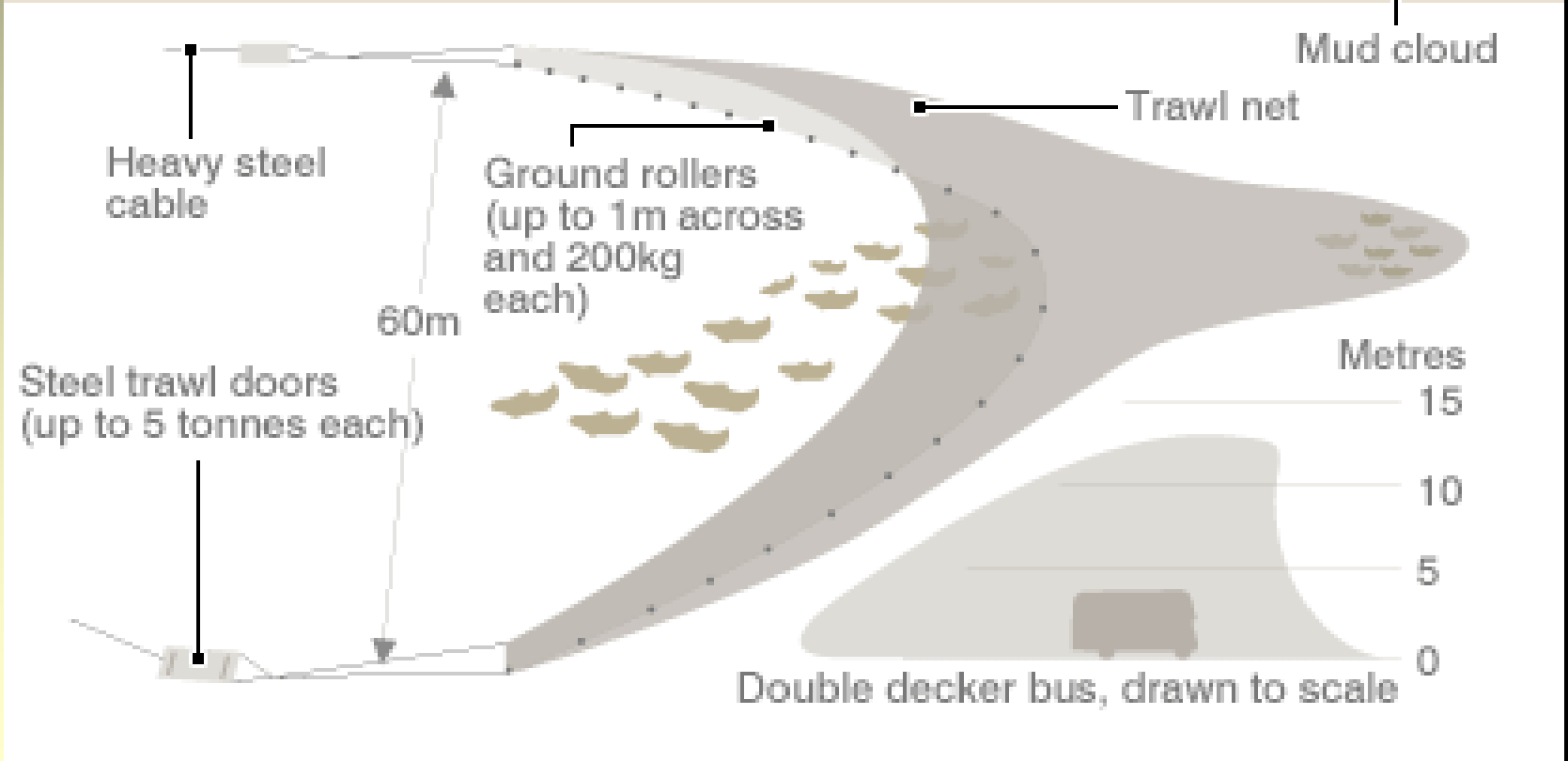
