
ASSESSING TIGER POPULATION DYNAMICS



Tigress with cubs.

Multiyear camera trapping studies using a robust design capture–recapture model permit estimation of population parameters, such as mortality and recruitment, in tiger populations. The study was conducted in the central part of Nagarahole Reserve in Karnataka State, India, from 1991 to 2000. This 644-km² reserve supports high densities of prey (~56 ungulates/km²), and consequently, of tigers.

Photo credit for the tigress with cubs is Ullas Karanth/Wildlife Conservation Society, and for the prey species is Ullas Karanth only.





The demographic viability of wild tiger populations is strongly linked to maintaining high densities of large ungulate prey species, such as (in India) gaur (*Bos frontalis*) (photo 2), chital deer (*Axis axis*) (photo 3), and sambar deer (*Cervus unicolor*) (photo 3).

These photographs were taken in association with the article, “Assessing tiger population dynamics using photographic capture–recapture sampling,” by K. U. Karanth, J. D. Nichols, N. S. Kumar, and J. E. Hines, which is tentatively scheduled to appear in *Ecology* 87(11), November 2006.