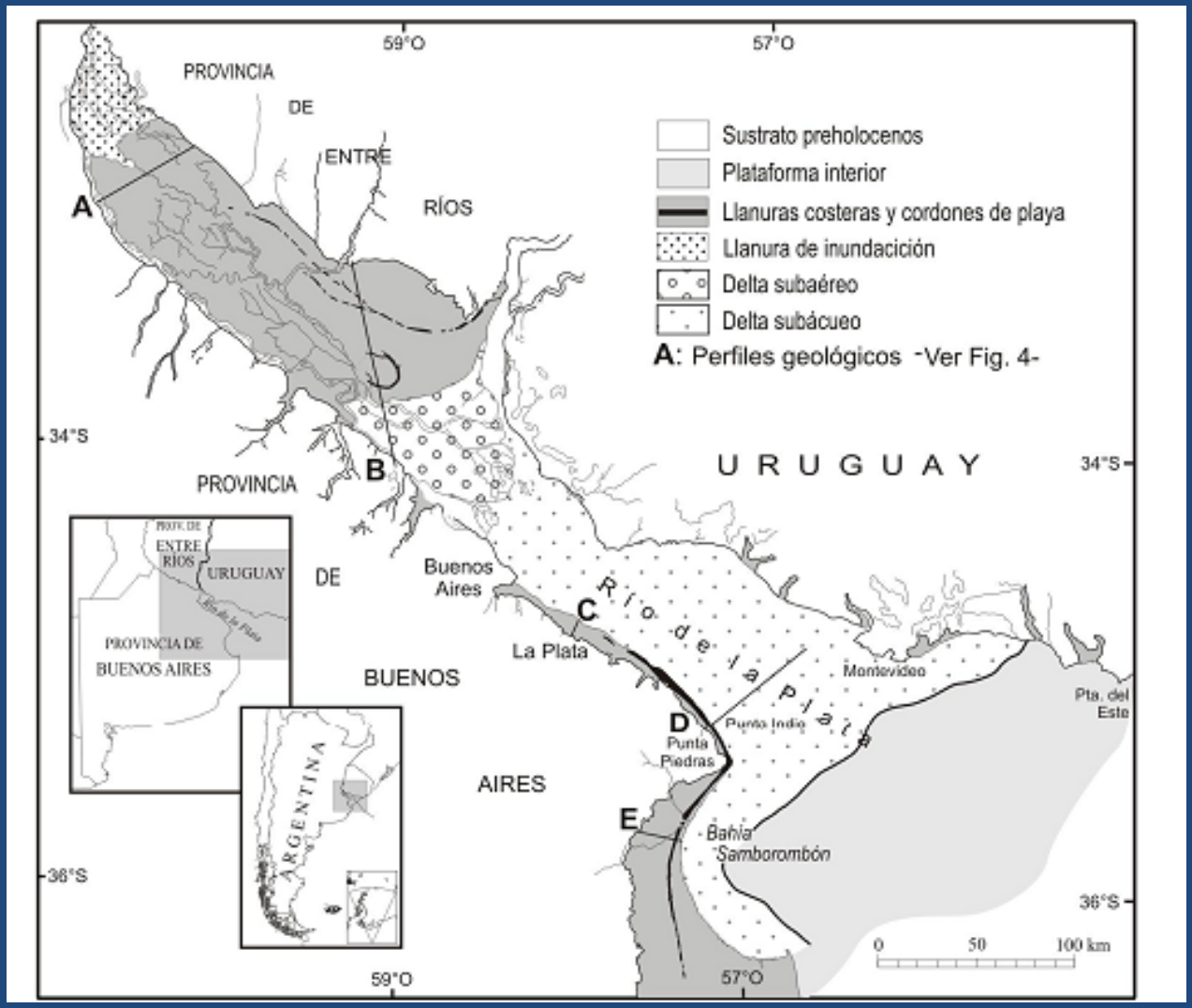
Rio de la Plata

Cuenca de drenaje

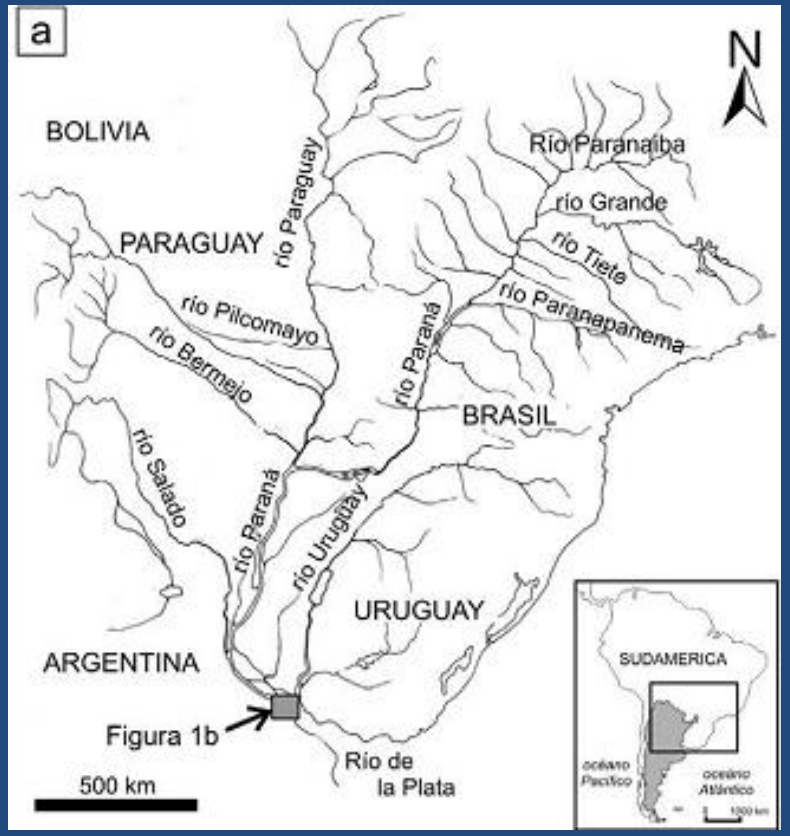
Rio de la Plata: Punto de vista geológico

