



# Wood Bison News



Drawing courtesy of Wes Olson

Issue Number 5, Fall 2010

## Target Date for First Wood Bison Release Set for Spring 2012

By Randy R. Rogers, Wildlife Planner

Nearly two years have passed since the winter 2008-2009 issue of the *Wood Bison News* was published, where we highlighted the successful import of wood bison from Canada. To people interested in the wood bison restoration project, but not involved in the details, it might seem like progress is slow or nonexistent. However, this is not the case. The Alaska Department of Fish and Game (ADF&G), the Alaska Wildlife Conservation Center and many others have been working diligently to move the project forward. We are carefully addressing the many issues involved and the pieces of the wood bison puzzle are beginning to fit together.

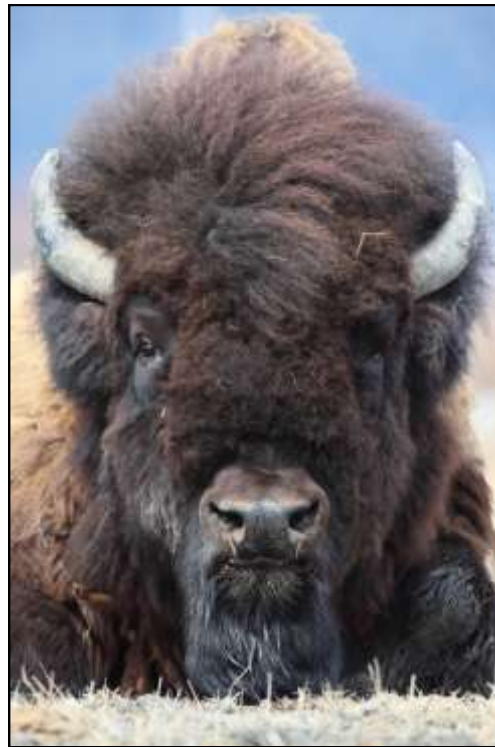


Photo by Doug Lindstrand

This issue of the *Wood Bison News* details the progress we are making on several fronts. The wood bison health testing program is nearly complete and the herd is healthy and growing. A major effort is underway to establish regulations that will change the status of wood bison in Alaska under the Endangered Species Act. The U.S. Fish and Wildlife Service will complete the proposed regulations in the near future. These regulations will be available

for public comment and should address concerns about potential impacts on other resource development activities and help clear the way for the initial release of wood bison.

Funding for the initial release is fairly well set with the award of a grant from the Wildlife Conservation Society and additional funding through the State Wildlife Grant program. This winter we will initiate planning and prepare for the first release of wood bison in the lower Innoko River area in spring 2012. We hope that success in the Innoko area will help clear the way to restore wood bison in other areas. A release in 2012 depends on completion of several important tasks. However, as noted by Division of Wildlife Conservation Director Corey Rossi, "*we are beginning to see the light at the end of the tunnel.*"

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## Lower Innoko River Area Wood Bison Planning to Begin

ADF&G will begin a cooperative planning effort for wood bison restoration in the lower Innoko and Yukon River area in spring 2011 (see map on page 3). According to a habitat study conducted in 2003-2004, the lower Innoko/Yukon River area offers abundant forage and could support a minimum of 400 wood bison. The study also identified a large amount of potential habitat outside the intensively studied area which could support many more bison. The report noted concerns about extensive spring flooding in the area and the sometimes deep, late winter snowpack. These conditions could pose extra challenges for **wood bison restoration, but overall the area's** habitat makes it one of the three best sites in the state, along with Yukon Flats and Minto Flats.

The Grayling, Anvik, Shageluk and Holy Cross (GASH) Fish and Game Advisory Committee and the Western Interior Regional Subsistence Advisory Council have supported wood bison restora-

tion in the lower Innoko area for several years. In October 2009 the GASH villages which comprise the Tanana Chiefs Conference Lower Yukon Subregion passed a joint resolution stating the **subregion "supports the Wood Bison Restoration in the Lower Yukon/Innoko River area and supports ADF&G to proceed to involve the tribes, local residents, Doyon, Ltd., and Tanana Chiefs Conference to develop a plan for reintroducing wood bison in our homelands."**

During the 2009 Alaska Federation of Natives meeting in Anchorage, members of the GASH village councils visited the Alaska Wildlife Conservation Center (AWCC) to get a first-hand look at the wood bison that might be set free in their area. Mike Miller and AWCC provided a great tour that was enjoyed by all. It is great to have the enthusiastic support of local residents to restore wood bison in this area!

