Es sieht ein Mondenshcatten
Als mein Gefährte mit,
Und aug den weißen Matten
Such ich des Wildes Tritt…..

Wilhelm Müller, Gute Nacht

George Schaller's remarkable career spans nearly six decades of work resulting in field studies of wildlife in the most remote regions, including pioneering investigations on four continents. More than half of that time was spent involved with studies of the wildlife of the Tibetan Plateau and neighboring regions. Following each new phase of his career, from his work on mountain gorillas in Rwanda, tigers in India, lions on the Serengeti, wild sheep in the Himalayas, and Tibetan antelope and other wildlife on the Tibetan steppes, he has made the time to publish a book on each of his expeditions – or more exactly, two (see full list in Appendix). One is always a scholarly monograph full of data, tables, and maps, the other a popular account.

for the general public. These paired volumes are usually published within one year of each other, and there have been six such pairings so far. For example, Schaller's classic the *Mountain Monarchs: Wild Sheep and Goats of the Himalaya* was published in 1978; in 1980, he published *Stones of Silence: Journeys in the Himalaya*; in 1997 he published the popular *Tibet's Hidden Wilderness: Wildlife and Nomads of the Chang Tang Reserve*; and the next year, 1998, saw the appearance of his scholarly monograph *Wildlife of the Tibetan Steppe*.

By this accounting, this latest book, coming fifteen years after the last, seems an outlier – perhaps we can expect a scholarly monograph on Schaller's work in Tibet and Central Asia soon. And yet, this current book is scholarly enough, being filled with facts, figures, maps, and even data tables. Perhaps it is meant to pair with the highly personal *A Naturalist and Other Beasts*, a collection of essays that Schaller has written over the past fifty years. However, this new book has few references and is interspersed with anecdotes, bibliographic information, and quotes from Schaller's past popular books. The book is a very readable and highly entertaining hodgepodge, not only an introduction to the wildlife and conservation issues of the Tibetan Plateau and surrounding highlands, but also a rare glimpse into the life and motives of a man who can be counted among the great naturalist-explorers of central Asia, a descendant of a tradition of inquiry that began one and a half centuries ago with the likes of Pere Armand David (starting in 1864), the Russian-Cossack teams led by Nikolay Przhevalsky and his colleagues (with expeditions from 1871 to 1910) and of course Sven Hedin, whose expeditions spanned the years 1894 to 1935 and whom Schaller credits as his childhood inspiration.

Schaller opens his book with an introduction that turns introspective, almost melancholy, a tone that recurs often throughout the book. Never for long, however, "With each expedition, I slough off my past like a snake skin and live in a new moment" (7).

The narrative leaps right into the field, into the middle of a 1985 winter expedition to the Tibetan Plateau in Qinghai, recounting Schaller's first meeting with the Chiru, or Tibetan Antelope, the
remarkable antelope-like goat of the high steppes of the plateau. Through serendipity or bad luck, Schaller's expedition has stumbled into one of the worst snow disasters ever recorded for the region. While others scramble to provide fodder to starving livestock and deliver relief to stranded herder camps, Schaller measures wildlife carcasses and records wolf predation, struggling to complete a wildlife census under nearly impossible conditions.

It is at this point that Schaller makes his 'covenant' to complete a study of the Chiru. The first five chapters of the book detail his many expeditions to study this then poorly-known species and to trace the long annual migration of females to their traditional calving grounds. Schaller quotes at length from the accounts of past explorers of the colonial era, and also from the account of a modern expedition of mountaineers led by Rick Ridgeway, which finally succeeded in reaching the calving grounds Schaller had long sought.\(^1\) Schaller also relates the story of his discovery that Chiru are slaughtered to supply the international market in *shahtoosh*, the ultra-fine underwool of the Chiru. This discovery, and Schaller's efforts to publicize it, started an international campaign, eventually successful, to stop the trade and the decimation of Chiru populations that it had caused.

Two chapters follow that cover other wildlife of the Tibetan Plateau. The first provides some badly needed defense of the much-maligned Plateau Pika, a small relative of the rabbit that is widely blamed by herders and agriculture department officials for pasture degradation.\(^2\) Schaller provides interesting glimpses into this animal's biology, and argues that pikas are symptoms of pasture degradation.

