

Fundamentals of invertebrate disease investigations

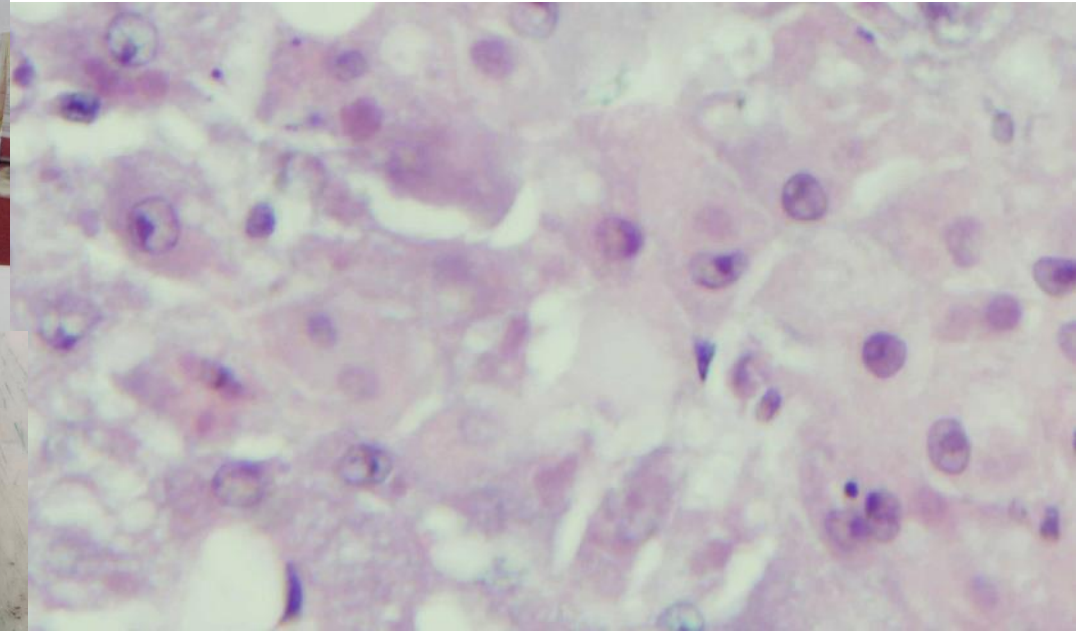
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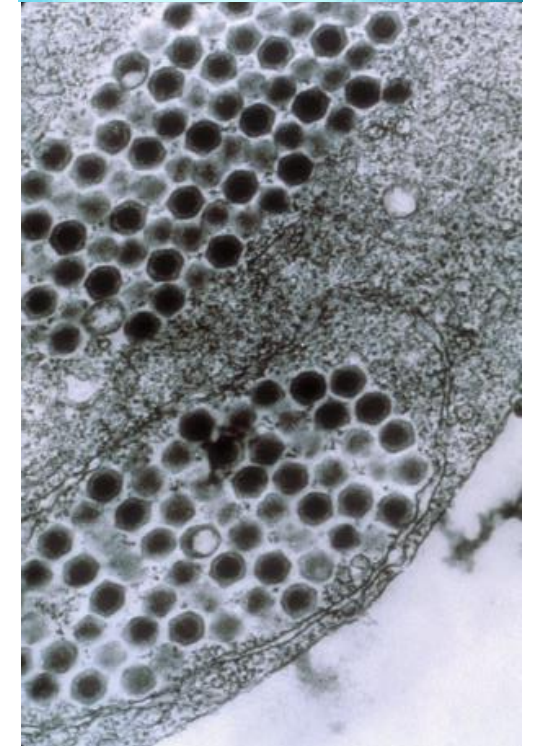
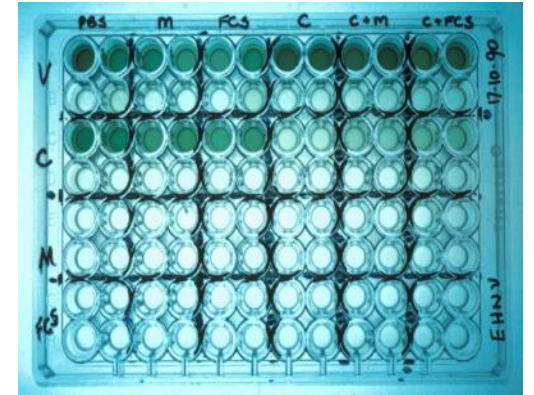
