

Performing a Fish Autopsy/Necropsy

Introduction

A fish autopsy is done primarily to determine gross signs of illness that caused death. Ideally, you should collect the fish while ill fish is still alive and then kill it prior to examination. Examination of an ill fish prior dying from the disease is termed a necropsy. If a dead fish is used for examination, it is often difficult to determine the cause of death by simple examination because decomposition will cause anatomical changes not association with the cause of death. A check sheet will be completed that can accompany samples sent to a fish pathology laboratory.

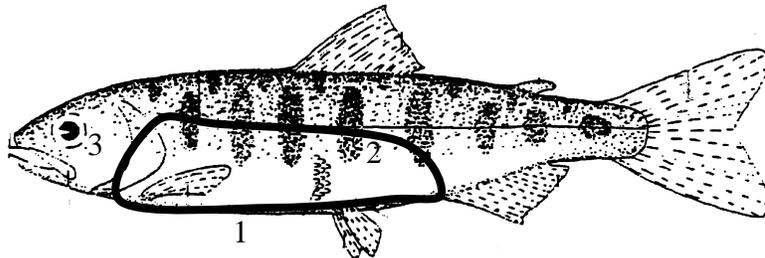
Materials

Moribund fish (fish that is ill or near death)
Dissection pan or petri dish for very small fish
Data sheets

Autopsy/Necropsy Procedure

Before the fish is collected for examination, the behavior of the fish should be noted on the data sheet. Note the swimming pattern, “flashing, whiling etc.”, pecking of other fish, and any other abnormal behaviors. Check the appropriate boxes on the data sheet under “General Appearance.”

1. Kill the fish by Making an incision through the nape, through the back just behind the head, cutting through the spine.
2. Check the external part of the fish including all fins. Check data sheet “Body Surface. Note particularly any
 - Ectoparasites
 - Abnormalities in the slime coating (excess mucus and color)
 - Uamage to fins or eyes
 - Ulcers or open sores
 - abnormation colorations
 - Cuts or lesions
3. Make incisions 1,2,3 as illustrated below.



4. Remove the panel of tissue caused by the cuts to expose the internal organs and the gills. Examine the condition of the internal organs and note the and fill out information from 8-18 on the "Fish Examination Form." Pay particular attention to:
 - Liver color (should be "coffee with cream" color). Note different color
 - Note whether liver reddened or very pale color
 - Ulcers
 - Hemorrhaging of any kind
 - Inflammation of the spleen (enlarged and very dark red)
 - Pale color of kidney
 - Any white spots or nodules on kidney liver or spleen
 - Transparency and inflammation of the intestine
 - Hardening of the gall bladder
 - Excess fluid in the peritoneal cavity (note whether fluid is yellow, bloody, or aqueous)

5. Remove gill cover and examine gills. Particularly look for:
 - Paleness in color (If the fish was dead for some time prior to examination, the gills will likely be very pale).
 - Parasites
 - Whitish nodules
 - Hemorrhaging
 - Excess mucus
 - Place gill arch under microscope to check for clubbing

6. Dispose of the fish by incineration or burial. Do not put back in the water from which it was captured.