Antelope Specialist Group

I.U.C.N. S.S.C.

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The Antelope Survey

Rod East, Coordinator and Editor of the ASG Antelope Survey, was finally able to get down to the business of analyzing and editing the Antelope Inventory Reports and other relevant reports in June. Within two weeks of receiving the material I sent him, he had summarized it all country by country for Africa and was taking steps to fill the gaps. Most ASG members are among the recipients of some 37 letters he has sent out up to now. At this rate, the antelope survey, now over two years behind schedule, may finally be completed and published within a relatively short time. That is assuming, of course, that Rod receives prompt responses to his letters. Your cooperation is hereby earnestly solicited.

African Antelope Action Plan

The next major task for the Antelope Specialist Group is to develop a comprehensive Antelope Action Plan, with the overall objectives of saving endangered species and subspecies from extinction and preserving ecosystems in which significant antelope populations still occur. Although the results of the antelope survey are needed in order to determine priorities, the time has come to propose specific projects, and all ASG members are hereby requested to begin developing and submitting proposals.

In this connection, comments by Jeffrey Sayer, Senior Programme Advisor to the IUCN and an ASG member, in a letter to Vivian Wilson (12 June 1985), would indicate that study and conservation of antelopes could be receiving much more attention and funding than at present.

"Your brochure on the proposed survey of the duikers of Africa is very interesting. Reading through it makes me wonder if perhaps these animals should be given a higher priority than has been the case in the past. Our existing priorities for protected areas, especially for moist forests, are based very largely on

inputs from primatologists and ornithologists. It would be quite interesting to make a prioritisation based on small antelopes."

A Systematist's Views on the Importance of Subspecies

The ongoing discussion about subspecies of dama gazelle and whether it matters which subspecies is reintroduced to Senegal drew the following response from Colin Groves, dated 17 July, 1985.

"The January, 1985 edition of Gnusletter recently came to my attention, with its budding controversy about whether to worry about subspecies when considering reintroductions. Though I am probably out of date by now, I would like to make a few comments, if I may.

Chris Hillman states that "There is far too much emphasis on mere coloration in defining subspecies... Behavior, habitat and adaptation to it need careful study..." The second part of this is very true, but misses the point that "mere coloration" may in fact be the outward and visible sign of this "adaptation to" a particular habitat. We have three possibilities:

1) The coloration itself could be the adaptation. Gazella dama does indeed vary clinally, with decreasing red-brown from west to east (though in the longitude of Lake Chad, approximately, there does seem to be a sharp break, a sudden change in the cline: but that is not the point here). This means, very broadly, that those in the far west are mainly red; those in the east mainly white. The effect will be, quite clearly, that the eastern gazelles will reflect more of the incident solar radiation, i.e. they will have a smaller heat-load than those in the west. Does this matter? Is there in fact some environmental difference to which this colour difference is a response? Will Dama Gazelles of Sudanese origin survive and flourish if introduced to Senegal, or will the exercise be a waste of money?

2) The colouration difference may be a chance associate of a physiological difference. Perhaps the genes are linked, or the association is due to some other process such as genetic hitchhiking. Again, one is at liberty to ask whether re-introduction from a non-indigenous stock is likely to succeed.

3) The colour difference could, of course, be just that with no deeper significance: by founder effect, two populations of a species have come to differ in colour, and that is all. This is the only case where such a reintroduction could be predicted to be successful; it should certainly not be assumed to be the only reason for colour differences between subspecies.

The argument could be taken further. The subspecies category is now generally applied to cases of clear-cut geographic variation; but geographic variation could also be clinal, or even cryptic, i.e. concerning some physiological feature with no external correlate. Thus one should always think twice before reintroducing from a non-native stock.

When this is taken care of, then the reintroduction can perhaps proceed. (It is better to have Persian Wild Asses in Israel than no wild asses at all). But let us pause again, and make absolutely certain that there are none of the indigenous stock remaining. First, for simple reasons of genetic conservation; secondly because of the risk of swamping whatever adaptive characters were different in the native stock. Comrie-Greig (S.Afr.J.Wildl.Res. 9:57-78, 1979) cites several examples of a foreign stock being added to an indigenous one and causing the extinction of the

whole lot: sometimes the difference was something as simple as different breeding season timing.

