

Dusky Dolphins (*Lagenorhynchus obscurus*): Fatty acid composition of their blubber and of their prey

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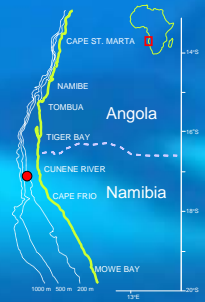
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Objective:

- 1 To describe the fatty acid composition of the blubber of dusky dolphins
- 2 To compare the fatty acid composition of the blubber with that of the prey

Background:

Five dusky dolphins were accidentally caught during a hydroacoustic survey on the Namibian coast. Their stomach contained mainly (98%) cape horse mackerel (*Trachurus trachurus capensis*). The fatty acid composition of the outer and inner blubber layer of the dolphins and of cape horse mackerel and six other potential prey species was determined.



Results:

Profound difference between outer and inner blubber layer

Significant differences among the prey species

The inner blubber has a fatty acid composition that is very different from that of the prey



Conclusion:

The fatty acid composition of the outer blubber layer is genetically controlled to serve the various functions of the blubber, and independent of the fatty acid composition of the prey

The fatty acid composition of the lipids of the prey is extensively modified before the lipids are deposited in the inner blubber layer

