

Survey of the Nahan's Francolin, *Francolinus nahani* in Kibale and Semliki National Parks, Uganda



A pair of Nahan's Francolin roosting in between a *Cynometra* buttress. Photo by Eric Sande

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Introduction

Nahan's Francolin, *Francolinus nahani* is a globally Endangered species (BirdLife International 2008). This means it faces a high risk of extinction in the near future. The fact that it forest specialist (Bennun *et al* 1996) makes it more vulnerable to extinction because of the high rate (0.2% per annum from 1999-2005 according to FAO 2007) at which forests are declining. Globally, the species is only known from a few localities in the eastern Democratic Republic of Congo (DRC) and in central and western Uganda.

Before mid 1990s, Nahan's Francolin was very difficult to study because its call was unknown and it is a forest ground dwelling species that hardly calls unless provoked using a playback. Until 2000, Nahan's Francolin species was a Data Deficient species (Collar *et al* 1994). The availability of its call has facilitated research that has been carried out to study the population and ecology of the species (Dranzoa *et al* 1997, 1999; Sande 2001; Sande *et al* 2001; Fuller *et al* 2004). The status of the species is now fairly known in Uganda in the forests of Budongo, Bugoma and Mabira (Dranzoa *et al* 1997; Dranzoa *et al* 1999; Sande 2001). The population in these three sites has been estimated to be about 40,000 individuals (Fuller *et al* 2004). A few reports indicated the presence of Nahan's Francolin in Kibale National Park (KNP) (Skorupa 183, Howard, 1991) and in Semuliki National Park (SNP) (Van Someren and Van Someren 1949; Friedmann and William 1971; Howard 1991). However, the presence of the species in these two forest national parks have never been confirmed.

The aims of the study

The aim of the study is to confirm the presence of the Nahan's Francolin in Kibale and Semliki National Parks which had earlier on been reported. The expected outputs included:

- 1) Presence or absence of Nahan's Francolin in Kibale and Semliki National Parks ascertained
- 2) Density of the species (if found to be present) in the study sites estimated
- 3) New information about this endangered species to BirdLife International Species Programme provided
- 4) Recommendations to Nature Uganda, Uganda Wildlife Authority and Makerere University about the species monitoring, further research strategies and ecotourism potential provided

Survey methods

Nahan's Francolin presence and population estimates can be established using call playback techniques at points spaced evenly along line transects. This method has been tested and used by Dranzoa *et al* 1997, 1999; Sande 2001, and Fuller *et al* 2004. It has been found to be very effective in provoking responses from Nahan's Francolin and even flushing them out of the thick vegetation.

The survey was done in May 2008. In KNP, the survey was done at Sebitole and Kanyanchu. These are areas that have been developed for ecotourism in KNP. Kanyanchu is a *Cynometra*-dominant forest, a habitat type that provides better breeding environment for the species in Budongo Forest reserve (Sande 2001). I surveyed 4 km and 5 km of transect in Sebitole and Kanyanchu study sites respectively. Each of the transect was surveyed once in the morning and one in the evening.

In SNP, surveys were carried out in a 3 km transect in the swamp forests around Sempaya hot springs and in a 10 km *Cynometra*-dominant transect from the park boundary to the Semuliki River. Again, each of the transect was surveyed once in the morning and one in the evening.

Results

No indication of the presence of Nahan's Francolin was recorded in the two parks during this study period.

Discussion and Conclusion

Nahan's Francolins prefer *Cynometra* forest because *Cynometra* trees provide better buttresses which the birds require for breeding (Sande 2001). Even if the entire forest were not surveyed, the failure to get a positive response especially in the preferred habitat implies that the Nahan's Francolin does not occur in Kibale and Semuliki National Parks.

We have surveyed the Nahan's Francolin in Mabira, Budongo and Bugoma Forests where it occurs (Dranzoa, et al 1997, 1999) and one can hardly survey a kilometre transect playing back the call without getting a positive response. Therefore the 9 and 13 km long survey in Kibale and Semuliki forests respectively could not have failed to elicit a response if the species was present in the study area knowing how fast the birds respond to playbacks. Sande (2001) found that out of 77% (n=525) Nahan's Francolin responses occurred within one minute and 64% (n=404) of the responses within one minute actually occurred within the first 5 seconds. This illustrates how efficient the playback method is for this particular species and how the species could not have been missed in that long transect surveyed.

By way of recommendation, surveys for Nahan's francolin need to be done in Sango-bay forest reserve which is in the same altitudinal band Mabira, Budongo and Bugoma forests (<1200m above sea level) (Howard 1991). Itwara forest reserve also needs to be surveyed for Nahan's Francolin because it lies about 50 km southwest of Bugoma forest (with the highest density of Nahan's Francolin in Uganda according to Fuller et al 2004) and the forest's avifauna is little known with 90 species that needs confirmation (Howard 1991).

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