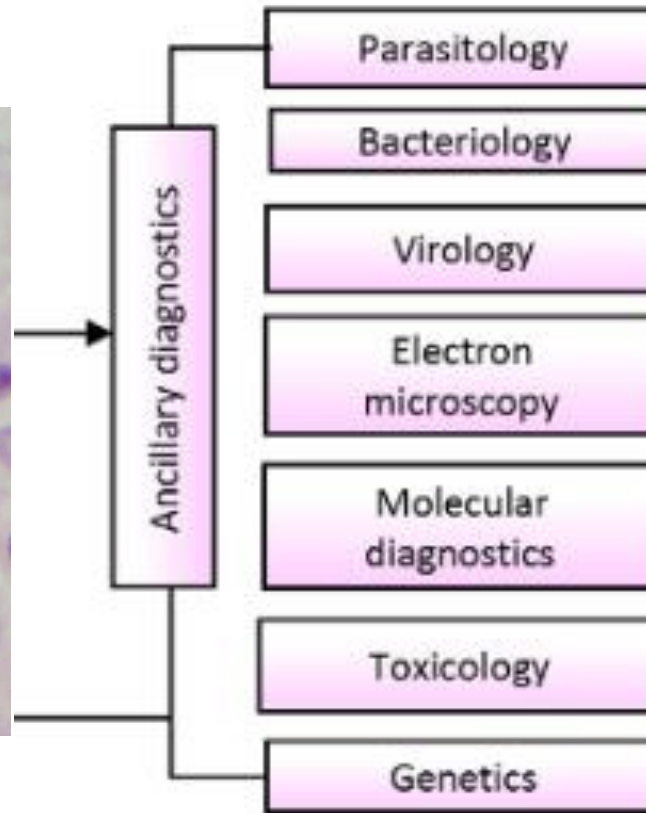
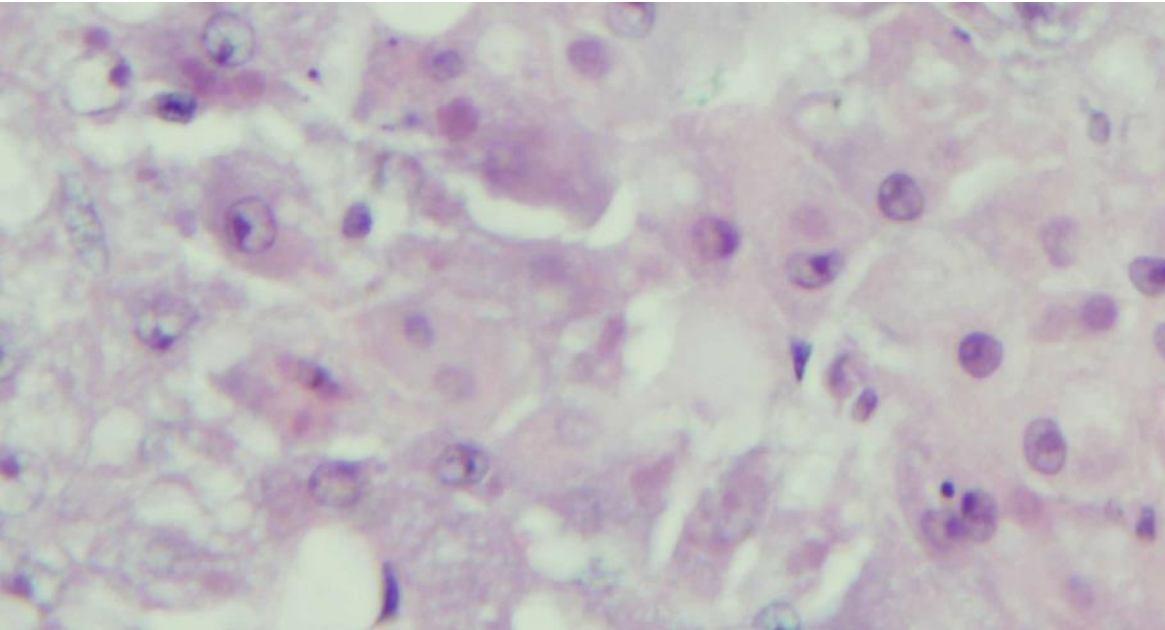
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How do we determine what the cause of animal mortality is?



