



## Mission

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 and indiscriminant forest harvest.



**BioRegions Students heading out into the field**

## Letter From the Director

Our contacts and collaborations with other organizations working in northern Mongolia continue to grow. Recently we helped host Buddhist lamas from the biggest monasteries in Mongolia along with administrators from the Mongolian State University of Agriculture who came to sign an agreement with Montana State University. We continue to network with other non-governmental organization staff along with a focus on the National Geographic Conservation Trust grant and the 23 nomadic families in Bayanhangai (Rich) Valley.

It takes multiple years for community based – bottom up projects to begin to show progress. The strength of Bioregions International (our name in Mongolian is “Egch duu ornuud”) is in empowering citizens and local officials to solve problems and initiate projects on their own. We bring their desires together with science, technology, business management, and community decision

making skills in the areas of education, environment, health, and traditional skills and culture. We have little money but lots of knowledge to share. With a low overhead organization of five part time staff divided between Mongolia and the USA and travel expenses paid by the participants, we are able to really stretch our dollars and expand knowledge between the two cultures. With this 2009 trip, BRI will have provided opportunities for 135 students, citizens, and doctors to learn and work with Darhad Valley community members since 1998. We have students from 8 universities working with us in 2009.

*-Cliff Montagne*



## News

BioRegions is often frustrated by so much to do and so little time during our 6 week Work Trips. In 2008-09 our Mongolian staff and collaborators worked to establish a year round presence by taking 3 work trips to the Darhad Valley after the summer work trip. Gold has been discovered in the headwaters of the rivers that nourish the animals and people of the Darhad Valley. A large gold mining company was driven away by the citizens who recognize the negative effects that this quick money has on the natural resources. But 3000 people have begun “ninja mines” not unlike the Gold Rush in the United States. The damages to the natural resources and health of the people are potentially great.

## Three Trips by BioRegions Staff

### September 2008

In September BioRegions staff Sunjee and Badmaa, along with our Darhad Director, Mishig, brought Durango Colorado saddlemakers Lisa and Loren Skyhorse to the Darhad Valley to conduct several leather making workshops.

See their slideshow at <http://skyhorse.com>.

While Badmaa coordinated the Skyhorse workshops, Mishig and Sunjee traveled around Bag 1 with two Murun-based physicians, eye doctor Erdenetsetseg and dentist Byambadorj. They conferred with the artisan apprentices and mentors sponsored by BioRegions and distributed donated clothes, sunglasses and toothbrushes. They worked hard to inform the people about BioRegions goals and programs.



**Ger and sunset**

The new BioRegions Emergency Medical Transportation Fund made it possible for four children to be transported to Ulaanbaatar for treatment of cerebral palsy, renal carcinoma, a congenital heart defect, and an eye problem.

Many of these herders have no easy access to a hospital or health care. Lack of money for transportation has prevented eye and dentist examinations since 1990 because the nearest dentists and eye doctors are a long 12 hour drive away in Murun, the provincial capital.

### February 2009 Trip

(written by participants Sunjee, Badmaa and Tom James)



**Dr. Byambadorj conducting a ger dental exam**

The February work trip was a success on many fronts. One of the challenges faced by BioRegions is reaching out to a community existing in remote and often difficult-to-access locations. Winter site visits such as this provide an opportunity to engage families at their winter camps, reaffirming BioRegions "presence" in the valley. Many of the herding families were at least vaguely familiar with BioRegions – some not at all – and yet our presence was warmly received by all. Families were impressed by the achievements BioRegions has made over the past decade, and had numerous suggestions for areas of future emphasis. Emergency relief was made to one family whose ger had burned down.

Participants in the trip totaled 12 people including 5 BioRegions staff, 3 medical people from Murun and 4 medical people from Renchinlumbe. They included a dentist and her assistant, a physician, a pediatrician, a gynecologist, a nurse, and social worker.