Etapa evolutiva mas reciente



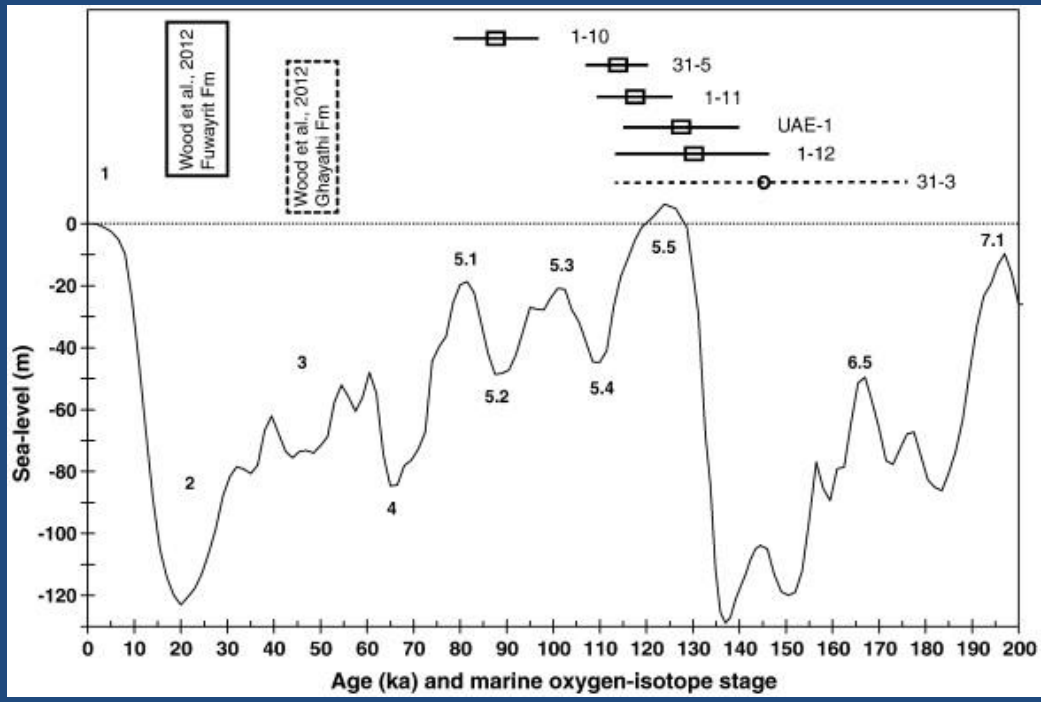
Origen y evolución estructural

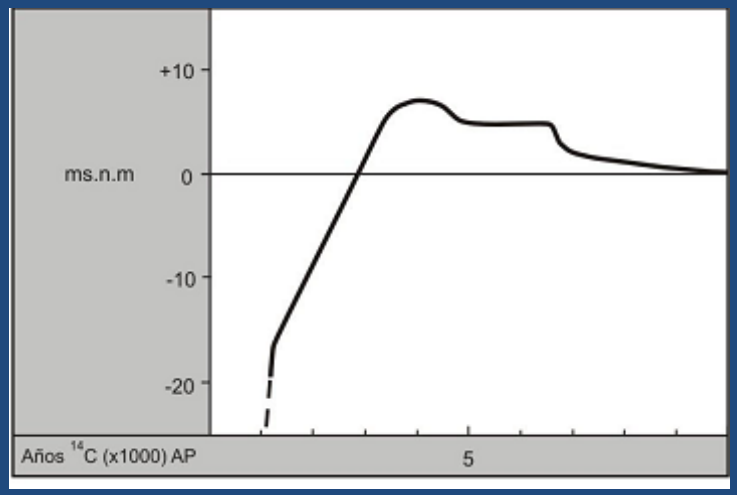
2.4 ma: Plioceno



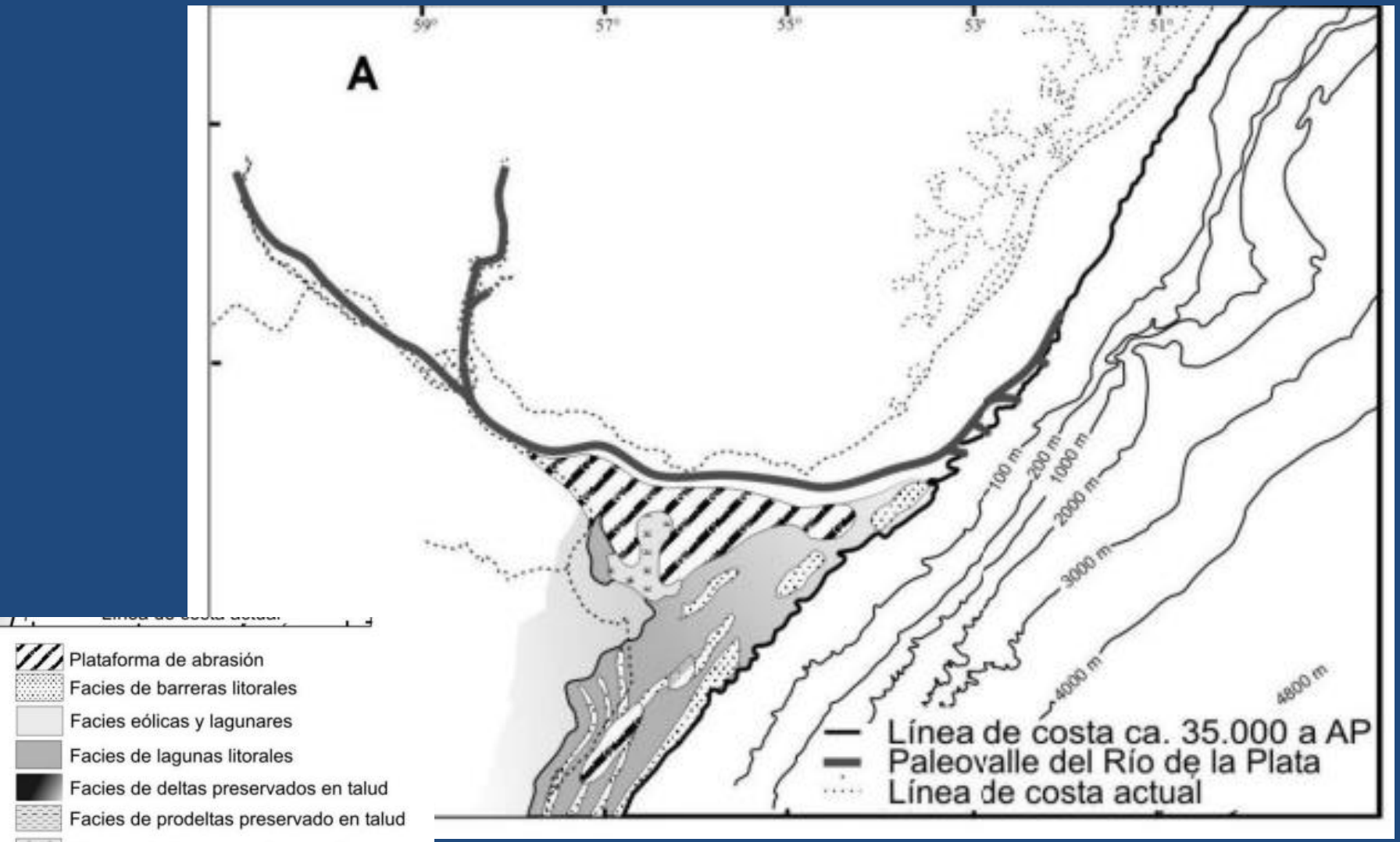
Variaciones en el nivel del mar

Era[1]	Periodo	Época	Millones años
Cenozoico	Cuaternario	Holoceno	0,01 (~10.000 a.C)
		Pleistoceno	2,59
	Neógeno	Plioceno	5,33
		Mioceno	23,03
	Paleógeno	Oligoceno	33,9
		Eoceno	56,0
		Paleoceno	66,0

