

Northern Gulf UME Sample Collection Checklist (Franklin County, FL to LA/TX Border) March 9, 2011

Photographs (see page 2) and morphometrics should be collected for all animals
 Chain of custody procedures should be followed for ALL samples, photographs, and datasheets
 If the animal is visibly oiled please call 877-433-8299 immediately

Field # JLS-20110311-LA001

**indicates priority sample

PAH/Chemistry:
 Code 2 & 3, 10-20g or 5 ml
 Freeze -20, 1-chem vial or foil
 Blubber
 Liver
 Lung
 Kidney
 Freeze -20, 1-chem or glass vial:
 **Bile
 **Urine
 Whole blood
 Aqueous humor R/L

PAH/Chemistry con't:
 Freeze -20, foil, dull side in
 All conditions:
 **Swab already sampled
 **Tongue depressor (visibly oiled)

Biotoxins:
 Freeze -20, codes 2-4, 1 ml or 5g:
 **Feces
 **Urine (if enough after PAH) or PAH
 Liver

CYP 1A:
 Code 2 & 3, 1 cm thick section:
 Freeze, cryovial, -80 if possible
 Skin+full-thick blubber section
Formalin, 10:1 ratio
 Skin+full-thick blubber section

Parasites (codes 2 - 4):
 In 70% Isopropyl alcohol
 External
 Internal lung w/ L/R
 Representative sample from each species and each location

Viral:
 Code 2 and early 3: 2 sets - 1 in RNA later vial and 1 in cryovial, both frozen at -80
 Code late 3 and 4 - 1 set of priority samples (**) in RNA later if possible
 **Brain RNA later -80
 Lung assoc LN RNA later -80
 **Lung RNA later -80
 **Spleen RNA later -80
 **Adrenal gland RNA later -80
 Kidney RNA later -80
 **Liver RNA later -80
 Grossly affected Lymph nodes and other grossly affected tissues (list):

Life History (Codes 2 - 5):
 Freeze, -20:
 **Teeth (4 or whole mandible)
 **Skin (isotope) already sampled
 **Stomach whole (prey, biotoxin, & PAH)
 (see stomach instructions page 2)
In DMSO or frozen:
 **Skin (genetics) already sampled

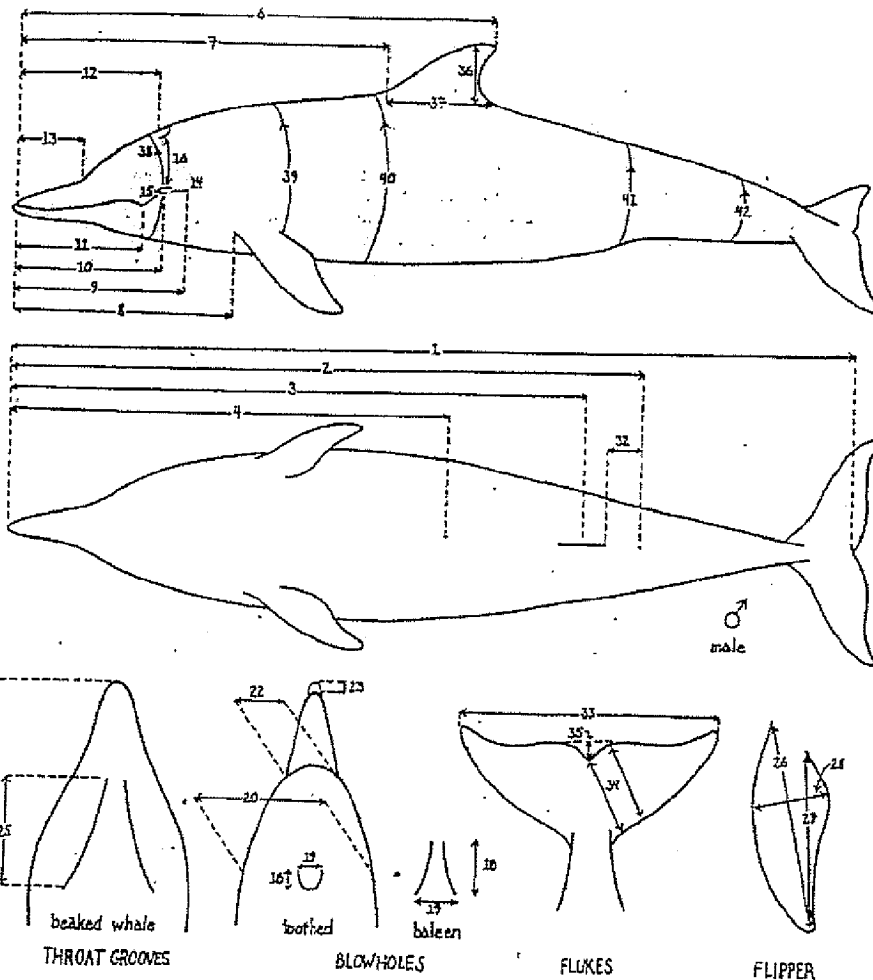
Bacterial Culture Swabs or tissues:
 Code 2 Ship to lab immediately on ice packs
 lung assoc. lymph node
 **Brain Liver
 Spleen **Lung
 Other at vet's discretion:

