



Figure 1. Flock of birds in Kolleru lake.

their habitat and collection of food. The local inhabitants are reaping benefits through traditional fishing and using several plant species for their daily requirements, i.e. for food, shelter and medicine. Many are being given rehabilitation packages to start alternate liveli-

hoods. To augment the fish population, the local fish varieties are distributed to the local fishermen. The lake Kolleru has regained its past glory due to actions taken by the State Government with collaboration of villagers. Further studies should be conducted on wetlands in other

parts of India, which are facing similar kind of treatment and a structured action plan should be prepared for those violating the law.

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CHIRANJIBI PATTANAIK^{1,*}
S. NARENDRA PRASAD¹
NIDHI NAGABHATLA²
C. M. FINLAYSON²

¹Salim Ali Centre for Ornithology and Natural History,
Deccan Regional Station,
Hyderabad 500 017, India
²Global Research Division,
International Water Management Institute,
Colombo, Sri Lanka
*e-mail: jilu2000@rediffmail.com

Distribution and status of the endangered Nilgiri tahr

The Chennai edition of *The Hindu* dated 24 November 2007 carried an article on conservation breeding of endangered mammals. The proposed conservation initiative of the Government of India targets a few species of mammals, including the Nilgiri tahr (*Hemitragus hylocrius*), that are endemic to the Western Ghats. The article suggests that the population size of the Nilgiri tahr presently stands at 3500 and reintroduction of captive-bred animals will improve the conservation status of the species.

The article has certainly reiterated the need for more dedicated conservation efforts on less charismatic species like the Nilgiri tahr. Nevertheless, we contend that both the estimated population size and the proposed conservation strategy presented therein are rather unrealistic. The reasons for our skepticism are presented here.

One of the recent checklists of the world's extant mammals includes 34 species¹ of caprine ungulates (goats, sheep and allies). And among the extant

caprine ungulates, the Nilgiri tahr has the unique distinction of being the only species that is endemic to tropical mountains². The Nilgiri tahr is one of the three species known in the genus *Hemitragus*. While it is generally accepted that the three species of tahr are the descendants of an extinct Eurasian ancestor², some biologists believe that the Arabian, Himalayan and Nilgiri tahrs have had varied ancestry and that the Nilgiri tahr should be placed in an endemic monotypic genus, *Nilgiritragus*³. In spite of the taxonomic uncertainties and debates, the fact that the Nilgiri tahr is a Pleistocene relic in the Western Ghats² enhances its conservation value.

During the year 2006, the Wildlife Trust of India (New Delhi) sponsored a short-term survey of the Nilgiri tahr⁴. Although the duration was only four months (May–August), the study had several merits. To begin with, it is noteworthy that the 2006 survey was the first attempt that was made to assess the habitat, distribution and population size of the Nilgiri tahr over its

entire range after a gap of over two decades. Further, with the cooperation and support of the Forest Departments of Tamil Nadu and Kerala, the study provided us opportunities to visit some remote localities where there have not been any recent surveys made (Care Earth and Wildlife Trust of India, unpublished).

The key finding of our recent study is that the population size of the Nilgiri tahr may not be more than 2000 at present (Care Earth and Wildlife Trust of India, unpublished). An analysis of census data for four decades, beginning in 1969, available for Eravikulam National Park, Mukurthi National Park and Indira Gandhi Wildlife Sanctuary and National Park, has suggested that the number of Nilgiri tahrs has fluctuated considerably even where the species has enjoyed 75–100 years of protection. The discernable trend has only pointed to population decline in two out of three of the dedicated Nilgiri tahr conservation areas⁴. The primary reasons for the decline in the number of Nilgiri tahrs are loss of habitat and hunt-

ing (Care Earth and Wildlife Trust of India, unpublished).

Historical information available of the geographical range, population size and distribution has suggested that the Nilgiri tahr occurred in mid and high elevation hills of southwestern Karnataka, western Tamil Nadu and Kerala². Over this 400 km range in the southern Western Ghats, there may have been 50,000–100,000 Nilgiri tahrs at the time that the British invaded the region. This estimate has been made taking into consideration early reports that in the Palani Hills landscape alone there was a population of 25,000–30,000 (Care Earth and Wildlife Trust of India, unpublished). Hunting and habitat loss soon decimated the Nilgiri tahr, that by the turn of the twentieth century the species was on the brink of extinction².

While it is remarkable that in 100 years the population of the tahr has recovered rather significantly, the distribution pattern and population trends do not suggest that the species is doing well. For, at present, the Nilgiri tahr is known only from 50 to 60 localities that are distributed over six high elevation landscapes in the Western Ghats of Tamil Nadu and Kerala, wherein local popula-

tions are often in the form of single herds of not more than 10 individuals (Care Earth and Wildlife Trust of India, unpublished). Small and isolated populations of the tahr found throughout the six landscapes are indication that despite fragmentation, degradation and pressures of poaching, the existing habitats continue to support the species. As much of the available information on the Nilgiri tahr has come from studies that were confined to a few easily accessible localities and familiar populations, little is known about the survival strategies that the species adopts, in isolation, outside the conservation areas.

In the absence of more detailed studies that shed light on the dynamics, including patterns of migration (if any) of the 'marginal' populations, and the availability and suitability of habitats, attempts to breed and reintroduce the Nilgiri tahr will be premature. Unless dedicated efforts are made to control poaching and improve the extent and quality of habitat, reintroduced animals are unlikely to survive. A conservation strategy that lays emphasis on improving habitat extent and quality, such that the connectivity between marginal and core populations is

reestablished within (and possibly between) the landscapes, seems to be the most appropriate intervention at this juncture.

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R. J. RANJIT DANIELS^{1,*}
P. S. EASA¹
MOHAN ALEMBATH²

¹Care Earth,
5, 21st Street,
Thillaiganganagar,
Chennai 600 061, India
²18/2062 C, Valummel Road,
Cochin 682 005, India
*e-mail: ranjit.daniels@gmail.com