Categorize type of pathology
Identify infectious agents

How do we determine what the cause of animal mortality is?



Ruled things out

Confirmed other things

“the deductive approach”

Why is it important to do this even when there is not epidemic mortality?

- Surveillance - baseline information
- “Background” issues
- Being comfortable disease investigator



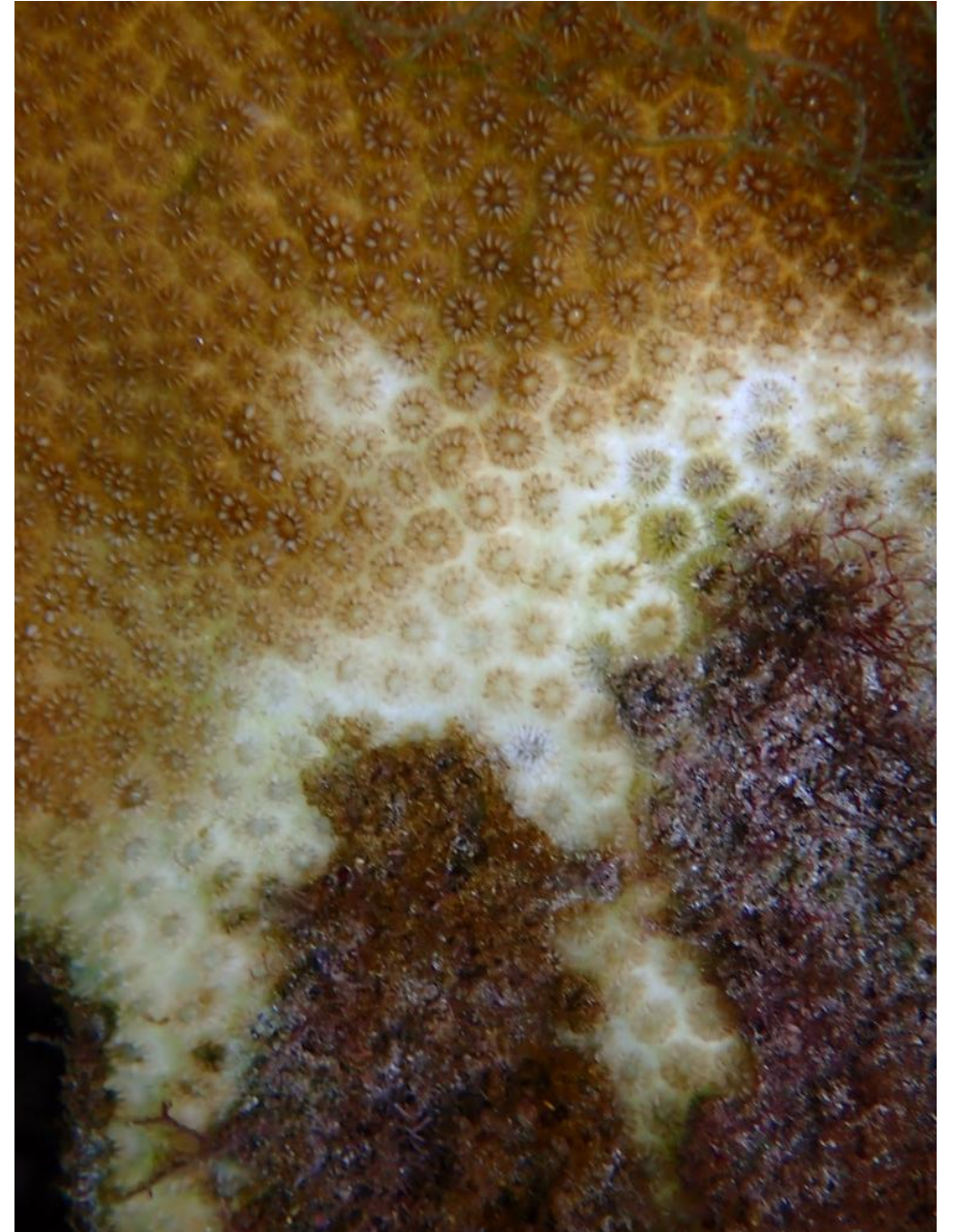
Do we need to keep doing this throughout mortality events?