Histology (code 2 & 3):
 10% neutral buffered formalin, 10:1 formalin:tissue ratio
 Samples fixed in formalin should be no more than 1 cm thick
 **Lung
 **Trachea
 **Heart (all 4 chambers)
 Aorta
 Pulmonary Artery
 Thymus
 **Thyroid
 **Laryngeal Assoc. Lymph. Tissue
 Pharynx
 Tongue
 Esophagus
 Small Intestine (proximal, mid, distal)
 Colon
 Pancreas
 **Spleen skull base
 Spinal Cord (specify location)
 **Brain (cerebrum, cerebellum, stem, pituitary)
 **Liver
 **Kidney
 **Adrenal Gland
 Urinary bladder
 Blubber
 Skin
 Muscle (specify location) diaphragm skeletal muscle
 Eye (L/R)
 Gonad
 Mammary Gland
 **Uterus/Uterine horn
 Vagina & Cervix
 Prostate & Penis
 Lymph nodes (list): lung assoc LN
 **Thoracic
 **Abdominal/Genital
 Pre-Seminal LN
 testicular LN

Live animals:
Blood:
 Collect the following and please see preparation information on page 2
 1 - 3ml purple top K₃EDTA
 5 - 10 ml red/gray tiger top SST tubes
 1 red top tube
Freeze -80 in Teflon for PAH:
 Whole blood
Swab:
 in viral transport media
 Blowhole Swab (ship immediately on ice packs if possible. If not, freeze at -80)

Pregnant or postparturient females (code 2 & 3):
 Uterine horn: Culture swab Formalin/histo -80 RNA later
 **Placenta: Culture swab Formalin/histo -80 RNA later
 **Amniotic fluid: Culture swab -80 RNA later
 Genital LN: Culture swab Formalin/histo -80 RNA later
 Fetuses: follow fetal/neonate (<115 cm) protocol

Tursiops <115 cm (see also pg 2):
Code 2/early 3 or visibly oiled:
 necropsy ASAP by network vet
 **Radiograph (before necropsy - dorso-ventral view skull & body)
 **Fetus/neonate datasheet
 **Skull and skeleton, freeze intact
 **Umbilical stump & body wall (formalin)
 Serum, from heart, freeze at -20, cryovial
Code Late 3 - 5 (no visible oil):
 **Freeze whole (photos, length, PAH swab first)



MEASUREMENTS (specify units inches)

1 total length.....	83
2 snout to anus.....	59
3 snout to genital slit.....	CBD ^{blow}
4 snout to umbilicus.....	40.5
5 snout to throat grooves.....	NA
6 snout to dorsal fin tip.....	53.5
7 snout to ant dorsal fin.....	41
8 snout to flipper.....	19.75
9 snout to ear.....	14.5
10 snout to eye.....	11.5
11 snout to gape.....	9.75
12 snout to blowhole (s).....	12.75
13 snout to melon apex.....	4.75
14 eye to ear.....	3.25
15 eye to gape.....	2
16 eye to blowhole edge, L.....	CBD ^{blow}
17 eye to blowhole edge, R.....	8
18 blowhole length <u>1.25</u> width.....	1.75
19 diameter ear opening.....	0.1 cm
20 head diameter at eyes.....	10.5
21 length of eye opening.....	1
22 rostral width, melon apex.....	3.75
23 projection up/lower jaw.....	0.25