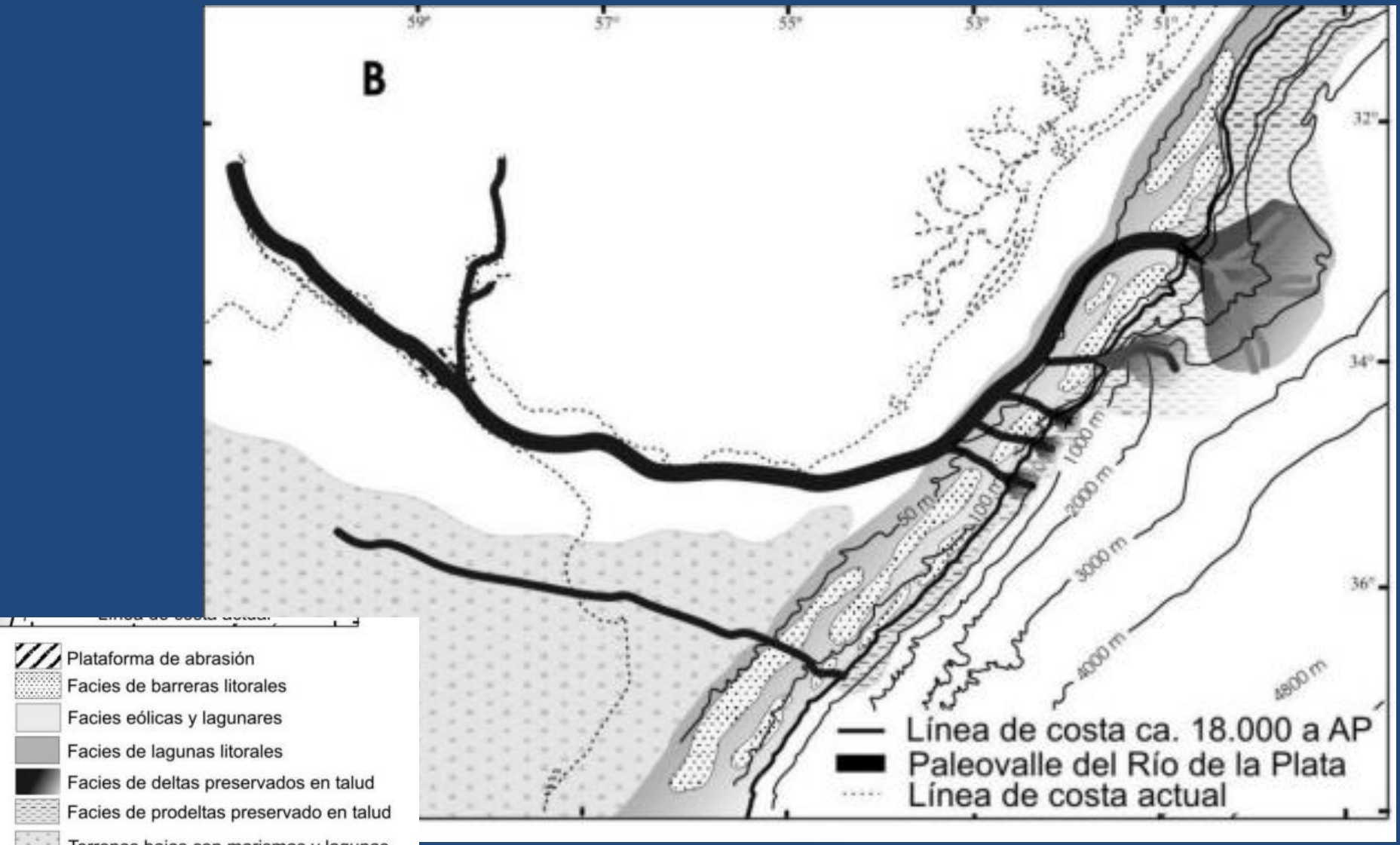




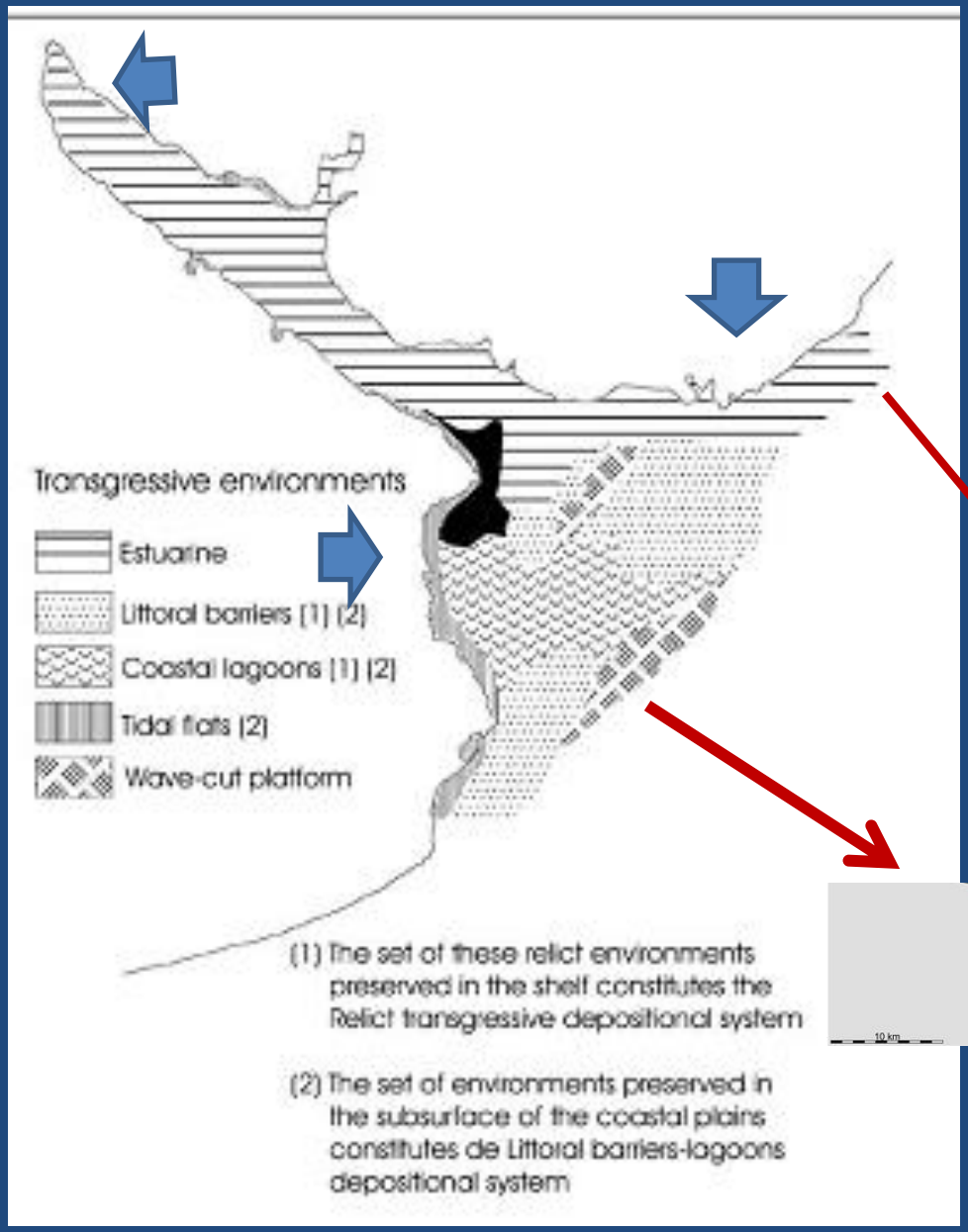
Evolución sedimentológica: MIS3

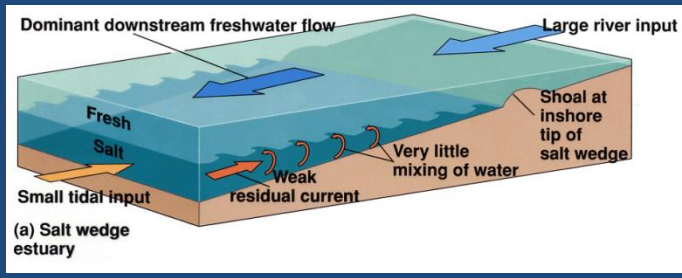


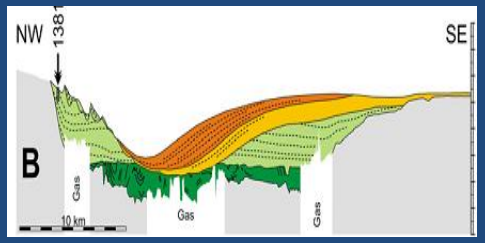
Evolución sedimentológica: Ultimo máximo glacial

