



Caprinae



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Editorial

We begin the first newsletter of 1999 with the second and concluding part of the article on Caprinae conservation in Mongolia. Conservation News provides an update on the sorry plight of the Chartreuse chamois. It would seem that this subspecies may become extinct joining the Pyrenean ibex. It illustrates the danger of introductions of animals into a related subspecies' range. Also in News is a second article on trophy hunting in Central Asia - this time in Uzbekistan. This is followed by a request for information on feral goats by researchers in Australia.

It seems like a markhor trophy hunting program will go ahead in Pakistan sometime soon, and we hope to have more information for you in the next newsletter.

A new book on conservation biology edited by Tim Caro (see Recent Publications) was published last year. It contains a chapter (11) that should be of interest to those of you evaluating the effects of trophy hunting and other harvest systems.

Best wishes to everyone for 1999 - as always - keep your articles coming it and don't forget to tell your colleagues and students that anyone working with

Caprinae is free to contribute to the newsletter.

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Recent Conservation Activities for Argali (*Ovis ammon*) in Mongolia - Part 2

Recent Conservation and Management Issues

Field Surveys

Most of the research on Mongolian argali over the past few years has been relegated to field surveys, usually over very limited areas. We have conducted ground surveys for argali from 1994-1996 and aerial surveys in 1994 and 1997 (Amgalanbaatar 1995, Mallon et al. 1997, Reading et al., in press, Reading and Amgalanbaatar, unpubl. data). Although we surveyed large areas of Mongolia, accurate, nation-wide population estimates are precluded by a lack of data, we simply did not sight enough animals, despite several months of searching. We have been able to provide population estimates for particular regions of the country, especially portions of the Gobi, where sample sizes were sufficient. Nevertheless, certain trends and comparisons are possible.

The Altai argali is faring far worse than the Gobi argali. Populations of argali in western Mongolia are becoming increasingly reduced, fragmented, and insular. During field work in 1995, we revisited several sites surveyed in 1991-92

by one of us (SA) during *Aimags*-wide surveys (Forestry & Wildlife Research Institute 1992 a,b, 1993 a,b; Amgalanbaatar et al. 1993). The 1991-92 surveys estimated a population of 2,977 argali for the 4 westernmost *Aimags* (i.e., the bulk of Altai argali habitat; or Gobi-Altai, Khovd, Uvs, and Bayan-Olgii *Aimags*). During 1995, we were unable to locate animals in several of the areas identified as supporting argali in 1991-92 (Amgalanbaatar 1995). Other areas supported very small, scattered populations of animals with large flight distances. Altogether, we surveyed 1,004.65 km² of the Altai Mountains, but sighted only 52 argali (Amgalanbaatar 1995), however, we sighted ca. 14,670 domestic animals.

Local people in western Mongolia openly admitted to poaching, which appeared to be pervasive. All people we spoke with either poached or knew people who poached, and they informed us that this was possible because of the lack of law enforcement activities. The population of Altai argali in Mongolia today is certainly lower than the approximately 3,000 animals estimated by Amgalanbaatar and his colleagues in the early 1990s (Forestry & Wildlife Research Institute 1992a,b, 1993a,b, Amgalanbaatar et al. 1993), although more specific estimates are difficult given the small number of animals observed in 1995 (Amgalanbaatar 1995).

Gobi argali are faring better than Altai argali, but appear to be declining as well. We were able to collect more accurate data on Gobi argali, especially in the south and southeastern Gobi. Mountain surveys covering 480 km² (autumn 1995) and 623 km² (spring 1996) of the 5,207 km² of habitat in Gobi Gurvan Saikhan National Conservation Park (southern Gobi) yielded adult population estimates of 2,977 and 2,708 (0.57 and 0.52 argali/km²) animals, respectively

(Reading and Amgalanbaatar, unpubl. data). Data from aerial surveys covered over-lapping portions of the Gobi, but densities are not comparable because aerial surveys covered entire regions of the desert (i.e., areas that are not argali habitat). Population estimates from aerial surveys were 3,000 ±1,132 S.E. argali in 209,000 km² of the southeastern Gobi in 1994, 909 ±303 S.E. argali in 39,865 km² of the Great Gobi (south-southwest) in 1997, and 3,257 ±1,071 S.E. in 18,750 km² of the southern Gobi in 1997 (Reading et al., in press, Reading unpubl. data).