24 number of throat grooves.....	NA
25 length of throat grooves.....	NA
26 flipper length, anterior.....	16
27 flipper length, posterior.....	11.25
28 flipper width, maximum.....	5.75
29 length mammary slits R <u>NA</u> L <u>NA</u>	
30 number of mammary slits.....	NA
31 length genital slit <u>CBD</u> ^{blow} anal <u>1.75</u>	
32 perineal length (males).....	CBD ^{blow}
33 fluke width.....	CBD ^{blow}
34 fluke depth, lobe <u>0.5</u> notch <u>7.0</u>	
35 fluke notch depth.....	1.25
36 dorsal fin height.....	7.5
37 dorsal fin bse length.....	13.25
38 girth at eye.....	46.5
39 girth at axilla.....	54.75
40 girth, maximum.....	55.5
41 girth at anus.....	29.0
42 girth midway anus to notch.....	16.5
43 height same place.....	0.5
44 thickness same place.....	0.25 ventral / 0.25
45 blubber thickness, dorsal.....	2.5 cm
46 blubber thickness, lateral.....	1.4 cm
47 blubber thickness, ventral.....	1.5 cm

DOLPHIN GROSS NECROPSY LONG FORM

FIELD #: JLS-2010099-LACCI	NECROPSY DATE: 3/22/11
OIL SPILL CODE: MC 25A	STRAND DATE: 3/19/11
AGE CLASS: Adult	STRAND LOCATION: Southwest of Bay Jimmy
SEX: MALE	THAW DATE: placed in 40° walk-in cooler, never frozen
PROSECTOR(S): Mandy Tumlin, Matt Boasso, Sandi Millian	CARCASS CONDITION CODE: 3
	TIME: START: 0918 END: 1447

Circle one: **E = examined** **NE = not examined** **NA = not applicable**
NOTE: If unable to assess, circle NE and write why (ex: decomposed/missing/scavenged/etc.)

- Consider: (1) lesion
 (2) location within the body and symmetry,
 (3) distribution within the organ,
 (4) relationship to other organs/lesions,
 (5) approximate percent of organ affected/ severity,
 (6) amount/size
 (7) degree of demarcation,
 (8) shape/structure,
 (9) texture/consistency,
 (10) homogeneity,
 (11) color & odor

STRANDING OR SAMPLING HISTORY: shoreline of where dolphin was sampled, photographed + recovered was dead, dolphin was observed floating

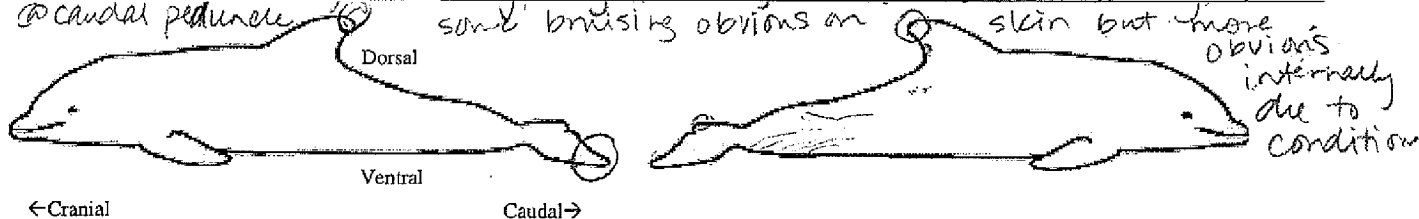
BODY CONDITION (EXTERIOR):

Emaciated: Visible transverse processes of the spine, pronounced nuchal concavity ("peanut head"), scapulae visible
Thin: Concave/sunken dorsal body muscles, moderate nuchal concavity ("peanut head")
Average: No bony prominences or nuchal concavity observed
Robust: Bulging dorsal body musculature
Robust. Blubber thickness looks good.
Extensive bruising on melon and underlying tissue.

