Essay on Wild life Ecology and management

Conservation of walia Ibex in Ethiopia

By Duressa Getachew Abichu

Szent Istivan Unversity Faculty of Veterinery science

April 2011

Budapest

Conservation of Walia Ibex In Ethiopia

Introduction

Ethiopia located at the horn of Africa with different Agroecological zones with different Endemic Plants and wild animals among wild animals walia Ibex is one of the endemic animal exists in North Ethiopia semien mountain escarpements , the behavour of the Walia Ibex is they prefer bushes ragged lands and small trees and savanah areas , currently this animal is one of largly indangerd breed that the number is very declined from time to time due to Human activity that deforestation of natural forests that harbour walia ibex and the animal concentrated to alimited areas about (95km^2) because of human interferance by devastating the habitate and they are forced to live in limited areas the survey result shows the number is about 150- 400 Blower, 1970; according to the Nievergelt,1981; Hurni, 1986) total estimated of the walia ibex in ethiopia is around 450(Simen Mountains National Park Office, pers. comm.).

Conservation of endangered species is very difficult as the study shows there are different approaches to design the conservation strategy like molecular phylogeny, population genetics and ecological data, considerably help to identify conservation units and management strategies (Gebremedhin et al., 2009). Crandall (2009), Festa-Bianchet (2009) and Schwartz (2009)

1.Method and matarial

1.1Method

1.1.1Molecular genetic analysis

By collecting fecal sample and analysing the the chromosome for comparison with other species *C. nubiana* (n=8), *Capra cylindricornis* (n=2), Capracaucasica (n=2), *Capra falconeri* (n=2), *C. ibex* (n=1and *Capra pyrenaica* (n=1) done from DNA analysis from fecal sample by sequesing DNA probe

1.1.2 Phylogenetic reconstructions and divergence

To identfy the Genetic adaptation of the walia Ibex to different and genetic loci flow is very important data to conseravation of the future gene Neutral genetic markers (or markers assumed to be neutral) are currently the most common tools to reconstruct phylogenies, assess gene flow and spatial structure and to identify conservation units (Hoffmann & Willi, 2008).

1.1.3 Bioclimatic niche assessment and potential distribution

The bioclimetic distribution of the walia *C. walie* and *C. nubiana* comparing with different climates to know the similarities and differnces to kow the adaptation of walia Ibex from other copra species which helps to design the best suit climatic conditions

2.Results

Molecular genetic analysis

The DNA sequencing results of different study shows Walia had the same haploptye among individuals and the results from other species shows different haplotype this indicates that they are different from other copra species

Phylogenetic reconstructions and divergence

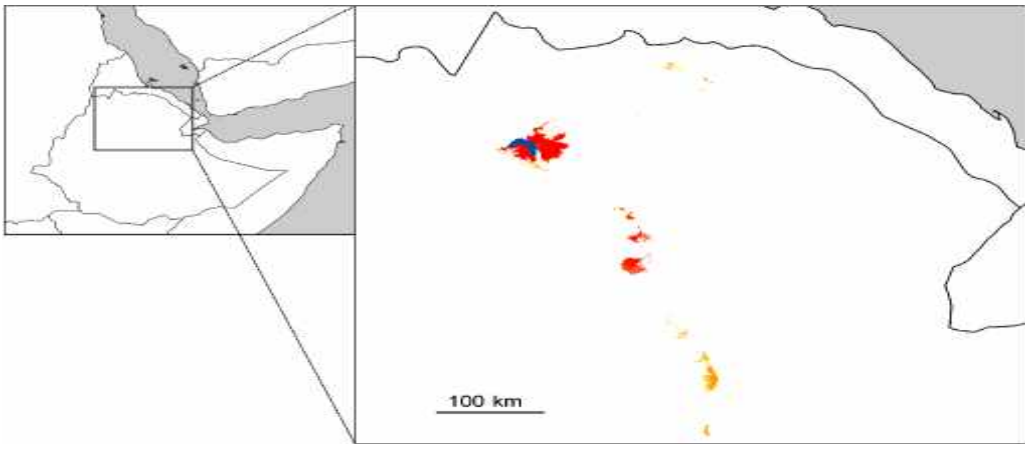
All the copra species have different ecological requirement and adaptation to resist the influences of the natural habitate due to human interferances this indicates that C.walia has special preferences to adapt diffenrt factors and this may lead to diminish the numbers and become indangered and one of the difficulties to conserve the animal by itself

Bioclimatic niche assessment and potential distribution

For C. walie and C. nubiana in comparison with the same altitude and Geographec area have different preference and fitness C. walia prefers high altitude and wet climate and very extereme temperature while c.nubia exits at low altitude and dry desert areas among the two species C. nubia can fit better

Discussion

Walia Ibex have different adaptatin and special preference to exists because as different study shows it is separated about 0.8 milloin years from c. nubia which exist with in the same country having different DNA sequences, different phylogenic situation and divergency of the ecological niches contributes the animals secceptable to be in dangered



Modelled potential distribution of Capra walie in Ethiopia. The blue dots represent the current observed distribution of C. walie in Ethiopia, while the red shape represents the potential distribution of C. walie extrapolated from the species distribution model.
Animal Conservation **12** (2009) 89–100 c_2009 The Authors. Journal compilation c_ 2009 The Zoological Society of London

References

Animal Conservation. Print ISSN 1367-9430

Animal Conservation **12** (2009) 107–109 c_2009 The Authors. Journal compilation c_2009 The Zoological Society of London

Animal Conservation **12** (2009) 89–100 _c 2009 The Authors. Journal compilation _c 2009 The Zoological Society of London

Aguilar, A., Roemer, G., Debenham, S., Binns, M., Garcelon,D. & Wayne, R.K. (2004). High MHC diversity maintained by balancing selection in an otherwise geneticallyAguilar, A.,

Roemer, G., Debenham, S., Binns, M., Garcelon,D. & Wayne, R.K. (2004). High MHC diversity maintained by balancing selection in an otherwise genetically mono