

**Research Article**

## **Naturalistic habitat enrichment and reproductive success of captive Bengal Tigers (*Panthera tigris tigris*) at North Bengal Wild Animals Park (Bengal Safari), Siliguri, India**

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### **ABSTRACT**

Survival and continued existence of any species depend on some crucial factors especially effective survival strategy, rich genetic diversity, healthy gene pool and reproductive success. The reproductive performance of polygamous apex predators like Bengal tigers in wild demands specific requirements which include ecological demands of vast area for territorial activities and corridors as this solitary carnivore migrates long distances to establish undisturbed territory and to find suitable mate for courtship. Captive tigers due to confinement do not exhibit natural behavior including reproductive behaviours which are well connected with stress factors, physiological and psychological factors. In North Bengal Wild Animals Park healthy breeding stocks with preferred and compatible partners were provided with nature identical environment minimizing psychological distress and other kind of stresses. Genetic management was properly executed following studbook analysis to prevent genetic erosion. Environmental enrichment by providing natural habitat like semi-wild condition resulted successful courtship and natural reproductive behaviours were observed. Our results revealed a link between semi-wild habitat and a series of reproductive achievements including successful courtship, mating with high fertility rate, healthy offspring production and encouraging rate of cub survival. Obtained results also provide important reproductive information and novel insights on scientific management and conservation strategy for self-sustaining population in captivity and in wild as well.

**Keywords:** Conservation, Bengal tiger, naturalistic environment, semi-wild, genetic diversity, stress management