SKIN / HUMAN INTERACTION: (E) / NE / NA

Life History (Circle if present): rostral hairs, rostral hair follicles, fetal folds (If present, count, draw & describe location below)
Describe the skin: texture (ex: leathery, rubbery), color
Look for: parasites, circular lesions, ulcers, rake marks, net marks, wounds, missing tissue/skin, bruising
If abnormalities present, describe: location, size (length, width, depth of penetration into body), missing tissue, number of parasites (ex: *Xenobalanus*, <10, 10-20, 20-50, >50)

Dorsal fin distinguishable, notched and trailing edge trailing edge of tip missing, left lobe on fluke missing. Scavenger marks, rake marks. Skin sloughing (possibly because animal floating) @ caudal peduncle. some bruising obvious on skin but more obvious internally due to condition



FIELD #: _____

DISCHARGES:

PRESENT/ ABSENT

If present, note location: OCULAR, BLOW HOLE, ORAL, PENILE/ VULVAR, ANAL, OTHER: _____

Describe (color, consistency): Blood coming from oral cavity.

UMBILICUS: (Circle:) Stump Present/ Stump Absent (hole only)/ Recently Healed/ Scarred (E)/ NE / NA

Life History (Circle): Umbilical stump: Patent (partly / completely), Closed, Moist / Dry; Length: _____

Falciform ligament (umbilical vein)/ Umb arteries: Patent (partly / completely), Closed, NE

Urachal ligament (urachus): Patent (partly / completely), Closed, NE

Notes: _____

BLUBBER:

(E) / NE / NA

Describe (ex: color, texture)

Look for: Parasites, Bruising, Penetrating wound, Foreign body, Mass (solid), Abscess (pus-filled), Cyst (watery fluid filled or empty), Scavenger damage

If abnormalities present, describe: location, size (length, width, and describe depth of penetration into body/missing tissue), approx. number of parasites (<10, 10-20, 20-50, >50)

Blubber: white thick blubber with diffuse bruising
Scavenger damage.

SKELETAL MUSCLE:

(E) NE / NA

Describe (ex: color, texture)

Look for: gas bubbles, bruising / hemorrhage, mass (solid), abscess (pus-filled), cyst (watery fluid filled or empty), parasites

If abnormalities present, describe: location, size (length, width, and describe depth of penetration into body/missing tissue)

Also describe lymph nodes (ex: axillary, prescapular, mandibular) and note if enlarged/swollen, hardened, watery, and describe color (in cross section)

Notes: Skeletal muscle looks good with some bruising, mainly near midline right ribs area where examined carefully

SKELETON AND JOINTS:

(E) / NE / NA

Describe: Although skeletons are not usually completely flensed, look for abnormalities during dissection

Look for: Broken bones, bony deformities, bony growths, foreign bodies

Note: Describe any nearby tissue damage.

Notes: Joints look good, Skeleton good

EYES:

Right: **(E) / NE / NA**

Left: **(E) / NE / NA**

Look for: Missing, deflated, enlarged, out of socket, foreign body; penetrating wound

Notes: left eye distended, right eye slightly distended.

aqueous humor obtained from both eyes as a cautionary measure

ORAL CAVITY:**(E) NE / NA****TEETH:** (CIRCLE ONE: Unerupted, Just erupting, Fully erupted)**Look for:** Missing; Broken; Worn (some / all); Discharge**Notes:** Teeth changed. present not worn

Describe inside the mouth: (ex: are there papillae on tongue?)

Notes: Tongue protruding, fasciation on tongue
swollen**THORACIC CAVITY:****(E) NE / NA****Free fluid in thoracic cavity:** Present / Absent

Describe if present (amount, color, consistency)

Look for: Penetrating wound, Foreign body, Mass, etc.

Also describe lymph nodes (ex: lung-associated, tracheobronchial, etc.)