Several previous researchers calculated simple population estimates from ground surveys for similar or overlapping regions based on numbers of animals per area sampled, multiplied by all potential argali habitat. Sukhbat (1975) estimated a population size of 3,870 argali in the Gobi Altai and Berdar (1975, in Lushekina 1994) estimated that 5,000 argali inhabit a similar region. Valdez and Frisina (1993) provided population estimates for smaller areas within the region, including 1,534 ±307 animals in Ikh Nartiin, 242 ±18 animals in Modon Usnii, 92 ±18 animals in Shar Harhaan, and 461 ±92 animals in Khutag (no indication of the range around each estimate was provided).

Although Gobi argali appear to be faring better than Altai argali, local people and biologists informed us that argali were declining in these areas as well, and that argali are now absent from several areas they once inhabited. Many local people in both the Altai Mountains and Gobi Desert expressed great concern that argali were declining and requested increased efforts to protect the species. We sighted several poachers in the South Gobi and found evidence of dozens of animals poached for meat. In addition, the number of livestock in the Gobi has increased dramatically following the transformation to a free market economy and the removal of restrictions on private livestock holdings. In particular, cashmere goat numbers have been increasing dramatically, as they represent an important source of income.

Protected Areas

Argali are theoretically protected in a number of parks and reserves scattered throughout the range of the species in Mongolia. Mongolia's commitment to expanding conservation areas is significant, with an adopted national goal

of including 30% of its territory in protected areas. Mongolia expanded its protected areas system from 13 parks and reserves covering 5.6 million hectares in 1991 to 35 protected areas, covering over 157,802 km² or 10.1% of the nation's territory today. Argali currently inhabit or recently inhabited 16 protected areas in Mongolia, namely Khokh Serkhiin, Eej Uul, Ikh Gobi, Gurvan Saikhan Uul, Khasagt Khaikhan, Khovsgol Nuur, Otgontenger Uul, Uvs Nuur (Ministry for Nature and the Environment 1996, Mallon et al. 1997), and the newly (summer 1996) established Alag Khaikhan Uul, Burkhan Buudai Uul, Ergeliin Zoo Niit, Suikhent Niit, Ikh Nart, Zagiin Usni, Altai Tavan Bogd, and Khungai Nuruu protected areas (Johnstad et al. 1996). These parks cover 115,961 km², although not all of this territory represents argali habitat.

Unfortunately, both poaching and overgrazing are prevalent throughout most of these protected areas (Mallon et al. 1997). Several protected areas in Mongolia are currently no more than 'paper parks,' with little to no active management. Indeed, many local people do not realise that the protected areas they live in or near even exist. More active management is necessary, including active anti-poaching activities and, to the extent feasible, slow movement of people and livestock out of protected areas. At a minimum, core areas (called Special Zones under Mongolian law) should be created in critical habitat areas and livestock removed.

Mongolia will expand their protected areas system further, and conservationists are already in the initial stages of identifying areas for inclusion as protected areas. One of the challenges to expanding protection for argali and their habitat is the limited number and kinds of protected areas possible under the Protected Areas Law of 1995. Under this new law, hunting is prohibited in all protected areas (Wingard 1996). Because argali hunting generates substantial income for the national and local governments, as well as hunting organisations, the creation of a park in prime argali habitat is discouraged. Permitting the creation of hunting reserves would potentially allow protection of important argali habitat and encourage more active management of argali populations while still permitting limited trophy hunting and the revenue it generates.

Other Conservation Activities

Aside from field surveys and the creation of protected areas, the only conservation activity being conducted on behalf of argali of which we are aware is occurring in the South Gobi and, ironically, it may well result in more harm than good. Over the past few years, hunting organisations have collaborated with the Mongolian Ministry of Nature and the Environment to conduct auctions for argali hunting licenses as a mechanism of generating support for argali conservation in Mongolia. These auctions have generated thousand of dollars for argali conservation. All of this money has gone to the construction of an elaborate water catchment device (more are planned). Unfortunately, none of the Mongolian biologists who study argali were involved in the project, and it remains unclear how the project developed or the location of the water collection device was determined. Unfortunately, building additional water sources may actually harm argali conservation as they tend to increase livestock numbers and human use. Because livestock are more dependent upon water than wild ungulates, water development in other areas of Mongolia has resulted in decreases in wildlife, as poaching and competition with livestock increase.

