west of Kashmir along with upper Chenab in Jammu is now confined to small areas of Tral-Overa (Lidder), Chattergul-Wanghat (Sindh) and Diver Inderbug, Lolab (Kishanganga) by relic populations, in addition to the only viable population in Dachigam (Bacha, 2014 *in pub.*). In addition, the catchment of national park is tucked in between the opposite faces of main mountainous ridges, on the right of Lidder and along the left of Sindh on its eastern and western boundaries respectively.

Periodic monitoring of Hangul in Dachigam is in operation, and population statistics since early 20<sup>th</sup> century kept on fluctuating that can be attributed to enormity of anthropogenic pressures in the area, besides, management interventions from time to time (Bacha, 2004, 2013). A drastic decline in Dachigam Hangul population was observed soon after 1947, when the estimated number of 3,000-5,000 recorded in early 1900'ies suddenly dropped to 180 in 1965 (Gee, 1966). Thus Hangul became a Red Data Book Texan, when the first scientific estimation during the rut of 1968 by Schaller, then, "Line Drive Count" by Holloway in 1969 was followed with the first intensive survey of Holloway and Wani (World Wide Fund for Nature and the Jammu & Kashmir Government respectively), to draft the future plan for Hangul in Dachigam. Afterward, in 1975 International Union for Conservation of Nature and Natural Resources / W W F launched a Project 1103 (22- 4): "Hangul- Ecological Study to Identify Conservation Needs," which was in operation till 1978. I have the privilege of assisting Dr. Fred Kurt, the Project Director during the period it was operational in Jammu & Kashmir.

In seventies (1968-78), Hangul in Dachigam remained under the close observation of foreign experts, when protection against incidences of poaching was strengthened and future conservation needs were identified, thus a study increase in population of 140 heads (180-320) was registered during the period. Similarly, in eighties (1978-88) Government enforced the Jammu & Kashmir Wildlife Protection Act, 1978, wherein grazing was strictly prohibited in Dachigam. Comparative analysis of Hangul population in Dachigam from 1978-88 had shown an estimated increase of 60.88%, against 43.75% registered from 1968-78. The State Cabinet on 1<sup>st</sup> February, 1981 gave a green signal to elevate it to national park status, but formal notification was issued on 10<sup>th</sup> April, 1990 to further strengthen its protection.

The sustained efforts of management helped to bring its number (actual) to 818 in 1988, when the estimated number could have been still on quite higher side. This increase accompanied by restocking in neighboring forests by normal migration, substantiated to extend its summer ground, with the identification and subsequent notification towards east, north-east and south-east of upper Dachigam with wildlife sanctuaries of Overa-Aru and Baltal-Thajwas on 19<sup>th</sup> March, 1987. Paradoxically enough, the deer and its habitat received the best protection of all during 1980'ies as such the Indian Board for Wildlife selected Dachigam to qualify for the best managed national park in India for the year 1981 and 1984.

Disturbances in Kashmir deterred to monitor Hangul population in Dachigam from 1989-91, when it touched the lowest ebb of 120-140 (Bacha, 1992, 2013) ever since recorded during the century. Later, the practice of population estimation continued unabated till date. It is estimated that

Hangul in Dachigam lies between 170-195 (Bacha, Khursheed & Shasheen, 2003, Bacha, 2013). But over all Hangul statistics from 1994-2003 has remained almost stable.

Still, from 2004 on wards, with further perfection in the methodology, the latest figures of 2011, based on the bounded-count method; the population was estimated to be 260 with the lower and upper ranges of 243 and 432 animals (Charoo, et al. 2011).

However, the Hangul in its last abode of Dachigam is virtually facing an unstable position since 1990s. Its over all population status in Dachigam and other relic populations in Kashmir (Tral-Overa, Lidder; Chattergul-Wanghat, Sindh and Diver Inderbug- Lolab, Kishanganga, must be less than 150-200 only. Under this situation a mega preserve of Greater Dachigam concept has been proposed to strengthen the protection in Buffer Zone by up-grading conservation reserves and securing Eco-sensitive Zone by declaring remaining Tral and Sindh areas protected. Besides, extending protection to Kishanganga sub-population with an alternate conservation site.

In view of the present status discussed above, it is proposed that Hangul should continue to be in the Red Data Book Texan as critically endangered species.