

**Western Association of Fish and Wildlife Agencies (WAFWA)  
Wild Sheep Working Group (WSWG) winter meeting  
February 2-3, 2010  
Reno, Nevada**

**Tuesday (February 2<sup>nd</sup>)**

**Introductions/Welcome:** WSWG Chair Kevin Hurley welcomed those in attendance, both WSWG agency reps, and other interested parties. Kevin thanked Elise Goldstein of New Mexico Department of Game & Fish for taking notes/minutes [Note: final edits done by Kevin Hurley, so any errors are Kevin's]

Kevin circulated the current WSWG roster, asking for edits/updates. WSWG attendees (N=15): Becky Schwanke (AK), Bob Henry (AZ), Tom Stephenson (CA), Dale Toweill (ID), Tom Carlsen (MT), Todd Nordeen – for Bruce Trindle (NE), Mike Cox (NV), Eric Rominger (NM), Don Whittaker (OR), Ruben Cantu (TX), Anis Aoude (UT), Kristin Mansfield – for Donny Martorello (WA), Kevin Hurley (WY), Melanie Woolever (USFS), Amy Krause (BLM); not in attendance (N=6): Jim Allen (AB), Helen Schwantje (BC), Janet George (CO), Brett Wiedmann (ND), Ted Benzon (SD), Jean Carey (YK). Ruben Cantu is now the TXPWD rep to the WSWG, replacing Clay Brewer. An updated roster is also attached to these minutes, reflecting changes in personnel and/or contact information.

At various times during the WSWG meeting and the subsequent Wild Sheep Foundation's Wildlife Professional's Meeting on Wednesday afternoon Feb. 3rd, at least 50 other folks sat in for all or parts of these meetings; a list of those attendees (at least those who signed in), is attached with these minutes.

**Review of List/Status of WSWG Action Items:** Kevin described the list/status of WSWG action items, which he tries to keep current, and asked WSWG reps to please notify him of changes/updates to that WSWG list.

**GIS Mapping project of all Wild Sheep translocations in U.S. and Canada:** Kevin went through a brief history of this mapping effort, starting with the 1996 NWSGC workshop in Silverthorne, CO. As NWSGC Executive Director, Kevin arranged for representatives from 18 states and provinces to bring/exchange/compare agency records regarding donor and recipient jurisdictions for Rocky Mountain and California bighorn sheep (and mountain goats) translocations. In the past 2 years, WAFWA has been revisiting, expanding, and improving these jurisdictional data, to construct GIS maps of all wild sheep translocations, as far back as records can verify. Currently, this mapping project is ~75% complete. Kevin went through a jurisdiction-by-jurisdiction summary put together by Richard Jones (Kevin's contract GIS guy), to get updates on how the states and provinces are doing; that 1/28/2010 summary is attached to these minutes. There are quite a few states/provinces that are not completely finished with their maps.

**Action Item: please send your revisions to Richard Jones ([rejonas@wavecom.net](mailto:rejonas@wavecom.net)) ASAP, so this project can be completed.** Kevin is starting to get short on funding to complete the project, and he would appreciate any assistance anyone can offer. WSWG will want to keep these databases/maps updated into the future, and these databases/maps need to be housed somewhere that can keep them up-to-date. Kevin mentioned either the WAFWA WSWG website, or the Wild Sheep Foundation (WSF) website, as a place to potentially display these for public review and agency access; Kevin suggested maybe a University somewhere in the West could maintain these databases/maps. In time, we could expand the data to include additional information, but it may not be realistic to achieve this at present, and of primary importance is to get this first "snapshot in time" up-to-date/current. Tom S. offered that CADFG might be able to lend some GIS assistance in the future. The WSWG discussed the possibility of looking into publishing these maps in an atlas format, perhaps through WSF.