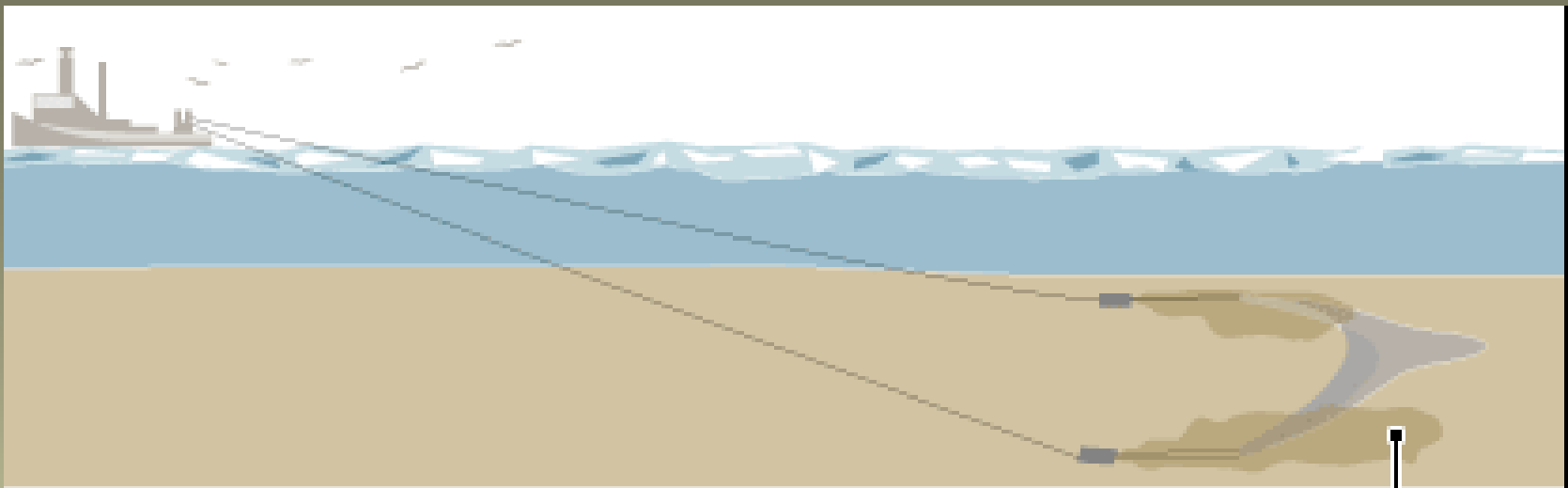