The health screening activities were a valuable component of the work trip as most families, particularly those who migrate long distances to wintering areas, live in relative isolation for much of the winter. A total of 388 individuals participated in the health screenings, and received attention in the following areas:

1) 388 individuals received a physical examination

2) 210 individuals had blood drawn for analysis

3) 70 individuals received dental examinations

4) 15 individuals received dentures

Boojum Expeditions has initiated a Cancer Foundation Trust Fund for Darhad residents. Community members were informed of this fund and many made personal donations, often in the form of livestock, to ensure its longevity. In addition, Boojum Expeditions funded the purchase of enough supplies to analyze blood samples of 600 people. Thus far, 210 people have been tested.

The informal conversations about pasture management, forest use and community decision-making were insightful and informative for our ongoing ecology projects. In addition to the screenings, Mishig and Badmaa shared a home video made in January 2008 showing local residents performing Darhad songs. It was a hit and left many people excited about the cultural activities BioRegions supports.

### April 2009 Trip

The staff drove to the Darhad Valley in the newly rebuilt yellow van owned by US Fulbright Student Scholar Tom James. One of our goals from 2008 was to enable the artists and artisans to have a permanent shop to sell their products not only to tourists but for wedding presents and gifts for the locals to buy. It is now operating. BioRegions hopes to hire a salesperson in May to enable the shop to have consistent regular hours. Cross stitching, felt and leather items, clothing,



**Yaks crossing river in April**

paintings, ger (yurt) parts and stone carvings are some of the items people are interested in making to improve their livelihood. BRI has always encouraged the Darhad Valley people to create craft items and artwork to sell to each other rather than export to the capital city or foreign countries. Without training they cannot compete in quality or quantity needed. The unique nature is what makes their art special.

Tom James and Badmaa lived with the 23 Family Bayanhangai Valley group and began work on participatory community forestry, sustainable grazing, and artisan skills. As spring came, Mishig worked with the Renchinlhumbe School Ecology Club to re-fence the BioRegions grazing plot and local teacher Tuul assisted in establishing seven family vegetable garden plots in Renchinlhumbe.



**Ovoo at entrance to Darhad Valley**

## Participants for 2009 Work Trip

### Trip Leader

*Dr. Cliff Montagne*

### Health Team

*Susan Gibson*-MSU WWAMI Faculty

*Dr. Katie Woods*- Riverstone Health, Billings, MT

*Ciara Huntington*- U. of Idaho- U. of Washington WWAMI medical student

*Erica Ness*- University of Washington WWAMI medical student

*Jennifer Higgins*- DVM-PhD Veterinary student, Middlebury College/Colorado State University

*Kestral Schmidt*- Animal Health

### Environmental Team

*Lori Soderquist*- Grazing restoration

*Thomas Conte*- Soil erosion and grazing restoration

### Community Team

*Marc Shapiro*- Sustainable community development, including Geo-Tourism

*S. Daisy Pistey-Lyhne*- Sustainable community development

*Kaelin Kiesel*- Community decision making

### Collaborators

*Thomas James*- Fulbright Scholar and Yale School of Forestry graduate student

*Javier Fernandez-Vega*-Yale School of Forestry graduate student

*Shannon Prince*-Dartmouth College creative writing graduate (pending funding)

## 2009 Work Trip Plans and Goals

### Education

*-Improve literacy by sponsoring ger schools for students who do not attend school*

This will be the fifth year of winter and summer ger schools for children who do not attend school for economic reasons. Five hundred dollars provides the equivalent of a school year of literacy training for a student. Accomplishments are certified by a test at the end of the school period.

*-Develop a joint English and Ecology curriculum guide*

BioRegions will collaborate with English as a Second Language teacher

Roxanne Sloan (Boojum sponsored Renchinlhumbe English teacher in 2007) and her son Josh to develop a teachers' guide using ecology and sense of place and lifestyle for English instruction.