**USFS/BLM GIS mapping project on DS allotments & trailing routes vs. occupied WS ranges:** Melanie Woolever and Janice Wilson (USFS, Region 2, Colorado) have been working to complete maps that show current BHS distribution and current USFS and BLM domestic sheep/goat grazing allotments (active and vacant) and trailing routes in 14 western states (TX, AK and Canada are not included in this particular GIS mapping effort). Draft maps were distributed to each of the 14 western states almost a year ago, for state agency review. In fall 2009, BLM issued an Instruction Memo and data call, and by the end of calendar year 2009, BLM provided all their data layers and

shapefiles to Melanie/Janice in Denver. Updated maps reflecting BLM and USFS data (including vacant cattle allotments) were handed out to those agencies present today (Kevin will mail hard-copy maps to ND and SD; Melanie will get CO map to Janet George). State agencies now need to closely review these maps, in particular focusing on “edge-matching” with adjacent states, to make sure BHS distribution shown in one state doesn’t necessarily stop or truncate arbitrarily across a state boundary. Also, state agencies need to work closely with BLM offices (starting with state BLM biologists), to review state line boundaries where DS/DG trailing routes arbitrarily stop at a state boundary and do not continue into the adjacent state. The WSWG broke up for 10-15 minutes to peruse these maps, and talk amongst themselves. **Action Item: Amy Krause will compile a memo to BLM state biologists, encouraging them to work with local BLM offices and state wildlife agencies to proof these maps closely; all changes/edits/information needs to be to Melanie no later than May 1, 2010.**

**WAFWA Directors January 8-10, 2010 meeting, San Diego, CA:** Kevin recounted some of the discussion from the WAFWA Directors/Commissioners winter meeting in San Diego in early January. Kevin distributed USFS and BLM one-page briefing papers (included with these minutes), presented to the Directors by Chris Iverson and Raul Morales, respectively. Kevin also recounted WSWG action items endorsed by the WAFWA Directors, including submission of a letter from WAFWA to BLM Director Bob Abbey, encouraging BLM to fund/staff  $2 \geq 0.5$  FTE wild sheep positions within BLM; WAFWA Directors again endorsed submission of this letter. **Action Item: After discussion at this meeting, it was agreed that Kevin would revise this letter once more, then send it to Jim Karpowitz and Larry Kruckenberg, for routing up the WAFWA chain-of-command, for final signature and submission to BLM Director Abbey.** WAFWA Directors questioned a WAFWA letter prepared by Kevin Hurley and Clay Brewer, and sent in mid-December under Denby Lloyd’s signature, via Larry Kruckenberg, dealing with an attorney’s (Howard Schwarz, Esq., Cincinnati, OH) request for information as to how western states and provinces issued/offered special wild sheep licenses for auction/raffle by various wild sheep NGOs. After discussion, including lengthy discussion with WSWG Director Sponsor Jim Karpowitz, it was decided that there would not be a 2<sup>nd</sup>, clarifying letter sent from WAFWA. Kevin noted that other than WA, he has collected information from all the WAFWA jurisdictions which offer special wild sheep licenses for auction and/or raffle.

Lastly, at the Directors meeting, Kevin pointed out the need for the WSWG to update/revise the June 2007 report on “Recommendations for Management of Domestic Sheep and Goats in Wild Sheep Habitats”. In Idaho, Judge Winmill ruled that, due to a procedural Federal Advisory Committee Act (FACA) violation by the Payette National Forest (PNF), the findings/recommendations (commonly referred to as the Payette Principles) of the PNF Science and Advisory Committees cannot be directly cited by the USFS (and by extension, by BLM), although they can be referenced in discussions and management decisions concerning domestic sheep grazing in/near bighorn sheep habitat. The USFS General Technical Report 209 (written by Tim Schommer and Melanie Woolever) was withdrawn because the Payette Principles were directly referenced, not because there was any problem with the science behind the document. The USFS is currently working on a rewrite of that GTR. In June 2007 (and endorsed by the WAFWA Directors in July 2007), WAFWA’s WSWG wrote a 27-page report with recommendations for management of domestic sheep/goats in bighorn sheep habitat. On page 5 of that WAFWA report, it states that the Payette Principles were used as a foundation for the WAFWA report. Since BLM and USFS had requested WAFWA to develop this report, and since now neither agency can cite the WAFWA report, it is obvious that the WAFWA document needs to be updated/revise, to not only incorporate new information, but also to strike language tying the WAFWA report to the Payette Principles. Kevin has agreed to take the lead in updating this WAFWA document. **Action Item: A draft will be provided by Kevin to the WSWG (including members of the original WSWG #1 that wrote the June 2007 document), no later than March 15, 2010, and comments are due back to Kevin no later than April 1. Mike Miller, Dale Towell, and others offered to help with this revision.**