Trophy Hunting

The Altai argali is the world's largest sheep and, because of its large size and impressive horns, it is greatly sought by trophy hunters. Foreign sports hunters paid over US \$20 million to harvest 1,630 rams from 1967-1989 (Amgalanbaatar 1993, Lushekina 1994). However, trophy hunting of argali is a contentious issue both locally and internationally. Most local people oppose trophy hunting, especially by foreign hunters, which they blame for population declines. This blame is probably misplaced. Trophy hunting may have negative impacts on selected populations; however, the 20-30 animals trophy hunters harvest each year is a small fraction of that poached by local people and displaced by their livestock. Internationally the situation has pitted hunting organisations against conservation organisations. The European Union recently banned importation of argali from Mongolia, but pressure from hunters to lift

the ban remains. The United States provided Mongolian argali with a Threatened status, but has recently been issuing permits for importation by trophy hunters. A lawsuit challenging the legality of U.S. permit issuance is pending.

The U.S. provided Threatened status to Mongolian argali because the species' status is not clear and because U.S. authorities require, among other things, that hunted species be actively managed and that money generated from hunting fees be used for the conservation management of that species (Nowak 1993). Conservationists hold that neither case holds in Mongolia. Indeed, under the Mongolian Hunting Law of 1994, none of the revenue generated from argali hunting goes directly to conservation or management. Hunting fees are instead divided among the federal government's general funds (70%), the local *Sum* (or county) government (10%), and the hunting organisation (20%) (Wingard 1996). The government does not actively manage argali and very little government sponsored conservation or management activity has been undertaken on behalf of argali over the past several years (Mallon et al. 1997, Reading et al. in press). Hunting organisations have provided modest support for argali surveys and conservation activities. The results of this work also indicate that argali are declining (Valdez and Frisina 1993).

Trophy hunting can represent an important means of generating income for conservation, but only if at least some of the money goes to conservation, research, and management of the hunted species. Trophy hunting in the absence of a well managed population could have negative impacts on local populations, harming conservation of the species as well as future hunting opportunities. Alternatively, adequate conservation management would insure survival of the species, thereby benefiting the species, hunters, the government of Mongolia (through the revenue generated), and the ecology of the region.

Conclusions

Mongolian argali are impressive animals that are also culturally significant. However, recent population declines throughout the argali's range, but especially in the Altai Mountains, threaten the survival of the species. Effective conservation management of argali and

their habitat will require a significant commitment by the Mongolian government to enforce pertinent laws and manage current and future protected areas. Fortunately, resources for these activities could be readily available through trophy hunting fees. This will require that the Mongolian government demonstrate the political will and foresight to allocate at least a portion of the income generated from trophy hunting to conservation. The international community can facilitate this process by placing pressure on Mongolia to do just this (e.g., using mechanisms such as the current European Union ban on importation of trophies). Conservation will also require a better understanding of argali biology and ecology. Much additional research is required to enable more effective management of the species and its habitat. Conservation and recovery of argali would benefit all; the people and government of Mongolia, trophy hunters, and, most importantly, Mongolia's natural heritage.

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Literature Cited

Amgalanbaatar, S. 1993 (In press). Argali population inventory and conservation measures in selected areas of Mongolia. *Research Papers of the Forestry and Hunting Institute*. (In Mongolian).
Amgalanbaatar, S. 1995. Report on argali project in 1995. Mongolia Biodiversity Project, Ministry for Nature and the Environment, Ulaanbaatar, Mongolia. (In Mongolian)
Amgalanbaatar, S., B. Battulga, and P. Tsogtsaikhan. 1993. The numbers, distribution, and ecological status of mountain ungulates in Uvs Aimag. Pp.

