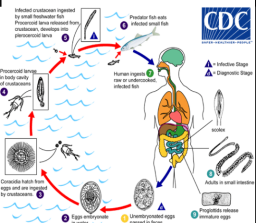
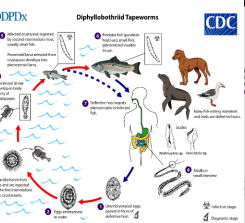
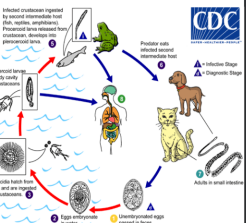
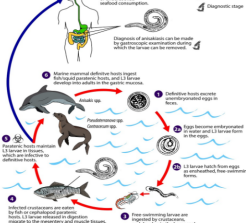
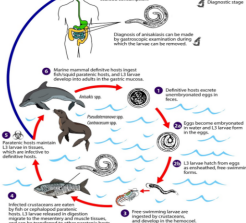
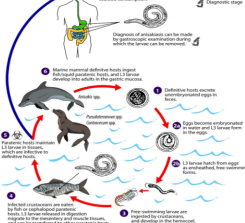
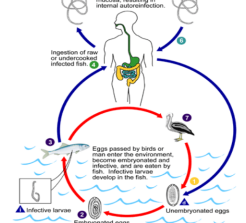
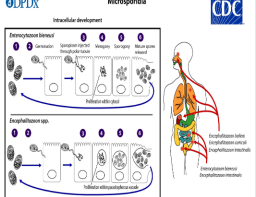
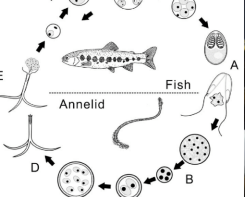


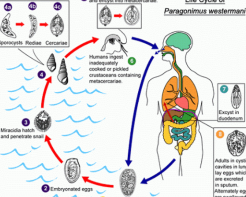
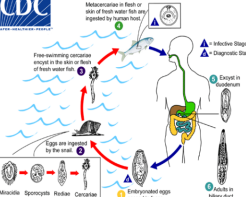
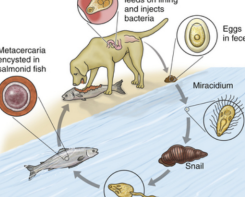
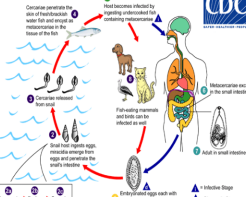
Fishery-associated parasites

Parasite
General characteristics
Life cycle
Epidemiology
Pathogenesis
Diagnosis
Treatment
Prophylaxis

Plathelminthes > Cestodes		
Diphyllobothrium latum	Diphyllobothrium pacificum	Spirometra mansonioides
3 to 10m, 2K rings, 1M eggs	same as previous	same as previous
Immature/mature/pregnant rings. Cyclops and Diaptomus are intermediate hosts	same as previous	same as previous
		
Shores of large lakes	Pacific coast of South America. Peru 2% prevalence.	Shores of large lakes
Obstruction, Digestive disorders	same as previous	same as previous
Coprolology → eggs in faeces	same as previous	same as previous
Vit.B12, Praziquantel, Purgatives	same as previous	same as previous
Cooking >60°C, Freezing -20°C, Water, fish and	same as previous	same as previous

Nematodes			
Anisakis	Pseudoterranova	Contracaecum	Capillaria philippinensis
5-10 cm, mouth with 3 lips, dioecious, 4 larvae, Digestion			Females with stichosome 4mm Males with spicule sheath 3mm
			
Japan and Spain → Raw Fish	same as previous	same as previous	In the Philippines
Severe gastrointestinal pain and Allergic reactions	same as previous	same as previous	intestinal disorders, absorption ↓ K ⁺ and proteins
Serology or Endoscopy	same as previous	same as previous	Coprolology → eggs in faeces
Albendazole or worm removal	same as previous	same as previous	Albendazole and Praziquantel
Cooking >60°C, Freezing -20°C,	same as previous	same as previous	Cooking >60°C, Freezing -20°C,

Protozoa		
Phylum Microsporidia	Kudoa	Bivalve Molluscs
1-3 x 1.5-4 µm. Looks like an egg with layers Spirally coiled tube Intracellular obligated, the spore is the infective form.	same as previous but with double spirally coiled tube same as previous. Depends on the amount of ingested spores	they filter 20-200L of water a day each one. They store the filtered pathogens in their digestive tract, they are water related parasites
		
Everywhere, especially in tropical areas. Diarrhoea. Diseases (AIDS): gastrointestinal and systemic Coprolology, Biopsy or sputum, PCR, Serology (ELISA) Hydroelectrolytic support Albendazol and fumaquilin Be careful with food and drink, wash your hands, AIDS caution	same as previous Diarrhoea and vomiting 2-20h Coprolology → eggs in feces same as previous Cooking >60°C, Freezing -20°C,	everywhere where you can eat molluscs Japan, Korea, Africa Discussed in the water related parasites - - Cooking >60°C, Freezing -20°C, Water control, mainly

Plathelminthes > Trematodes > Digenea			
Paragonimus westermani	Clonorchis and Opisthorchis	Nanophyetus salmincola	Heterophyes heterophyes
12 x 6 x 5 mm, same size suction cups Post-acetabular genital pore, 2 testicles, branched ovary, uterus, eggs 85x50 µm	1-2 cm 0,7-1,2 cm Operculate eggs with a small spicule	97 x 55 µm, 5 to 16 eggs in the uterus They attach to the intestines (suction cups) → inflammation	1,4 mm with "hairs" They attach to the small intestines causing inflammation. Affects other animals as well
			
Consumption of freshwater crustaceans. Asia, Africa Respiratory symptoms, brown sputum (eggs), granulomas Coprolology and sputums Praziquantel Cooking >60°C, Freezing -20°C,	South-East Asia, freshwater fishes. Prevalence: 17x10 ⁶ Asymptomatic, nausea, general Coprolology → eggs in faeces Praziquantel and Albendazol Cooking >60°C, Freezing -20°C,	North America in animals that eat infected fish Neorickettsia: gastroenteritis with bleeding Coprolology → eggs in faeces Praziquantel and doxycycline Cooking >60°C, Freezing -20°C,	Middle East, Nile Delta Region Diarrhoea, pain, eosinophilia. Epilepsies and myocarditis Coprolology and serology Praziquantel, Niclosamide Cooking >60°C, Freezing -20°C,