**Updates on Bighorn Sheep Die-offs:** Kevin recounted the 2-hour WSWG teleconference on January 20, 2010 that included wild sheep managers and wildlife veterinarians, noted that minutes from that teleconference were distributed to the WSWG and Wildlife Health Committee (via Kristin Mansfield), and stated that this next session was basically a continuation of the 1/20/10 teleconference discussion.

**Montana** (Tom C.): Recent bighorn pneumonia die-offs have been observed in at least 4 herds. In December, the E. Fork of the Bitterroots had a die-off; there are some “hobby-herd” domestic sheep in the area, although no contact between DS and BHS has been documented. In early January, there was a die-off observed in Bonner. This herd has had increasing contact with the urban interface since the 1980s, and there are “hobby herd” DS in that area, as well. Again, no documented contact between DS and BHS. There are pockets of healthy BHS nearby, and in an effort to contain the pneumonia, MTFWP has, and will continue, to euthanize sick bighorn. They will conduct flights every few weeks, and MTFWP has a survey scheduled for this spring, to see how these BHS are faring. At the end of January, there was a die-off recorded in Upper Rock Creek; this herd will not be aggressively culled, but samples will be taken. So far, 76 bighorn in the Bitterroot, 85 bighorn in Bonner, and 15 in lower Rock Creek have died or been culled. Die-offs likely originate during the rut. MTFWP would like to work on an educational campaign regarding the dangers of mixing domestic and wild sheep. MT has had 18 die-offs since 1984, with mortality ranging from 30-90% of the herds.

**Nevada** (Mike C., Peri W.): BHS herds in the E. Humboldts and the S. Ruby Mountains are experiencing die-offs. There have been 33 and 8 recorded BHS mortalities, respectively, to date. The antibiotic Draxxin has been administered to ~34 BHS in the E. Humboldts, and 19 BHS in the Rubys. 4 ewes were radiocollared in the E. Humboldts, and 3 in the Rubys, all of which showed clinical signs of pneumonia, and all of which are still alive. These results are extremely preliminary, and no conclusions are being drawn at this time. They are being cautious about advertising these results, because of the concern that they will be over-interpreted. There are domestic sheep in both areas, although nose-to-nose contact has not been observed. A necropsy of a ram in the E. Humboldts showed him to be in poor body condition, with severe pleural adhesions. A necropsy on a lamb in the Rubys showed him to be in better condition, with pleural adhesions not as severe. Biologists/wildlife vets are planning add'l investigations into these herds, including looking at pathogens, body condition, forage quality, trace minerals, precipitation, location of domestics, effectiveness of Draxxin, etc.. They plan to mark more animals in the next few weeks and treat some with Draxxin and not treat others, to see if Draxxin might help. Cattle near the E. Humboldts tested positive for pneumonia, but it is unknown if there is any connection.

**Washington** (Kristin M.): There was a die-off that began in early December 2009 in the Yakima River Canyon. The N Umtanum BHS herd on the W side of the river (N=~200) showed ~90% coughing, but mortality has not been that high. The S Umtanum BHS herd on the W side of the river showed much lower % of BHS observed coughing (~20%). On the E side of the river, no coughing BHS had been observed for several weeks, then coughing BHS were documented near Selah Butte. Concerns heightened about continued transmission to other BHS in this meta-population. To date, 14 BHS mortalities have been found, all tested + for *Mycoplasma*. WADFW plans to cull some BHS showing clinical signs to reduce the number of infected animals, prior to lambing season and anticipated mixing on summer ranges. This is a pilot study; one objective is to learn if it is feasible to implement this type of approach. Of the BHS necropsied to date, they seem to be in good body condition, without pleural adhesion or much nasal discharge. WADFW had plans to bring in BHS from the Sun River Range in MT (not from the sick BHS herds), but the WA state vet will not allow it. He does not want to bring in “sick bighorns” and then have domestic sheep blamed for it, and have domestic sheep grazing taken away.