Destruição e descaracterização dos naufrágios por redes de arrasto de pesca.



Deep-Sea Fishing Impacts on the Shipwrecks of the English Channel & Western Approaches Sean A. Kingsley Wreck Watch Int., London, UK

Pesca com rede de arrasto: funciona com um ou dois barcos trabalhando em conjunto e arrastando uma única rede que atua em contato com o fundo. Pesos de chumbo na parte inferior e boias na parte superior da rede mantêm a sua abertura vertical.

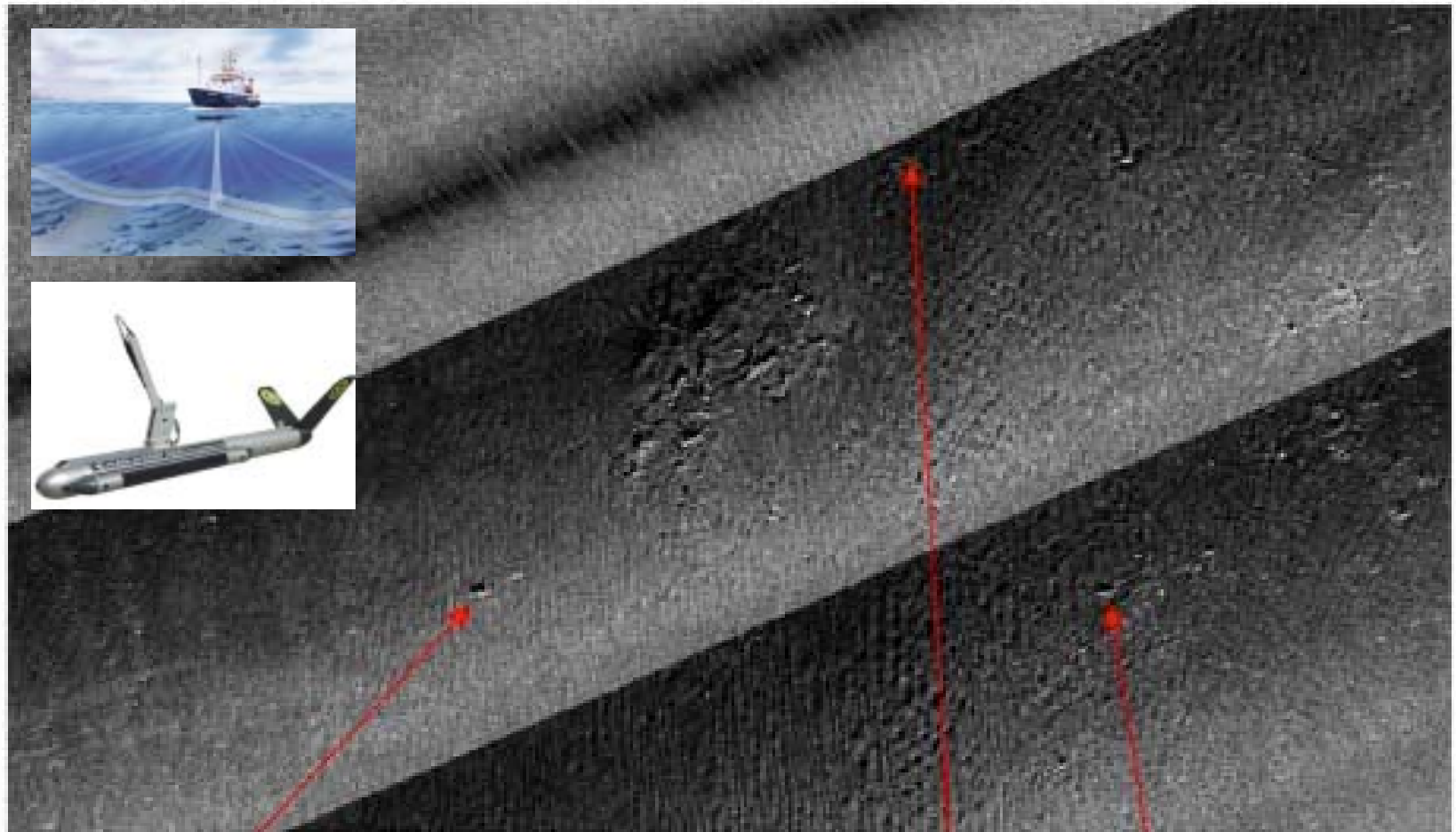




INFLUÊNCIA DAS REDES DE ARRASTO DE PESCA

Type of Gear	Gear in Contact with Seabottom	Typical Width of Major Disturbing Parts (m ship ⁻¹)	Towing Speed (knots)	Penetration Depth (cm)
Beam trawl (flatfish)	Trawl shoes, tickler chains, chain mats			
A). Offshore (>12 miles)		12.0 x 2	6	>6
B). Inshore (<12 miles)		4.0 x 2	5	?
Shrimp beam trawl	Trawl shoes, ground rope with rollers	0.2 x 4	4-5	?
Otter trawl	Otter doors	1.5 x 2	3-4	8
	Ground rope	30	3-4	8-10
Industrial trawl				
A). Single	Otter doors	1.5 x 2	3.5	8-10
	Ground rope	25	3.5	?
B). Pair	Ground rope	25	3.5	?
	Ground rope	40	3	?
Demersal pair trawling	Ground rope	40	3	?
Mussel dredge	Blade & belly	1.75 x 4	2	5-25
Cockle dredge	Suction head	1.0 x 2	2	≥5
Scallop dredge	Tooth bar & belly			
A). English		0.76 x 16	3	3-4
B). French		2 x 5	3-4	<10
French clam dredge	Blade & belly	0.7 x 2	3-4	<15

