Antelope Specialist Group

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GNUSLETTER

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ASG NEWS AND VIEWS

Antelope Survey

As noted in the Christmas card I sent ASG members, 1986 is the year when the antelope survey will finally be completed, provided Compiler and Editor Rod East continues to receive the excellent cooperation he has had from those of you he has written.

In at least one case, a personal request for information was the necessary key to gaining cooperation. An ASG member, who shall be nameless, made the following comment in his reply (dated 5 October 1985) to a letter from Rod East: "The reason why you have no data from ..... is simply because no one has so far cared to write to me although I have been a member of the Group since 1980." That all of the appeals I have made in the Gnusletter for ASG members to participate in the antelope survey should have been ignored - or unread? - leaves me completely flabbergasted. While I realize that personal contacts are the best way to gain cooperation, I simply have not had the time to write most ASG members individually. Those who have been invited to become members of the Antelope Specialist Group have special knowledge about antelopes and/or about the countries in which antelopes occur. I have always assumed that those who accepted the appointment intended to contribute information and advice. I just hope there are no others who have been holding back because I haven't written them personally!

From now on, a tangible contribution within the period of appointment will be expected of all ASG members who wish to be reappointed.

To give an idea of the way information is presented in the country by country survey, an excerpt from Jesse Hillman's account of Ethiopian antelopes is presented below. The 22-page manuscript begins with a discussion of Ethiopia's biomes, continues with general remarks on the occurence and current status of antelopes in the country, the condition of their habitat, conservation measures taken and proposed. Then come the accounts of the 30 different species, complete with distribution maps. Here is the account of the mountain nyala, the subject of Jesse's Ethiopian research and an endemic species of particular interest.

Mountain Nyala (Tragelaphus buxtoni)

Distribution: Formerly occurred in the highlands east of the Rift Valley, between Gara Muleta and Bale, and possibly in peaks in Sidamo. Now more localised, occurring in isolated populations between the Chercher (Harerghe) and Bale Mountains (see map; Fig. 3).

Population: Estimated population 2000-4000; decreasing.

Habitat, Food & Reproduction: Occurs in high altitude bush, woodland and associated grassland, heather and Afroalpine moorlands at 3000-4200 m. A tiny population occurs at 1800 m at Wondo Genet. A browser of herbs, bush and lower tree branches, especially Alchemilla spp., Artemesia afra, Hypericum revolutum, and Hagenia abyssinica.

Average group size 8.6; range 1-96. Occurs in family groups, female plus last two progeny; aggregates into larger groups. Males occur in bachelor and/or family groups, up to 13 together. Not territorial, exhibits a dominance hierarchy.

Shows some local seasonal movement, using thicker habitat such as woodlands and heather more in the dry season. Avoids frosts and midday heat in the dry season by resting in woodlands. Undertakes nocturnal dispersal to avoid human disturbance by day.

Produces a single calf, 70% born in the late wet season.

Status: A rare species in view of the small total world population in Ethiopia; overall status reasonably satisfactory.

Conservation Measures Taken: One male may be taken on a special license (limit six/year). Occurs in Bale Mountains National Park, which extends from altitudes of 1500 m in the south, to the high plateau in the main mountain massif at over 4000m with several peaks, the highest at 4400 m. A high density, expanding population occurs in a very restricted area near the Park Headquarters in the extreme north of the park at an altitude of 3000-3200 m. It is in this area that most conservation management has occurred over the last 12 years since the national park's inception. Mountain nyala numbers have increased markedly during this period as a result of protection and the exclusion of domestic grazing livestock. No other part of the Bale Mountains National Park carries high numbers of mountain nyala. Densities are very low and stable or declining over the much more extensive higher altitude sections of the park. Outside the national park there is minimal protection in controlled hunting areas.

Conservation Measures Proposed: The Bale Mountains National Park needs to be extended to include more optimum mountain nyala habitat at lower altitudes (3000 m). There is also a need for increased protection at higher altitudes within the park, aid to assist the development of conservation management in the park, and establishment of a second conservation area to the north in Arssi or Harerghe.

Additional Remarks: This species has been studied in the field by Brown (1969) and Hillman (in progress). The effect of conservation in the north of Bale Mountains National Park by EWCO has been phenomenal. However, lack of effective protection elsewhere in their range has resulted in a steady decrease.

More About Subspecies

The following letter from Kurt Benirschke, M.D., Zoological Society of San Diego, P. O. Box 551, San Diego, CA 92112-0551 was received last February and regrettably misplaced. My apologies to Dr. Benirschke.