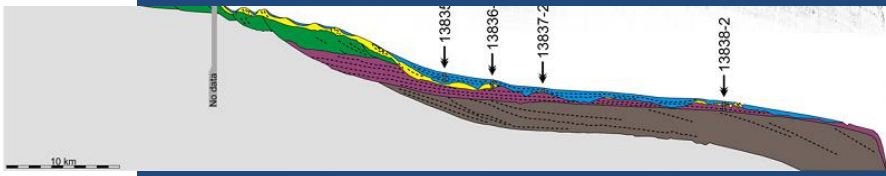


Evolución sedimentológica: Transgresión Holocénica

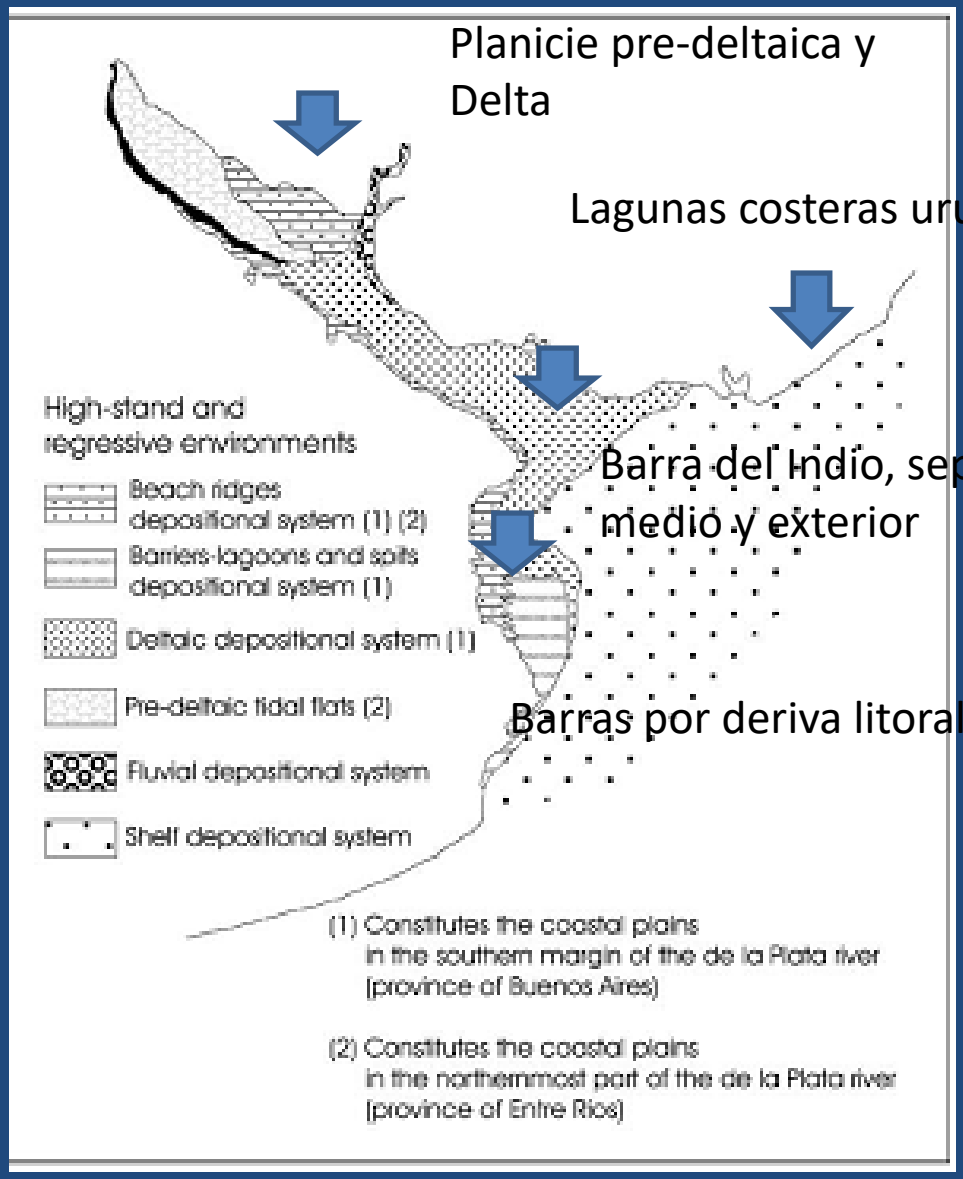




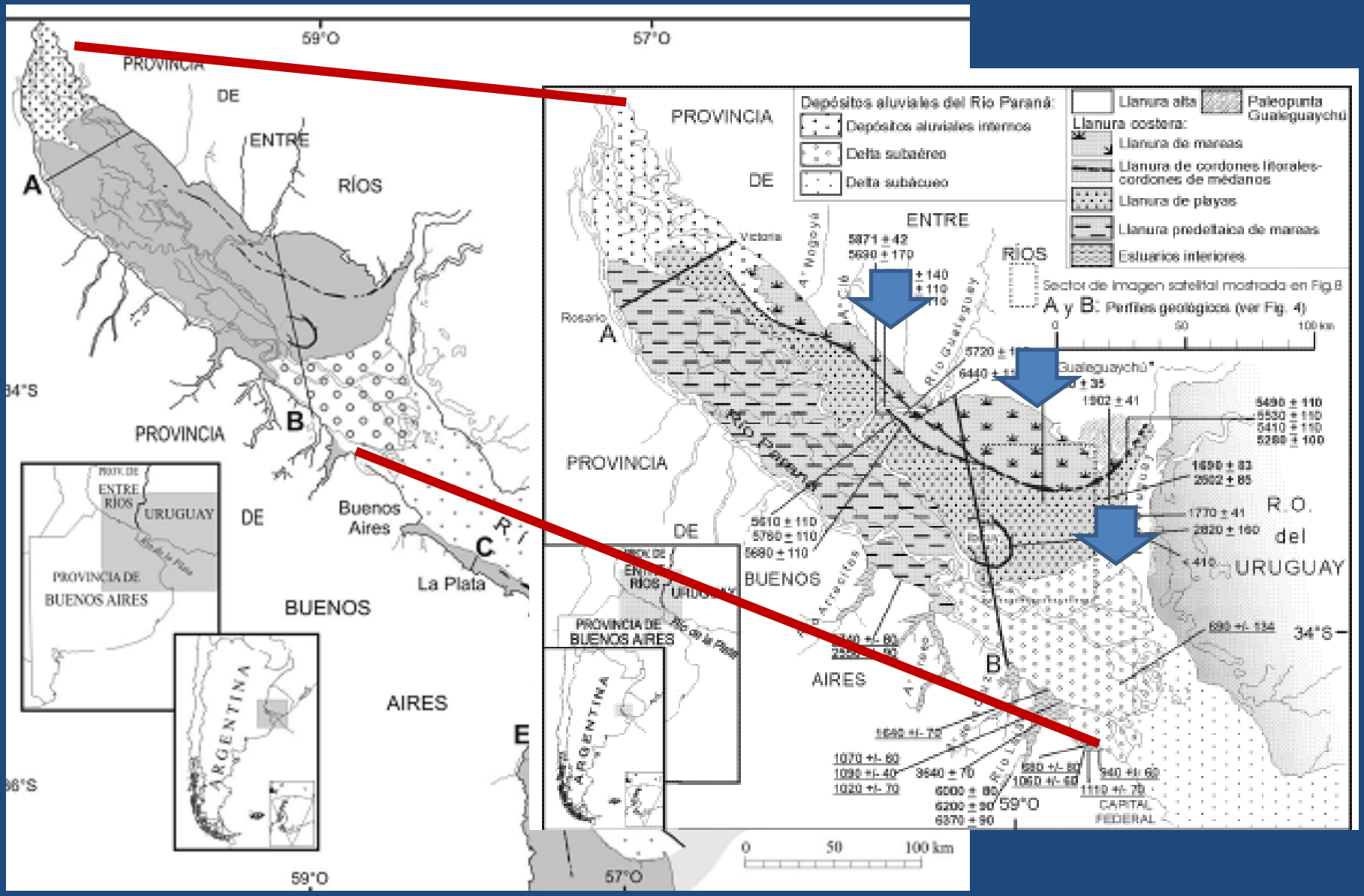




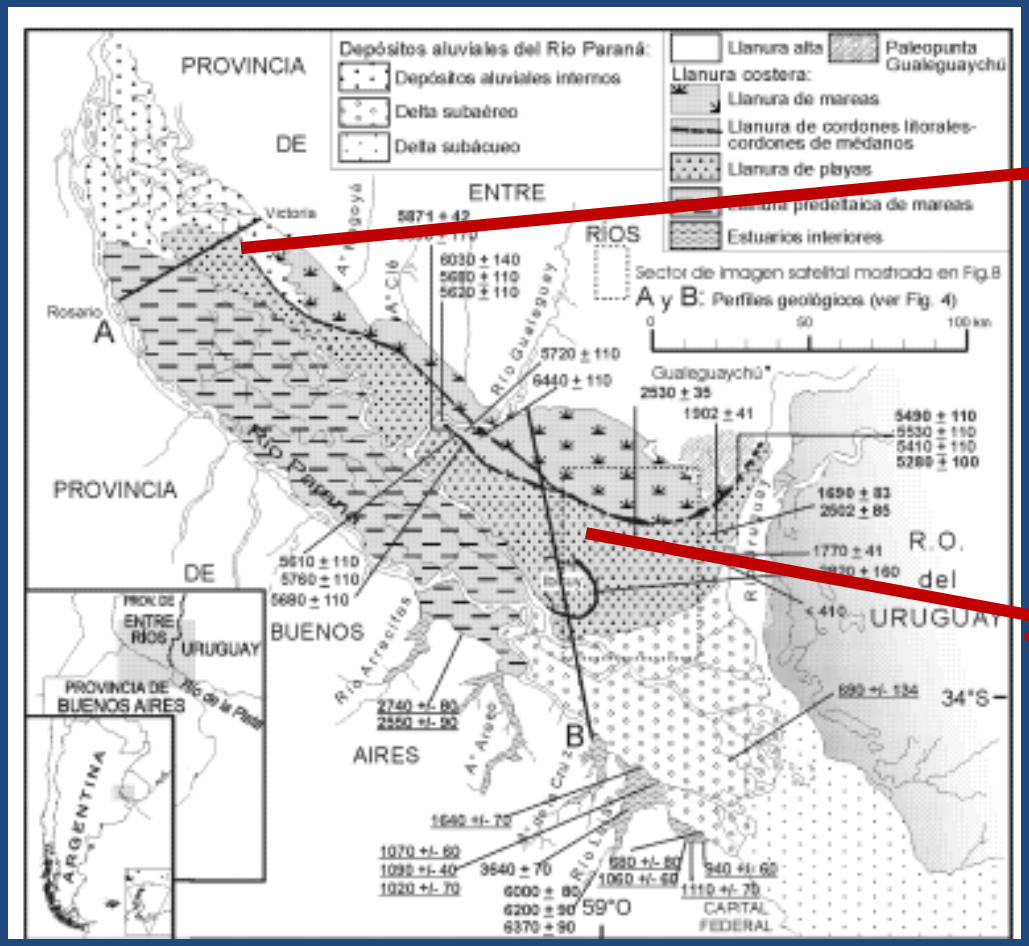
Evolución sedimentológica: Regresión Holocénica

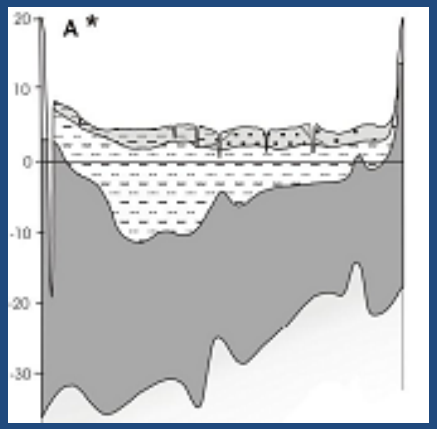


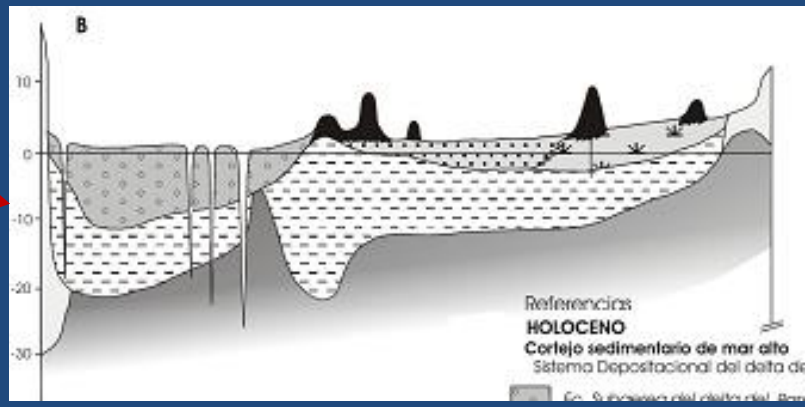
Evolución sedimentológica: cabecera del rio



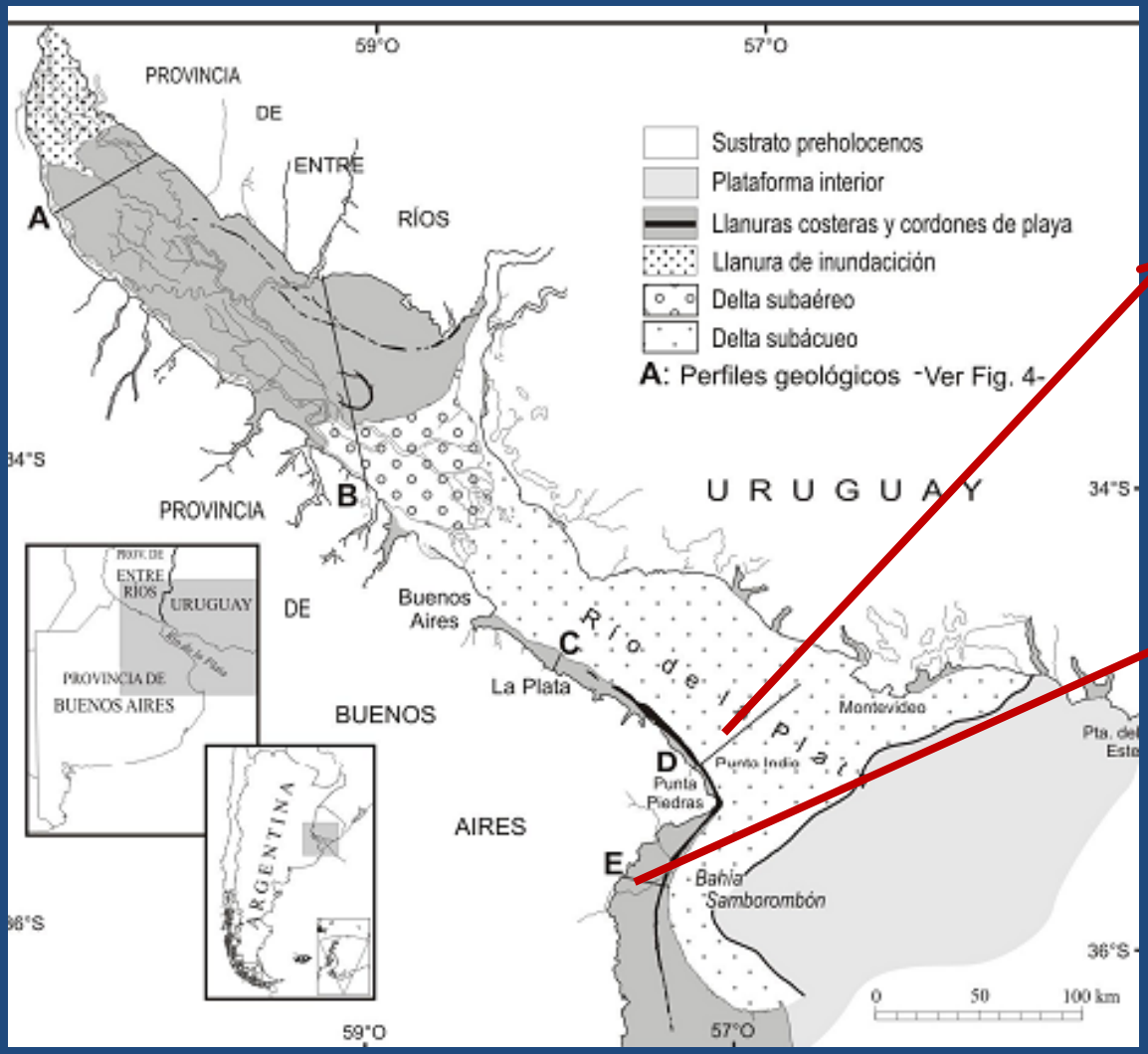
Evolución sedimentológica: cabecera del rio