Another important factor involved in the decision

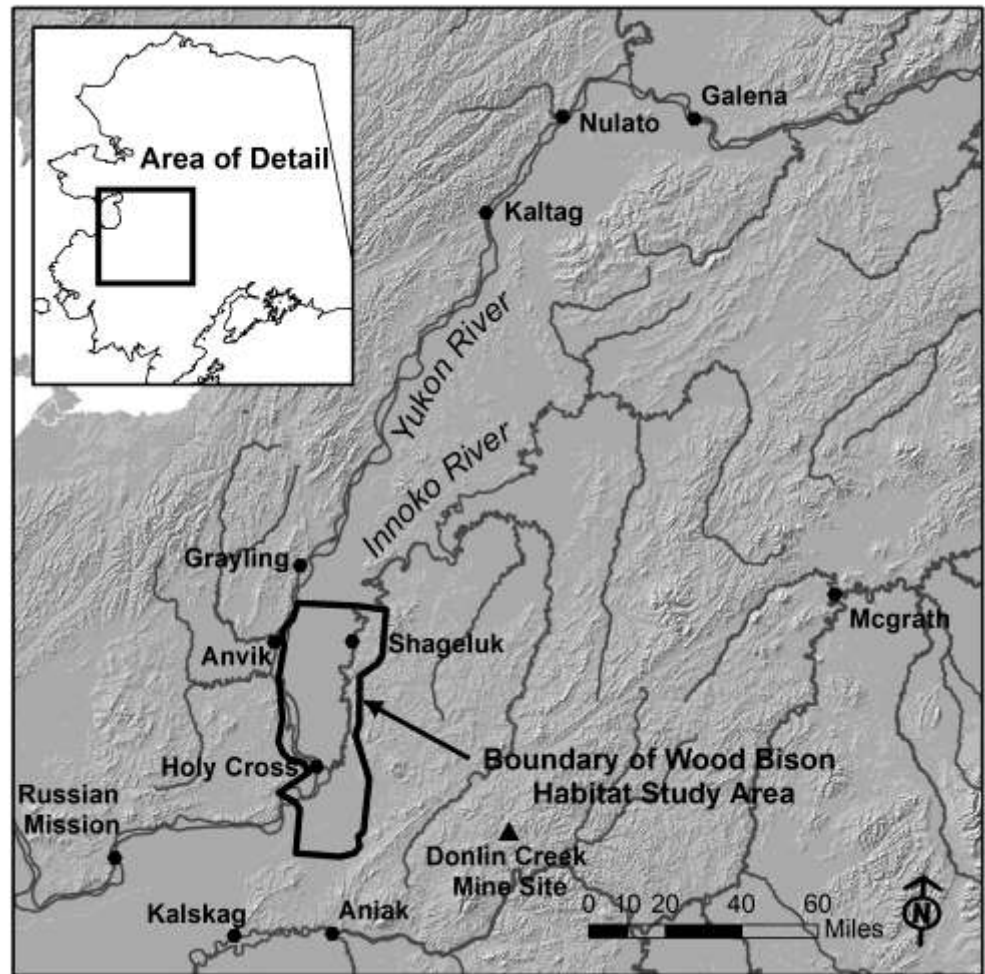


People from the lower Yukon/Innoko communities and friends visited the wood bison at AWCC in October 2009.

to start planning for the Innoko site first is concern about possible impacts on other resource development activities due to the Endangered Species Act (ESA). As people who have been following the wood bison project may recall, in 2007 ADF&G proposed to begin planning for the Minto Flats site first. In January 2009 Doyon, Ltd., the regional Native corporation for interior Alaska, distributed a report that outlined their concerns that wood bison reintroduction could result in restrictions on oil and gas or other resource development.

The state is also concerned about potential effects on resource development due to the ESA and wants to proceed with wood bison reintroduction in the most cautious and prudent manner possible to ensure that other resource development activities **are not impeded. As a result, the Governor's Office** asked ADF&G to work with the Alaska Department of Natural Resources (DNR) to evaluate the potential for other resource development at the three sites being considered for wood bison restoration and other areas to determine where wood bison could be reintroduced with the least risk to other resource development proposals.