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\(^1\) To set the record straight, the first scientific account of a Chiru calving ground was published in 1999 in an obscure Chinese journal, the result of an expedition led by Zhang Huibin from the Arjinshan Nature Reserve Management Bureau. See Li et al. (1999). Far from being a 'resident population', many of the 10,000 or more females there had migrated hundreds of kilometers to reach the remote site in the mid-Kunlun Mountains.

\(^2\) For more on this, see Smith and Foggin, 1999 and Dpal ldan chos dbyings 2012.
degradation, not its cause. He cites evidence that pikas are, on balance, beneficial to pasture health, and even provides translations of three pika fables that he wrote for distribution to Tibetan children.

The following chapter recounts a west to east traverse of the almost uninhabited Chang Tang National Nature Reserve in the Tibet Autonomous Region and the San Jiang Yuan National Nature Reserves in Qinghai, with its scattered communities of herders. Here, Schaller considers the complexity of achieving conservation goals in a landscape already occupied by traditional Tibetan herders grappling with the collapse of traditional relationships with the land under the weight of government policy imperatives from above, and with the collapse of the turf beneath their feet in the face of completely novel weather resulting from global climate change.

The book then leaves the Tibetan Plateau for a kind of intermission, an inner exploration of the author's beginnings as a naturalist and as a lover of 'the huge emptiness' of the Tibetan Plateau. His difficult childhood explains much about his ability to spend months and even years 'alone' in a foreign culture. Coming of age in the 1940s at a time of social upheaval and then war in Germany, in 1947 he immigrated to a new country, the USA, which only reluctantly accepted the 'enemy alien'. His blossoming as a keen observer of nature and his first immersion in wilderness on a failed prospecting expedition in Alaska, where he later became an undergraduate student, offer fascinating glimpses into the making of an explorer and a great zoologist. He also describes his first meeting with his devoted wife, Kay, a remarkable explorer in her own right. His career in wildlife biology is well documented in his many previous popular books, but the summary here is interleaved with new anecdotes and insights, such as Schaller's decision to select new projects on new species in new areas that had so far been neglected "to give voice to animals which have had no one to speak on their behalf" (192). Other decisions are explained by serendipity, including his first encounter with China. "Chance and fate brought me to China and time has now sealed the pact to continue our collaboration on behalf of the country's natural heritage" (198-199).
I have pondered in print elsewhere (Bleisch 2013) about what motivated the great explorer-naturalists of the last two centuries to seek out the most remote and inhospitable parts of China and its neighbors. George Orwell’s classification of the varied motives of writers fits quite well: 1) sheer egoism, 2) aesthetic enthusiasm, 3) historical impulse, and 4) political purpose. Many explorers show more of one of these motivations than the others – the roots of Sven Hedin’s grand-standing in the courts of Europe, of Frank Kingdon-Ward’s ecstatic descriptions of flowers and forests, of Joseph Rock’s pedantic catalogs of plants, routes, and Naxi texts, and of George Fortune’s industrial espionage in the service of empire – these are all easily categorized.

Schaller is perhaps the last in this distinguished lineage of Western explorer-naturalists. What then explains his determination and passion for work in some of the most difficult areas on earth? As this often very personal book makes clear, Schaller makes no secret of his political purpose – to achieve lasting conservation of the rare wildlife species that he studies. The natural history imperative – to decipher and explain the often arcane details of the ranging, diet, and ecology of his study subjects – has certainly been a constant in Schaller’s career; no less in this book, which, despite the fact that it is clearly intended for a popular American audience (note the use of feet and pounds), is still full of facts and exact figures, and even the occasional table. His aesthetic enthusiasm courses through the entire book, like a brisk wind blowing across the treeless plateau. He lists his achievements, but with more humility than pride, and Schaller surprisingly gives more than the usual credit to a long list of colleagues, collaborators, and others who have worked on the Tibetan Plateau.

Whatever motivates the man, his work speaks for itself – meticulous and full of hard-earned information, often from rare first-hand observations of species difficult to find and rarely seen. In addition to a lengthy record of scientific publications, Schaller has also always stood up as a powerful voice for protection of his study animals, advocating active protection in the wild, and blasting the
hypocrisy of those who seek to make money from rare animals while couching their efforts in the rhetoric of conservation or 'sustainable' use. This has not always made him welcome in the halls of the government offices, but his 'patient persistence' has paid off again and again in gaining access – often first access – to study animals that few others have been able to approach. His pioneering work has repeatedly contributed to the establishment of protected areas and active protection for species threatened with imminent extinction.