REDES DE ARRASTO DE PESCA

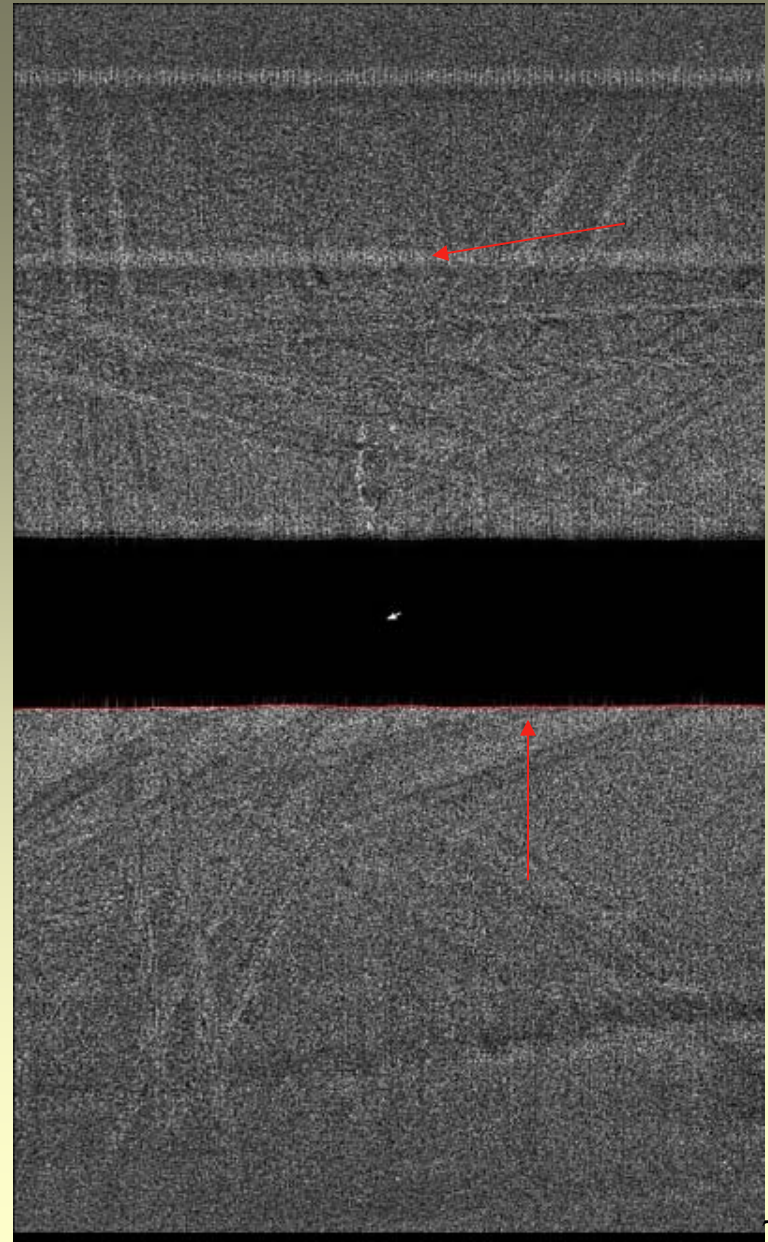