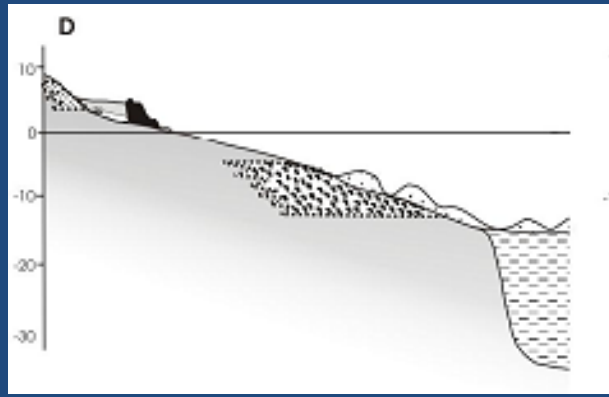


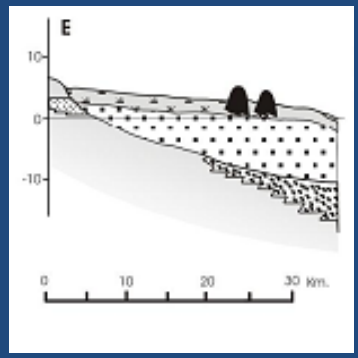


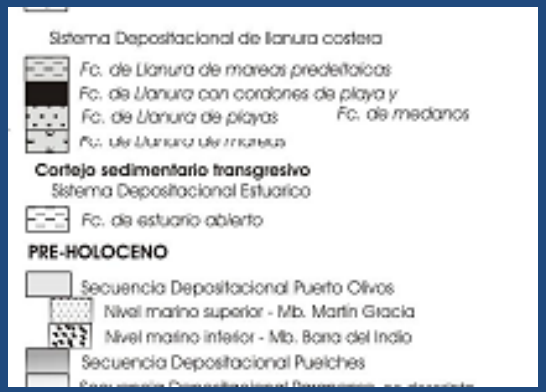


Evolución sedimentológica: rio medio y exterior









Evolución sedimentológica: Sedimentación actual y geoformas

Evolución sedimentológica: Sedimentación actual y geoformas

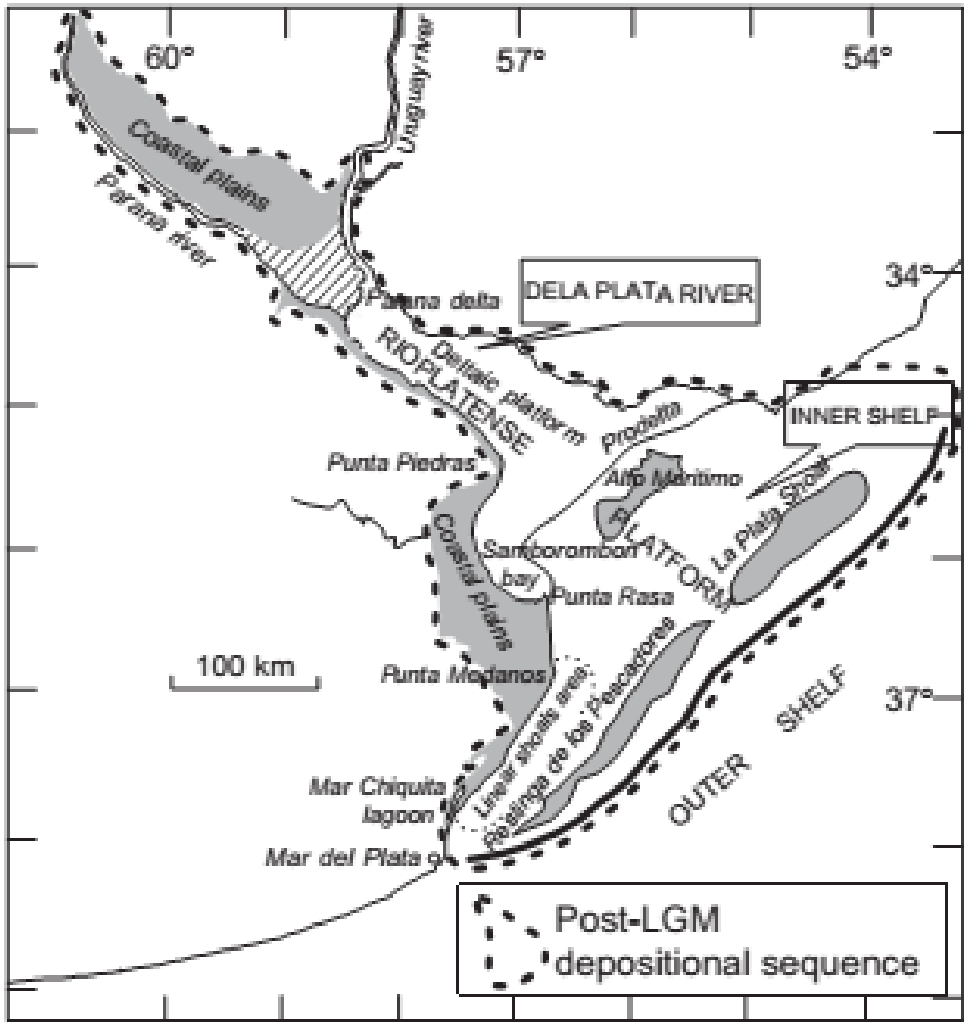


Fig. 2. Regional distribution of the post-LGM depositional sequence and its main morphological features.

Ambiente de arrecifes de coral

Ambiente y estructura

Larvas adhieren a sustratos

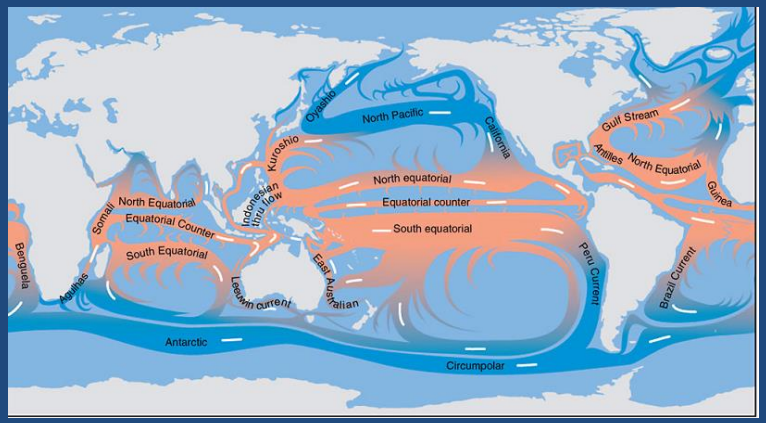
Corales solitarios y principalmente coloniales

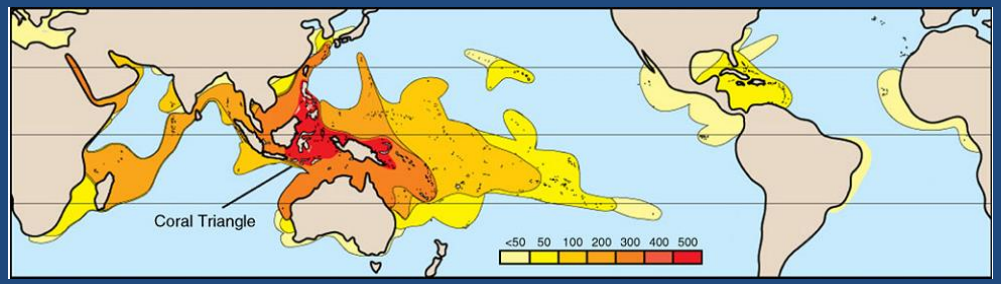
Zooxantelas

Ambiente y estructura

Otros organismos calcáreos y no calcáreos (moluscos, equinodermos, protozoarios, algas)

Ambiente y estructura





Corrientes y dispersión de taxa

Aguas someras y luz

Temperatura 22 a 28°

Salinidad 30-40 pp

Estructuras del arrecife

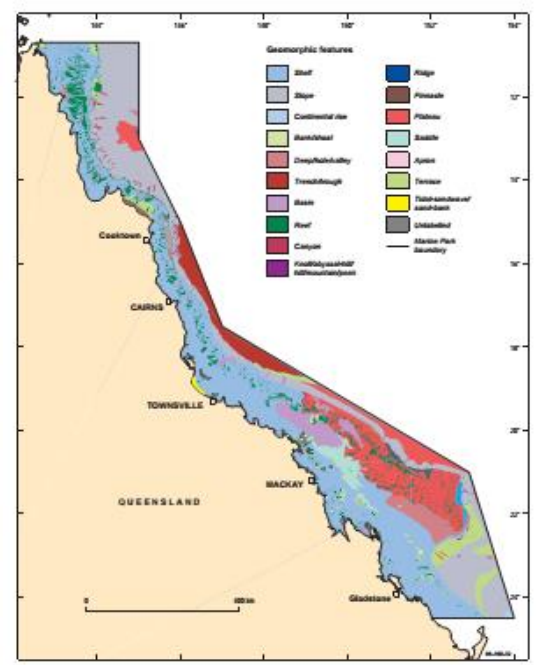
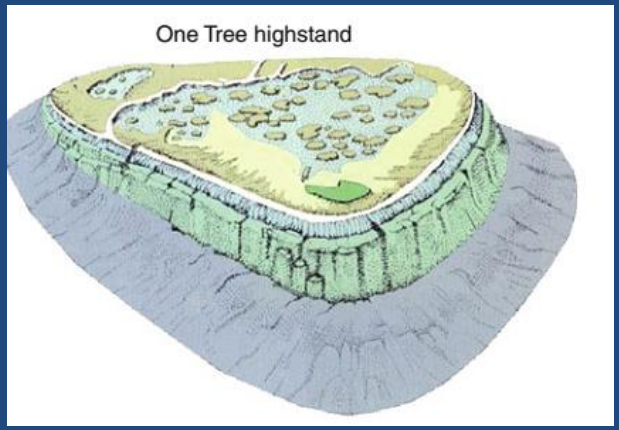


Figure 2.5. Geomorphic features of the north east margin of Australia, illustrating the main geomorphic units on the continental shelf and slope within the Marine Park (from Harris et al., 2003).



