

**INBREEDING DEPRESSION OF CAPTIVE MALAYAN GAUR (*Bos gaurus hubbacki*) AT JENDERAK SELATAN WILDLIFE CONSERVATION CENTRE, PAHANG**

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The Malayan gaur or locally known as Seladang (*Bos gaurus hubbacki*) is the second largest terrestrial mammal in Malaysia. In Peninsular Malaysia, wild gaur can be found in considerable numbers in states of Perak, Pahang and Terengganu (Muhamad Rizal, pers. comm.). According to Conry (1981), the home range of Malayan gaur differ with sex and age. Conry (1981) calculated the home range of a herd in Lepar River Valley (central Pahang) and he found that adult male have an estimated home range of 7,018 ha, adult female with 5,213 ha, and yearling male had a home range of 2,989 ha. Gaur food preference was affected by elevation from sea level (increase in elevation limit choice of food) and types of habitat (i.e. primary forest, secondary forest, agricultural area) within their home range (Ebil, 1982, 2009). Gaur preferred 17 species of shrubs and six species of grasses (Ebil, 2009). According to Ebil (2009) the most preferred shrubs based on habitat are *Shorea acuminata* (primary forest), *Melastoma malabathricum* (secondary forest), *Erythrina variegata* (agricultural area) and as for grasses species, the gaur favour *Imperata cylindrica* (primary forest), *Paspalum conjugatum* (secondary forest), and *Paspalum vaginatum* (agricultural area).

The gaur is listed as vulnerable by the International Union for Conservation of Nature and Natural Resources (IUCN) Red List of Threatened Species (Duckworth *et al.*, 2008) and is a totally protected species under the Wildlife Conservation Act 2010 [Act 716]. As part of gaur *ex-situ* conservation effort, the Department of Wildlife and National Parks (DWNP) Peninsular Malaysia has established the Jenderak Selatan Wildlife Conservation Centre (JSWCC) in 1979 (GPS coordinate: 3°38'18"N 102°18'11"E) and the captive breeding programme began in 1982 with a pair of wild gaur as initial breeder (Sahir, 1999). In April 1985, the first gaur was born in captivity and was named Jenderak. Since then JSWCC have recorded birth of gaur every year and the latest was in November 2015 marking the 30 years since the first gaur was successfully born in captivity. Sahir (1999) noted that the captive breeding programme was successful and there was no inbreeding. Nonetheless, the current captive population is undoubtedly inbred as there is no new bloodline introduced since the programme began.

Inbreeding is defined as mating among relative with common ancestor (Paige, 2010). Theoretically, inbreeding will reduce fitness in the offspring produced by inbred mating and