Doyon is actively exploring for oil and gas on Yukon Flats and Minto Flats. There is also a proposal to construct a natural gas pipeline from



Map showing the location of the lower Innoko River wood bison habitat study area

the North Slope to Anchorage and one possible route would cross the eastern edge of Minto Flats. DNR is proposing to move forward with the Nenana-Totchaket agricultural project west of Nenana and is concerned that if wood bison are reintroduced on Minto Flats it might result in conflicts with agriculture similar to those involving the Delta plains bison herd. There is less potential for oil and gas or mineral deposits and no major resource developments proposed at the present time within the lower Innoko wood bison area. The proposed Donlin Creek mine is located about 30 miles southeast of potential wood bison habitat; however the prospect is located in hilly terrain where wood bison are not likely to go.

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*Overall, the evaluation indicated that the lower Innoko area has the least potential for conflicts with other resource development and is therefore the most feasible place for the first release of wood bison into the wild.*



Extensive meadow systems mixed with forest along the Innoko River can provide high quality wood bison habitat.

ADF&G is working with the U.S. Fish and Wildlife Service, The Alaska Department of Law and DNR to develop special regulations designed to ensure that wood bison reintroduction does not restrict other resource development or land uses (see *New ESA Regulations* page 9). Once federal regulations are in place and have been evaluated by interested parties, we hope to proceed with planning efforts for the other areas. An important consideration is that Yukon Flats has the largest amount of high quality wood bison habitat in Alaska. Reestablishing a population in this area has the potential to provide the greatest benefits for people and for bison conservation over the long term.

ADF&G will conduct a cooperative planning proc-

ess for each site where wood bison restoration is pursued. These planning efforts will involve all stakeholders including local and non-local residents, conservation groups including sportsmen's, environmental and Native organizations, resource development interests and affected state and federal agencies. Through these planning efforts we will determine the best location for each release site, establish initial herd size objectives, develop information and education programs to promote wood bison conservation and establish plans for monitoring each herd and other biological resources. We will also look to the future, to a time when each herd has grown enough to allow hunting, and work to develop strategies to ensure that local, non-local and, eventually, non-resident hunters have opportunities to harvest wood bison.

*Later this winter ADF&G will send out an announcement to begin the planning process for the lower Yukon-Innoko River Area. We will seek nominations for people who can represent various interests on a planning committee. Please let us know if you have time and interest in working with us to develop plans for the first reintroduction of wood bison into the wild in Alaska.*

## Breeding Season at AWCC

*“We need to lay out a strategy for the wood bison breeding season, and decide whether to separate certain groups, and also which bulls will mix **with the cows this fall,**”* Mike Miller said last June as he looked ahead to the annual wood bison rut. The bison breeding season extends from late July to October and is an important time for the bison herd at the Alaska Wildlife Conservation Center (AWCC). Mike wanted to design a breeding plan that would result in a good calf crop and also maintain genetic diversity in the herd.

Of course, if all of these bison were in the wild, they would sort this out among themselves. Through the ages, bulls have sparred and fought for dominance and the chance to breed. As the rutting season progresses, different bulls assume dominant roles. Genetic studies show that several bulls are likely to father calves in a herd each year. Another bull is

*A key goal is to maintain as much genetic variability as possible by increasing the chances that more than a few bulls will be involved in breeding.*

always ready to step in if a dominant bull tires for even a short time. In wild herds there is plenty of space for bulls to spar with one another in these dominance contests.

Since our bison are still in captivity, we had to do things a bit differently. A key goal is to maintain as much genetic variability as possible by increasing the chances that more than a few bulls will be involved in breeding. In addition, the limited amount of pasture makes it necessary to rotate groups of animals among the various enclosures at AWCC. It is not practical to put all of the animals together for long periods. Furthermore, fences are more likely to be damaged if all of the adult bulls were mixed together during the rut.

At AWCC there are about 40 cows old enough to have calves and eleven bulls old enough to breed.

We considered three issues. We wanted to maintain or increase the genetic diversity in the herd, get the maximum number of calves possible, and minimize the risk of injury for all of the bison. Bison research indicates that in free ranging herds, bulls that are six to nine years old have the highest breeding success and sire nearly all the calves in a herd. At AWCC, we currently have 6 five-year-old bulls and 5 ten-year-old bulls. So far, the



Bull tending young cow during mating season

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Photo by Mile Miller

**Bull # 9881 shows strong wood bison characteristics. Note the hump that angles sharply to the neck.**

ten-year-old bulls have fathered nearly all of the calves born at AWCC. Bison research suggests that bulls ten years old and older might be less fertile, and also that bulls as young as three can breed successfully. However, when six- to nine-year-old bulls are present, they usually keep younger and older bulls out of the breeding picture.

