

Nuñoa Project Veterinary Team Work December 3-16, 2015

Stephen R. Purdy, DVM

President Nuñoa Project Peru

- **Team members**

- Dr. Steve Purdy, President, Nuñoa Project Peru
- Dr. Gerardo Diaz- Peruvian veterinarian from CONOPA, Lima, Peru
- Dr. Kristen Peterson, Ely, Minnesota; attended Nunoa Project Intensive Camelid Practice Course as veterinary student
- Catrina Price- final year veterinary student from Bristol University, England
- Maren Raab- final year veterinary student from University of Wisconsin; attended Nunoa Project Intensive Camelid Practice Course in 2014
- Thompson Blodgett; photographer and videographer, animal handler from Ely, Minnesota

- **Meetings with Chijnaya Foundation Local representative Jhuver Aguirre**

- Productive- the animal health and reproduction projects are our projects to fund and operate
- CF helps with contact with communities when our people are not on site

- **Community visits**

- Coarita (Lampa District)
 - Selected 60 Huacaya females (35 with community tags, 25 with NP tags) from the community herd to be bred under controlled conditions to 2 Nunoa Project males Jan–March 2016
 - Ultrasound and palpation pregnancy examinations on 20 females, most pregnant; Coarita had palpated all of them
 - Coarita technicians performed body condition scoring and first enterotoxemia vaccination on all pregnant females
 - Private herd females will also be vaccinated
 - Technicians interested in seeing ultrasound images during exams
 - This community is the most organized of all of the 5 we work with
 - Assembling 70 Suri females to breed with the 2 NP Suri males

- Fiber sold to local compadres in December-January- pricing \$/8-9 per lb.; interested in working with Matt Scanlan of Nadaam Cashmere in the future
- Pucarayllu (Pucara District, as are the other 3 communities below)
 - 45 females belonging to the community president (Timoteo Bavel) examined including ultrasound and palpation pregnancy diagnosis (84% pregnant- bred by continuous exposure to 2 males)
 - 5 females not able to be diagnosed by palpation were confirmed pregnant by ultrasound- likely more towards 9 months than 11 months pregnant
 - 35 females selected and tagged with red NP 15 tags for breeding for 3 months by 1 NP male
 - Vaccinated 42 pregnant females and 6 crias 1-4 weeks of age with Enterotox
 - 157 animals not vaccinated with Enterotox; left vaccine and data sheets with Mr. Bavel for vaccination of other farmers' pregnant females; if not used then we will stop the vaccine program with the other farmers
 - Disappointed that other farmers would not bring females for examination and vaccination
- Sell fiber in Pucara in July when multiple buyers come to town- expect 1100 lbs.; interested in highest price, hopefully \$/10-12; would work with Matt Scanlan
- Alto Pucarayllu
 - 167 previously vaccinated (pregnant) animals were ear tagged in 4 locations
 - Few animals with llama phenotype
 - Selected 30 females to be bred to 1 NP male- 20/30 pregnant (67%) used 1 male with 42 females with exposure year round. This is a low rate. It should be approximately 80%.
 - Some ultrasounds were performed for Nunoa Project student training at the community school.
 - Most of the farmers were very good at handling their alpacas in a calm manner.
 - Fiber is sold to local buyers at various times of the year when farmers need money.
- LaUnion
 - 13 farmers' animals in 3 locations
 - Will not use a Nunoa Project male this breeding season as they cannot separate females into small groups
 - We tagged many of the pregnant animals which were previously vaccinated with Enterotox
 - Total of 225 animals tagged- each were aged and BCS recorded
 - Farmers disorganized and not very good at handling animals; not interested in body condition scoring

- Examined and tagged 4 farmers' machos- 3 OK; 1- 10 month old very small for his age
- Animals with llama phenotype very common
- Future with breeding improvement program uncertain
- Dr. Diaz will continue to work with them to explore what involvement they want to have
- The community has spoken to a
- Sapamaccota
 - New community as of November 2015
 - 95 females selected for use with 3 NP males and tagged
 - Ultrasounds performed on females not able to be palpated as pregnant
 - 364 pregnant animals were previously vaccinated with 1st dose of Enterotox- all were tagged during our visit
 - Community members worked well together and president was responsive and well organized
 - Farmers were very interested in taking over body condition scoring, seeing ultrasounds, and our evaluation of their breeding males
 - Community sells its fiber at various times to local buyers
- **Nunoa Project alpaca breeding males**

