Appendix H

BIGHORN SHEEP NECROPSY PROTOCOL

Introduction. Anytime a bighorn sheep dies naturally or is euthanized for management reasons, a thorough necropsy should be performed. Preferably, the entire carcass would be shipped to the Wyoming State Veterinary Laboratory (WSVL) so the necropsy can be conducted under controlled conditions (arrangements for delivery should be made with Hank Edwards of WGFD (307) 745-5865 or directly with WSVL (307) 742-6638). At times it is nearly impossible to deliver an intact carcass. When this occurs, trained personnel should perform field necropsies. This appendix is meant to serve as a check list and reminder of the tissues that need to be collected on field necropsies of bighorn sheep.

Methods. Please follow and fill out the necropsy form provided (additional forms available from Walt Cook at WSVL). Relevant animal information should be noted (location, disease history etc.). When possible, the animal can be weighed. Hair coat quality should be subjectively estimated. The hair coat should be thoroughly examined, and any external parasites noted and collected in a container filled with ethyl alcohol. Body muscle condition can be subjectively estimated on a scale of 0-5 (0=very poor; 5=excellent condition). Incisions can be made along the back at 1) tail base 2) cranial to hind quarter and 3) above the shoulder. Body fat is scored as follows: 0= no fat seen, 5= fat seen at 1 only, 10= fat seen at 1&2, 15= fat seen at all 3 locations. A subjective body condition can also be assigned (excellent, very good, good, fair, poor, very poor, emaciated).

The animal will then be opened per normal necropsy technique. The amount of fat may be measured (in mm) on the heart, kidneys, omentum and xyphoid. A femur may be cracked and the bone marrow examined for color and texture and taken for histology. Standard tissues should be sampled for histology; tissues need to be placed in a leak-proof container with plenty of 10% formalin (these are called “fixed” tissues). Be sure to sample at least 5 different areas of the lung. Any abnormal appearing tissues should be sampled for further evaluation at WSVL. A description of the abnormal tissue should be included on the necropsy form. Photographs of lesions/abnormalities are also useful.

All bighorn sheep should be submitted to the Wyoming State Veterinary Laboratory.
Bighorn Sheep Necropsy Form

Herd name/location ____________________________ Animal id (if any) _______

Location: Township _____ Range _____ Section ______ or UTM ________________

WSVL Accession # ____________________________ Date of necropsy _________

History/signs of disease prior to death:

Estimated Age ___________ Sex ___________ Weight (if available) __________

Hair coat quality: Excellent Good Fair Poor Very poor

Species and number of external parasites: Collected? __________

Body muscle (0-5) _______ Back fat score: 0 5 10 15

Mm Fat on: Heart _______ Kidneys______ Omentum______ Xyphoid _______

Bone Marrow Color _______ Texture __________ Subjective Body Condition: __________

Internal Exam Notes:

Species and number of internal parasites: Collected? __________

# Fetuses: _______ Weight: #1:______ #2:______ Sex: #1:____ #2:____

Crown-Rump: #1:_________ #2_________ Crown- nose #1:_______#2:_____

Tissues fixed:

Heart ____________
Liver ____________
Spleen ____________
Lung ____________

Tissues taken for laboratory evaluation:

Fecal (parasitology) _________
Blood (red tops) x2 _________
Blood (green top) _________

Tissues taken for laboratory evaluation:

Blood (purple top) _________

Teeth (both I1s) for aging _______

Lungs ___________

Tonsil swab in Port-A-Cul _______

Liver __________

Kidneys __________

Brain __________

Rumin contents _______

Feces __________

Fat __________

Nasal Swabs __________

Ear Swabs __________

Fetal Tissues Fresh:

Kidney ______

Eyeball ______

Abomasum ______

Fetal Tissues Fixed:

Liver __________

Bladder __________

Bone Marrow __________