"While I have no strong feelings of subspecies and their segregation when species are so gravely endangered, I would like to point out that our casual designation of subspecies status based solely on phenotypes may not betray the entire biological situation. This was clearly driven home to us when it was discovered that Aotus had numerous different chromosome numbers, depending on locality. Other examples followed.

As far as gazelles are concerned, we have recently studied 8.20 specimens of phenotypically uniform Gazella soemmeringi with chromosome numbers varying between 34 and 39. Moreover, thirteen different chromosomal rearrangements were found (Z. Säugetierk., in press). It is unlikely that such a chromosomal variety exists

in a natural breeding population. More likely is that different groups consist of different cytogenetic patterns, but not having their phenotypes altered sufficiently for our recognition. Regrettably, the origin of captive animals is never precisely known.

In a previous study 'Dama gazelles' of unknown locality were also found to differ chromosomally (Genetica 46: 419, 1976) and we can say the same of other species we now study (so far G. granti has been uniform).

It would perhaps be wise to weigh reintroductions with the imperfections of our biological knowledge of these animals in mind. Furley's attempts to characterize the chromosomal nature of gazelles are to be complimented. If gazelles are released then it seems to me minimally their chromosomal status should be known so that the future consequences of this possible introgression be understood."

Peter Grubb has contributed his own interesting observations on antelope subspecies:

Notes on some Antelope Subspecies

Critics have been a bit hard on those fellows who described all the numerous subspecies of antelopes. Yes, many of these are not really distinct, but one must not forget the historical circumstances surrounding their discovery - ranging from poor communications to primitive species-concepts. It's our fault, really, that we have not fully clarified our knowledge of natural variation in antelopes.

Here are some issues worth settling, where new information is particularly needed.

Sometimes apparently distinct subspecies may really be based on unusual individuals only. Three cases come to mind where we can't yet be sure. They are all "semimelanic" animals - not all black, but very deeply pigmented. Sylvicapra grimmia walkeri (black bush duiker) is known from a single specimen from southern Malawi. It's very unlikely that a population of black duikers could survive in Malawi without being spotted, according to Frank Ansell, but this animal is so strikingly different that one wonders. The black-backed Grant's gazelle (Gazella granti notata) is another unusual animal, dark coloured with the back shading to black towards the rump, and with a broad black flank stripe even in the male. The type specimen was shot from a small group, and there is another, female skin. Is it really a dark upland race, localised around the Loroghi Mountains, Kenya, or does it represent an extreme of variation in a population? The last of these odd antelopes is the black-striped oribi, Ourebia ourebi goslingi, also known by two skins, both female, which most unusually for the species have a deep seal-brown dorsal band. Is it the norm on the Zaire-Sudan border at about 28° E? Or once again are we dealing with an extreme of variation?

The next case is that of Peter's gazelle, Gazella granti petersi, most distinct of the supposed subspecies of Grant's gazelle, relatively small, with very straight horns and without the white croup-patch which otherwise characterizes all the big gazelles. Walter Leuthold has described its relatively recent range-extension into Tsavo East National Park and it is definitely known from a few localities, all near the coast, further north in Kenya. Museum specimens from Somalia, though, are not petersi. The extensive range given to this race by Jonathan Kingdon mostly applies to quite another subspecies, G. g. raineyi. It is beginning to look as if Peter's gazelle is confined to a small area, and its status needs investigation.

With Peter's gazelle are other localised antelope populations: Beatragus hunteri (Hunter's hartebeest), Tragelaphus scriptus fasciatus (giant Somali bushbuck), Ourebia ourebia haggardi (Haggard's oribi), Damaliscus lunatus topi (eastern topi), Kobus ellipsiprymnus pallidus (pale waterbuck), Sylvicapra grimmia deserti (pale bush duiker). The last two may not be distinct but the others certainly are. The bushbuck is particularly interesting. It's the largest of its species and quite different in habitat and appearance from other bushbuck which occur in Kenya. And its survival

status is not known.

The Kenya oribi (Ourebia ourebia keniae) provides the next example. This yellow, black-tailed subspecies of the Mt. Kenya foothills may already be extinct, according to the map in Stewart and Stewart (1963: J. E. Afr. nat. Hist. Soc., No. 107). It is or was different from the oribi west of the Rift, which still apparently survives, and was quite isolated from the contrasting Haggard's oribi of the coast. Is there any possibility that the Kenya oribi still exists, for instance on the upper Tana River?

