

Careful Screening Needed for Scientific Publications on Endangered Species

This note is intended to draw the attention of field researchers, especially ones working with rare and endangered species, to the importance of appropriate practice of scientific reporting about species at risk. Human nature is such that once a species is at risk because of its limited population size, it becomes even more valuable to illegal traders as a trophy, part of a collection, an exotic pet or a traditional medicine. This mentality poses an even more serious threat regardless of which factors actually decreased the population size. Therefore, existence, or one might say the "struggle for existence," of many endangered species is always threatened by poachers, illegal traders, harvesters and collectors (here collectively referred to as poachers). As poaching is highly profitable, conservationists in the field are usually outnumbered and out-equipped. Wildlife poachers in particular have kept pace with modern scientific research and research technology. In other words, poachers are becoming more educated worldwide. Mongolia will not be far behind. Well-equipped, educated poachers are an especially serious threat as far as endangered species are concerned.

The issue that I would like to discuss in this note is delicate and should be considered and addressed by everybody involved in conservation and research of endangered species. There is no question that scientific results should be published in order for science to advance. In fact, I would like to see more publications, either scientific or public, coming from our Mongolian conservationists. However, I feel strongly that scientific reports should be in a format such that they cannot be used for ill-intended purpose and that they cannot compromise the safety of the remaining few individuals of some endangered species. The world has already learned a bitter lesson on the matter: publication of too detailed scientific information on endangered species can accelerate the downward spiral of the species at risk or put individuals in jeopardy by providing in-detail information to educated poachers. An example illustrating my argument is the following. Scientists captured and radio-tagged for research purposes the remaining individuals of a very endangered and exotic parrot species. Unfortunately they reported the exact frequencies of all the radio-transmitters. It is easy to guess what happened to those exotic and

expensive parrots. Poachers used radio-receivers to locate and capture every individual and sold them on the black market.

We should learn from the mistakes others have already made in our quest to catch up with the rest of scientific and conservation communities in the world. One might argue that this is a far-fetched idea in the case of Mongolia. But I would argue otherwise and as researchers and wildlife conservationists we should not do anything to compromise the existence of threatened species. I have seen hunters with sophisticated equipment, such as a GPS, fish-finders and night-vision scope. Technology is really catching on with users and it will jeopardize wildlife in Mongolia where utilitarian psychology towards wildlife dominates in this economically challenging time. We cannot do much about technologies useful in scientific studies becoming available to the general public. However we can take certain precautions so as not to give away sensitive information. I believe there should be a screening policy in publishing or reporting scientific information on rare and endangered species that may be a target for poaching. These species must include not only species from charismatic megafauna, such as snow leopard, Gobi bear, wild camel, saiga antelope, falcons, eagles and other birds that are at risk of being hunted, captured and sold. The list should also include rare and/or medicinal plants that may be found and harvested as soon as poachers are able to locate them. So what information about endangered species should be carefully screened to prevent abuse? The list might include:

- exact geographic coordinates of territorial and sedentary species (it becomes very easy to locate and harvest species such as snow leopard and endangered plants);
- radio-frequencies of transmitters on individuals (any radio-tagged rare animals);
- locations of transponder-tagged animals (once locations of transponder-tagged animals are found, it is easy for any radio-enthusiast to locate those animals), and
- detailed descriptions of luring, trapping and capturing endangered animals.

Unfortunately it appears to have become convention in Mongolia that every little detail found by researchers is reported in a publication. One

can easily find sensitive information in newspaper articles detailing whereabouts of endangered saiga antelope and fish species; a note with detailed accounts of geographic coordinates and locations of the Gobi bear; an article with radio-frequencies of transmitters used to tag rare animals; a report with geographic coordinates of rare medicinal plants and a paper about a trapping method designed for a rare animal. All these detailed reports were given by our professionals. In contrast, researchers around the world are careful about what information they should make available to public. For example, the exact location and identity of the world's oldest tree, a bristlecone pine (*Pinus longaeva*) in the White Mountains of California, USA reported to be 4,767 years old in 2002, is never revealed to the public in an attempt to make sure that it is not disturbed.

Technologically-advanced poachers in Mongolia are not an immediate threat to our endangered

species of flora and fauna. However it is better to be thinking and planning ahead, rather than waiting for the problems to arise. I therefore feel that there must be some reservations from making every possible piece of information available because there are details that are best left with researchers without compromising scientists' responsibilities and obligations to society. I encourage further discussions among professionals, conservationists and publicists on this matter in the hope that we do not ourselves unintentionally threaten the well being of our wildlife.

Bazartseren Boldgiv

Department of Ecology, Faculty of Biology, National University of Mongolia, Ulaanbaatar 210646, Mongolia

Present address: Department of Biology, University of Pennsylvania, Philadelphia, PA 19104-4207, USA,
e-mail: boldgiv@sas.upenn.edu