Since the 6 five-year-old bulls are a source of different genetics, this year Mike and ADF&G bison biologist, **Bob Stephenson**, decided to keep the five “old boys” isolated during most or all of the breeding activity, to allow the younger bulls to do most of the breeding. The ten- year-old bulls are being kept in a separate enclosure well away from the breeding groups. As for the other bulls not being old enough, the five- year-olds should easily be capable of breed-

ing successfully. The cows and juveniles have been split into two groups, and 3 five-year-old bulls were introduced to each group in early August. Mike is impressed with one bull in particular, which has tag number 9881. In an email he wrote:

*“The first signs of the rut are evident as the bulls are begging to spar and are becoming increasingly active. Canadian born, 5 year old bull # 9881 is exceptional. He shows strong wood bison characteristics. His attitude also makes him a valuable breeding bull. When I move bison to a new pasture he will hold his ground and challenge the four*

*wheeler. We should breed for aggressiveness and attitude, qualities that will be beneficial in the **wild.**”*

Mike also began feeding modest amounts of grain to cow bison about a month before the rutting season, which helps the cows start the estrus cycle early, so that calves are born in the spring and have the entire summer and fall to grow. Calves born in late summer are at a disadvantage. Bull 9881 and five others now have the opportunity to father the 2011 generation of wood bison calves.

**Final note:** The breeding season went well and all cows appear to have been bred in their first cycle. We are looking forward to a good calf crop next spring.



## Special Thanks to AWCC: Our Key Partner in Wood Bison Restoration

The wood bison restoration project would be somewhere between very difficult to downright impossible to continue if it were not for the commitment from the people and the facility at the Alaska Wildlife Conservation Center (AWCC) near Portage, Alaska. Encompassing 175 acres at the head of Turnagain Arm, AWCC is a non-profit organization dedicated to wildlife viewing and education in a natural setting. AWCC **provides for the daily care and feeding of Alaska's wood bison herd through a cooperative agreement with ADF&G. That's only the beginning of AWCC's vital role in the Alaska wood bison restoration project.**

The driving forces behind the day to day maintenance and care of these magnificent animals are Mike and Kelly Miller who serve as AWCC's Executive Director and Director of Education. Last year Ethan Tyler was hired as AWCC's Development Director. In addition to these director positions AWCC has a dedicated staff, Board of Directors, and several enthusiastic college interns. All of these people



Bison eating hay that Mike and his crew spread every day

**work as a team to support AWCC's wildlife viewing and education programs. Over 100,000 people visit AWCC each year. The Millers' contribution to the wood bison project is even more notable when one realizes these tasks are all in addition to the other operations at AWCC.**



Mike and Kelly Miller with their children Owen, and Abigail

There are now 80-some wood bison at AWCC and Mike tends to them every day. At the very least the bison must be fed. Hay, approximately 250 pounds per day, must be taken to the various pastures and spread out so that the bigger bison are not chasing smaller ones away and all of the bison have a chance to eat. Even during the summer when the animals are grazing, Mike must rotate them from pasture to pasture. This summer AWCC put forth an extraordinary effort to clear brush, fertilize and plant grass to maximize natural forage production in the wood bison pastures. The Millers and their staff repair fences, maintain the handling

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facilities, take care of numerous requests from those of us from ADF&G, and in general provide support beyond what we really know but can only imagine.

Beyond feeding, the Millers accomplish a full spectrum of other tasks involved with care of the wood bison herd. They are the first to notice health problems; then Mike works with ADF&G Wildlife Veterinarian Dr. Kimberlee Beckmen and others to determine how to best address any health issues. As an example, when a parasite problem was identified through fecal tests, Mike had to devise and implement the right feeding strategy to ensure that each bison received the necessary amount of grain with the de-worming supplement. The Millers are the first to see and provide care for newborn calves. At times Mike has had to report bison mortalities and work with Dr. Beckmen and State Veterinarian Dr. Bob Gerlach who conduct necropsies to ensure there are no health problems that could affect the entire



AWCC hosted a meeting and tour for U.S. Fish and Wildlife Service Alaska Regional Director Geoff Haskett.

herd or other animals.

