APPENDIX IVb

REPRODUCTIVE DEFINITIONS

Wyoming Game and Fish Lab Staff: Tom Moore, Bill Hepworth

I. Ovarian Structures

A. Corpora hemorrhagica (CH) – Appear as small blood-filled spots on the external surface of the ovary. They are present only if the animal has ovulated very recently. CH are formed at the site of each follicular rupture.

B. Corpora Lutea (CL) – These structures form in the ovary at the site of each follicular rupture. CL evolve from CH, however, unlike the CH they are not always visible on the surface of the ovary. Since they evolve from CH, their presence indicates a longer elapsed time from ovulation than is indicated by CH. The ovary must be sectioned longitudinally to determine if CL are present. CLs are generally an orange-pink color and are homogeneous in texture.

C. Follicles – are clear fluid filled sacs of varying size.

II. Uterine Condition

A. Anestrus – During anestrus there is no reproductive activity. The uterus is limp and collapsed in appearance. This condition is illustrated below.
B. Estrus – During estrus reproductive activity is imminent or in progress. The uterus is turgid and distended. At this time, either follicles, CH or CL may be present, depending upon the progression of the ovulation process. This condition is illustrated below:

C. Pregnant – During pregnancy the uterus is very distended and turgid. Pregnant reproductive tracts cannot be identified macroscopically until the embryonic sites become pronounced. A reproductive tract in early pregnancy is illustrated below.
III. **Crown-Rump Length (C-R)**

A. Crown-rump length is the standard fetus measurement. The age of the fetus can be determined from this statistic. C-R is measured from the top of the head along the curvature of the back to the base of the tail.

[Diagram of a fetus showing crown-rump length]

IV. **General Considerations**

A. Right or left measurements **always** refer to animal’s right or left.

B. When reproductive tracts are preserved, 75% ethanol is suitable as a “short duration” fixative (up to six weeks). For permanent fixation use “AFA” solution and prepare as follows:

- Distilled water_______________ 50%
- 95% ethyl alcohol______________ 30%
- 40% formalin___________________ 10%
- Acetic acid___________________ 10%

If these ingredients are not available, you may obtain this fixative through the Laramie Veterinary Services Laboratory.

C. When reproductive tracts are preserved, label the identifying number with pencil, as most ink is soluble in alcohol.
DIAGRAM AND INSTRUCTIONS 
FOR COLLECTING

Reproductive Tract and Teeth of Female Big Game Animals

PLEASE COLLECT THE FOLLOWING ITEMS FROM 
YOUR DOE AND BRING THEM TO ONE OF 
THE CHECK STATIONS.

1. Collect the ovaries (2) and the uterus from the doe. Try 
To keep them in one piece. Place them in the plastic 
Bag you have been provided and seal it with on of the 
Numbered tags. 
*It is important that these organs do not dry out.

2. Be sure you have the head attached to the carcass as we will 
want to collect teeth and the head will also be needed for 
evidence of sex.

Be sure to return the plastic bag and its contents to one of the check stations.

Thank you for your cooperation.

Wyoming Game and Fish Department
FIELD COLLECTION AND POST MORTEM DATA SHEET

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<tbody>
<tr>
<td>1</td>
<td>Species</td>
<td></td>
<td>5</td>
<td>Date</td>
</tr>
<tr>
<td>2</td>
<td>Sex</td>
<td></td>
<td>6</td>
<td>Location</td>
</tr>
<tr>
<td>3</td>
<td>Age</td>
<td></td>
<td>7</td>
<td>Time Collected</td>
</tr>
<tr>
<td>4</td>
<td>Identification No.</td>
<td></td>
<td>8</td>
<td>Collected By</td>
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9. WEIGHTS:

<p>| | | | | |</p>
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<tr>
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<tbody>
<tr>
<td>a</td>
<td>Whole</td>
<td>Lbs.</td>
<td>j</td>
<td>Lungs</td>
</tr>
<tr>
<td>b</td>
<td>*Hog dressed</td>
<td>Lbs.</td>
<td>k</td>
<td>Heart</td>
</tr>
<tr>
<td>c</td>
<td>**Clean dressed</td>
<td>Lbs.</td>
<td>l</td>
<td>Thyroid</td>
</tr>
<tr>
<td>d</td>
<td>Viscera</td>
<td>Lbs.</td>
<td>m</td>
<td>Adrenals</td>
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<tr>
<td>e</td>
<td>Digestive tract</td>
<td>Lbs.</td>
<td>n</td>
<td>Pituitary</td>
</tr>
<tr>
<td>f</td>
<td>Stomach (s)</td>
<td>Lbs.</td>
<td>o</td>
<td>Other</td>
</tr>
<tr>
<td>g</td>
<td>Liver</td>
<td>Lbs.</td>
<td></td>
<td></td>
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<tr>
<td>h</td>
<td>Spleen</td>
<td>g.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>Kidneys</td>
<td>g.</td>
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* Hog dressed wt. – Eviscerated with hide, head, and legs attached.
** Clean dressed wt. – Carcass with viscera, hide, head, and legs removed at knees and hocks.

10. STOMACH CONTENTS:

| a | Total wt. ____________________ | b | Total vol. ____________________ |

11. MEASUREMENTS (in.):

| a | Total length (nose-tail tip) | f | Horn or antler |
| b | Tail length | g | Fetus CR length & Sex a. | b. | c. |
| c | Hind foot | h | Fat depth – brisket -- rump |
| d | Ear (notch to tip) |   |   |
| e | Shoulder muscle | i | Other |

12. GENERAL BODY CONDITION ______________________________________________________________________

13. OTHER SAMPLES COLLECTED:

| a | Blood ____________________ | e |   |
| b | Fat ____________________ | f |   |
| c | Bone ____________________ | g |   |
| d | Striated muscle _________ | h |   |

14. REMARKS: ________________________________________________________________________________

___________________________________________________________________________________________
Necropsy Protocol

Herd name/location ____________________  Animal ID (if any) ___________________
Location: Township ________ Range _________ Section _______ or UTM __________
WSVL Accession # ____________________   Date of necropsy ___________________
Species ______________   Age  __________  Sex  _____________
Weight “live”  ___________      Dressed weight  _________________
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 ________________

Internal Exam:

Species and number of internal parasites: ________________________ Collected? ______

No. fetuses: _______ Weight: #1: _______#2: _______Sex: #1:_______ #2:_______
Crown-Rump: #1:________ #2: _______ Crown-nose #1:________ # 2: _______

Tissues fixed:

Heart _______________ Fecal (parasitology) _______Abo wash _______
Liver _______________ Blood (red tops) X 2 _________
Spleen _______________ Blood (purple tops) X 2 _______
Lung _______________ Teeth (both I-1s) for aging ______
Tongue _______________ Others (list):
Muscle _______________
Kidneys _______________
Rumen _______________ Liver _________
Reticulum ___________ Kidneys _______
Omasum _______________ Brain _________
Abomasum ___________ Rumen contents _________
Ileum _______________ Muscle for DNA _________
Gonads _______________ Fat _________
Brain _______________
Pancreas _____________ Feces ___________
Ileocecal LN __________
Bladder _______________
Bone Marrow __________
Retropharyngeal LN ___