

# African Painted Dog SSP Necropsy Protocol

## I. Basic Procedure

The necropsy of an African painted dog is nearly identical to that of a domestic dog. Thus, the standard dog necropsy can serve as a model and a guide. The fetus post mortem, however, does have special considerations, which are discussed in Section III and should be referred to if applicable. The SSP Pathologist can be contacted before, during or after the necropsy if any questions should arise. **Please note on the submission form whether or not the SSP Pathologist will be the primary pathologist on the case** (see also Section IV).

### A. Tissue Checklists:

1. **Frozen tissues:**  Brain  Liver  Kidney  Heart  Spleen

Freeze 10-100 gm portions at -70°C; but if unavoidable, a standard freezer can be used. Hold frozen tissues on premises for possible additional diagnostic tests or future studies.

### 2. **Fixed tissues:**

- |   |  |
|---|--|
| <input type="checkbox"/> Skin   | <input type="checkbox"/> Cecum   |
| <input type="checkbox"/> Skeletal muscle (hindlimb)   | <input type="checkbox"/> Colon (2 cm long cross section)   |
| <input type="checkbox"/> Tongue (cross section including both mucosal surfaces)                     | <input type="checkbox"/> Rectum  |
| <input type="checkbox"/> Salivary gland   | <input type="checkbox"/> Liver   |
| <input type="checkbox"/> Peripheral lymph node (popliteal or prescapular)                           | <input type="checkbox"/> Spleen  |
| <input type="checkbox"/> Bone marrow (2 cm of opened rib or femur – <b>marrow must be exposed</b> ) | <input type="checkbox"/> Mesenteric lymph node   |
| <input type="checkbox"/> Thyroids/parathyroids  | <input type="checkbox"/> Kidneys (cortex and medulla in section)   |
| <input type="checkbox"/> Trachea  | <input type="checkbox"/> Adrenal (cross section with cortex and medulla)   |
| <input type="checkbox"/> Lung (several sections including a large airway)                           | <input type="checkbox"/> Urinary bladder   |
| <input type="checkbox"/> Pulmonary/Hilar lymph node   | <input type="checkbox"/> Prostate  |
| <input type="checkbox"/> Heart (left and right ventricle, septum & atrium)                          | <input type="checkbox"/> Testes (with epididymis)  |
| <input type="checkbox"/> Aorta  | <input type="checkbox"/> <b>Prepuce*</b>   |
| <input type="checkbox"/> Thymus (if present)  | <input type="checkbox"/> Female reproductive tract (fix whole - leave ovaries attached to uterus, longitudinal incisions in horns) |
| <input type="checkbox"/> Esophagus (2 cm long cross section)  | <input type="checkbox"/> Brain (whole – retain portion of cortex frozen)   |
| <input type="checkbox"/> Stomach (2 cm long portion of cardia, fundus, and pylorus)                 | <input type="checkbox"/> Pituitary   |
| <input type="checkbox"/> Duodenum, jejunum, & ileum (2 cm long cross section)                       | <input type="checkbox"/> Both eyes   |

PLEASE COLLECT ALL TISSUES ON THE CHECK LIST. Also sample ALL LESIONS, being certain to include the lesion AND the junction/interface with surrounding normal tissue. Tissues should be fixed in 10% neutral buffered formalin in a ratio of 1 part tissue to 10 parts formalin. Samples should be no thicker than 1 cm. (Note: it is not necessary to identify and keep separate each type of tissue.)

**\*Prepuce is a recently added (2015) request. Please collect the entire prepuce from the anterior end to junction with the penis and fix whole. Please indicate on form if the male was dominant/alpha or subordinate.**

## II. Special Procedure for Neonates/Fetuses

### A. Additional fixed tissues:

- placenta and fetal membranes
- umbilicus/umbilical area

### B. Additional frozen tissue to save:

- placenta
- For aborted fetuses and still births, freeze stomach contents & lung

### C. Necropsy Exam:

1. Estimate stage of gestation.
2. Measure the Crown to Rump Length: from the highest point on the skull (external occipital protuberance) to the base of the tail.
3. Note gross appearance of placenta and if it's complete.
4. Examine for congenital abnormalities: limb deformities, cleft palate, hernias, hydrocephalus, etc.
5. Check if lungs were inflated: pink or dark red color; sink or float in formalin.
6. Observe if the ductus arteriosus is contracted and if the foramen ovale is closed.
7. Determine if suckling has occurred: check stomach for milk curds; and note amount, viscosity and color of upper and lower GI tract contents.

## III. Shipping & Contact Information

After 72 hrs fixation, tissues can be packaged in a leak-proof container in enough formalin to keep tissues moist. If frozen tissues are to be shipped (preferred you retain on-site, otherwise contact Dr. Kinsel), you must send on ice by overnight mail. Please remember to include the SSP necropsy form. Tissues should be shipped to:

Dr. Michael Kinsel  
Zoological Pathology Program  
c/o Chicago Zoological Society  
3300 Golf Road  
Brookfield, IL 60513

If you have any questions, please contact Dr. Kinsel:

Phone: 312-585-9050

[kinsel@illinois.edu](mailto:kinsel@illinois.edu)

## IV. Other considerations:

A. If the SSP pathologist will be the primary pathologist, the submission will also be treated as a regular diagnostic case, with a histopathology report forwarded to the submitting institution.

**Please note on the submission form if this is to be the case.**

B. If in-house or other regularly retained pathology services are available, please collect or request collection of a duplicate set of tissues for the SSP pathologist. Final pathology reports and/or duplicate slides can be forwarded to the SSP pathologist, preferably with a duplicate set of tissues. Duplicate tissues in such cases will be archived for potential use in future studies (e.g. as controls should epidemics occur in the future). **\* If your pathologist performed the necropsy, then only the first page of the SSP Necropsy Form (institution\animal identification and historical data sections) need be completed: Attach copies of pertinent medical history and the final pathology report (gross and histopathology) to the SSP Necropsy Form.**



- D. Respiratory System (pharynx, larynx, nasal passages, trachea, bronchi, lungs, hilar lymph nodes).
- E. Hemic-Lymphatic System (spleen, lymph nodes, thymus)
- F. Cardiovascular System (pericardium, heart: valves & chambers, aorta, large vessels).
- G. Digestive System (Mouth, teeth, esophagus, stomach, intestines, liver, pancreas, mesenteric lymph nodes).  
**Neonates:** is milk present in the stomach?).
- H. Urinary System (kidneys, ureters, bladder, urethra).
- I. Reproductive System (ovaries, oviducts, uterus, cervix, vagina, mammary glands, placenta/fetuses, testes, penis, accessory sex glands).
- J. Endocrine System (thyroids, parathyroids, adrenals, pituitary, pineal gland-if found).
- K. Nervous System (brain, meninges/dura mater, spinal cord, peripheral nerves).
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### **III. Summary/Gross Diagnoses**

### **IV. Ancillary Laboratory Test Results** (cytology, urinalysis, fluid/serum analysis, microbiology, parasitology, serology, toxicology, virology, or others; attach reports as necessary).