Finally, it's worth mentioning that Museum drawers are now among the best hunting grounds for undescribed subspecies oreeven species - closet antelopes, indeed. And they can be very distinctive: Cephalophus weynsi lestradei (Rwanda black duiker, geographically isolated in highland forest, atypical habitat for the species, and atypical in colour too); Cephalophus ogilbyi crusalbum (white-legged duiker, in this feature unique for the genus, and geographically isolated in Gabon); Gazella bilkis (Yemen gazelle, another "semimelanic" but this time known from several specimens and with distinctive features also of skull and horns). There are others. This trio, though, deserves further investigation, for each has a restricted distribution and is probably rare, if not threatened.

FIELD WORK IN PROGRESS

AFRICA

Cameroun

Francois Lamarque, DVM, Professor of Biology at the Garou Ecole de Faune, proposes to make an ecological study of the Derby eland (Taurotragus derbianus gigas) in North Cameroun. According to Lamarque, North Cameroun possesses several dwindling populations of this antelope. A rinderpest epizootic which struck central Africa in 1983 seems to have affected the Derby eland in particular and it is now rare to encounter large herds. However, ignorance of their numbers before and after the epizootic makes it hard to assess the current status of this animal in the region. Dr. Lamarque wants to make a study of the Derby eland in North Cameroun, in order to gain a better understanding of its ecology and ehtology which will further its conservation. The results would also serve as the basis of a second study of the suitability of this eland for game ranching, compared to the common eland. Game ranching would partly serve to provide high-quality protein for the local population, and protection of the species by rigorous management and controlled cropping.

Tunisia

According to the minutes of a meeting of the Scimitar-Horned Oryx Group held last September, a program to release Oryx dammah in Tunisia is underway, in which John Knowles, Director of the Marwell Zoo, and Brian Bertram (London Zoo) are involved. The first phase is a trial run to see if the oryx can be successfully reintroduced. Genetic material from North America may be sought for the second phase of the program.

Morocco

K. De Smet reports (in lit., 2 November 1985) receiving a letter from J. Escos of the Almeria Research Institute on Arid Zones that captive-bred animals from their large herd of Gazella cuvieri have been released in Morocco.

Kenya

Karen Ross, who spent 1980/81 in the Shimba Hills National Reserve doing research for her PhD dissertation, found during a visit last January that the sable have declined by some 60% since 1980, while the roan, introduced at vast expense in the late 1960's, have died out. Herewith some excerpts from a report Karen gave to the Director of the Wildlife Conservation and Management Department.

"During the ten days of driving and walking we counted a total of 42 sable antelope. Because of the time of year (dry season), absence of an aircraft, and shortage of personnel this figure is not suggested as the toal number of sable present in the Reserve. It is, however, an index of abundance. I conducted similar dry season counts in 1980, 1981 and 1982 and found the number of sable to be at least twice as much... This is the lowest count of sable in the past ten years. Such a dramatic decline is serious in a small, isolated population of animals. Indeed it could be said that at present the sable antelope are the most endangered species of large mammal in Kenya.

In addition to the apparent reduction in numbers, the sable have changed their habits and movements. Their home ranges, which have been stable for 15 years, have changed, and the sable move greater distances and often inhabit the woodlands. This suggests some form of disturbance. Indeed, logging continues in the indigenous forests and poaching is likely to occur because of the proximity of the Reserve to extensive human habitations. In addition, the absence of regular rotational burning may well have had a major impact on the movement of the sable. In their search for green grass the sable move to the edges of the Reserve, where they are more susceptible to poaching.

Other Animals

1. I saw many elephant and buffalo, however, the number of buffalo has also declined.

2. No roan antelope were seen, nor have I seen any on four previous visits to the Reserve. There have been infrequent reports of two or three roan antelope, but clearly they are no longer a viable population.

Logging in the valuable and unique Chlorophora forests continues. I found two logging tracks in the heart of the Reserve; one in the Risley's Ridge forests, and another in the Marere Hills Forests. In both areas many large trees had been felled. In addition I saw a "Krishna Saw Mills" lorry leaving the Reserve carrying the massive timber of these indigenous Chlorophora trees.

The number of sable antelope has undoubtedly declined in the past five years. The animals are healthy and breeding well. Their decline, therefore, can be attributed to poaching, predation, and habitat changes due to the absence of regular rotational burning... If controlled rotational burning was implemented as a managment policy, together with these monitoring and patrol activities, I am sure that the sable antelope will flourish, and that Kenya will possess a Reserve of which all can be proud."

Mozambique

WWF is providing support for Jose Tello to compile a report on the status of s species and protected areas in Mozambique over the next year.

Jose's thoughts about the future of African wildlife, as expressed in a recent letter, show how well he understands the problems of habitat and wildlife conservation in Africa.

