

The Indian Lion – Threatened and Decreasing

By Paul Joslin

THERE is increasing concern about the future of the Asiatic lion *Panthera leo persica* now found only in the 500 square-mile Gir Forest Wildlife Sanctuary in Gujarat in north-west India. In June this year the most intensive census ever of these lions produced a minimum figure of 162 – drastically fewer than the 285 estimated in the 1963 census, although this is now thought to have been an overestimate. In 1963 the only enumeration method used involved counting lion pug marks or tracks found along roads and around waterholes, and each track that was different in size was assumed to be that of a different individual, but the size of an individual animal's track can vary tremendously under different conditions – larger in soft ground, smaller in hard ground – and the presence of a large number of leopards in the sanctuary was an additional bias to the count that was difficult to remove. In 1968 a preliminary survey, which recorded the number of lions reported making kills in each area for about a month, was followed by two censuses: the first a two-day pug count (similar to that done previously); the second baiting the lions with over 100 buffalo calves placed at different locations over the whole sanctuary and also surrounding areas because some lions occupy ranges just outside the sanctuary boundary. It was assumed that within two or three days nearly all the lions would have found a bait and would remain with it for the remainder of the five-day enumeration; any baits consumed during the count were replaced with new ones. The tremendous advantage of this method was that for the first time it was possible to give both a direct and a minimum count of this rare species.

The preliminary survey gave a rough total of 160 lions, the pug count (after the most diligent elimination) 166, and the bait count 162 lions. In a statement at a press conference Mr Oza, the Deputy Forest Minister of Gujarat State, said the true figure was probably more like 177, taking into account a few animals for which tracks were recorded but which did not appear at the baits, and vice versa.

From the conservation standpoint the deterioration of the lions' habitat is of serious concern. Seven thousand people with over 17,000 head of livestock live in the sanctuary, and last year no fewer than seven cases of poisoned or shot lions were documented following predation on domestic animals. Roughly 5 per cent of the sanctuary is suffering from agricultural encroachment which is increasing, and the thorn scrub, believed to be the lions' favoured habitat, is shrinking. There is a lack of wild herbivores for the lions to prey upon, probably as a result of competition with the domestic stock; wild boar in particular, previously reported to be the most common wild prey species and much favoured by the lion, are now seen in very small numbers.