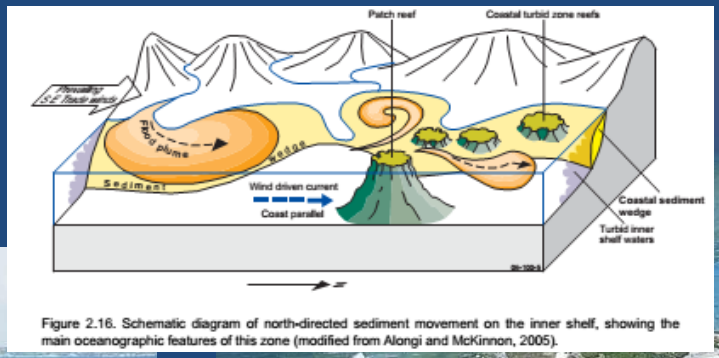
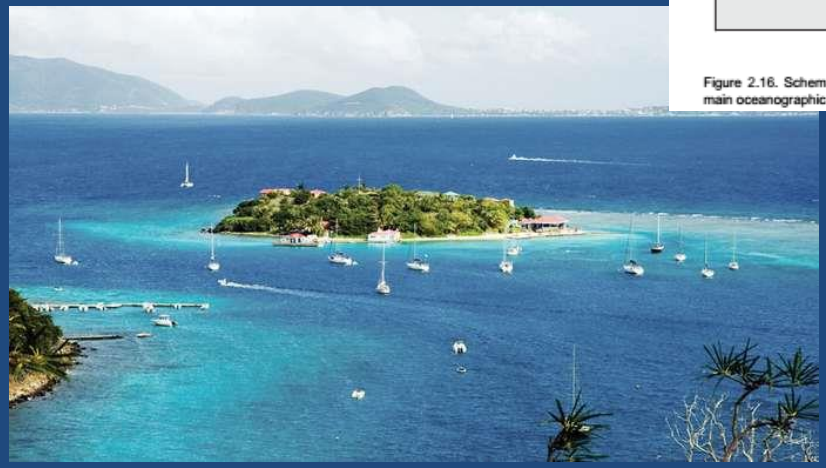
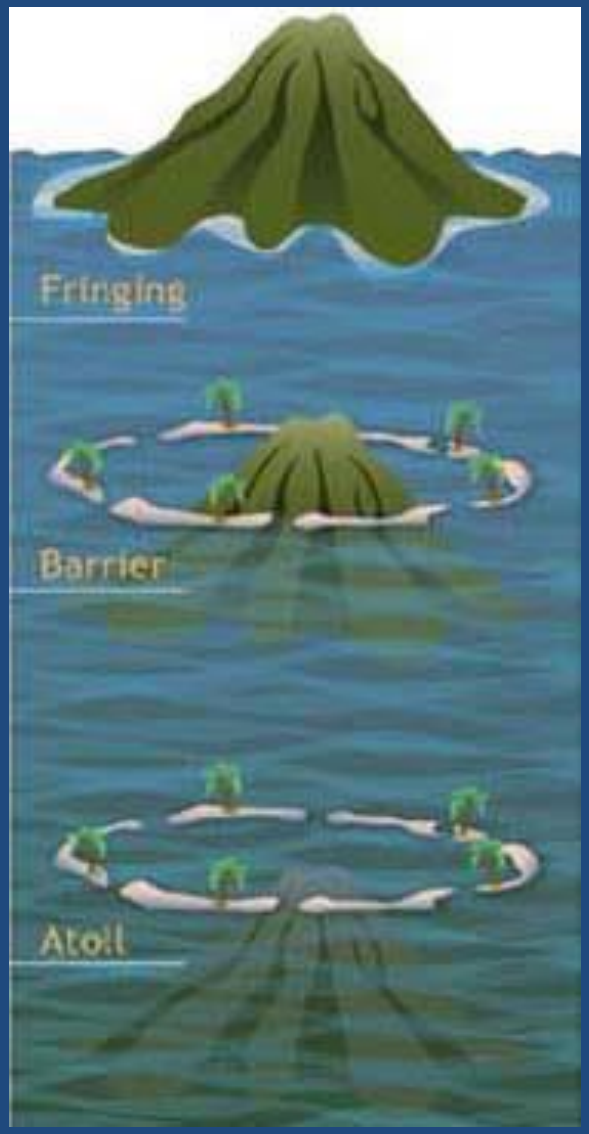


Figure 2.16. Schematic diagram of north-directed sediment movement on the inner shelf, showing the main oceanographic features of this zone (modified from Alongi and McKinnon, 2005).



Tipos de arrecifes de coral

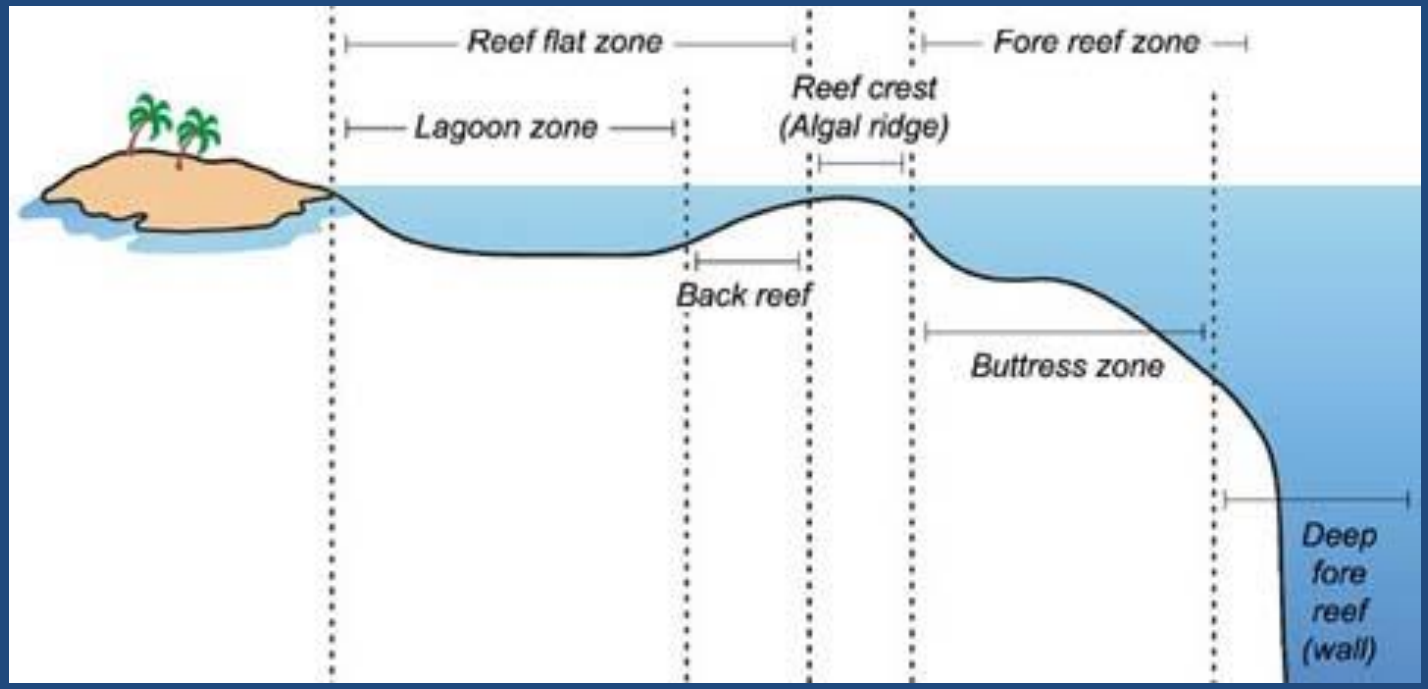


Arrecifes costeros

Arrecifes de barrera, separados por una laguna profunda

Atolones, arrecife crece y la isla volcanica subside o el mar transgrede formando laguna central

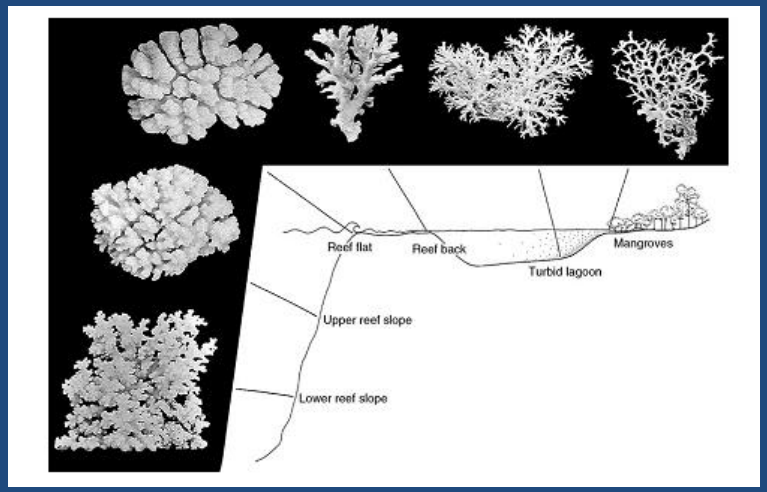
Estructura espacial de arrecife de barrera