Look for: enlarged/swollen, hardened, watery, and describe color (in cross section)

Notes: Enlarged bronchopulmonary LN. Extensive bronchitis in thoracic cavity (lungs, outer walls of bronchi), Lung-associated LN were tan/sandy, but decomposed also - were enlarged.**ESOPHAGUS:****(E) NE / NA****CONTENT (AMOUNT / DESCRIBE)** (Ex: empty, fish, digesta, blood)**Describe esophagus tissue:** (ex: color)**Look for:** Discoloration, Foreign body, Ulcer, Mass, Dilated / Constricted, Obstruction, Parasites (<10, 10-20, 20-50, >50)**If abnormalities present, describe:** location, size (length, width, depth), texture**Notes:****THYROID:****E / ~~NE~~ / NA****Describe color** (pale tan, pale pink, red, purple), uniformity of color:**Notes:** missing - decomposed**THYMUS:****E / ~~NE~~ / NA****LIFE HISTORY:** Involved, Present**Notes:** missing - decomposed**TRACHEA / BRONCHI / LUNGS:****(E) NE / NA****AIRWAY CONTENT (AMOUNT/LOCATION/DESCRIBE):** (ex: foam, mucous, blood, pus, digesta)**DESCRIBE UNIFORMITY OF COLOR, TEXTURE OF LUNGS (EX: PINK, LIGHT AND SPONGY):****LOOK FOR:** parasites, congestion with blood, nodules (ex: mass, abscess, parasite-filled), hardness, symmetry, fluid

If abnormalities present, describe: location, percentage of lung affected

Notes: Lungs: Blood clots, lungworms, symmetric, extensive bronchitis / blood in right lung (photographed), parasites were collected - small, 1mm wide x several cm long, white in color - found in both lungs but heavier in right

FIELD #: _____

HEART / PULMONARY ARTERIES / AORTA :

(E) / NE / NA

Congenital: (not applicable in adults)

Ductus arteriosus (connection between aorta and pulmonary artery): (Circle one: OPEN / CLOSED), NE

Foramen ovale (connection between right and left atria): (Circle one: OPEN / CLOSED), NE

Describe pericardial sac, note presence and amount/color/consistency of fluid between sac and heart muscle.

Describe heart chambers, vessels, valves (color, thickness, size) and note any fat surrounding heart muscle.

Look for: abrupt changes in vessel diameter (constriction/dilation), discoloration, thickened valves, masses

Notes: R(9cm)A⁴, 2(0.7cm)V⁴, L(10cm)A⁴, 1.2V⁴, heart was pretty decomposed not very hardened, soft/mushy, thick walls, dark interior

ABDOMINAL CAVITY:

(E) / NE / NA

Free fluid in abdominal cavity: Present / Absent

Describe if present (amount, color, consistency) _____

Look for: Penetrating wound, Foreign body, Mass, etc.

Also describe lymph nodes (ex: mesenteric, colonic, inguinal, etc.)

Look for: enlarged/swollen, hardened, watery, and describe color (in cross section)

Notes: mesenteric LN possibly slightly swollen, but decomposed

LIVER:

(E) / NE / NA

Describe: (color, texture, sharp vs rounded edges)

Look for: Parasites, thick liver capsule, spotted appearance (externally or on cross section), Nutmeg coloration, congestion, Mass (solid), Abscess (pus-filled), Cyst (watery fluid filled or empty)

If abnormalities present, describe: color, location, size (length x width x depth)

Notes: Liver: right side sharp, left more rounded mildly

SPLEEN:

(E) / NE / NA

Describe: (shape, size, color)

Look for: Accessory spleens (splenules), congestion, discoloration / mottled

Notes: round, 7.9cm diameter,

PANCREAS:

E / NE (NA)

Describe: (shape, size, color, texture)

Notes: level of decomp to afar

STOMACH:

(E) / NE / NA

IF COLLECTED WHOLE, SKIP SECTION.

Stomach contents (amount / describe): (Ex: empty, gas, (fish) foreign body) (from feeding) (not cut due to protocols - collected whole)

Look for: Parasites, ulcers, perforations, obstructions

If abnormalities, describe: which chamber and describe size, color, percentage of stomach affected

Notes: Stomach full, fish and digester, collected whole + fed per protocols

FIELD # _____

SMALL INTESTINE:

E / NE / NA

Content (amount / describe): (Ex: Empty, Digesta, Frank blood (red), Digested blood (black/tarry))

Look for: Parasites, Discoloration, Foreign body, Perforation, Mass, Hardening, etc.