9 of 14 males had evidence of mange on arrival

 - Were previously treated by Nunoa farmer keeping them 3 times with ivermectin injections at monthly intervals with no success
 - Nunoa Project was not informed of the problem until they were picked up for transfer to LaUnion for holding in early December
 - Affected animals were treated twice during the period Dec 1- 11 with Vaseline. Improvements were noted.
 - Expected distribution of NP males early January 2016 for use for 3 months:
 - Coarita- 2 Huacayas and 2 Suris
 - Pucarayllu- 2 Huacayas

 - Alto Pucarayllu- 2 Huacayas
 - Sappamccota- 3 Huacayas

- All males will be collected in April 2016

Evaluation of current situation in Pucara and Lampa

- Dr. Diaz has done an excellent job coordinating the enterotoxemia vaccination program with the 5 communities.
 - It is clear that a local coordinator is necessary for continued progress. Additional CONOPA veterinarians will visit the area during January and February to collect samples from deceased crias to evaluate cause of deaths to help formulate a prevention program.
 - The response of most communities is very good with farmers becoming personally involved in the vaccination and reproduction programs
 - Dr. Diaz has seminars planned with the communities covering improving breeding practices and animal health.
 - Many animals are in poor body condition and they are in advanced pregnancy at this time. This is because it has been relatively dry during the ongoing rainy season. We found similar body condition in July due to the unusually cold temperatures and snow. We expect that animals may have poor lactations and crias will not grow well unless the rains catch up soon.
 - Communities are currently selling their fiber at various times to local buyers. We continue to look for a way to get them a better price for their fiber. A local coordinator is needed to work with the communities to get together a substantial quantity to obtain best pricing. The fiber also needs to be collected at a specific time and transported to the buyer.
 - Members of all 5 communities attended a shearing information and training session provided by Michell Mill at Malkini in Puno
 - Electric shearing is not currently being used but there is a real fear that shearing animals closely will worsen the already poor body condition of pregnant females leading to adult, cria, and fetal deaths
- **Work with Llama Pack Project, Urubamba, Peru**
 - This new project for us near Cusco in the Sacred Valley is similar in goal to our alpaca work in the southern Andes- to improve use of camelids to increase family income and standard of living for the farmers.
 - We stayed at the project's headquarters in Urubamba and visited one llama farmer and his family near Calca. There are 10 individual families which the Llama Pack project is working with to use their llamas to generate income during tourist treks in the Sacred Valley of the Incas.
 - The family we visited lives in a very remote location as do all of those involved in the project. It took us 3 hours of uphill climbing after 45 minutes in a truck to reach their property which was stunningly beautiful. They have 20 llamas of various sizes. Many had good fiber. The wife is a very talented weaver as evidenced by the beautiful ponchos worn by the family members during the herd work. We taught handling, haltering and body condition scoring while evaluating females for pregnancy with portable ultrasound.

- The project will evaluate 10 herds total this next year and provide training for farmers. We met a professional fundraiser who happened to be visiting the LPP hostel. She helped us with the llama evaluations and we will be speaking about helping LPP to obtain funding for their future endeavors. Our role is that of veterinary advisor,

- including animal evaluation and teaching improved animal husbandry in conjunction with our Peruvian collaborator CONOPA.

- **Summary**

- Good progress is being made on both the alpaca and llama fronts
- There is great potential for improvement in the standard of living for camelid farmers in both areas

- We should keep up our commitment to visit Peru twice yearly with veterinary teams. Each team of students and veterinarians has excellent and dedicated members who work hard, learn a great deal, and are changed positively by the experience.
- On the ground personnel are needed to make these programs successful and our fundraising efforts need to continue to allow this to happen.

Report on Project Mission to Nuñoa, October 24-29, 2015

Brooke Thomas, PhD

President Nuñoa Project Peru

Purpose of trip: Representing the Nuñoa Project we donated 140 blankets and 5 wheel chairs to the needy of Nuñoa. Additionally we assessed the progress of the association of yarn spinners (*Asociacion de Hiladores de Nuñoa*) in town, a group of elderly women and handicapped people of marginal means who spin yarn for local consumption..