53-54, in *Proceedings from a Conference on the Status of Nature and Biological Resources in Western Mongolia and Adjacent Areas*, 13-17 April 1993, Khovd Pedagogical University, Kh. Terbish (ed.). Orchlon Co., Ulaanbaatar. (In Mongolian).
Amgalanbaatar, S. and T. McCarthy. 1993. Khovd/Khokh Serkhiim Reserve Trip Report. Unpublished report. Mongolia Biodiversity Project, Ulaanbaatar, Mongolia. 7 pp.
Baillie, J. and B. Groombridge. 1996. *1996 IUCN Red List of Threatened Animals*. IUCN, Gland, Switzerland.
Dulamtsuren, S. 1970. *Guidebook to the Mammals of the Mongolian People's Republic*. Mongolian State Publishing House, Ulaanbaatar, Mongolia. (In Mongolian).
Forestry and Wildlife Research Institute. 1992a. *The Status of Game Species and Their Habitat in Bayan-Olgii Aimag, With Recommendations for Use and Protection*. Forestry and Wildlife Research Institute, Ministry for Nature and the Environment, Ulaanbaatar, Mongolia. 79 pp. (In Mongolian).
Forestry and Wildlife Research Institute. 1992b. *The Status of Game Species and Their Habitat in Khovsgol Aimag, With Recommendations for Use and Protection*. Forestry and Wildlife Research Institute, Ministry for Nature and the Environment, Ulaanbaatar, Mongolia. 111 pp. (In Mongolian).
Forestry and Wildlife Research Institute. 1993a. *The Status of Game Species and Their Habitat in Gobi-Altai Aimag, With Recommendations for Use and Protection*. Forestry and Wildlife Research Institute, Ministry for Nature and the Environment, Ulaanbaatar, Mongolia. 104 pp. (In Mongolian).
Forestry and Wildlife Research Institute. 1993b. *The Status of Game Species and Their Habitat in Khovd Aimag, With Recommendations for Use and Protection*. Forestry and Wildlife Research Institute, Ministry for Nature and the Environment, Ulaanbaatar, Mongolia. 115 pp. (In Mongolian).
Fox, J. L., C. Nurbu, and R. S. Chundawat. 1991. The mountain ungulates of Ladakh, India. *Biol. Conserv.* 58:167-190.
Geist, V. 1971. *Mountain sheep*. University of Chicago Press, Chicago.
Geist, V. 1991. On taxonomy of giant sheep (*Ovis ammon* Linnaeus, 1766).

- Canadian Journal of Zoology* 69:706-723.
- Gruzdev, V. and Kh. Sukhbat. 1982. Mountain ungulates of Mongolia. *Hunting and Hunting Farms* 9:41-43. (In Russian).
- Gruzdev, V., Kh. Sukhbat, and Kh. Ierengochoo. 1985. Species composition and the distribution of game animals in the CIS-Khovsgol region. In: *Natural Conditions of the CIS-Khovsgol Region*. Irkutsk. (In Russian).
- Honhold, N. 1995. *Livestock Population and Productivity and the Human Population of Mongolia, 1930 to 1994*. Ministry of Food and Agriculture, Ulaanbaatar, Mongolia.
- Johnstad, M. D., R. P. Reading., and J. R. Wingard 1996. *Mongolian Protected Areas' Ranger Training Manual*, 2nd Ed. Mongolia National Ecotourism and Protected Areas Service, Mongolia Biodiversity Project, UNDP/GEF, GTZ Nature Protection and Buffer Zone Development Project, and Ministry for Nature and the Environment, Ulaanbaatar, Mongolia.
- Luschekina, A. 1994. The status of argali in Kirgizstan, Tadjikistan, and Mongolia. Report to the U.S. Fish and Wildlife Service, Office of Scientific Authority, Washington, D.C. 44 pp.
- Mallon, D. P. 1985. The mammals of the Mongolian People's Republic. *Mammal Review* 15:71-102.
- Mallon, D. P., Bold, A, Dulamtseren, S., Reading, R. P. and Amgalanbaatar, S. 1997. Mongolia. Pp. 193-201, in *Wild Sheep and goats and their Relatives: Status Survey and Conservation Action Plan for Caprinae*. D. Shackleton (ed.) & the IUCN/SSC Caprinae Specialist Group. IUCN, Gland, Switzerland.
- Nowak, R. 1993. Court upholds controls on imports of argali trophies. *Endangered Species Technical Bulletin* 18(4):11-12.
- Reading, R. P., S. Amgalanbaatar, H. Mix, and B. Lhagvasuren. In press. Argali (*Ovis ammon*) surveys in Mongolia's South Gobi. *Oryx*.
- Shagdarsuren, O., S. Jigj, D. Tsendjav, S. Dulamtseren, A. Bold, Kh. Monkbayar, A. Dulmaa, G. Erdenjav, Kh. Ulziihutag, U. Ligaa, and C. Sanchir. 1987. *Red Book of the Mongolian People's Republic*. Mongolian State Publishing House, Ulaanbaatar, Mongolia. (In Mongolian).
- Shanyavskii, A. 1976. *Development of Forestry and Hunting Farms*. Mongolian Ministry of Forestry, Ulaanbaatar, Mongolia. (In Russian).
- Sukhbat, Kh. 1975. Census of mountain ungulates in the Mongolian and Gobi Altai. Pp. 165-167, in *Problems of Game Management and Nature Conservation*. Irkutsk Agriculture Institute, Irkutsk, Russian Federation. (In Russian).
- Sukhbat, Kh. 1978. Distribution of Mongolian argali. *Research of the Mongolian Academy of Sciences' Institute of General and Experimental Biology* 13:81-86. (In Mongolian).
- Sukhbat, Kh. and V. B. Gruzdev. 1982. The mountain sheep argali in the Mongolian People's Republic. Pp. 195, in *Natural Conditions and Biological Resources of the Mongolian People's Republic*. Moscow. (In Russian).
- Tsalkin, V. I. 1951. *Wild Mountain Sheep of Europe and Asia*. Moscow Association for Nature Research, Moscow. (In Russian).
- Valdez, R. and M. Frisina. 1993. Wild sheep surveys in eastern and central Gobi desert and Altai mountains, Mongolia. Unpublished report. Mongolia Biodiversity Project, Ulaanbaatar, Mongolia. 9 pp.
- Wingard, J. R. 1996. *Report on Mongolian Environmental Laws*. Mongolia Biodiversity Project, Ministry for Nature and the Environment, Ulaanbaatar, Mongolia.
- Zhirnov, L. V. and V. O. Ilyinsky. 1986. *The Great Gobi Reserve - a Refuge for Rare Animals of the Central Asian Deserts*. USSR/UNEP Project, Programme for Publication and Informational Support. Centre for International Projects, GKNT, Moscow, Russian Federation.

