



Darhad Valley BioRegions Coordinator, Mishig, helping a woman choose the correct reading glasses on the Tengis River while she reads The Written River, a book by Shannon Prince

Letter From the Director

In 2011 we made progress towards the true ‘community partnership’ ideal. Bayanzurkh soum, located near the southwestern edge of the Darhad Valley, hosted the Blue Valley Festival with great enthusiasm and effective logistics. At the conclusion, the cultural center director from Tsaagan Nuur soum, home of the Reindeer People, volunteered her soum to host the 2012 Festival. We plan for the local communities to gradually assume ownership for the festival.

In Renchinlumbe, the school art contest which BRI initiated continues with younger siblings of earlier art contest winners inspired to follow in their footsteps. We see more signs that Darhad Valley governments and community members want to collaborate in partnerships rather than the former give-and-take practice. In 2012 we will build on this holistic model by asking participants during the health training and screening to share their traditional methods with us, then collaborate on joint approaches for preventative health practices.

BioRegions International has two new Board of Directors, William Harjo and Mark Johnstad. Will, is a member of the Muskogee Creek Nation and President of the consulting firm, American Native Services, which advises Native American non-profit organizations. He is an anthropologist by training. His wife Lisa Lone Fight is a MSU graduate student studying remote sensing and a Hopa Mountain Native Science Fellow working with BioRegions. They bring Native American viewpoints to BioRegions work and strengthen our decision making when asking if our actions are congruent with traditional cultural viewpoints. Mark is a natural resource and sustainable development consultant with extensive experience in Mongolia and other countries. In the 1990’s he helped provide the framework for Mongolia’s organization and establishment of protected areas. Now, working with Mongolia River Outfitters, Mark promotes the concept that sustainable business practices support natural resource and cultural stewardship.

As our direction matures, it is time to add a fifth focus area, community building, which draws from and ties together the other four: education, environment, health, and traditional knowledge and skills. For each project, we can determine if it builds community by asking if it improves the environment, includes education, considers health, and/or honors culture and tradi-

tion.

BioRegions strives to use the Holistic Management process in all of its activities. This process requires participants to define the resource base (natural, social and the exchange of wealth resources) they have to work with, and then to make decisions to improve this resource base to better support their quality of life values. Participants need to know how to characterize these resources from viewpoints of traditional knowledge, Western science, and contemporary demands. It may also be helpful to assign values (ecological, social, exchange wealth) to these resources in both their current and idealized future conditions. We believe this is one way to strengthen the capabilities of sustainable decision making for people within a family, community, or bioregion.

-Cliff Montagne

Summarizing the Year 2011

In 2011 we continued ongoing programs in our focuses of health and traditional knowledge and skills, and alternatively prepared for new projects in our education and environment programs. The summer work trip included:

- Attendance at the American Center for Mongolian Studies 3rd annual Research Conference “The Case for Complexity: Accounting for Diversity in Mongolian Culture and Ecology”,
- A meeting in Muren with provincial health and education

officials, and visiting a progressive high school to explore collaborations,

- Conducting health screenings and trainings in Bayanzurkh, Ulaan Uul, Renchinlumbe, and Tengis River areas,
- Participating in the 6th Annual Darhad Blue Valley Festival, and
- Interacting with the Health Sciences University and its College of Nursing.

In November, BioRegions staff took four doctors from Muren to Bayanzurkh soum for a ten day visit to conduct a health screening. They spent three days in the soum center town, Bayanzurkh, and then traveled to the remote bags of Agar and Hais. There were long lines of people waiting for the screenings, which was much appreciated by both the local citizens and community officials who have not had much access to Mongolian doctors. In Renchinlumbe, Sunjee and Badmaa worked with the school’s English teachers for a week, as they have no access to native English speakers. In Tsagaan Nuur we met with the soum governor to discuss 2012 plans for the Darhad Blue Valley Festival.

In October, back in Montana, three Mongolian Buddhist monks and the Tributary Fund country director visited Montana to learn about the effects of mining in Montana. We shared the BioRegions process concept with the visitors and are now discussing how BioRegions can work with the people affected by gold mining in Mongolia.



Dr. Peder Anderson examining a health screening participant on the Tengis River



Renchinlumbe School teacher and BioRegions staff admire art and letters from Irving School in Bozeman, MT

In addition, BioRegions is becoming more involved with Native American culture through the Native Science Fellowship program of Hopa Mountain (www.hopamountain.org/NativeScienceFellows.php), collaborating with three Native American graduate students who are using the BioRegions holistic process for their thesis research.

Project and Program Updates

Education

This past year, BioRegions made great progress with the Renchinlumbe School English teachers training. Now, word is spreading of this throughout the Darhad Valley. We plan to offer multiple days of English language verbal training for Mongolian teachers during future Darhad Blue Valley Festivals. In 2011, a Bozeman teacher had her Irving School class create art and stories of their daily lives for Renchinlumbe School children. This year, BioRegions will expand this initial exchange and engage Mongolian and Montanan students and teachers in documenting and exchanging basic information about their place (bioregion and local setting). BioRegions will continue to focus on the importance of integrating knowledge about place into the learning process as described in *Igniting the Sparkle: An Indigenous Science Education Model*, by Gregory Cajete, along with other sources.