When the wood bison are run through the handling facility for health testing, AWCC has stepped forward to provide extensive support. During these handling events 20 to 40 people including veterinarians, biologists, and other handlers, converge on AWCC for a full week. Several AWCC staff and board members play vital roles such as squeeze chute operator Rick Henry and Steve Mendive. Mike and Kelly feed all of us, lodge some of us, provide facilities for the veterinary crew to work, and in general give extraordinary efforts to make the events go as smoothly as possible. The Millers have a wonderful way of making all of us welcomed as though we were family. In fact, they include their own family of two little children, Abigail and Owen at most of the gatherings.

The people at AWCC play a large role in educating the public about the wood bison restoration project. Wood bison are a regular feature in the AWCC newsletter *The Animal Ambassador*. AWCC hosted the Wood Bison Welcoming Ceremony held in July 2008 to celebrate the import of bison from Canada. They helped arrange a wood bison project display in the Sears Mall in Anchorage and have conducted presentations at the Alaska Travel Industry Association and other forums. AWCC is always willing to provide tours and detailed explanations of the wood bison project. For example, AWCC provided a tour for members of the Anvik, Shageluk, Grayling and Holy Cross Village Councils during the October 2009 Alaska Federation of Natives conference. They also hosted a meeting and tour for U.S. Fish and Wildlife Service Alaska Regional Director Geoff Haskett, ADF&G Director Corey Rossi and other agency staff last June. The Millers added their special brand of welcome to all of these events.



AWCC does not charge ADF&G for the daily care of the bison. Instead, the value of their services is credited as an in-kind donation for the ADF&G's State Wildlife Grant (SWG) Wood Bison Restoration Project. This in-kind donation has enabled ADF&G to obtain matching federal funds to support other wood bison project activities. In addition to their own substantial in-kind contributions, AWCC has taken a lead role in obtaining other partners for in-kind contributions. Even before it was possible to match funds through the SWG program, AWCC obtained the support of the Anchorage and Kenai Chapters of Safari Club International to provide funding for the health handling corral, squeeze chute and other facilities and equipment.

The complete list of in-kind partners is a long one, but the main message is that AWCC has been front and center in developing these partnerships. As a prime example, AWCC obtained the support

of Carlile Transportation to haul hay and other feed to AWCC for the wood bison as an in-kind contribution (see back cover photo). Mike, Kelly and all of AWCC cheerfully take on any task necessary to help advance the wood bison project. When the red tape and bureaucracy involved in the project begin to seem overwhelming it is reassuring to know that people such as the Millers and organizations such as AWCC are working tirelessly to see the vision of free-ranging wood bison in Alaska become a reality.

In addition to wood bison AWCC has other animals such as moose, elk, musk ox, bears, eagles, and coyotes. At one time they had a herd of plains bison, but those were sold to make room for the growing wood bison herd. Visit the web site [www.alaskawildlife.org](http://www.alaskawildlife.org) to learn more about AWCC.

## New ESA Regulations for Wood Bison in Process

The U.S. Fish and Wildlife Service (FWS) is cooperating with the State of Alaska to develop special regulations for wood bison in Alaska under the Endangered Species Act (ESA). These regulations are intended to address concerns of development interests about potential restrictions on other resource development related to the provisions of the ESA.

**Wood bison are currently listed as "endangered"** under the ESA, but the two regulations that will be proposed later this year would change this status. One is a special rule that will designate **wood bison in Alaska as a "nonessential experimental population," or NEP, under section 10(j)** of the ESA, and then specify how they will be

managed. The special rule is designed to promote the conservation of wood bison and ensure that other land uses and natural resource development projects are not impeded by complications related to the ESA. Critical habitat cannot be designated with a NEP designation in place, **The special rule will also allow "incidental take"** so that if wood bison are harmed or killed during resource development or other lawful activities, enforcement actions will not be taken.

FWS is also reevaluating the current ESA listing as endangered and may change the status of **wood bison to "threatened" throughout their** range, or possibly remove wood bison from the list of endangered species. The proposed rules

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are likely to be published in late 2010. Once public comments have been evaluated, final rules will be published, and FWS hopes to finalize the NEP designation late next summer. Bison cannot be released until the NEP designation is in place, and an Environmental Assessment (EA) has been completed according to the requirements of the National Environmental Policy Act. The EA will be available for public comment at the same time as the proposal to designate wood bison in Alaska as a NEP. The State of Alaska will not reintroduce wood bison until regulations are in

place that will prevent adverse effects on other resource development activities that are important to Alaska's economy.