**Ecology Club at experimental grazing enclosure**

*-Encourage English language practice*

Work trip participants will be ready for impromptu or formal English instruction and practice using ideas and items from Roxane Sloan. We will compile a list of the most useful techniques and materials for local teachers and future BioRegions activities.

*-Stimulate the school Ecology Club with activities, advice, and support*

Fund Ecology Club project to establish and grow garden vegetables and repair the fence at New Spring around our erosion control project.

*-Sponsor the 8th annual school art and literature contest*

Continue funding this annual event. The art and literature teachers continue to provide stellar instruction with this event as an annual capstone.

While the art teacher received high marks, seventy percent of the Renchinlhumbe school teachers recently failed their proficiency exams. Isolation makes it hard to retain quality teachers. Two years ago the Renchinlhumbe School made headlines as having the highest non-attende rate in Mongolia. There is little funding or opportunity for continued teacher training. The

'contest' concept provides stimulation and recognition for both teacher and student.

## Environment

### *-Continue erosion control fence demonstration*

The Ecology Club students repaired the fence in May with Mishig. This fence demonstrates the effectiveness of windbreaks against sand erosion and shows the paradigm of controlling the amount of time grass is exposed to grazing.

### *-Initiate forestry project*

Yale School of Forestry graduate student Tom James will work with the 23 Family group to learn and test 'out of the box' approaches to sustainable forestry. A major component is to explore concepts of Community Forest User



**Tom James counting tree rings on a tree core sample**

Groups. This is a joint collaboration between Tom's graduate work and the National Geographic Conservation Trust grant.

### *-Initiate grazing project*

Work with 23 Family group to learn about grazing practices which can improve grassland quality by allowing adequate recovery between grazing events and controlling the amount of forage consumed as part of the National Geographic Conservation Trust grant.

## Health



**Medical student conducting a health screening**

### *- Continue the base line health screenings*

Conduct screenings in Government units (Bags) 2 and 3 and other locations in conjunction with *BioRegions Effect* community development workshops and wellness fairs.

### *-Train bag doctors in First Aid and trauma and life support instruction and continue instruction for herder families*

Dr. Katie Woods provide advanced training for doctors in trauma situations. She will also train the bag doctors as first aid and emergency trauma treatment instructors. BioRegions will provide support for the newly trained doctors to start teaching families in their bags. This will augment the in-

comes of these poorly paid doctors.

### *-Provide women's health and nutrition education*

Dr. Katie Woods will conduct training workshops on women's health and nutrition, including pre-natal nutrition, avoiding birth defects, pediatric health, and urinary tract infections.

### *-Provide support for equipment and supplies*

Besides the yearly glasses and medical supplies, we will give a new microscope. BioRegions is exploring how to meet needs for a moveable hospital bed, wheelchair, blood centrifuge, autoclave, and other equipment.

### *-Initiate brucellosis program*

Provide education on brucellosis and initiate basic surveillance sampling for people and domestic animals.

## Traditional Knowledge and Skills

### *-Sponsor 4'th annual People of the Blue Valley Awards Festival*

Participate in promotion, organization, and administration of this event, to be held June 7 in Renchinlumbe. Add



**Midnight on Solstice**

new components of a BioRegions Effect workshop and health fair to include information on health, environment, and community development, with Greater Yellowstone and Montana examples.

***-Distribute new book *Visions of the Blue Valley: Mongolia's Darhad Valley in the Art of its Children****

Promote the book to retail sellers in Ulaanbaatar and Murun. Provide distribution to northern Hovsgol schools and communities. Interact with readers of all ages to build understanding of how to most effectively use the book.

***-Support local artisan training and sales***

Get feedback on 2008-09 artisan apprenticeship training. Work with participating artisans on deciding next steps for this program. Evaluate effectiveness of the new artisans shop and create a collaborative plan for its future.

## Community



**Community meeting with BioRegions trip participants**

***-Identify values and conditions of important natural and cultural resources***

Work with 23 Family group and others to merge traditional knowledge and values with scientific measures of resource condition.