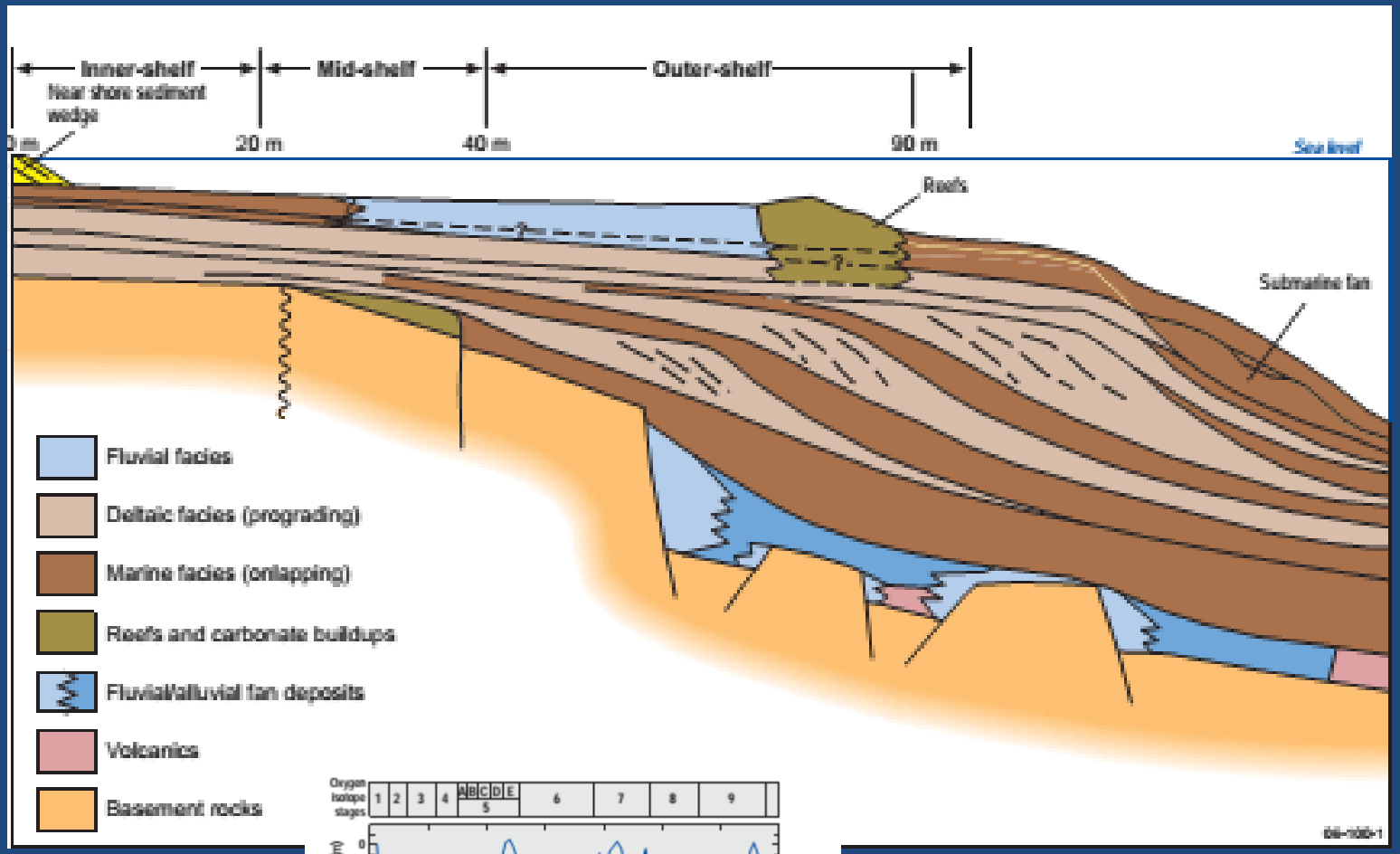
Laguna somera

Cresta del arrecife

Frente del arrecife



Evolución : Gran Barrera de Coral



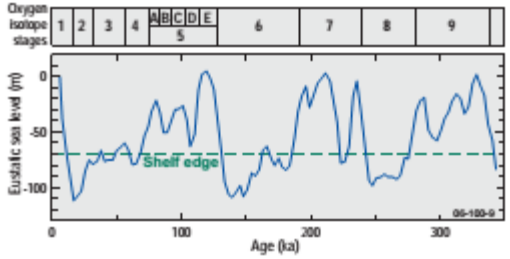
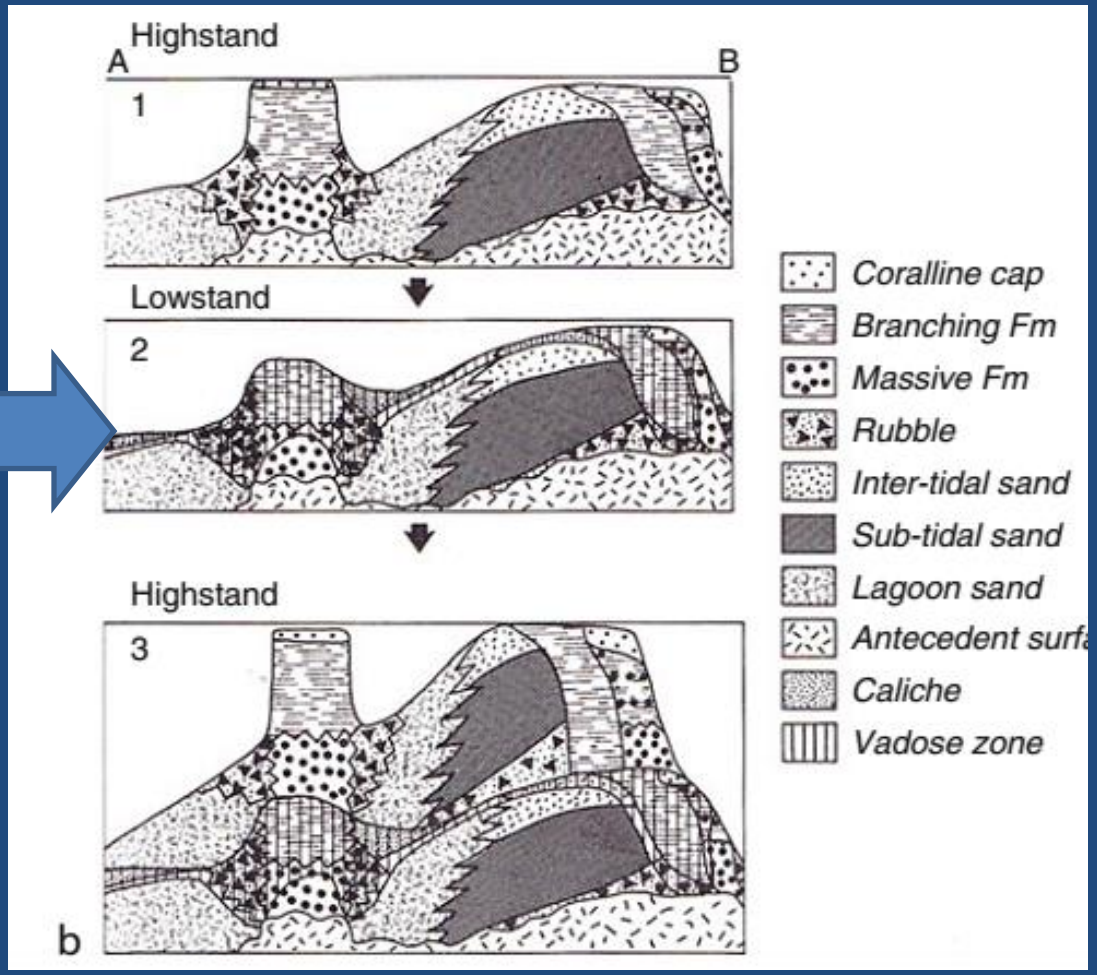


Figure 2.3. Eustatic sea level curve for the north Queensland shelf over the last 350 ky, relative to the central GBR (modified from Dunbar et al., 2000).

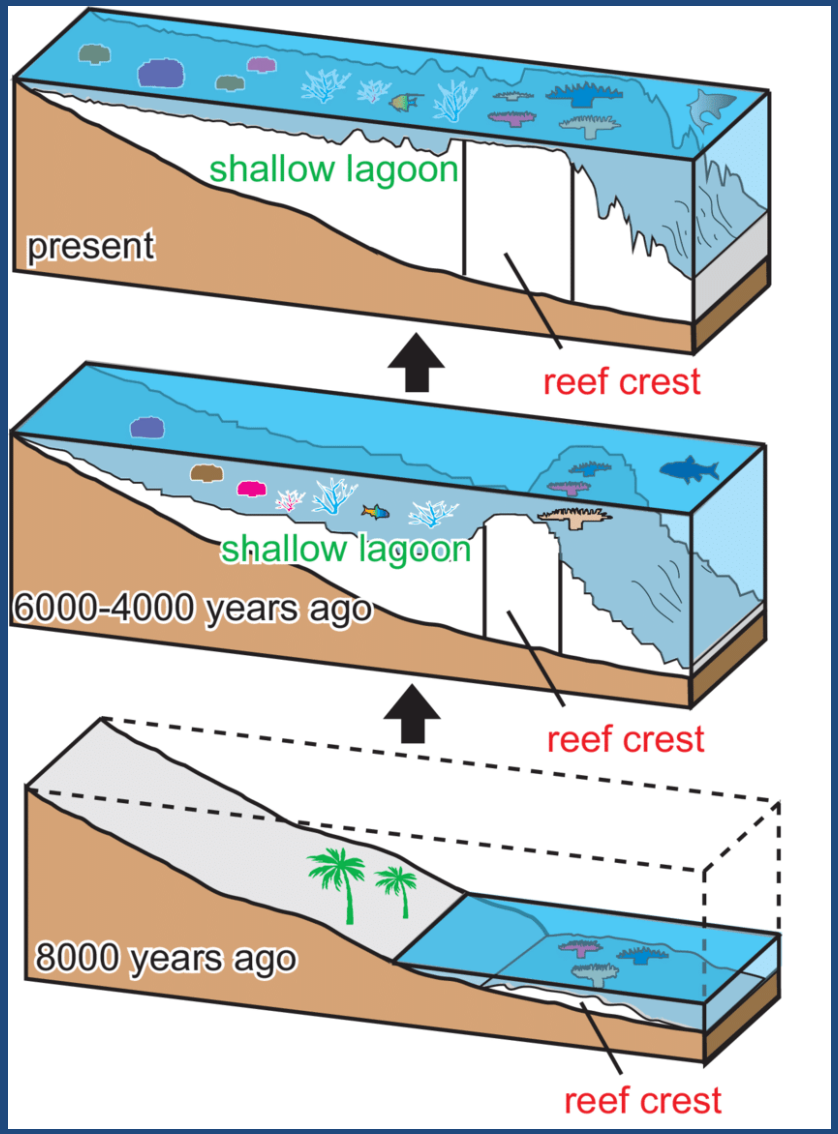
Ciclos glaciales: construccion de la plataforma