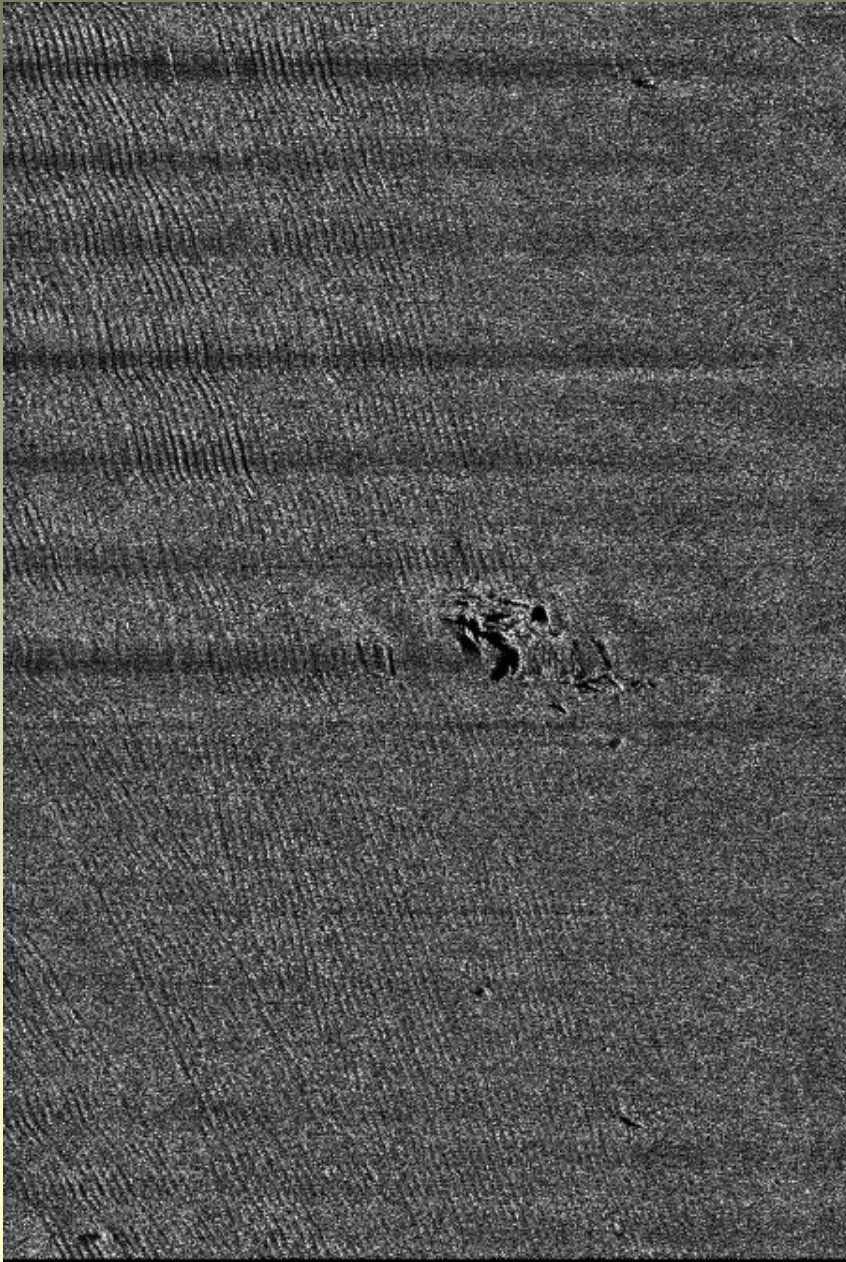


