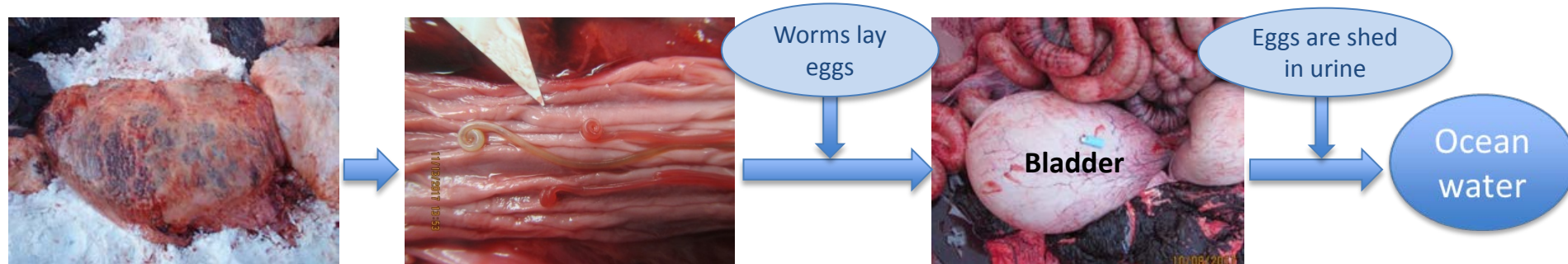




Kidney Worm Infection in Bowhead Whales on the North Slope

Several whaling crews contacted the DWM after finding kidneys with pus pockets during subsistence-harvest of bowhead whales in 2016. Samples were collected and the infection-causing agent identified as a nematode or kidney worm (*Crassicauda*). Kidney worms have been found in other whale species; however, this is the first reported case of an infected bowhead whale. More cases were identified in fall 2017, and all cases have occurred in Utqiagvik (Barrow). We are conducting DNA analyses to identify the species of *Crassicauda*, and we continue to monitor for new cases and communicate with the hunters.



Top: Transmission route showing kidney, to ureter, to bladder, to ocean environment.

Bottom: Kidney nodule with pus, kidney nodule with worm, worm collected from ureter, worm in cooked kidney meat.



Key Points

- Kidney worm (*Crassicauda* spp.) infection in bowhead whales causes similar lesions as observed in other baleen whales.
- Infected kidneys have abscesses (pus pockets), fibrous nodules or cysts and blocked vessels.
- The kidney worms will be killed by cooking for several hours.
- Follow your traditional and customary practices for food safety.

Questions Being Investigated

- Environmental drivers – are changes in the environment causing an increase in these parasites?
- How are they transmitted in the whales: mother to calf, or adult to adult, from other whale species, from environment?
- Is this an emerging disease, or is it re-emerging?

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