If abnormalities present, describe: Size, location, etc.

Also describe lymph nodes (ex: mesenteric).

Notes: decomposed - red/pink to tan/brown

LARGE INTESTINE:

E / NE / NA

Content (amount / describe): (Ex: Empty) pasty feces, tarry feces, meconium (neonatal green-brown feces)

Look for: parasites, discoloration, foreign body, perforation, mass, hardening

If abnormalities present, describe: Size, location, etc.

Notes: uniform texture, no ulcers

decomposed

ADRENAL GLAND: Right: E / NE / NA

Left: E / NE / NA

Ratio of cortex to medulla: Right Adrenal: 1:1 Left Adrenal: _____

Describe (color on cross-section, texture)

Look for: nodules/masses, different sizes (right vs left), hemorrhage

If abnormalities present, describe: Size, location, etc.

Notes: _____

URINARY BLADDER:

E / NE / NA

CONTENT (AMOUNT / DESCRIBE): (Ex: Clear, Opaque, Yellow, Red, gritty) red/brown very little

Look for: ulcer, dilated / constricted, rupture, proliferation, thickened, mass (solid), abscess (pus-filled), cyst (watery fluid filled or empty), stones

If abnormalities present, describe: location, size, etc.

Notes: no abnormalities observed, sample of mt. collected but very little present - pretty decomposed

KIDNEY:

Right: E / NE / NA

Left: E / (NE) / NA

Describe: (texture, color, color on cross section, etc.)

Look for: differences in size (compared to each other), dilation, Mass (solid), Abscess (pus-filled), Cyst (watery fluid filled or empty), stones

If abnormalities present, describe: location, size, etc.

Notes: normal coloration for stage decomp

FIELD #: _____

MALE REPRODUCTIVE TRACT:

E / NE / NA

Life history: Evaluate size of testes (Circle one: Active (swollen), Immature) [measure if unsure]

Describe testes and penis (ex: uniformity in color and texture on cross section of testes)

Look for: Differences in size (compared to each other), mass (solid), abscess (pus-filled), cyst (watery fluid filled or empty)

If abnormalities present, describe: organ, location, asymmetry, size, texture

Look for and describe lymph nodes (ex: inguinal)

Notes: Uniform color in testes, size range size in testes
penis internal

FEMALE REPRODUCTIVE TRACT (Ovaries, Uterus, Cervix, Vagina, Vulva)

E / NE / NA

PREGNANT? Y / N

*Complete Neonatal Characters Sheet for fetus if present; collect placenta.

Life history: Reproductively active females will have cyst-like structures on their ovaries—if present, count, describe color, contents, and size.

Describe all reproductive organs (ex: color, texture, size)

Look for: differences in ovarian and uterine size (compared to the other side), distention, enlargement, scarring, pregnancy, Mass (solid), Abscess (pus-filled), Cyst (watery fluid filled or empty)

If abnormalities present, describe: organ, location, asymmetry, size, texture.

Look for and describe lymph nodes (ex: inguinal)

MAMMARY GLANDS/ NIPPLES:

Look for and describe: Lactating, Non-lactating, Mass (solid), Abscess (pus-filled), Cyst (watery fluid filled or empty)

Notes: _____

INSIDE SKULL:

E / NE / NA

Describe inside of skull bones and associated membranes (color, thickness, presence of fluid, etc).

Note: Dura mater is the outer lining of the brain that lies next to the skull. Assess carefully for bruising, thickening, etc.

Notes: too decomposed

BRAIN:

Cerebrum: E / NE / NA

Cerebellum: E / NE / NA

Brain stem: E / NE / NA

Describe (uniformity of color, texture):

Look for: Asymmetry, Bruising, Fluid, Mass (solid), Abscess (pus-filled), Cyst (watery fluid filled or empty)

If abnormalities present, describe: size, location, texture, number of lesions, etc.

Notes: too decomposed

SPINAL CORD:

E / NE / NA

Spinal cord in code 3-4 animals is usually decomposed; assess at base of skull if necessary.

Describe: uniformity of color, texture and size, location, etc. of any abnormalities.

Notes: decomposed but collected sample at base of skull