C32 (42-pounder)

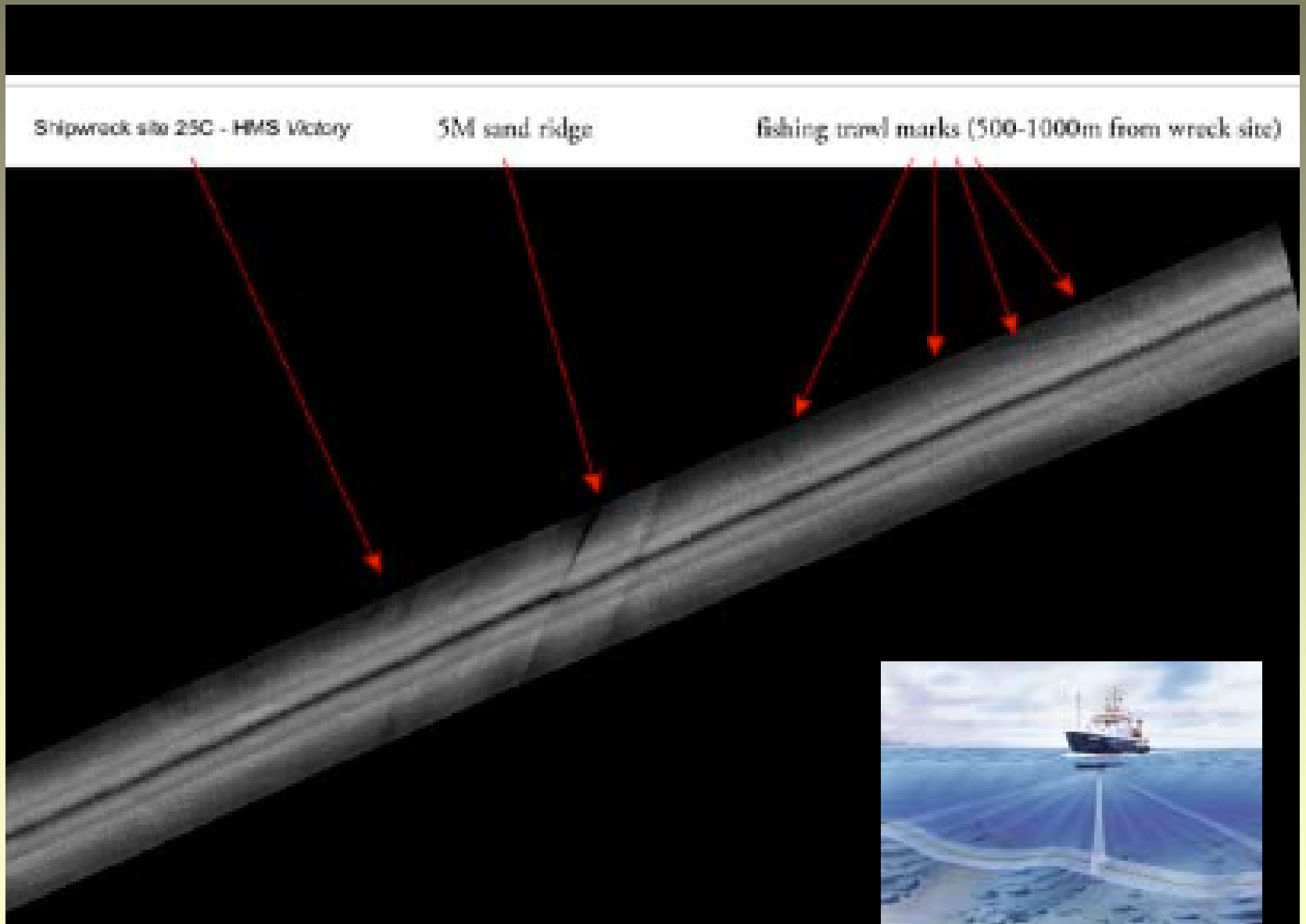
C33 (42-pounder)

C38 (24-pounder)

ARRASTO DE FUNDO - GPS



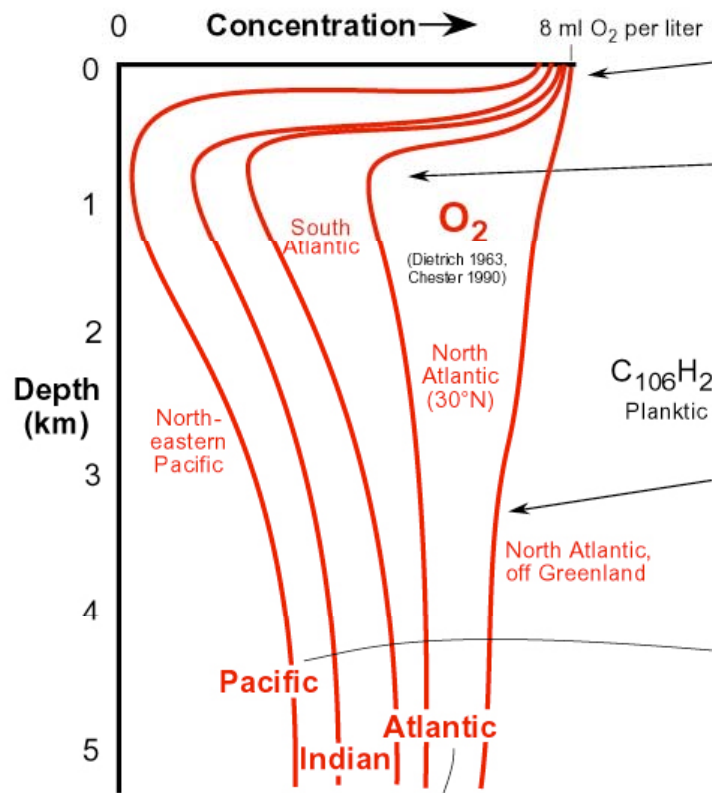
- Redes de arrasto/ Pesca.