- Changes in the ecology of a disease
- Multiple disease issues in the face of largescale environmental drivers
- Disease is important to rescue/propagation success
- An easy way to make an impact



What steps are you required for?

1. Identifying disease
2. Collecting the samples & corresponding field data
3. (Being ready to collect the samples)
4. Following up with pathologist



Your disease investigator field kit:



Options:

- Kit up now & start sampling
- Emergency response

Image Source:

T. Work. Collecting corals for histopathology. A practical guide

You must be able to recognize coral lesions in order to sample them

Tissue loss



Discoloration



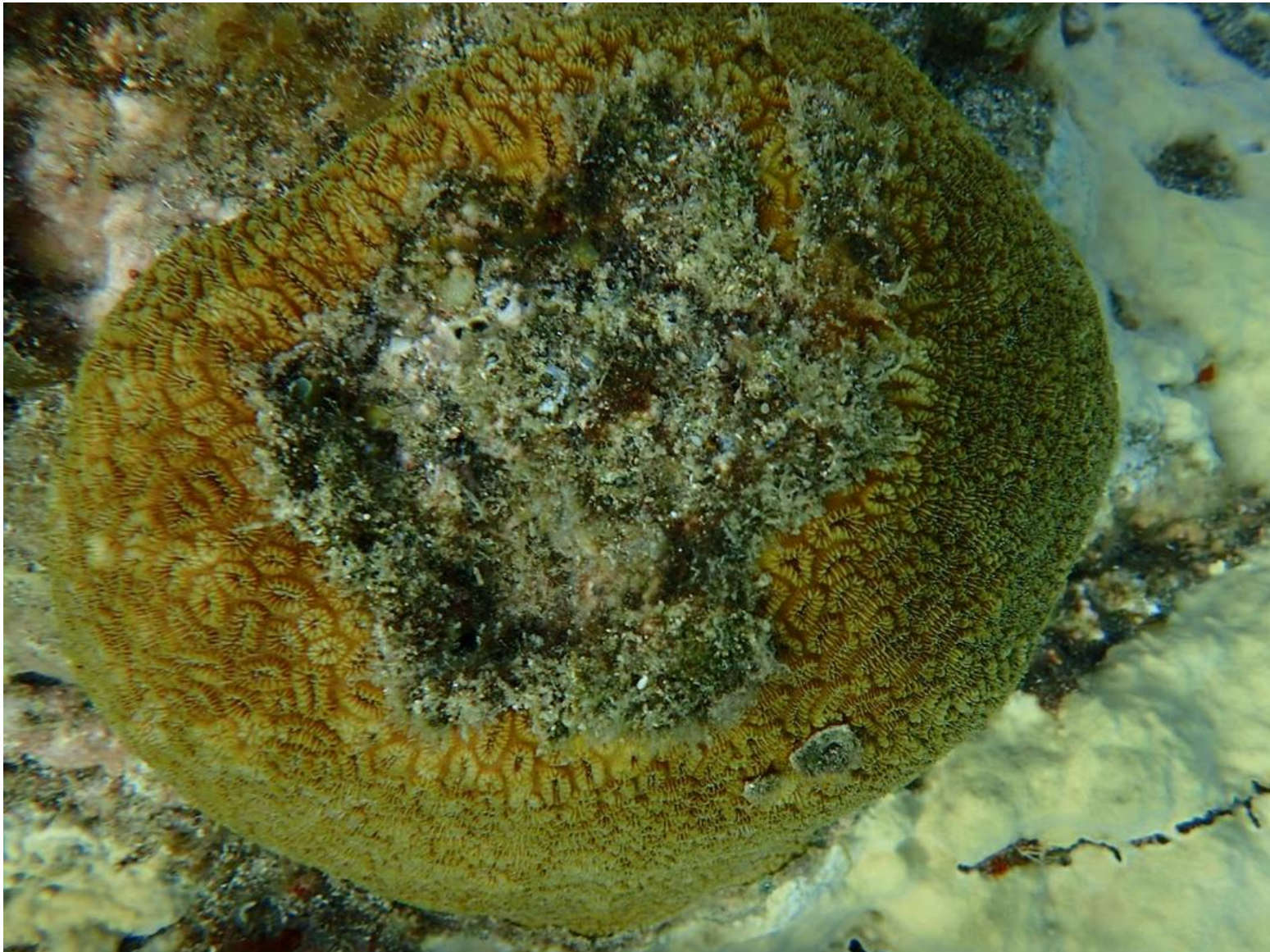
Growth anomaly



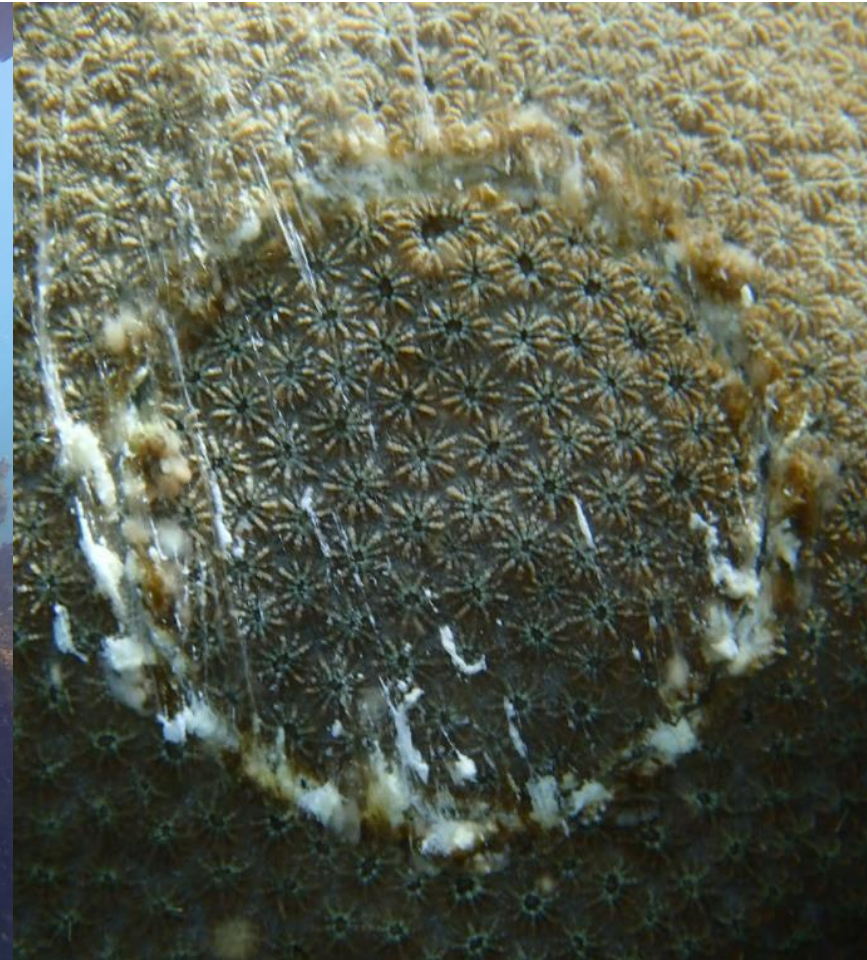
Best practice = sample of active lesion and “apparently healthy” area



Is this an active lesion?



Sampling coral for histology



Collecting data and photos is super important



Formalin fixed samples can be stored for years





Day 0



Day 12



Day 0



Day 12