**California** (Tom S.): The White Mountains is one of the largest bighorn populations. This herd of ~350 migratory bighorns was started in the 1980s. In 2006, there were some reports of sick BHS, but there was not a big die-off documented. Recruitment has remained low. There are a few documented cases of bighorn mixing with domestic goats, and at one point there were ~25 domestic sheep in bighorn habitat, although no direct contact was observed.

**Disease Protocols:** Kevin noted that during the 1/20/10 teleconference, it was suggested to possibly compile protocols for how to respond to a BHS die-off; this could be contracted out, perhaps to a retired wild sheep biologist or wildlife vet. Also, it was suggested to put together a synopsis of what we know about pneumonia, and evaluations of various treatment options pursued during winter 2009-10 by the agencies involved with these BHS die-offs,

perhaps for the 2010 NWSGC meeting in Oregon in early June. Emphasis should be put on evaluating and following up on management actions/responses, to see if they worked, because the media has a way of stating that an action was taken with the implication it worked, and suggest it should be applied elsewhere. Wayne Heimer put together his thoughts on a bighorn pneumonia disease model, and encouraged the WSWG to take a look at it.

### **Wednesday (February 3<sup>rd</sup>)**

**Round Robin Discussion:** (cont'd) major/recent WS happenings in each jurisdiction

**New Mexico** (Eric R., Elise G.): Desert bighorn were down-listed to a state threatened species in December 2008, and current population estimates are 500 animals. We are working with CO on a governor-initiated wildlife corridor project to help protect important areas near the state line. We are working toward possibly expanding the desert bighorn hunt to other herds, in addition to the Peloncillos.

**Oregon** (Don W., Fozz): CA bighorns are stable or declining, although there is no indication of disease. There was a transplant out of the Diablo herd to WY in early December 2009. There is a tremendous problem with habitat damage from wild horses; 103 horses were removed from the Diablos shortly after the BHS capture/transplant of 20 head. Fecal N tests to look at nutritional status are planned, in the wake of this BHS capture/transplant and removal of >100 horses.

**Colorado:** The Commission approved the CDoW statewide bighorn sheep management plan.

**Nevada** (Mike C., Matt J.): Nevada's Wildlife Commission has mandated NDoW to conduct predator control in conjunction with BHS releases. Bighorn are being restored to Great Basin National Park. Contagious Ecthyma (CE) has been observed in ??? bighorn herd; this could be a result of 300 bighorn and 3,000 wild horses causing damage to the habitat – the vegetation has sustained a huge impact. BLM received approval to capture/remove 2,500 horses. In another herd (where?), Rocky Mountain bighorn rams travelled ~ 100 miles and bred with a herd of desert bighorn to form a hybrid population. In cooperation with the USGS, 33 desert bighorn have been marked in the River Mountains. They hope to collar 36 bighorn in the Desert National Wildlife Refuge.

**Montana:** There are 45 populations in the state. The BHS Conservation Strategy was approved by their Commission. It contains history and management plans for each population.

**BLM** (Amy K.): working on eco-regional assessments; there are 6 assessments under way, to date. State agencies are encouraged to work with the local BLM offices to get biological data layers to them.

**USFS** (Melanie W.): The new FS Planning Rules were considered aspirational and not prescriptive, therefore they were thrown out, and the 1982 forest planning language is being used, once again. It puts states in a better position to work with the USFS on the new planning rules. Amendments to existing forest plans can be created regarding how to deal with vacant sheep allotments – such as getting them closed or converted, if the opportunity arises.