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Conservation News

The fate of the Chartreuse chamois

At the Fourth International Congress of Theriology at Edmonton, Alberta in 1985, the author informed the scientific community that population numbers of the Chartreuse chamois *Rupicapra rupicapra cartusiana* had reached a critical stage. At the same time, the author proposed a restoration project for this subspecies. Up to recently, it has worked fairly well but what about *cartusiana's* future ?

This subspecies of chamois lives between 600 and 2,000 m elevations in the 350 km² limestone massif of Chartreuse. This isolated mountain system forms part of the Pre-Alps at the western edge of the French Alps. About 70 % of the massif is covered by a mixed conifer and deciduous forest, and the Chartreuse chamois was restricted to a 60 km² area of State Forest in which the annual chamois cull was quite moderate. The State Forest was acting as a reserve. In spite of that, overharvesting all around it prevented the chamois from spreading throughout the massif. Population numbers even decreased within the State Forest from 250 in 1972 to a minimum of 157 estimated in a 1985-86 winter census. This was probably due to food competition exerted by poorly controlled red deer *Cervus elaphus*, roe deer *Capreolus capreolus* and Corsican mouflon *Ovis orientalis musimon* populations introduced into the State forest between 1948 and 1965.

Usually in order to restore a threatened population, one may ascribe to it a protected species status and/or turns its habitat into a reserve. In fact it appeared to be more efficient to consider a comprehensive management of the whole potential range. This cannot be achieved without the acceptance and goodwill of the local inhabitants and above all, of the hunters. In this particular case, two tasks

were essential. First, the author had to establish friendly connections with the hunters as well as gradually warn and educate them. This took 12 years from 1972 to 1985. The second task was to monitor conditions until the chamois had become so scarce in the areas used by hunters that they realised that something had to be done. The game is won when hunters as well as civil servants and wildlife technicians "steal" your project. At this stage things move forward on their own and all you have to do is to continue to direct steps in the right direction.

Twenty two village hunter syndicates joined to form a single chamois management unit. They accepted myself as their leader for a 3-year period in order to get things going. I was probably the only leader of a hunters' society who did not even take out a hunting licence. The project included 4 main components: 1) A shooting moratorium lasting several years. 2) A conservative harvest plan implemented once carrying capacity had been reached. 3) Removal or significant control of red deer and mouflon. 4) Limiting livestock grazing to a reasonable amount on upland pastures. These were only suggestions because the author had no power over the various interest groups involved in the project. Meetings usually resulted in compromises.

