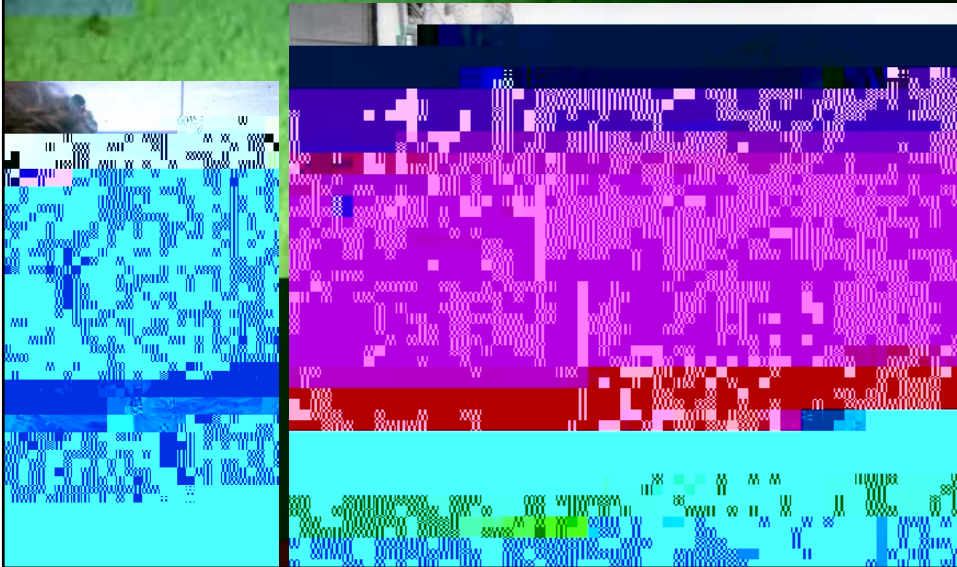
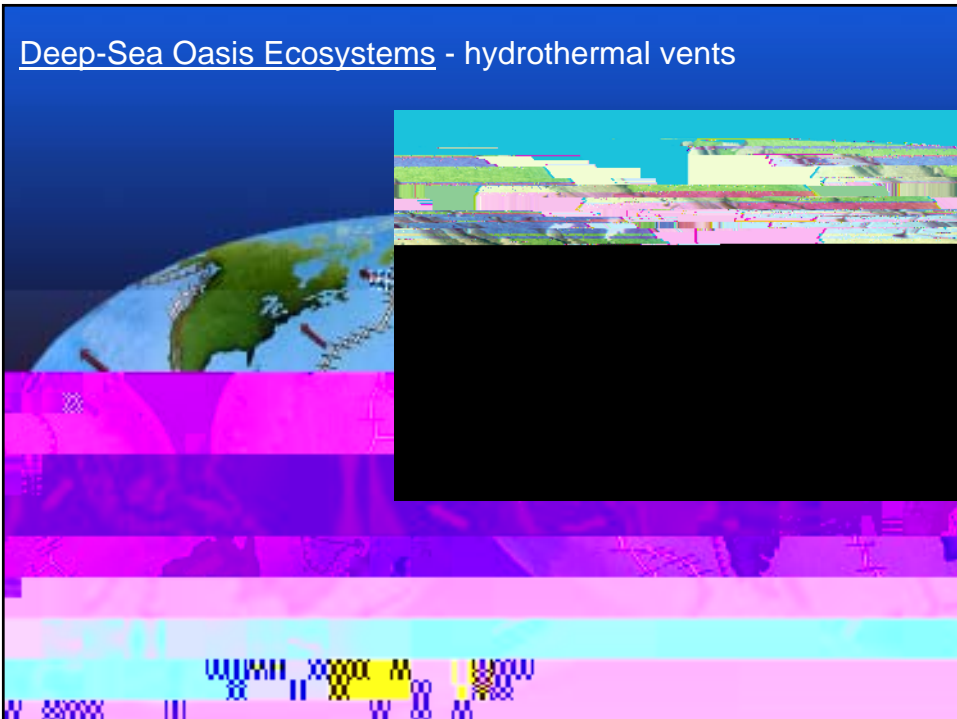


