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Answers

* Bioturbation

To my understanding, Bioturbation is the reworking of soils and sediments by animals or plants. These include burrowing, ingestion, and defecation of sediment grains. Bioturbating activities have a profound effect on the environment and are thought to be a primary driver of biodiversity. The disruption of aquatic sediments and terrestrial soils through bioturbating activities provides significant ecosystem services. These include the alteration of nutrients in aquatic sediment and overlying water, shelter to other species in the form of burrows in terrestrial and water ecosystems, and soil production on land. Other bioturbation effects include altering the texture of sediments (diagenesis), bioirrigation, and displacement of micro-organisms and non-living particles.

* Bioirrigation

The term ‘Bioirrigation’ refers to the process of benthic organisms flushing their burrows with overlying water. Coastal aquatic environments often have organisms that destabilize Sediment. They change the physical state of the sediment. Thus improving the conditions for other organisms and themselves. These organisms often also cause Bioturbation, which is commonly used interchangeably or in reference with bioirrigation. Bioirrigation works as two different processes. These processes are known as particle reworking and ventilation, which is the work of benthic macro-invertebrates (usually ones that burrow). This particle reworking and ventilation is caused by the organisms when they feed (faunal feeding), defecate, burrow, and respire.

Some burrowing organisms involved in biological processes of diagenesis include;

1. Earthworms
2. Mud shrimps
3. Polychaetes
4. Midge larvae
5. Ghost shrimps