Rupicapra r. cartusiana is one of the stockiest chamois subspecies in the world, just under *R. r. carpatica*. In order to make use of human Chartreuse dwellers' chauvinism as an incentive, it was necessary to confirm the subspecies status ascribed by Couturier in 1938. A genetic study was carried out. A few chamois were caught with leg snares. Tissue samples were collected from the author by Prof. Sandro Lovari and taken to Dr Janet Pemberton at the Zoological Department of London University. Genetic distances between Chartreuse and Alpine chamois samples were found to be similar to distances between various red deer subspecies.

The conservation project was only partly carried out. As a result, a November 1997 census reckoned ≥ 770 Chartreuse chamois with an improving distribution throughout the 280 km² of suitable habitat. The population had therefore multiplied by 5 since 1985 with a 16 % annual growth rate. If the project had been completed, the Chartreuse population could have even grown faster. In similar middle altitude

ranges such as the Vosges in France, the Jura in Switzerland and the Black Forest in Germany, Alpine chamois introduced after W.W.II multiplied at an annual rate of 23 to 24 %. If this had occurred in the Chartreuse, we could have expected to have around 1,500 chamois by 1997 and more than 2,000 individuals by the year 2 000.

Harvesting started again in 1990 at a 2 % rate increasing to 4% in 1997. What mainly hampers the chamois's increase is food competition. In forested winter habitat, chamois have to share limited resources with around 320 red deer - whose individual consumption rate equals that of 3 chamois (Schauer, 1973, Gossow, 1976) - and 400 mouflons as well as 1,000 roe deer. In summer, the 27 km² upland pasture area is grazed from early June till October by 3,200 sheep and 1,700 cattle. Overloading livestock grazing results from European agricultural policy subsidies and decreases the summer plant diversity demanded by the highly selective chamois.

In terms of numbers, the restoration of the Chartreuse chamois population can be regarded as successful. However, this does not prevent the subspecies from becoming threatened by genetic alteration in the next decades. Because there were no more chamois in the northern end of the massif, instead of translocating a few autochthonous individuals from the core of the massif, the administrative authorities chose to introduce Alpine chamois in 1974. It was too late in 1986 when the author suggested removal of the Alpine subspecies when they strayed into Chartreuse range. Once a game species has been introduced where it should not, it is almost always impossible to make people accept its elimination. Today, this Alpine chamois population has grown to 250 and even a 12 % annual harvesting rate cannot prevent their continued increase. Very soon, Alpine chamois are bound to hybridise with Chartreuse chamois, thus unfortunately, sealing the fate of *Rupicapra rupicapra cartusiana*.

This kind of thoughtless action in the past must serve as a warning for the future. It is scientifically unacceptable to introduce Alpine chamois in a mountain range containing any other chamois subspecies, even if they are separated by a large distance. For example, the Apennine range in Italy should be restocked only with native *Rupicapra pyrenaica ornata*

from the Abruzzo National Park, and not with common Alpine chamois as a well known international trophy hunters' club intends to do. The money raised for this project would be better spent on some more useful conservation purpose.

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Hunting in Uzbekistan

Hunting in Turkmenistan, as described in *Caprinae News* (April 1997), is similar with some variations to the situations in other Central Asian Republics. The general cause is an absence of appropriate legislation for the regulation of foreign hunting and an absence of a working infrastructure for its control. This is the same problem for controlling hunting by local people. In Uzbekistan, foreign hunting is organised from the administrative capital centre - Tashkent, but in Kyrgyzstan and Kazakhstan hunting wild animals - including threatened taxa - can be organised by a regional administration (with permission of regional administration or "khokims" - heads of regions). These khokims sometimes have the power to disallow hunting permitted by the central administration.

The situation does not seem hopeless in Uzbekistan because there is already competition between two state bodies for control of the management of wildlife, and slowly the duties of both are being divided. Uzbekistan has now ratified CITES and this means that the government should comply with the international law, helping to bring some control over hunting threatened species. The same situation applies in Kyrgyzstan.

However, there are still many difficulties to overcome before effective wildlife management can begin. We are quite capable of losing all our biodiversity without the "help" of foreign hunters, due to the poor economic conditions of the local people. This suggests we could develop programs similar to those beginning in some parts of northern Pakistan.