*When the Fish and Wildlife Service publishes the proposed regulations in the Federal Register, ADF&G will inform people of the opportunity for public comment. This will be an important milestone in the wood bison restoration effort, and we encourage interested people and organizations to review and comment on proposed regulations.*

## Wood Bison Project Awarded Grant From the Wildlife Conservation Society

Recently the Wildlife Conservation Society (WCS) announced that Alaska's wood bison project had been awarded a grant of \$152,350 to help complete the initial reintroduction of wood bison to the wild. This was one of 17 grants awarded to conservation projects around the country with funds provided by the Doris Duke Charitable Foundation and managed by the WCS through its Wildlife Action Opportunities Fund. This program provides grants to conservation organizations, state fish and wildlife agencies, and tribal governments for innovative conservation projects that involve strong working partnerships and focus on implementing priority conservation actions identified in strategic habitat conservation plans. The wood bison project has so far been supported mainly with private donations and federal funds provided through the State Wildlife Grant (SWG) program. Funding from the Turner Foundation enabled ADF&G to import wood bison from Canada in 2008. The new WCS funds will also be used to match federal funds obtained through the SWG program.

**The Wildlife Conservation Society** was founded in 1895 with the goal of conserving wildlife and wild places. In addition to supporting worldwide conservation programs around the world, the WCS manages several wildlife parks in New York including the Bronx Zoo and Central Park Zoo. In the late 1800s and early 1900s the Bronx Zoo helped conserve some of the last remaining plains bison in North America. In 1905, Theodore Roosevelt and other conservationists formed the American Bison Society to save plains bison from extinction. Plains bison numbers have increased, and they are no longer in danger of extinction, but most are privately owned. In 2007, the Wildlife Conservation Society reestablished the American Bison Society to help increase the number of free-ranging bison. The WCS Institute has supported Alaska's wood bison restoration program on a national level for several years. **ADF&G appreciates the opportunity to work in partnership with WCS and the American Bison Society to advance bison conservation in North America!**

## Wood Bison Health Certification Nears Completion

For the last several years the wood bison at AWCC have undergone a comprehensive health testing and certification program with the ultimate goal of ensuring they are disease-free. Nearly all the required tests have been completed and the wood bison are well on their way to achieving the necessary health certification so they can be released to the wild.

The health testing program in Alaska is being conducted under the terms of a cooperative agreement between ADF&G, and the Office of the Alaska State Veterinarian within the Alaska Department of Environmental Conservation. The testing program includes the bison imported from Elk Island National Park (EINP) Canada in June 2008 (“2008 group”), the bison which had been transferred to AWCC by the U.S. Fish and Wildlife Service in 2003 (“2003 group”), as well as all offspring that have been born at AWCC. Like the imported group, the 2003 group also originated from stock from the EINP wood bison herd. Initially each group was kept in separate quaran-

ted pastures to ensure that if one group had a disease problem it would not affect the other.

The two diseases of greatest concern with national and international significance are bovine tuberculosis (TB) and brucellosis. For example, the plains bison herd in Yellowstone National Park is infected with brucellosis. Some herds of wood bison in Canada have TB, brucellosis, or both. From an agricultural standpoint it is critical that each state, including Alaska, maintains its certification by the U.S. Department of Agriculture (USDA) as “TB and brucellosis free.” We also must ensure that other Alaskan wildlife species are not exposed to these diseases. For those reasons we are taking extensive measures to be sure that wood bison herds established in Alaska do not have TB or brucellosis.

The wood bison herd at EINP has undergone surveillance for TB and brucellosis on a regular basis for over 30 years and is considered free of

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***Thanks to the many people who have helped to make the wood bison health testing program a success.***

ADF&G Wildlife Veterinarian, Dr. Kimberlee Beckmen, and Alaska State Veterinarian, Dr. Robert Gerlach, led the effort to establish the necessary health testing protocols included in the herd health management plan. They have collaborated with other veterinary and wildlife professionals and overseen the veterinary procedures during the handlings and necropsies as well as interpreted test results. USDA Area Epidemiologist, Dr. Tom Brignole, provided assistance with TB testing. The USDA contributed funding to evaluate a new TB test procedure. Stephanie Crawford played a key role in processing and shipping samples to various laboratories and tracking results. Numerous biologists and other staff from ADF&G, Office of the State Veterinarian, and AWCC assisted with the handlings, as did people from the U.S. Fish and Wildlife Service, Bureau of Land Management and students from the University of Alaska Fairbanks and Anchorage. People from AWCC, and in particular Mike and Kelly Miller, played a crucial role in all phases of the operation by ensuring the handling facilities were operational and that food, lodging and logistical support were provided for the handling crew.