Members of the visiting group: Brooke and Shirley Thomas, Jim Dutt and Susan Luerksen. Jim was an anthropological researcher in Nuñoa in the late 1960s and 70s and had last been back in 2012. Susan worked there in 1987-8 and had not returned for 27 years.

Overall assessment: This was one of the most enjoyable and productive trips of recent to Nuñoa. Unlike previous ones where only part of the mission could be accomplished this time all three aforementioned agendas were carried out with much appreciation expressed by the recipients. Friends in town were most helpful in providing housing, meals, a birthday party, and trips into the countryside. And new associates were discovered who could help out in the future. The weather was expectedly cool but by and large pleasant, and each day opened up a new set of experiences and a renewal of contacts. Finally, the group we traveled with was fun and helpful, hence sharing this adventure left all elated.

Wheel Chair Donation

Four wheel chairs were formally presented in front of the Town Hall with the mayor, his assistants, and police in attendance. The Peruvian and Nuñoan flags were raised to their respective anthems, and a laudatory speech given by the former Assistant Mayor, Jeanette Talavera. In it she praised the efforts of the Nuñoa Project in assisting people of the town and countryside. Previous to this a large parade took place around the plaza with more than 30 communities (over 150 individuals) from the countryside participating. Each group had a banner with its name and was composed of men and women with stern weathered faces goose stepping by the review stand. Men with heavy and intricately woven knotted ropes (used as batons) led each group with women in step behind. The bearers of knotted ropes signified that they were members of their community's peace keeping group, called *rondas*. Since the police are ineffective in the countryside the formation these groups were encouraged by the national government to serve as local law enforcement. As one group after another marched by the diversity of proud Native Andean faces, young and old, was most impressionable. Equally so were the Quechua names making up the town council in their suits and ties. Andean peoples had seemingly regained control of their land, town government, and community. The wheel chairs and one set of crutches were presented by Brooke to the recipients: two younger men, a middle aged woman and an elderly man. The fifth chair was held back for exchange for a leg brace because a teenaged girl preferred the latter. Another elderly gentleman with a crippled leg, who sells medicinal herbs on the street, received crutches whereupon he proceeded to do a jig to the amusement of the crowd. The donated chairs are of high quality with large front wheels to negotiate the cobblestone streets. All recipients were most grateful and after the ceremony was over the two young men were seen racing their chairs through the marketplace, laughing as they went. They acknowledged us with a smile and waved as if to say, "Look at us go!"

Blanket Distribution

With the money raised through the GoFundMe campaign 140, quality blankets were purchased in a nearby city and trucked to Nuñoa in two 200 lb. packets. Selection of communities to be served were based on need and exposure to the exceptionally cold weather that had persisted for the past three years. We chose two that were quite remote and at very high elevation. Whereas lower communities in the district had received some aid from the regional government these two had been left out. We notified them in advance through the local radio messaging service and planned to head out the next day. A pick-up truck had been hired but its bed proved too small to fit the two bundles. We, then, sought

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the local priest who offered his truck and suggested he could give a mass. While the NP is not affiliated with any religious or political group we are not averse to working with those who support our goals.

Off we went up the Nuñoa River. Higher and higher we climbed passing the upper most ranches we had worked with in the past. Through ravines, across small rivers, and onto wide pampas where several groups of vicuñas were seen. I had never been so high in the district and the terrain took on a very different Tolkien like profile. We were on the short grass pampa so not even the long stem *ichu* grass could be used for roofing: tin roofing sheets were used instead. Furthermore it was too cold for even the bitter potato to be grown so the sole dependence was on camelid production. Whereas the pastures below around the town were drying out and the herders concerned about their animals losing weight, here they were lush and the fiber on the alpacas full.

In the background were a jagged set of peaks and above these patches of snow and then the permanent snow fields. This was part of the largest tropical glacier system in the world. In approaching the village center, Alto Kenamari consisted of two whitewashed adobe storage houses, a community room, and a public WC arranged around a stone patio. Nothing else was in sight except for white alpacas grazing the nearby slope and a few horses tethered to clumps of grass. Clearly people had heard the news and could be seen emerging over distant hills by horseback and on foot.