**Northern Wild Sheep and Goat Council, June 7-11, 2010, Hood River, OR:** Don W. encouraged everyone to submit abstracts. The Call for Papers and all information on registration, logistics, etc. is available on the ODFW website <http://www.dfw.state.or.us/wildlife/NWSGC/index.asp>. This year, there will be an on-line survey form for each state, province, and territory to complete, regarding wild sheep population status, management challenges, etc.; this information will be synthesized into 1 presentation and a hard-copy handout will be distributed to symposium attendees (and available later on to those who cannot attend). The deadline for responses to this “Survey Monkey” will be in April. Kevin queried the WSWG, to see who might be planning to attend the NWSGC Symposium in Oregon: **NO** - AK, AZ, TX, YK. **MAYBE** - NM, ND, AB, SD, FS, BLM. **YES** - BC, CA, CO, OR, ID, MT, NE, NV, UT, WA, WY. A WAFWA WSWG meeting will be planned, probably an evening meeting.

## **Payette National Forest presentation/Q&A(Pattie Soucek, Chans O'Brien, Josh O'Brien, Tim Carpenter)**

The PNF produced an EIS as part of the new Forest Plan; it was released in October 2008. The EIS was appealed, and consequently a draft supplemental EIS was written. The appeal was made on several points, with disease transmission to bighorn sheep from domestic sheep not being adequately addressed as a key point. The assumption that disease transmission could occur was not challenged, but the risk was not analyzed. The original EIS said that domestic sheep grazing could occur with no negative impact to wildlife. The Regional Forester was instructed to 1) conduct a bighorn viability analysis for the Payette, 2) ensure habitat availability for a viable population of bighorn, 3) support determination of compliance with Hell's Canyon National Recreation Area plan, and 4) amend the PNF Forest Plan to add direction that insures bighorn viability.

Many public comments were received: "save bighorn", "save domestics", "keep risk of contact near zero", "provide for Treaty Rights with Tribal Nations", "use science", and "conduct economic analyses". As a result, the USFS developed the following analyses: source habitat, core home range, contact risk, disease spread, community and regional economic impacts. Analyses included the effects on BHS, rangeland resources, tribal rights and interests, socio-economics, and environmental justice. The state and tribes had cooperator status (except for 2 tribes who backed out and opted for formal consultation).

For core habitat analysis, the telemetry relocations and habitat assessment were seasonally divided into May-October (when domestic sheep were present on the forest), and November-April (when domestic sheep were not present on the forest). Habitat use was further refined using a ruggedness index, restricting elevation to  $\leq 4,800'$  on S-facing slopes in the winter, and taking out areas covered with snow. They compared this model with  $\sim 12$  years of BHS telemetry location data, and found that adding these restrictions had only minimal impacts on correlations with the telemetry locations. They then looked at the frequency and distributions of forays outside of the core home range; the maximum foray distance was  $\sim 35$  km. Bands were drawn around the core habitat area in 1 km increments; these were used to calculate annual probability of contact.

6.5% of ♀ and 28.8% of ♂ leave the core home range at least once in their lifetime; 1.5% of ♀ and 14.1% of ♂ leave the core home range at least once in a given year. 0.2% of ♀ and 4.4% of ♂ had telemetry points outside of the core home range.  $\sim 50\%$  of ♂ have forays of 10 km, and  $\sim 15\%$  of ♂ foray at least 20 km. The further the animal moves from the core area, the more likely it is to encounter/use unfavorable habitat. These data are based on both resident (i.e., native) and transplanted BHS in Hell's Canyon. The data are extrapolated to the Salmon River drainage, where there are no transplanted BHS. Transplanted BHS are known to roam further, therefore an analysis of only resident BHS could also be useful. The analysis likely underestimates forays as the longer, infrequent forays may not have been detected. Because the analyses do not take into account other risk factors that are known to be there but are not easily quantified, the analysis is conservative and likely underestimates risk to BHS. These data were overlapped with the DS allotments to determine a contact rate between the 2 species.

There is no data available on the probability that contact leads to disease; therefore it was modeled at various levels between 5-100%. The following factors were integrated into the model: probability of contact between BHS and DS, probability of bighorn-bighorn transmission, probability of an outbreak, initial herd infection status, outbreak impact, duration of infections (1-4 years), and duration of adverse impacts (4-10 years). Through these model runs, it is possible to compare management options, relative to risk. It was suggested to change the word "contact" to "association". Although it is just semantics, it is difficult to define "contact", and "association" might be a better term.

