

Reading Material

On reserve in:

Undergrad Library - hard copies

Class website

UW library site - www.lib.washington.edu

"Sediments", from "Oceanography"

M.G. Gross, Prentice-Hall

Distribution of Marine Sediments

Lithogenic sediment

dominates near continents (shelf, slope, rise)
because source from land
glacial at high latitudes, fluvial at all latitudes

Biogenic sediment

dominates away from lithogenic sediments, usually away from continents
(exception: calcareous sediment can dominate some low-latitude beaches)

calcareous sediment (foraminifera) found on flanks of mid-ocean ridges
because it dissolves in water >4000 m deep

siliceous sediment found where nutrient supply is great
nutrients stimulate marine productivity (diatoms, radiolarians)

Authigenic sediment and red clay

dominates away from continents, in water depths >4000 m, not high prod
because they are overwhelmed everywhere else by lithogenic and biogenic

BIOGENOUS SEDIMENT

- Calcareous sediment
- Siliceous sediment
- Radiolarians
- Diatoms

LITHOGENOUS SEDIMENT

- Deep-sea muds
- Terrigenous sediments (turbidites, deep-sea fans)
- Glacial-marine sediments