Crecimeinto de coral en Pleistoceno

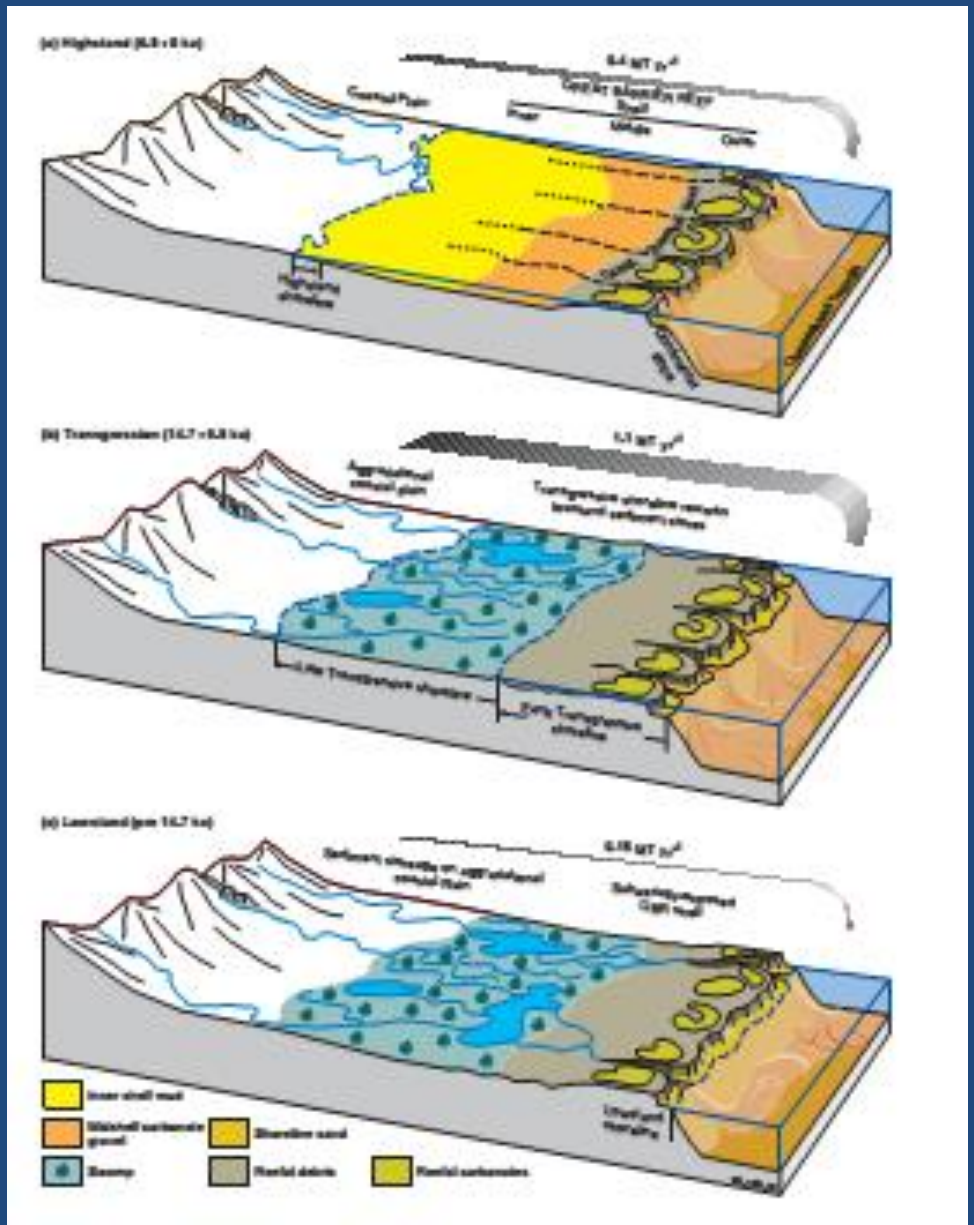
Evolución durante regresiones



Evolución en ultima transgresión



Evolución de sedimentos en ultima transgresión



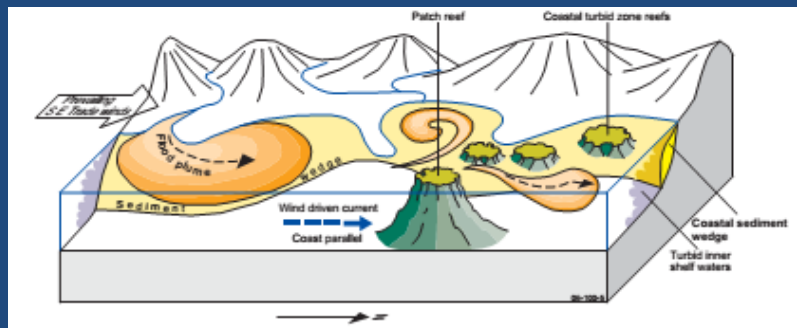


Figure 2.16. Schematic diagram of north-directed sediment movement on the inner shelf, showing the main oceanographic features of this zone (modified from Alongi and McKinnon, 2005).

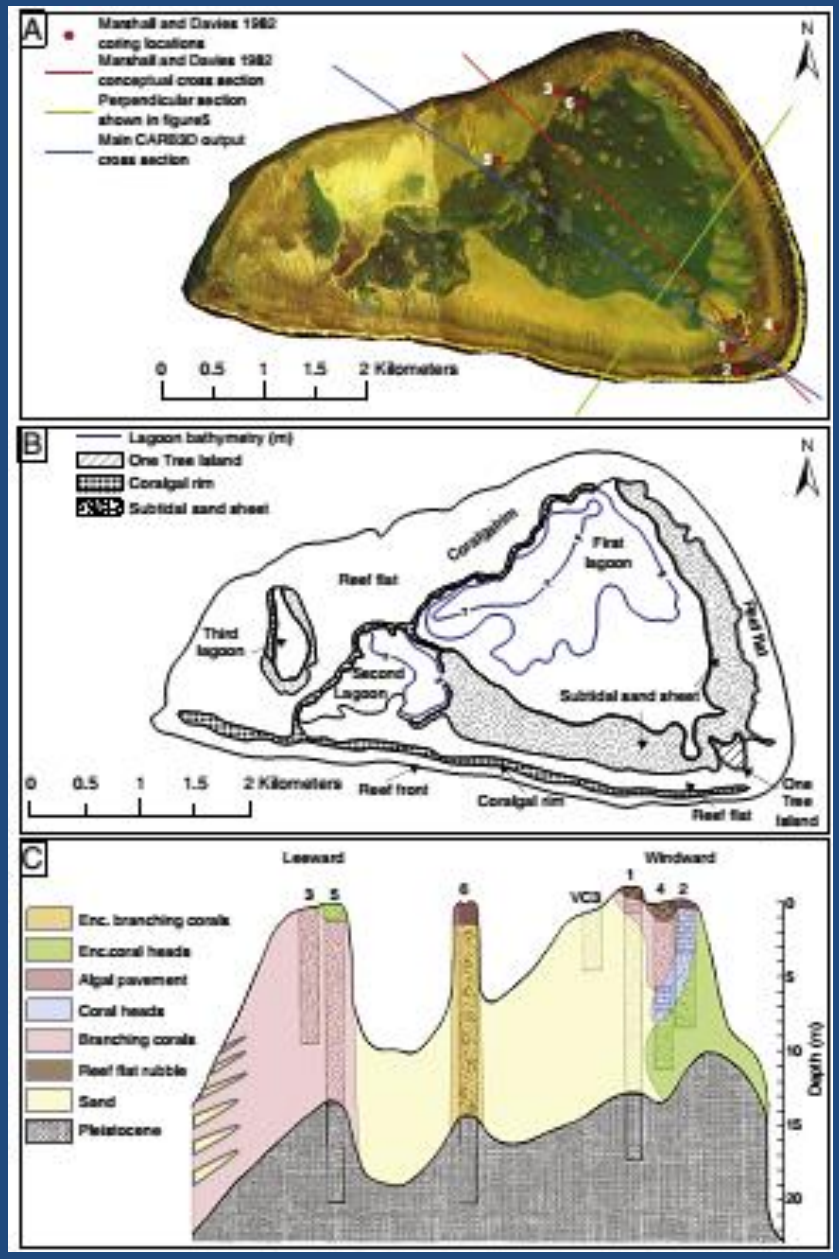
Material terrigeno y carbonático

Karst e islas

Transporte siliciclastico

Registros paloclimáticos y paleosedimentolóogicos

Registros paleosedimentolóogicos



Registros paloclimáticos

Sr/Ca ratios
Stable carbon and oxygen isotopes