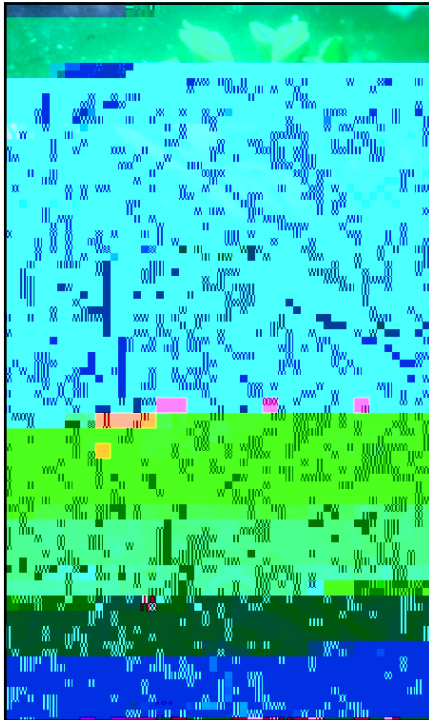


Marine Scientific Research - a major user of the deep seabed



Deep-Sea Oasis Ecosystems - hydrothermal vents



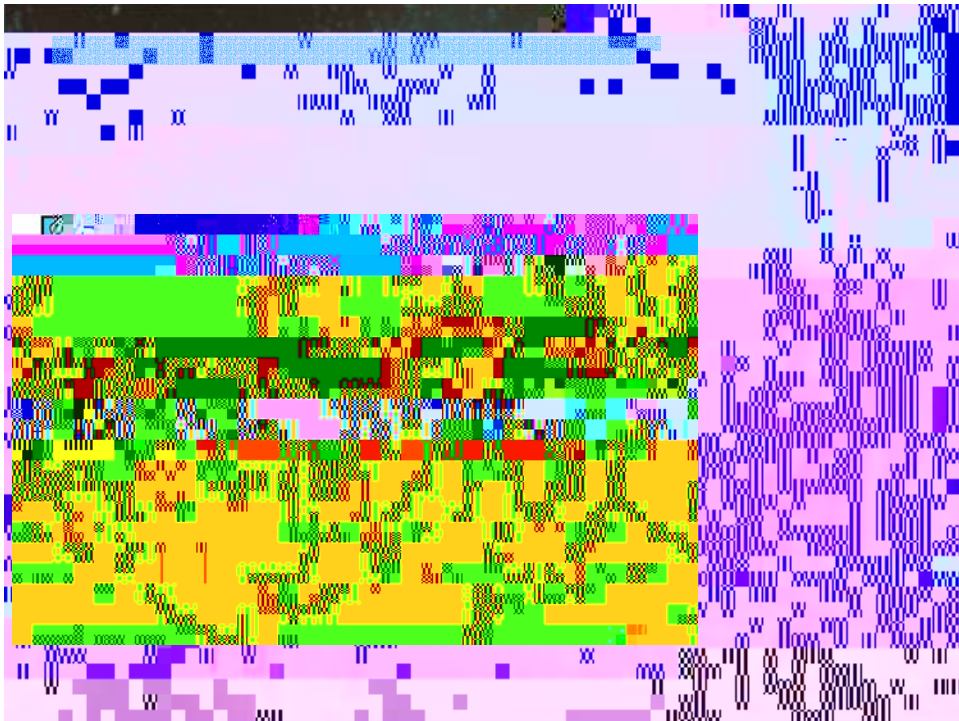


Hydrothermal vent ecosystems

Specialised animals and microbes colonise seafloor vents

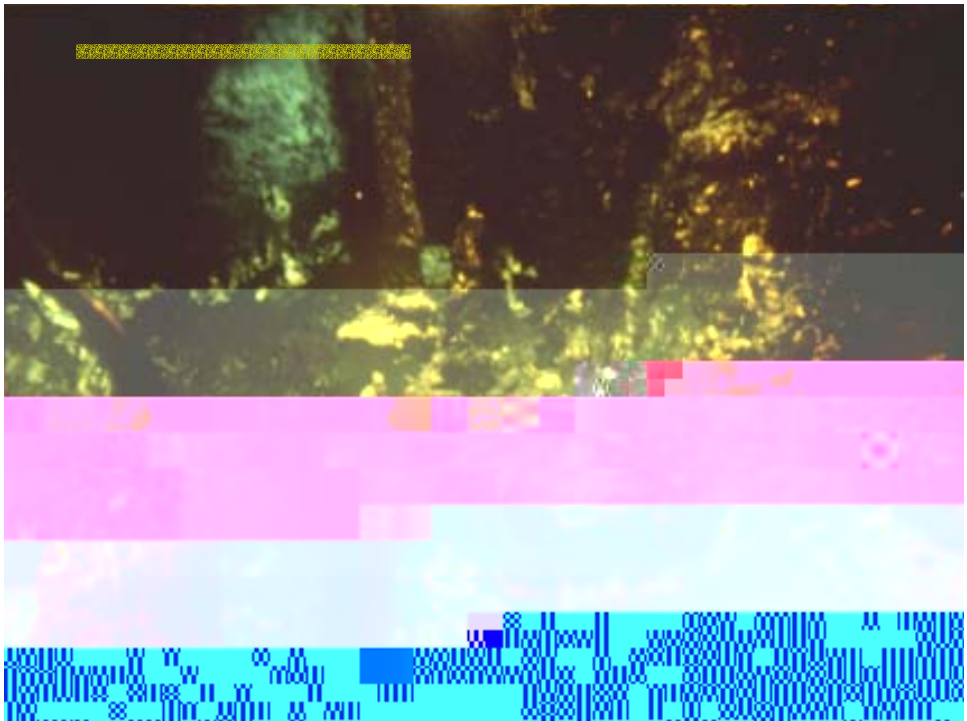
H₂S and other substances provide energy for *chemosynthesis* of new organic matter