We have a very interesting situation now with state administrative bodies. Officials from State Committees understand that in order to receive the

greatest financial return, they must have sustainable management of the resources and effective controls. But at the same time, they are reluctant to provide (sometimes because they cannot) the necessary level of management, because the old fiscal system of monetary distribution does not allow changes to be made to the management of wildlife. The official budget is far less than what is needed, but this problem is faced by all economic sectors in our Republic and is probably similar in others too. The result is that we have nature reserves where people have to use part of the land for their own survival - for grazing their own live stock, growing crops, selling fuelwood and hay, etc. Local people have great difficulty understanding how protecting wildlife can provide them with economic benefits, and they require concrete examples of how it can help them survive. At the state level, there are simply insufficient resources for the management of non-profitable ventures.

Therefore our goal is to show and to provide a policy for the establishment of a new system of wildlife management. Probably, it will use the Western Tien Shan project as a model. But this can only be achieved if, for example, some organisation like the World Bank (GEF) begins to provide for concrete programs for developing a biodiversity strategy for conservation. It is also obvious that these issues need to involve high level government decisions through development of appropriate legislation.

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Feral goats on islands - a request for help

Feral goats (*Capra hircus*) are serious pests on many islands around the world and many populations have been eradicated. Current plans to eradicate insular populations include Lord Howe Island (Australia), Great Barrier Island (New Zealand) and Isla Isabela (Ecuador). "The plan to rid 458,812 ha Isla Isabela of goats is the largest and most ambitious

eradication campaign yet attempted, but is vital if the unique flora and fauna of the largest of the Galápagos islands is to be protected" (Isabela Project 1997). Our involvement with developing these plans led to a search for information on other eradication attempts to improve the chances of success.

A database of islands world-wide that have or have had *Capra hircus* (either as feral, semi-feral or domestic) populations is currently being compiled. To date, 312 islands have been identified. Goats remain on 111 islands, have been eradicated on 78, have died out on 14, and have disappeared for unknown reasons from 25. Their status on the remaining 84 islands is unclear. This database partly fulfils objective 1.1 of the draft Action Plan contained in the Position Paper prepared for the Species Survival Commission of IUCN; to "survey and compile a list of feral populations together with details on their location, numbers and status and length of time feral" (Munton *et al.* 1982, cited in Rudge 1984).

Of course, many insular goat populations are of historical and therefore potentially genetic interest. Although it is doubtful if many of the early liberations have remained uncontaminated by later introductions of domestic breeds. However, on balance, feral goats are major ecological pests and conservation agencies around the world spend large sums of scarce money attempting to eradicate or control their numbers.

We are interested in completing the database and, in particular are keen to get any data or references on the costs, methods and effort of eradication attempts, successful, failed or planned.

Information can be sent to John Parkes, Landcare Research, PO Box 69, Lincoln, New Zealand
(*e-mail:* Parkesj@landcare.cri.nz).

Literature Cited

Isabela Project (1997) Plan for the protection of northern Isabela Island, Galápagos National Park, Ecuador, from ecosystem damage caused by feral ungulates. *Final Report of the Galápagos Workshop: Feral Goat Eradication Program for Isla Isabela, September 9-18, 1997*. Charles Darwin Research Station/Galápagos National Park Service. (Unpublished) Internal report. 48 pp.

Rudge, M. R. 1984. The occurrence and status of populations of feral goats and sheep throughout the world. In: *Feral mammals - problems and potential*. IUCN Caprinae Specialist Group, Species Survival Commission, IUCN.

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Obituaries

Professor P. A. Jewell

16 June 1925 - 23 May 1998

Peter Jewell, who died in 1998, worked on ungulates for much of his life. Early work on topi in East Africa was followed by research on feral caprins. His particular interest was in the anciently domesticated Soay sheep. For centuries this breed, which has apparently not changed since the late Neolithic, was confined to the St Kildan archipelago (UK) off the north-west coast of Scotland. The St Kildans left the main island in 1930. Twenty years later, in collaboration with others, Peter initiated a study of the feral Soay sheep which is still running. Some of the results of the recent work on these sheep (such as an understanding of why the population shows apparently cyclical fluctuations) have only been made possible using the long-term data on population size and structure, and dispersion of sheep in the original study area.