After this all too brief, introspective interlude, the book then picks up roughly where it left off, in 1995, with the first of Schaller's expeditions into the valley of the Yalung Tsangpo. Two chapters cover the expeditions into the beyul 'hidden land' of Pemako, the sanctuary of the Namche Barwa region, including the Yalong Tsangpo gorge, the deepest on earth. The spiritual stirrings that Schaller feels here contrast sharply with the vivid descriptions of wildlife at risk and of the scrimmage of explorers, both foreign and Chinese (but not including Schaller himself), trying to claim firsts in what amounts to a siege of the gorge. The two chapters, nine and ten, end on a hopeful note, with the establishment of the Yarlung Tsangpo Great Canyon National Nature Reserve "one of the most important protected areas in Asia" (255). Not so optimistic is the ending of the chapter recounting the efforts of Schaller and others to establish an international peace park among the four countries that cover the Pamirs, with their still viable population of Marco Polo Sheep and other wildlife.

The last two chapters of the book return to the Tibetan Plateau to give accounts of Schaller's work on the Tibetan Brown Bear and, finally, the Snow Leopard in Qinghai's Yushu Tibetan Autonomous Prefecture. Schaller's enthusiasm for these animals is contagious as he recounts rare encounters with these most elusive predators. He also describes the dedication and work of conservationist monks:

...the messages of their scriptures translated into actual conservation efforts. The enthusiasm of some monks for protecting the natural world uplifted my spirit (353).
In the final pages, Schaller expresses optimism for the future of wildlife in Tibet.

An environmental conscience is here beginning to permeate individuals throughout society. The snow leopard and all other species which shares its realm will, I feel assured, survive if we grant them tolerance, respect and compassion. Like an invisible deity, the snow leopard can help to assure a healthy and harmonious mountain environment, if only we will treasure its existence (353-354).

He describes his vision for coming generations, that the entire landscape could be managed "for the benefit of all living beings" (353). This is far cry from a vision of nature reserves as uninhabited (or depopulated) wilderness fortresses protected by armed guards.

Is Schaller being sincere, or is this just an example of skillful means in the service of his conservation goals? In the past, Schaller has often shown scant sympathy for humans whom fate has left living alongside his study animals – animals that have often been predators capable of directly reducing a herder's income through their depredations on domestic livestock. Even considering his efforts for conservation of more gentle animals, such as gorillas, pandas, and Tibetan antelope, Schaller's passion for traditional protected areas has often meant the deprivation of local people of their rights to use land, sometimes lands that their ancestors traditionally used for generations before establishment of protection. In this book, however, Schaller expresses a much more sympathetic awareness of the plight of local communities. In the final chapter, he even comes close, through quotation of Toni Huber's writings, to advocating community-based conservation as a more effective alternative to traditional top-down protected area establishment. Schaller seems to have embraced a new approach to conservation – particularly in Tibetan areas – that includes empowering monks and monasteries to protect wildlife and sacred sites.
All too often, studies of threatened species by biologists end with recommendations for conservation that amount to little more than calls for more research. Schaller has admirably never fallen into this trap. He has consistently made practical recommendations for conservation action. Putting these recommendations down on paper, however, and working for their actual implementation are two different things. Conservation experts have all too readily walked away from projects with disparaging comments about government authorities who fail to implement carefully crafted plans. However, a successful advisor is one who is not only correct, but who also has the skill and patience to convince the powers-that-be to make recommendations become a reality. It is a difficult and frustrating endeavor. Schaller deserves great credit for taking time from his beloved fieldwork to see his recommendations, sometimes, but not always, become reality. The conservation actions and species recoveries that have resulted are fitting legacy to a most remarkable career.

Above all this, as Schaller himself notes when relating a dark moment of doubt, is the legacy of younger conservationists that Schaller has influenced and inspired.

Lying in the cocoon of my sleeping bag during the long hours of night waiting for dawn, my thoughts distill life past and present... In the darkness of my soul, I... look for something upon which my heart can rest, some accomplishment of lasting value, something beyond myself... I believe that my greatest gift to a country is to leave behind trained nationals who will continue the fight to protect nature's beauty. In this way my legacy of knowledge and spirit will flow onward long after I have ceased to be even a memory (99).

Schaller's legacy on the Tibetan Plateau and in Central Asia will long be remembered.

REFERENCES


APPENDIX: BOOKS BY GEORGE B. SCHALLER