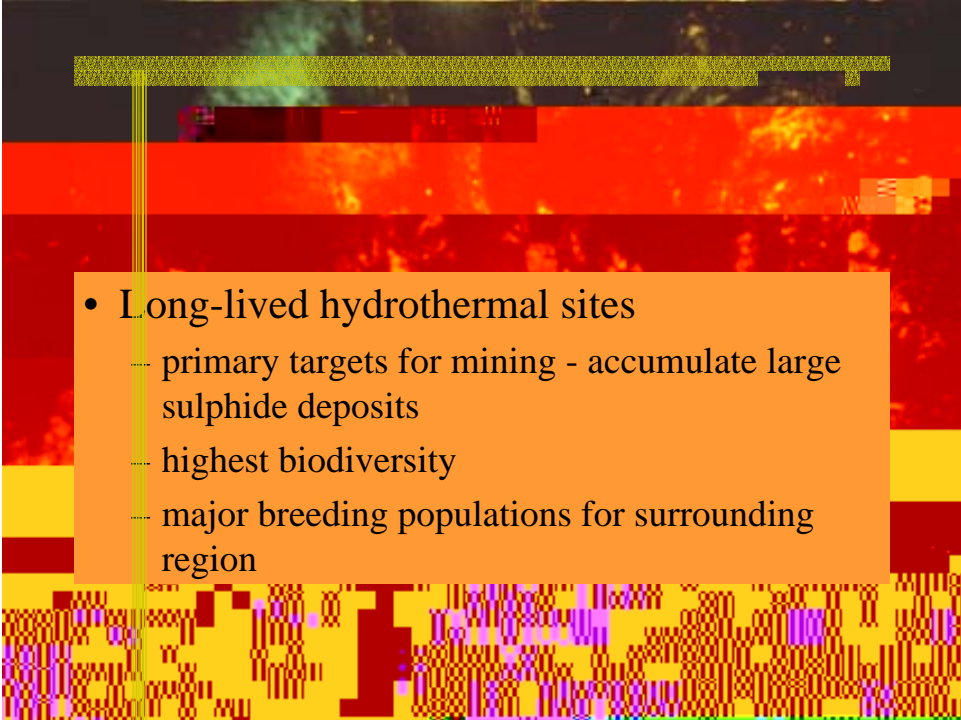
High biomass and rapid growth



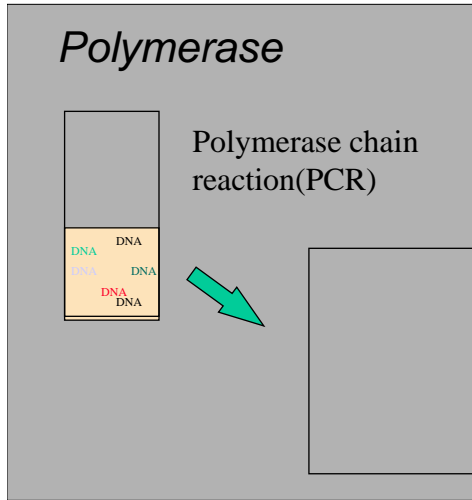
Vent fauna and mineral deposits - a surprising intimacy

Faunal mosaic
colonises active
edifices



- 
- Long-lived hydrothermal sites
 - primary targets for mining - accumulate large sulphide deposits
 - highest biodiversity
 - major breeding populations for surrounding region

Genetic Resources - extreme enzymes

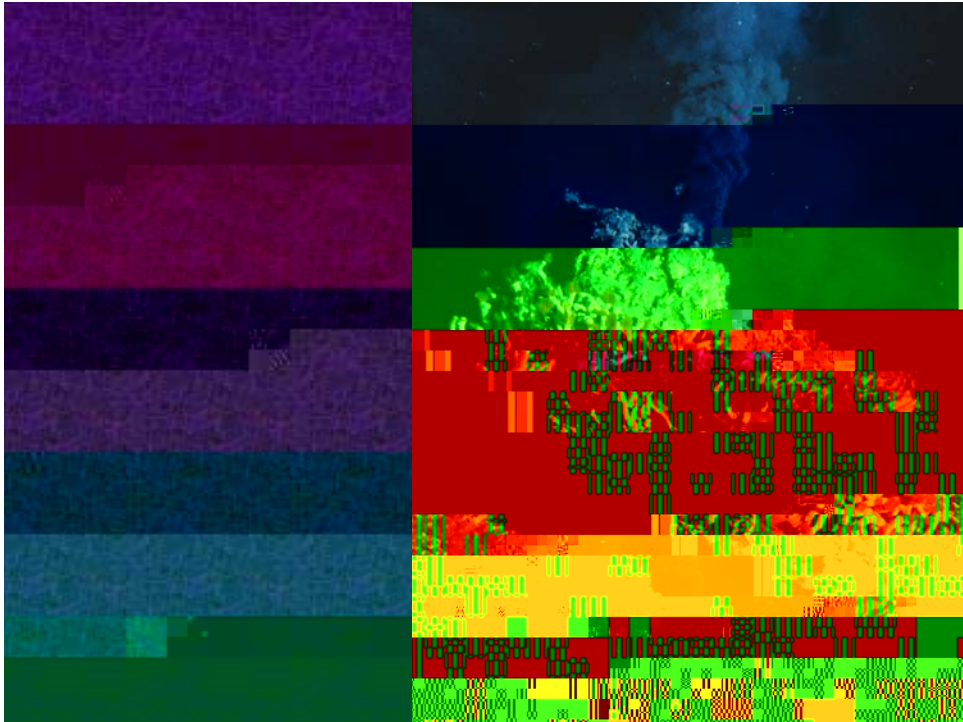


Artificial human blood from marine worms?

Human blood

§ Nutrient/ waste transport

§



*Code of Conduct for the Sustainable Scientific
Use of Marine Hydrothermal Vent Sites*

Basic Principles

Organizations and individuals undertaking marine scientific research (MSR) activities should commit themselves to the following basic principles:

1. Identify and comply with international, national and sub-national laws and policies;
2. Minimise or eliminate actual or potential conflicts or interference with existing or planned MSR activities;
3. Minimise or eliminate adverse environmental impacts through all stages of an activity.