Peter's enthusiasm for, and knowledge of, Soay sheep extended to other threatened livestock breeds and he was a hugely influential in raising the profile of the UK's Rare Breeds Survival Trust. Feral caprins despite their unpopularity with some, constitute a great store of

biological diversity. Peter Jewell argued that the wide genetic and behavioural diversity amongst sheep (and other livestock) should be conserved in part to meet the new demands on these animals (such as scrub control in management for grasslands of nature conservation interest). He will be missed for his pragmatic and reasonable approach to the management of ungulate populations, his expertise and good humour.

Dr. John Morton Boyd

Dr. John Morton Boyd died in 1998. He was the third author of "Island Survivors: The Ecology of the Soay Sheep of St Kilda" (Jewell, P.A., Milner, C. & Boyd, J.M. 1974, Athlone Press, London). During his time as Director of the Nature Conservancy Council, Scotland, Dr. Boyd was responsible for the management of the St Kildan archipelago including the feral Soay sheep (Soays on Hirta and Soay, and Borerays on Boreray).

David Bullock

The National Trust
UK

Recent Publications

Books & Reports

Caro, T. (ed.) 1998. *Behavioural Ecology and Conservation Biology*. Oxford University Press.

IUCN 1998. *Guidelines of Re-introductions* Prepared by the IUCN/SSC Re-introduction Specialist group. IUCN, Gland Switzerland and Cambridge, UK. 10 pp. [available in 6 versions: Arabic/English, Chinese/English, French English, Russian/English, Spanish/English, & English only. Bilingual versions \$7.50 or £5.00, English only \$6.00 or £4.00]

Johnsingh, A.J.T., Rawat, G.S., Sathyakumar, S., Karunakran, P.V. & Kaur, J. 1998. *Priorisation of areas for biodiversity conservation of Trans- and Greater Himalaya, India*. Wildlife Institute of India, Dehradun.

Schaller, G.B. 1998. *Wildlife of the Tibetan Steppe*. University of Chicago Press, Chicago & London. US \$55.00 cloth cover.

Journal Articles

Ruckstuhl, K.E. 1998. Foraging behaviour and sexual segregation in bighorn sheep. *Animal Behaviour* 56:99-106.

Other

Electronic access to IUCN Publications Services Unit:

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Web: <http://www.iucn.org>

CONFERENCE ANNOUNCEMENT

The Desert Bighorn Council and Northern Wild Sheep and Goat Council announce:

The 2nd North American Wild Sheep Conference, Peppermill Inn, Reno, Nevada April 6-9, 1999

This conference will be structured differently than our past symposia and conferences. Instead of hearing and publishing a collection of papers on various subjects, we plan to merge the collective wisdom of desert and northern sheep biologists to develop working management hypotheses (the management rationale) for the major subgroups of wild sheep in North America. To be successful, management programs must operate within the "envelope" defined by biological adaptations of mountain sheep to their environments.

Valerius Geist will give the keynote paper on general mountain sheep adaptations environment, followed by an overview of bighorn sheep taxonomy by Rob Roy Ramey II. Next, invited presentations on desert (Ray Lee), bighorn (Bill Wishart), and thornhorn sheep (Wayne Heimer) will summarise the history, current status, and components of a working management hypothesis for each. (State and provincial summaries will be solicited by the subgroup specialists). From the working hypothesis, the most important management challenges will be developed during the subsequent sessions. These sessions will include papers and panel discussions on Habitat Problems & Human Disturbance, State-Federal relationships, Disease, Predation, Hunting, Advocacy Groups, and Capture Techniques.

The last day of the conference will be devoted to a workshop to produce an outline for *Wild Sheep Management Techniques*. This publication will include the presented papers and panel discussions plus technical guidance corresponding to the topics developed in the conference.

We invite your participation in the *Second North American Wild Sheep Conference*, and hope to see you in Reno in April.

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Caprinae News

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Notice to Contributors

Submissions of articles, including **research reports, conservation news, recent publications, etc., on wild or feral Caprinae**, are always welcome from any professional biologist. A potential author does not have to be a member of the Caprinae Specialist Group. Please send submissions to the Editor, either by post or by e-mail attachment.

Acknowledgements

- Faculty of Agricultural Sciences, UBC.

Next Issue

Articles in the next issue will include:

- Balkan Chamois in Greece

- The status of Ovis in the CIS and impacts of trophy hunting
 - Conservation news from Pakistan
 - DNA sequencing in *Capra*
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Editorial Note

Views expressed in the articles in this newsletter, do not necessarily reflect those of the Caprinae Specialist Group

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