Five hundred meters below the community center the priest's truck overheated and we had to walk uphill the rest of the way. The altitude was 16,500 ft.: this amounts to 45% less oxygen than at sea level. As they say here: "The air is pure but there isn't much of it." Clearly the priest from the coast, accompanied by a young nun from lowland Columbia, had not encountered this altitude before and we joked about the implausibility that heaven would be placed even higher. Greetings were made and a table set up in the small community meeting room. An embroidered religious cloth was laid upon it and on that two silver cups and a brass cross. Light trickled in through the open door allowing the holy artifacts to sparkle in the obscurity of the interior. About 40 people crowded in filling the room to capacity. Men were dressed in dark woolens with Andean flap-eared hats (*goros*), and women in their multiple skirts and thick woven jackets with a colorful, hand woven cape (*manta*) over top. Most had green coca stains on their teeth and a wad in their cheek. This smell mixed with a pleasant odor of dung smoke that permeated their clothing and hung heavily in the air. Interspersed were white North American faces with colored parkas, Sister Rosa with a most stylized habit and a perpetually kind smile, and Padre Nilton, an African Peruvian priest so dark that at times one could only see his white collar and moving teeth in the unlit room.

Young with a jovial demeanor the priest started off the mass by asking if a priest had ever been to the village before. "No" was the response to which he replied with a chuckle that "This then would be your first mass?" Clearly, this was to be a ground breaking event in several respects since many they had never before seen a black man let alone a priest. I had expected a 15 minute quickie mass given the cold but on Padre Nilton went for 45 minutes speaking of extending kindness to one another and interspersed his sermon with jokes and a hymn or two. The occasion was both surreal and inspirational: the combination of such a mix of people from different traditions and places seeking shelter from the wind outside and listening to "good words" beneath a high, forbidding Andean range capped in snow. This was one of the highest human habitations in the Andes and the uplifted strata in places looked like broken beer bottles or shark's teeth

The mass having ended we were served animal crackers and Nescafe and then proceeded downhill to the vehicles to distribute the blankets. Once again Jeanette explained to them who we were, and that we had come from a long way off in North America to offer comfort from the cold weather. “No, these people had not come from the church or government; they had chosen this community because they felt there was a need. This was their act of kindness so to speak.” The community members, in turn, were most grateful: we shook hands, exchanged smiles, and joked a bit.

Finally, as the dark clouds of an approaching rainstorm loomed on the horizon we all said good-bye and they disappeared over the hills in a light drizzle, their blankets draped over their shoulders in a plastic bag.

We, then, moved on to a second somewhat larger village, Baja Kenamari, and did the same. A total of 102 blankets were delivered that day. The remaining 38 are to be distributed to townspeople in need by Jeanette and Sister Rosa on behalf of the NP. While the NP discourages giving away items and thereby creating dependency relationships, in his case there is no other solution or agency to help out. The blanket distribution and wheelchair donation therefore constituted such opportunity.

Assessment of the yarn spinning association.

For the past year we have funded the yarn spinning association (*Asociacion de Hiladores de Nuñoa*), a micro business consisting of 20-30 elderly women and handicapped individuals. The group has elected dedicated leaders with good organizational skills who have submitted a well thought out and realistic business plan. By and large they have met their expectations as presented in a progress report. First year expenses entailed renting a building, outfitting it with lights, tables, and chairs, and buying equipment for cleaning and processing the fiber. Quality of production is adequate for local sales but falls short of that needed to sell on the regional or national market: this is being addressed. Fortunately there is a knitting cooperative in town, Manos Magicos, that buys most of their yarn. This is a considerably superior product to that produced at home since better fiber is selected, it is thoroughly cleaned, and graded by quality and fineness.

In meeting the spinners the extent of deformities was apparent from their handshakes. Nevertheless, the members were assigned tasks they could perform well. The interior of the building was well lit and orderly, and there was a sense of relaxed enjoyment in carrying out their work. This pleased me considerably since the association is not only as giving work to individuals of marginal means but serves as a vanguard model for other groups in town that could take local raw material and transform it into a value added product. Nuñoa has high potential in this respect by improving and marketing quality fiber, meat products, hides, leather goods, cheeses, and agricultural products such as

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quinoa and cañihua. Presently most of these are bought by middle-men and shipped out of town in unprocessed form receiving low and unpredictable prices. As an example a felting kit to make small animal figures was provided by Trudy Rosenblum and presented to the group. With low quality camelid fiber young and old could turn out figures of their own creation in their spare time in their homes or out herding.

I had asked Director Celia Quispe Lima for a proposal for this coming year in advance of our arrival. Following the visit to the workshop we discussed their upcoming needs