There are occasions where DS move outside of their allotment boundaries, and there are instances when a stray DS is there overwinter. There is very poor data on this, but they are working to incorporate this in some of the models. The USFS policy regarding an errant DS is to try to get it back with its owner; if that does not work, then the sheriff gives IDFG permission to remove stray DS.

An economics impact analysis was conducted at both a community and regional level. Grazing fees, production values, hunting values, etc. were considered. The number of jobs in the region in the DS industry is ~37. In the communities analyzed, there is ~\$650,000 in revenues from the DS industry.

Tribal rights were also addressed. Tribal hunts are to be allowed for, and should be allowed in traditional hunting areas. Tribes were resistant to sharing harvest and hunting data, therefore this analysis was more qualitative than quantitative.

In the original EIS, there were 7 management alternatives presented/analyzed. A variety of new alternatives are presented in the supplemental DEIS. Under various alternatives, DS allotments are removed from areas that have the highest risk factor for contact with BHS, and other alternatives remove a greater number of DS allotments. The SDEIS focuses on maintaining separation between the species, not on reacting to the situation once contact has occurred. Monitoring the BHS herds to learn if they are moving close to DS is required, with a focus on the high-quality habitat areas where DS are present or nearby. Intensive monitoring needs to be done within the existing budget; if resources are not available to monitor the situation, then DS will not be allowed to graze in the area. If BHS move close to DS, the USFS cannot direct the state agency (i.e., IDFG) to move the bighorns, they can only change the DS situation. Population goals for BHS are specified in the IDFG management plan.

Timeline: The document should be published in the Federal Register in the next week or so, which starts a 45-day comment period; a final decision is expected in May 2010. The adopted alternative can be implemented with 30 days, and does not have to wait for the appeals process to be exhausted before moving forward. Several public meetings will be scheduled in the next few weeks. It is likely that the preferred alternative, if adopted, will result in a decrease of ~90% in DS grazing. Results of this EIS will likely be precedent-setting, as there are other Forests that have more DS grazing and a great number of DS permittees/producers involved. There is a possibility of listing the Salmon River BHS herd under the ESA as a distinct population segment.

BLM went to court over DS grazing in areas (e.g., Partridge Creek allotment) adjacent to the PNF, and in all cases, the courts closed the DS grazing allotments; this has not happened yet on USFS lands. There are < 50 families in the western United States who graze DS on public lands that are in occupied BHS range. There are 4 DS permittees on the Payette. Patti S. and Chans O. are available for further discussions, if folks want to visit more on this topic. The PNF folks appreciated the opportunity to present this information and their analyses to the WAFWA WSWG, and others.

### **Miscellaneous**

Kevin informed the WSWG that Sunday, July 18<sup>th</sup> is the date scheduled for the WAFWA WSWG meeting in Anchorage, AK. Kevin will report to the WAFWA Directors on Wednesday July 21<sup>st</sup>. Kevin asked for a show of hands of which agencies thought they could possibly attend the summer meeting; only 1-2 reps thought they would be able to attend. ***Action Item: Given travel restrictions and agency budgets, we will request that Jim Karpowitz write a letter to state/provincial/territorial wildlife directors reminding them of the importance of sending their representative to the summer 2010 WSWG meeting in Alaska.***

Kevin reminded the WSWG that he is still a 100%, full-time employee of WGFD, with 50% of his time dedicated to chairing this WAFWA WSWG. Nine wild sheep NGOs (46%) and 17 states/provinces/territories (34%) help fund Kevin's position, with WGFD putting up the remaining 20%. This position was originally approved for a 2-year time period, and this position is set to expire January 31, 2011. Unless an extension is granted, Kevin will have to retire from WGFD at that time; Kevin and Jim Karpowitz have held very preliminary discussion about Kevin continuing this chair position, possibly working ~½ time directly for WAFWA. The WSWG discussed the importance of continuing this Wild Sheep Working Group, and trying to retain Kevin as the WSWG chair, especially given the number of issues facing wild sheep in the western U.S. and Canada, and the enhanced coordination/communication which has resulted from this WSWG. Meeting adjourned 1150 hours.