REDES DE ARRASTO DE PESCA

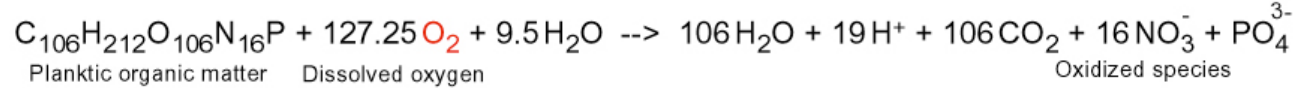


Variation in concentration of solutes in the oceans II: Dissolved oxygen (O₂)



Concentrations of O₂ in near-surface water are large because of exchange with the O₂-rich atmosphere at the sea surface, and because of downward mixing by waves and eddies.

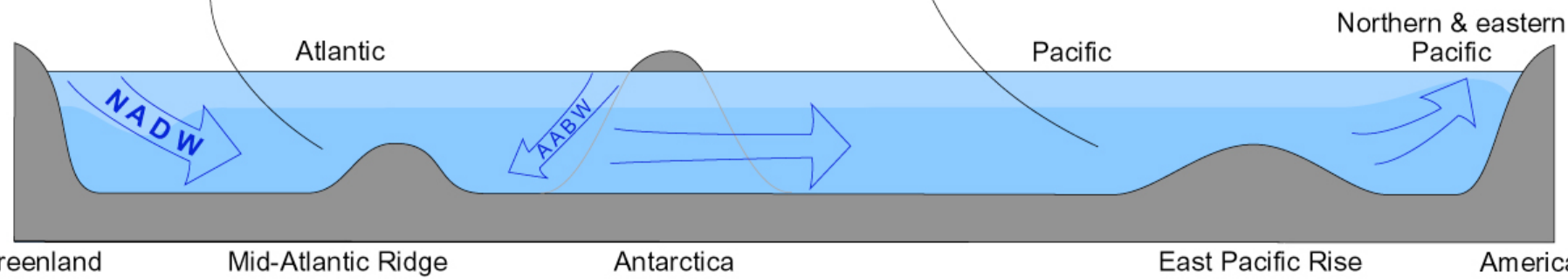
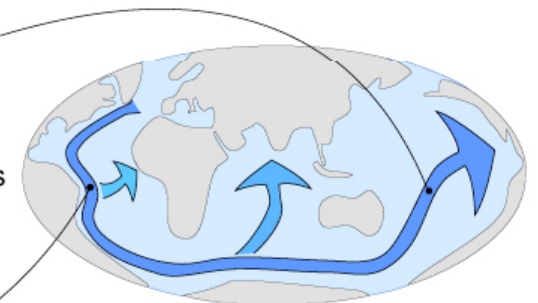
Concentrations of O₂ just below the thermocline are low because oxidation of sinking organic particles consumes O₂. This causes the **oxygen-minimum zone**, in which O₂ concentrations may reach zero. The oxygen-minimum zone typically reaches its least O₂ concentrations at depths of 300 to 800 meters (Stramma et al., 2008, *Science* 320: 655-658).