***-Learn how to form community vision statements and make holistic decisions***

Work with 23 Family group and others to make holistic decisions about forest



**Lisa and Loren Skyhorse and leather workshop**

and grazing management, artisan support, and geotourism.

***-Develop and implement community workshop and health fair BioRegions Effect concept***

Coordinate with local people and all members of the BioRegions Team to sponsor comprehensive workshops and health fairs at countryside community locations. BioRegions will provide appropriate health screening and educational opportunities. Local participants will assist BioRegions in learning about the resource base and other details needed for holistic decision making.

## MSU BioRegions

Dean of Agriculture Jeff Jacobsen and Director of International Programs Norm Peterson hosted the president, vice president for international programs and senior program officer from the Mongolian State University of Agriculture (MSUA) in late April. After meeting and conferring with faculty and local non-governmental organizations, the two universities signed a Memorandum of Understanding to work together on crop production, animal husbandry and environmental management. MSU will sponsor a MSUA student at MSU, explore distance delivery lectures and assess English language needs at MSUA.

Cliff Montagne taught an 11 student course LRES 480 Sustainable Development in Mongolia and Montana.

Students said:

*-Please find attached my Holistic Management Plan for Geotourism in Mongolia.*

*Thanks for a great semester - I thoroughly enjoyed it!*

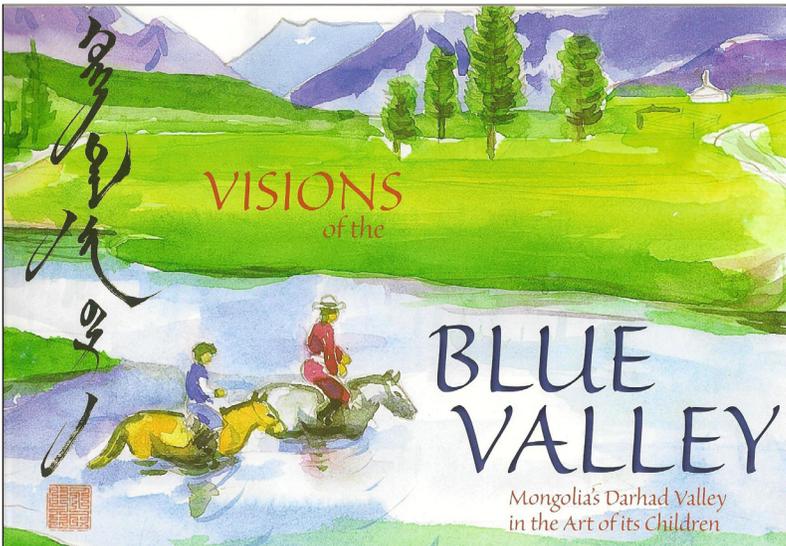
*-...there could be a potential collaboration between your holistic and or bioregions class and the business school. I know when you mentioned the saddle workers from Durango in class, that their work in Mongolia really struck home and sparked interest for many students.*

*-I had a lot of fun in the class this semester and am surprised to find a holistic viewpoint working its way into everyday life now. BioRegions is a great organization: I would love to stay involved this summer and next year, perhaps with work that can be done in Montana or creating a different type of project for next year.*

**Hope the trip to Mongolia goes well this summer!**



**BioRegions Director, Dr. Cliff Montagne, with Mongolian University student**



***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.

A 76 page soft-covered book published by People's Press, LCC of Aspen, CO. The cost is \$20 plus \$5 handling and postage (if needed).

**The book can be purchased on-line at [www.bioregions.org](http://www.bioregions.org) or my mail at P.O. Box 6451, Bozeman, MT 59771.**

BioRegions International

*BioRegions International works to empower the nomadic cultures of Mongolia to survive in a rapidly-changing world. We support holistic, locally-based projects promoting public health, education, environmental preservation, and sustainable economic development.*

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