Environment

BioRegions staff member, Badamgarav (Badmaa) is

studying Darhad Valley sand dune movement for her graduate degree at the National University of Mongolia. Her work will determine if desertification and sand dunes are expanding in the region, then point the way towards sustainable local practices to enhance rangeland health. Numerous fencing enclosures pioneered by BioRegions, followed by other organizations, initially show progress by eliminating grazing (not practical over large areas) and transplanting vegetation. In 2012 BioRegions will continue to document grazing practices started in 2010, and focus on establishing ways to evaluate the status and wealth of grazing lands to provide a tool for land management decision making. This work will take place with help from selected families throughout the Darhad Valley. Green forage and vegetable growing will also continue. Dr. Natsuko Hamamura plans to conduct human hair sampling to determine if the high levels of arsenic and selenium in the native hujir source are accumulating in those who ingest the traditional salty-milk tea.

Health

The 2011 health team consisting of MSU leader Susan Gibson, a resident from Riverstone Health in Billings, a WWAMI medical student paired with a Mongolian medical student, a nurse from Bozeman Deaconess Hospital, and a nutrition student, conducted medical training and screening. Workshop and food drier displays helped people learn about their own diet and its effects, along with new ways to prepare food. After the Mongolia work trip, our Mongolian medi-



Badmaa and Lena explain to local citizens how to use the solar drier to preserve fruits, vegetables, and meats

cal student, Tuvshin, traveled to Montana to observe health practices in Bozeman, Billings, and rural locations.

In 2012 BioRegions plans to conduct health screening and training using a new method, engaging our Mongolian citizens and their health professionals to share viewpoints and techniques of health practice. We hope this will help build solutions which place responsibility and initiative more squarely in the hands of the patients. Each project will have a research goal along with the potential wellness payoff.

The Mongolian Health Sciences University is collaborating with the mining company at Erdenet city to create a regional diagnostic clinic. They have invited BioRegions to recruit health professionals to volunteer at this clinic with travel and living expenses paid. The College of Nursing at the Health Sciences University of Mongolia has state of the art laboratory and teaching facilities (part of the USA Millennium Challenge grant), and an enthusiastic staff, in Ulaanbaatar. BioRegions is discussing innovative teaching approaches which could increase the availability of these resources for countryside nurses, especially those in need of continuing education training.

In Montana, a 2009 Mongolia trip participant is sharing documentation of traditional diets from around the world. Her information is helping BioRegions understand the role of the traditional Mongolian diet where, for example, organ meats and fat from grass fed animals are highly desired components.

Traditional Knowledge and Skills

The 2011 Darhad Blue Valley Festival, held in Bayanzurkh for the first time, was well attended by the local people. It attracted music, oratory performers, and artisans from the entire Darhad Valley. With travel from one soum center to another requiring half or a whole day, having the festival in a new location like Bayanzurkh greatly expands its reach to new communities.

When we visited Bayanzurkh in 2010, we found an active and well maintained cultural center and library, but a wonderful museum closed up and needing repair. This year we

discussed the situation with the community and offered to help make proper contacts in Ulaanbaatar with knowledgeable curators. In July we met with curator Ms. M. Tsermaa at the National History Museum of Mongolia. She offered to meet with the cultural center directors from Darhad Valley soums over the winter to discuss necessary steps for renovation. BioRegions plans to work with these rural communities on ways to expand the value of existing cultural resources to enhance both student learning and to serve tourists who want to learn about local history and culture.

We took joy in distributing copies of the book by Shannon Prince, *The Written River*. Translated into a bilingual edition by our Mongolian program coordinator Sunjidmaa, the book chronicles fascinating aspects of the Darhad Valley and Reindeer People's daily lives and culture. The artisans' display and sales corner in a RENCHINLHUMBE shop continued to be an effective way to promote awareness and sales of local artwork and craftsmanship.

Community Building

Recent Mongolian visitors to Montana from the Ministry of Nature, Tourism and Environment, the Mongolian Society of Range Management, and the non-profit grazing management organization, Green Gold, expressed strong interest in making the BioRegions holistic process available for rural natural resource user groups. BioRegions will explore these



Darhad Blue Valley Festival participant sings traditional song



The Shisged River bridge annual failure due to ice and frost heaves, before and after

possibilities for involvement outside the Darhad Valley. BioRegions is also planning to work outside of the Darhad Valley on two projects:

- A collaborative effort with The Tributary Fund and Mongolian monasteries to establish permaculture-style gardens and aid with re-forestation for monastery grounds, in addition to nutrition and environmental education
- A work alliance with a University of Montana graduate student to establish a community base awareness for sustainable fisheries in the Onon River watershed

Future Opportunities

BioRegions would like to explore ways for private business to provide incentives for herders to improve grassland health through traditional grazing practices along with product marketing and profit sharing for conservation.