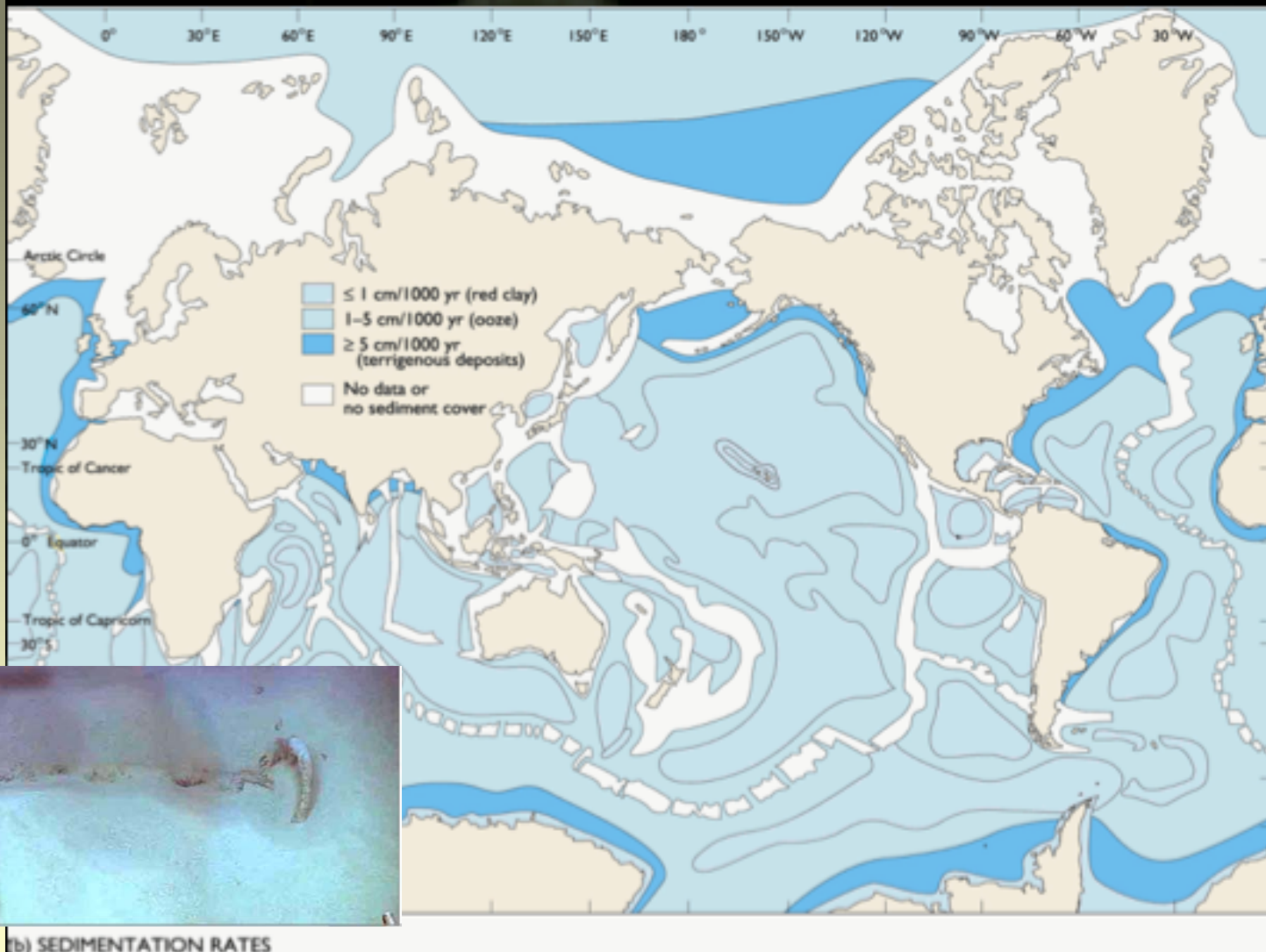
Concentrations of O₂ in abyssal waters are less than those in surface waters because oxidation of sinking organic particles consumes O₂.

Concentrations of O₂ in deep waters of the Pacific are typically less than in Atlantic because Pacific deep water has had more time to lose O₂ to oxidation of organic matter.

Concentrations of O₂ in deep waters of the Atlantic are typically greater than in the Pacific because Atlantic deep waters have more recently left the surface and so had less time to lose O₂ to oxidation of organic matter.



TAXAS DE SEDIMENTAÇÃO



Plataforma continental: >5 cm /1000 anos

Planícies oceânicas: 1 a 5 cm /1000 anos (BRASIL 500 ANOS)