"I agree with what you say (my pessimistic prognosis) about the future of African wildlife. However, I have a hope. I believe if the pure conservationists and protectionists would change their ideas a bit and support the sound ecological use of wildlife, maybe we can win. Africa is starving, cattle are destroying the continent. New lands are always needed for cattle. So, why do we not start to use, very seriously, our wildlife as a source of meat? We had here a tremendous success with our buffalo culling operations on the Qantiti Delta.

I'm not talking about 'game farms'. Those, sooner or later, run into the same problems as cattle: overgrazing, overbrowsing, disease, etc. I am thinking about large areas where the animals are not fenced, and where we can make multiple use of wildlife, from game viewing and hunting safaris to culling.

Honestly, I believe that national parks alone are not the answer. They are not making money (except Kruger N. P.), and sooner or later they will be cut into to give more land for feeding cattle. That has already happened in (illegible) Etosha. Botswana is another good example. Hunting safaris, by themselves, also do not help.

We have to compete economically, with other forms of land use."

NEAR EAST

Israel

Richard Schuster has written an addendum (in lit. 2 December 1985) about the gazelle problem in Israel reported in the last Gnusletter. His other report ended with the news that an outbreak of hoof-and-mouth disease had devastated the populations of G. g. gazella.

"1) With regard to numbers of gazelles G. g. gazella that succumbed to hoof-and-mouth disease, there was a large difference between the effect of the disease on the two large populations where the crop damage has been greatest, the populations of Ramat Yissichar and the Southern Golan. The former was severely affected, with an estimated 3,400 animals in February 1985 reduced to about 1,000, according to a count in August 1985. In contrast, the large Golan population of an estimated 4,800 was apparently affected much less, as evidenced by examination of carcasses amd a sample of animals shot weekly. I do not have exact numbers but the feeling is that perhaps c. 15% were lost to the disease. The difference between the effects on the two populations is hypothesized to be caused by differences in natural immunity. The Golan population, adjacent to Syria and Jordan, is believed to be exposed more regularly to the disease and therefore subject to selection for an immune response; in contrast, the Ramat Yissichar population is effectively isolated and therefore more vulnerable.

2) Newspaper reports point to a policy of dilution of the Golan population being implemented by weekly culling of a small number. This is alleged to be due to a policy of reducing the chance of another serious outbreak of the disease. I cannot believe that considerations of crop damage were not also behind the decision.

3) Interviews of officials of the Nature Reserves Authority have corrected the impression that all of the large Golan population were derived from c. 350 gazelles transplanted there in 1970. They claim that small populations still existed east of the Sea of Galilee and the Hula Valley, and the transplanted animals were located in the central Golan where they had become extinct due to hunting by the Syrians. It is not clear whether the large population of the southern Golan, which is responsible today for the serious crop damage, is entirely from the vestigial population or includes animals that originated from the transplanted group. In either case, total protection coupled with inadequate management policies led to the large increase in population and crop damage as described."

ASIA

Tibet

George Schaller has begun his survey of the Tibetan Plateau, which is as big as Alaska and Texas combined. Here is an excerpt from a letter he wrote while still in the field (in lit. 17 November 1985).

"For the past two months, I've been doing wildlife surveys in various parts of Qinghai Province of NE Tibet. Some of the information on Tibetan antelope may interest you. At one time, the species was widespread in the province but survives now only in the SW corner, on the high plateau with an average elevation of 4,700 m or so (see map). During a visit there between mid-October and mid-November 1985, we (George and his Chinese co-workers) saw over 3000 animals; the largest herd was 279. The animals were concentrated, so we have no idea of actual density in the region as a whole. During a nine-day 400 km cross-country strip census, density was 0.4 animals per square kilometer, (Tibetan gazelle was 0.24/km^2), but more work needs to be done before we can make population estimates. We plan to do more research there in 1986.

On October 17, 25-30cm of snow fell in the region. Instead of melting, as one would expect this early in the season, cold temperatures (to -40° C) caused the snow to persist. Unable to obtain forage, several thousand gazelle and antelope (as well as some Tibetan wild ass, McNeill's deer and others) died of starvation. This is a serious loss, for wildlife is already under pressure from uncontrolled hunting and competition with livestock. Realizing that this is one of the last great places for wildlife in China, the Qinghai government is taking steps to provide protection."

Though he said nothing about the personal hardship of camping out in tents at 15,000 feet, I have since learned that George suffered a touch of frostbite during the cold snap.

Approximate distribution of Tibetan antelope in Qinghai Province, NE Tibetan Plateau