BioRegions is considering expansion of our Mongolia summer work trip in 2013, with a formal Montana State University Spring Semester preparation course followed by one or more student trips in the Darhad Valley and other locations in Mongolia. The MSU Office of International Programs is willing to assist in expanding the course and trip offerings and building the linkage with Mongolian academic institutions.

BioRegions is positioned to make a difference in the larger Altai-Sayan Ecoregion, which includes landscapes bordering Mongolia in Russia, Kazakhstan, and China. BioRegions is seeking funding to support potential new initiatives including:

- An exchange with Montana State University and our sister university, the Mongolian State University of Agriculture by Mongolian agronomist
- Support for Mongolian students to study land reclamation and restoration at Montana State University
- Community conservation education for wolverine and pika, both of which are climate sensitive species
- Application of holistic process to improve panda habitat in China, and
- Holistic approaches to mitigate desertification in

Mongolia's grasslands

Press

Kelly Pohl, program director at the Gallatin Valley Land Trust, and a participant in the 1998 Mongolia work trip, reflected on her Mongolia experience in a recent Bozeman Chronicle opinion page on November 12, 2011, titled, "Good Fences make Good Neighbors and Better Wildlife Habitat"

More than a decade ago I had the good fortune of traveling to Mongolia as an undergraduate at Montana State University. Half a world away, those rangelands rolling under snow-capped peaks reminded me profoundly of my Gallatin Valley home. But one difference was astounding – there were no fences.

In Mongolia, the common lands are shared by nomadic herders who follow their livestock across the plains. Fences are not necessary. Although the outcome is vastly different, the Mongolian take on fencing is largely the same as our historic Montana law – the land is largely open range and landowners are required to fence out what they don't want in.

This is rooted in a fundamental belief that good fences make good neighbors, and that each individual is responsible for protecting their own land from unwanted wandering livestock.

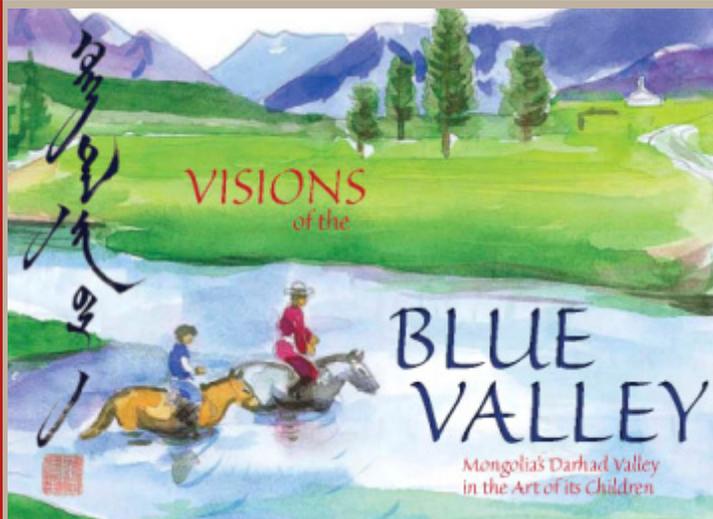
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Setting good boundaries with our neighbors does make for better living, but boundaries do not always need to be fenced, and good fences may not always look the way they traditionally have in Montana. Gallatin Valley residents have found many ways to share their land with all of their neighbors, furry and otherwise, so long as there is reciprocal respect.

2012 Work Trip Schedule

Late May – late June

- Renchinlumbe: initial preparation
- Tsaagan Nuur: Darhad Blue Valley Festival, Health Screening, Visit to the Reindeer People
- Renchinlumbe: English teacher training, Environmental officers training, All-valley training for health professionals
- Ulaan Uul: Health screening



Visions of the the Blue Valley - Mongolia's Darhad Valley In the Art of its Children

A compilation of children's artwork from the Renchinlumbe school in the Darhad Valley, Mongolia which displays visions of their surrounding environment. The artwork is promoted by an annual student art and music contest sponsored by BioRegions International.

It is a 76 page soft-covered book published by People's Press, LCC of Aspen, CO. The cost is \$15 plus shipping and handling (if needed). To order, visit www.bioregions.org or by mail at P.O. Box 6451, Bozeman, MT 59771



Darhad wood harvest

BioRegions International

BioRegions International is a 501c3 nonprofit organization working to "empower the nomadic cultures of Mongolia to survive in a rapidly-changing world." BioRegions uses a holistic, community-based approach to encourage whole community sustainability based on stewardship of natural and cultural resources. We work in the areas of education, environment, health, and traditional knowledge and skills. We have been working in the Darhad Valley in northern Mongolia since 1998. This high altitude, remote and isolated valley has high poverty levels, a severe climate, and a natural resource base that is suffering from poaching, over grazing, mining, and indiscriminant forest harvest.

**Montana State University
BioRegions Program**

The Montana State University BioRegions faculty, staff and students collaborate with local citizens and communities in their bioregions to learn about the way of life and resource base. Resulting partnerships apply local knowledge, science, humanities, and management to create proactive solutions to meet local needs. MSU BioRegions focuses in the Darhad Valley of Hovsgol Province in northern Mongolia, southwest of Lake Baikal in Russia.

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