Thirty years ago there was a sort of revulsion against the extreme splitting that went on, a wholesale creation of subspecies on either inadequate evidence or evidence that was very good but did not indicate more than a difference on average. It was even proposed that the category should be abolished. With the realisation that there is such a category, which has as near to an objective existence as is possible within a reproductive quasi-continuum, subspecies have come on the upswing again. Rather than saying "The species is the important thing" and leaving it at that, it is surely incumbent on us to investigate what might be the significance for conservation of subspecies - and of other types of geographic variation.

Thank you for giving me the chance to air these views."

AFRICA

Morocco

Chris Loggers is carrying out a study of dorcas gazelle (Gazella dorcas) in Morocco. The following comments are from his letter of 29 May 1985.

"I am a Peace Corps Volunteer living/working on a dorcas gazelle reserve 45 km west northwest of Marrakech... When I arrived I had little idea what I would be doing. Peace Corps Morocco said I would be planning a national park. I ended up on a remote reserve of 2000 ha - the last stronghold of dorcas gazelle in Morocco. About 150 live here. I enjoy it but when I was turned loose I was given no background information. Subsequently I have discovered little information exists in Morocco...

"Eaux et Forets desires an increase in herd size, so I am undertaking a food habits study. In addition to documenting vegetation frequency and biomass, I am collecting dung samples. These samples will be analyzed at the Colorado State University fecal analysis lab, if I can find funding... In addition to work in the reserve, I hope to write a gazelle distribution map."

Niger

John Newby gave further depressing news about Sahel antelopes in a letter (dated 20 May 1985) to Alan Rost of Dickerson Park Zoo.

Dama Gazelle. "Although little appreciated, the dama gazelle is in fact a very threatened species. Today, it is fair to say that the only relatively safe herds are those tucked away in atypical mountain country, where hunting is more problematic. Throughout its 'normal' sub-desert/north sahelian range, it has been reduced to tiny far-flung groups. In the more arid and marginal parts of its range it is naturally thin on the ground and it is rare to encounter more than 1-2 at a time. Apart from hunting, drought is having serious effects too - animals are starving or being pushed into the agricultural belt where they are quickly hunted out. I hope to shortly co-author a paper on the dama in Niger and will let you have details in the near future."

Dorcas Gazelle. "The same thing is happening to the dorcas gazelle and the toll taken by hunters is quite staggering. The local forestry officials are quite incapable of doing anything about the problem and all motivation has to come from

offices like our own. Unfortunately we just don't have the money or staff to undertake more than the odd 'raid'. We need a permanent unit, led by an expatriate, if we are to even break the surface on the hunting problems in this country. Dorcas numbers must be suffering but at least they have a vast range in the country and in many ways are favoured by desertification because of the exodus of the human population."

Addax. "Addax numbers are as you know, very, very low. I doubt whether we have more than 200 in the country. Unless it rains this year, they are finished in the Air/Tenere area too. All the animals I have seen this year have been walking skeletons, starving to death for lack of pasture. Several cadavers have also been reported. There is very little we can do about drought but we can try and insure that other threats such as hunting and tourist disturbance are minimized."

Scimitar Oryx. "Concerning the oryx survey, I would like to carry this out this autumn/winter. We would ideally aim at covering most of the sub-Saharan belt of Niger plus the eastern part at least of Mali, i.e. the recent range of the oryx in that country. In the light of Alan Rost's comments on dama and dorcas gazelles, we would also include them in the survey.". If we did get something organised, it would be an ideal occasion to get one or two US-based addax/oryx people over to get a look at the 'real' conditions that the antelopes are living (and dying) under."

"Concerning your query about Chad, the government has requested that IUCN/WWF renew its assistance to the Quadi Rime - Quadi Achim reserve. We will probably go over and take a look at the situation before the end of the year." (Excerpts from a letter to Dale Tuttle, Dickerson Park Zoo, undated.)

Mozambique

Wildlife populations in many parts of Mozambique have not merely declined but crashed within the last couple of years, according to a long, despairing letter I received in June. In order to bring home the gravity of the situation to ASG members, I have excerpted key passages, but am keeping the author's name confidential until he is in a position to make his findings public.

"...the wildlife situation has become absolutely chaotic and apparently nobody cares. It looks as if the magnificent enthusiasm, as well as the government's support came to an end after 1982! ... Regarding national parks, and in brief, the situation is as follows:

"Gorongosa, Banhine and Zimane National Parks are seriously endangered. No staff has worked there for several years, shooting is open, and I am sure that the wildlife populations are about 24% of the 1974 populations. Maputo Game Reserve is also endangered and its white rhinos are, again, nearing extinction. Twice in 40 years!

