Bile Collection Technique in subsistence harvested Bowhead Whales (Balaena mysticetus): Proof of Concept Study

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What We Did
A proof of concept pilot study was conducted during 2014 fall harvest of bowhead whales in Barrow, Alaska to demonstrate that bile collection from the hepatic duct in harvested bowhead whales is a feasible method. Cetaceans do not have a gallbladder but an extra-hepatic bile duct system is present.

Why Collect Bile?
• Major excretion route of PAH metabolites via bile and the intestines
• Useful tool for injury assessment during NRDA process

Fall Subsistence bowhead whale harvest at Barrow, Alaska

Liver capsule removed
Hepatic duct

Ventral side facing

Pulling of the thoracic-abdominal pluck with a rope attached to the larynx.

Tips for Bile Collection
• Locate liver and examine visceral side (larger lobe)
• Deflect adipose tissue from central fold to visualize hepatic duct
• Hepatic duct ~ 2 cm wide, thin walled and collapsed; total length 20-30 cm
• Bile (emerald green; oily consistency) volume is ~ 2-cc
• Anatomical dissection of hepatic duct allows for more bile collection

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