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these diseases. Before the USDA issued a permit to allow wood bison from EINP to be imported to Alaska, they conducted an assessment which showed there is negligible risk that wood bison in



Bison in corral before being separated into smaller groups in the wooden chutes

EINP have TB or brucellosis (see the winter 2008-2009 issue of the *Wood Bison News*). The wood bison selected for possible import to Alaska were individually tested for TB, brucellosis and a variety of other diseases. Finally, based on the USDA risk assessment and negative disease test results the bison were cleared for import to Alaska by the Canadian Food Inspection Agency, the USDA, and the Alaska State Veterinarian. Before the bison were loaded into trucks to be transported to AWCC, each bison was inspected to ensure no winter ticks were present and then treated with an anti-parasite medication. The bison were even fed weed seed free hay before the trip to ensure that no exotic weed species were transported to Alaska.

Each health testing operation, or **“handling,”** requires a crew of 20 to 30 people including bison handlers, veterinarians,

biologists, and equipment operators. A handling involves bringing the bison into a large circular corral, and then separating them into small groups and directing them through a series of small wooden pens, and into metal chutes where each animal is held separately, then onto a scale to be weighed, and finally into a **“squeeze chute.”** The squeeze chute is a hydraulic apparatus that holds a bison tightly so it cannot move about and be injured, and so it cannot injure the people who are working on it. While in the squeeze chute, several things happen. If it does not

already have an ear tag, numbered ear tags are attached for permanent identification. The veterinarians and their assistants take samples of blood and feces to be tested for diseases, and samples of blood and hair for genetic testing. Veterinarians evaluate the general health of each animal, review the herd health management plan, administer any treatment necessary



*A good crew is essential to a successful handling.* Participants have included people from AWCC, ADF&G, the Office of the Alaska State Veterinarian, University of Alaska, U.S. Fish and Wildlife Service, USDA, and the Bureau of Land Management.

and make adjustments to the herd health plan as needed. All bison receive an anti-parasite medication to control internal and external parasites. The samples collected are sent to various laboratories for analysis. Some results are available within days, while others can take several weeks.

The first handling in Alaska was conducted in November 2008 and involved only the 32 bison in the 2003 group. A second handling event in March 2009 included the 2003 and 2008 groups of wood bison; however the two herds were kept separate for quarantine purposes. Once the results from the March 2009 tests showed there were no differences in disease or parasite exposure in the two herds, the quarantine was lifted and the two groups were allowed to mix. Since then they have been treated as one large herd.

In February 2010 we conducted the third health testing operation. This handling was more challenging. The entire herd of about 80 bison had to be handled twice in less than a week to conduct the **USDA certified "caudal fold" test for TB**. Veterinarians administered a TB injection on the caudal fold at the base of the tail, and then checked for a reaction to the tuberculin 72 hours later.



Bison is held safely in the hydraulic squeeze chute while veterinarian injects deworming treatment.

During each of the handlings a few adult bison refused to enter the chutes and had to be anesthetized so that the necessary samples could be obtained. During the March 2009 handling a large bull refused to enter the chute system and charged one of the handlers in the corral. Fortunately, he was not seriously injured. Because of this incident the handling procedures were modified to improve animal and personnel safety. For the most recent handling last February the five largest bulls were separated from the herd and anesthetized so they did not have to be moved through the handling facility. Even then, there were two other bison that would not enter the chutes and were anesthetized so their testing could be accomplished.

### Test Results

As expected, repeated testing has shown that the wood bison at AWCC are free of TB and brucellosis. Nearly all the test results for a wide variety of other diseases being monitored have also been negative. The few disease issues we have encountered are described below.

In November 2008, a genetic test of fecal samples showed that one bull was potentially positive

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Dr. Robert Gerlach (left) and Dr. Tom Brignole with Tom Seaton (above) taking samples from anesthetized bison

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for Johne's disease, a bacterium which already occurs in some livestock in Alaska. Johne's disease can cause chronic diarrhea and result in health problems in domestic herds of bison and other livestock. It is not known to cause significant health problems in wild herds. Two follow-up fecal tests on this bison were negative. However, to be certain the animal was not capable of spreading the disease the bull was euthanized so that more laboratory testing could be conducted to determine whether the animal was infected.