"Hunting is closed, but everybody hunts: the Army, rural people, rebels, high-ranking officers, etc. All kinds of weapons are used, from wire snares to machine guns and even hand grenades! Every species is used for the pot, for illegal trade, etc., etc.

"There is no planning. Nobody is concerned about what should be done when the military situation changes.

The status of some antelopes is, briefly stated:
Roan - extinct

Tsessebe - extinct
Waterbuck - extinct in all the very large regions south of the Buzi River.
Sable - extinct in all the area south of the Save River.
Hartebeests - extinct south of the Buzi River and facing extinction - very soon - north of the Zambesi River.
Johnston's wildebeest - facing extinction.
I also believe that the cheetah is extinct and that giraffe and ostrich are facing extinction.

"Obviously, other species are dramatically reduced in large areas. For example about 20,000 elephants have been poached in the whole area south of the Save in the last 10 years. I believe there are now less than 1000 elephants in that area."

"What can be done? What can the external world, the international organizations, do? I feel that now is the time to write very strongly about the situation in order to bring some pressure on the Government."

Botswana

Doug and Jane Williamson submitted a final report in June on their research in the Central Kalahari Reserve to the Frankfurt Zoological Society, who continued the support first extended to Mark and Delia Owens. In a letter from Cambridge University, where the Williamsons are presently writing scientific papers on their research, attached to Peter Jewell's Research Group in Mammalian Ecology and Reproduction, Doug writes (15 July 1985), ..."I find it very difficult not to be despondent about the future of the Kalahari. Although I have been fairly frank in the report, there is much going on that I have not mentioned. It really is not an encouraging situation." Herewith the brief summary of their 125-page report.

"In the course of our research we used a variety of methods to collect information in the northern part of the Central Kalahari Game Reserve and adjacent areas on the following subjects:
The physical and chemical properties of soils;
Rainfall and climate;
The structure and floristic composition of the vegetation;
The distribution and abundance of large herbivores, with special emphasis on gemsbok, springbok and wildebeest;
Human activities affecting conservation.

The most important scientific findings to emerge from our research were the following:

The primary factor influencing the movements of gemsbok and springbok was rainfall.
Other factors which influenced the movements of these two species included: the distribution of the plants on which they rely for moisture and shade, temperature and predation.
Because they can meet their moisture requirements from plants, both gemsbok and springbok are quite capable of surviving in the Kalahari without undertaking long distance migrations, even in periods of severe drought.
We could find no ecological factors which might explain the decline of gemsbok and springbok that some people believe has occurred in the Kalahari, which implies that any such decline is likely to have been caused by human activities.
At least a significant fraction of the Kalahari wildebeest population is migratory.
Wildebeest migrate because they need water. In 1983 about 50,000 wildebeest died in the vicinity of Lake Xau.

Large herbivore biomass in the northern part of the Central Kalahari Game Reserve is very low.

Factors which threaen the conservation status of the areas which we studied include the following:

The possibility that migratory wildebeest will be completely cut off from surface water - if this happens there is a real chance that Kalahari wildebeest would eventually die out.

Gross overstocking of cattle and the continued spread of cattle ranching along the edge of the Central Kalahari Game Reserve.

Illegal hunting on a large scale, pricipally in the form of hunting by pursuing animals with vehicles but also in ways such as grossly overshooting licenses.

The virtual absence of law enforcement or conservation activities in these areas.

We argue that the poor status of conservation is principally due to a widespread lack of interest which permeates to the highest levels of government. We see little prospect of a sudden upsurge of public interest in conservation and we express the belief that only the government has the power and the means to take steps which would significantly improve the status of conservation in Botswana. We conclude that unless there is a major shift in the government's attitude to conservation, an improvement in the status of conservation is unlikely."

NEAR EAST

Israel

Supported by the Ford Foundation, Richard Schuster has undertaken a study of the conflict between wildlife conservation and agricultural development, focusing on the damage inflicted by mountain gazelle (G. g. gazella) on agricultural lands. Richard, a comparative psychologist and his wife, an anthropologist, are collaborating on the study. In a letter to Gren Lucas accepting reappointment to the ASG (1 June 1985), he comments, "I am sure that you would agree with my impression that the problem posed in this project is worldwide, involving a basic incompatibility between animals that are the responsibility of governments and land use which is often controlled by either another ministry or by private farmers." The following quotes are excerpted from the project description:

"In Northern Israel, at the present time, the existence of a conservation/development conflict is indicated by a growing and well publized farmer/gazelle conflict in the field, a crisis between the mountain gazelle... and the farming community located in scattered settlements in which agriculture is a major source of income ... The focal areas of the conflict are the gazelle populations of Ramat Yissachar, north of Beit She'an, and the Golan Heights east of the Kinneret. These populations inhabit scattered areas that were gradually surrounded and encroached upon by cultivated fields to which the gazelle had access. Large increases have occurred in the gazelle populations and, in consequence in the amount of damage to a variety of crops and trees ... Farmers have demanded solutions by organizing and submitting law suits against a government held responsible for conservation and therefore for their financial losses ... Threats are voiced to take unilateral action aimed at reducing the gazelle populations, and incidents of shooting and deliberate poisoning have been known for years... The Nature Reserves Authority,

the conservation branch of the Ministry of Agriculture, has fielded patrols to prevent poaching or poisoning, backed by laws that threaten arrest, fines, and imprisonment.

The confrontations in the field between gazelles and farmers, and between farmers and NRA patrols, can be viewed as symptomatic of the deeper structural conflicts surrounding the conservation/development problem at all levels, including the ideological. In general, agricultural policies did not consider gazelle conservation, and vice versa. Siting of agricultural settlements has often been decided on grounds of security, immigration, and the desirability of a "Jewish presence" in vacant or predominantly Arab areas, reinforced by development plans for a productive agricultural sector in Israel as a whole ... Selection of crops, subject to approval by the Agricultural Planning Board, was decided on environmental and economic criteria. Wildlife was never an issue in settlement policy. At the same time, wildlife conservation, and the restoration of wildlife to areas of former habitation, have been declared policies since the founding of Israel. The conservation policy was made explicit by the Wild Animal Preservation Law of 1955 which granted complete protection to most wildlife everywhere, including gazelles.

The incompatability of the conservation and development ideologies were not compensated by policies to set aside nature reserves in non-agricultural areas or at least to manage the gazelle populations and to ensure their exclusion from agricultural areas. For example, the large Golan population of gazelles, now estimated at above 4,800 (Kaplan 1983), began with a group of about 350 animals transplanted from Ramat Yissachar in 1970 (Mendelssohn 1974). The sole aim was to reintroduce gazelles as a conservation measure, with no apparent regard to the consequences for an agricultural sector developing after the 1967 war. Ideologically, farmers in these areas are coming to regard the gazelle as symbolizing a menace to their own success, and to agriculture in general, evidence for a foolish preference of conservation over a vital agricultural industry. To the conservationists, the gazelle is a symbol of nature: "Israel, the land of the gazelle"..., whose return in large numbers is part of a larger program of wildlife restoration for Israel's future generations. An ironic aspect of the Israeli dilemma is that much of the conflict surrounding ideology, institutions and policy is centered within a single ministry, the Ministry of Agriculture, whose Nature Reserves Authority is responsible for conservation policy and enforcement."

In a covering letter (1 June 1985) to me, Richard writes, "Incidentally, a serious outbreak of hoof-and-mouth disease has almost wiped out the populations that I refer to in the research proposal. I am certain, as is Mendelssohn, that mis-management leading to overpopulation is a prime factor in this disaster. There are attempts to count the survivors. It is certain that thousands have been reduced to a few hundred."

ASIA

India

Indra Kumar Sharma has sent in further information about antelopes of Rajasthan, this time about the Indian gazelle, Gazella gazella (in lit. 3 July 1985).

The gazelle was observed to be thriving well from Osion to Pokaran, a belt 125 km long x 30 km wide in western Rajasthan. The estimated population is c.5000. Poaching in this region is rare; the wildlife warden of Jodhpur division has prosecuted 25 poachers in the year June 1984-June 1985. The poachers are largely "Bhil" tribesmen. Because poaching is rare, the gazelles in the area are not shy

of man and vehicles. They visit the outskirts of villages to drink from water hydrants. No starvation debility was observed in the gazelle in the drought season as was observed in the blackbuck. During the drought the gazelles take bushes of Zizyphus nummuleria, Acacia senegal, Prosopsis cineraria, Maytenus emarginatus, Capparis decidua, Crotolaria burhia, Lasiuris sindicus. Grass is also a staple food, where available. In many habitats gazelles were observed suffering from skin ailment from October to March, caused by the parasitic warble fly Hypoderma crossi larvae under the skin. No serious health hazard was noted. The disease automatically (naturally) disappears in April or May when the parasite larvae drop out from the skin."

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