**Johne's disease bacterium** could not be identified, even with special stains and cultures, in any of the tissues taken during the necropsy and no abnormalities consistent with Johne's disease were found. Subsequent repeated testing and examinations have shown no signs consistent with **Johne's disease. All other fecal and serum tests** in the wood bison herd at AWCC have been negative.

Like any animal herd, the wood bison do have internal parasites that cannot be completely eliminated. However, the parasite loads are reduced and effects minimized by routine deworming treatments. Injections of antiparasitic drugs were given at handlings. The entire herd is being treated every spring and fall with an anti-parasite medication mixed in grain. In addition, the herd is rotated into new pastures to help reduce re-infection from parasite eggs that are shed in the manure and build up in contaminated pastures.

Most of the bison are also fed grain that has been mixed with diatomaceous earth, which may also reduce gastrointestinal parasites. Recently ADF&G Wildlife Veterinarian, Dr. Kimberlee Beckmen, reported that the results from fecal parasite screens conducted in summer 2010 **"are all acceptable and indicate the herd health plan and deworming treatments are effective."**

#### Births and Deaths

Thirty nine calves have been born since wood bison first arrived at AWCC in 2003. We have not encountered any infectious disease issues other than parasites, but there have been 16 mortalities,

with 11 of those since March 2009. While we can determine the cause of some deaths (e.g., traumatic injuries such as fighting or goring from other bison), in other cases the cause of death is not entirely clear. Most involved young bison, and a few

cases probably resulted from competition at feeding sites. Others may be related to stress and injuries that occurred during handling. Bison are known to harass one another more when they are stressed, or if they detect illness or injuries in other bison. Injuries that have occurred during competition for feed or in handling operations could have triggered attacks by other bison.

As part of the management plan, the wood bison are provided with supplemental hay and other feed at AWCC. Mike Miller and his staff distribute hay in several locations to reduce competition and allow all animals to feed. The Wood Bison Health Care Committee continues monitor the nutritional status of bison at AWCC and consult

*Repeated testing has shown that the wood bison are free of TB and brucellosis, the two primary diseases of concern.*



with bison experts in both Canada and the United States to ensure the bison are getting the best care possible. We continue to learn about wood bison. For example, because bison will lose weight during winter no matter how much they are fed, AWCC focuses on providing rich summer pasture and some grain supplements so the animals have adequate fat reserves in the fall and to help assure successful breeding and healthy calves each spring.



Photo by Bob Sutherland  
A newborn calf at AWCC with mother and curious on lookers. Cows are very attentive and protective of their newborns.

## Alaska and the Wood Bison Project Lose a Great Friend

**Alaska's wildlife and the wood bison project** recently lost a great friend and supporter when Anchorage resident John A. Morrison, 85, passed away on Sept. 19, 2010. John had a lifelong passion for the outdoors and the environment. He began his career as wildlife biologist and researcher in Montana and Idaho, and received a Ph.D. in zoology from Washington State University in 1965. John conducted biological research in Puerto Rico, Oklahoma and Colorado from 1965 to 1977. His studies included animal behavior and environmental impact assessments for energy development projects.



John Morrison talking at the wood bison welcoming ceremony at AWCC

In 1978 John moved to Anchorage to head the U.S. Fish and Wildlife Service's Information Management System. After retirement in 1985, he was an adjunct professor at University of Alaska

Anchorage and Alaska Pacific University. He worked for ADF&G from 1989 to 1995, and also volunteered extensively as a Boy Scout assistant leader, firearms training instructor, life coach for his grandchildren, and in supporting the Wood Bison Restoration Project. John received many awards for outstanding conservation work, and along with SCI, was an active supporter of wood bison since the early 1990s. John will be deeply missed by his many friends in Alaska and elsewhere.



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adfg=planning.main](http://www.wildlife.alaska.gov/index.cfm?adfg=planning.main)



Several organizations contributed funds to purchase a new John Deere tractor for the wood bison project. The banner above was printed as a sticker and posted in the back window of the new tractor, below right.



Once again, this fall Carlisle Transportation is delivering hay to the Alaska Wildlife Conservation Center to support the wood bison project. Carlisle's co-founder and CEO, Harry McDonald, stated:

*"We make this contribution because we really like the facility at AWCC  
and we believe in what they do there."*