Foraging ecology of the common dolphin *Delphinus delphis* revealed by stable isotope analysis

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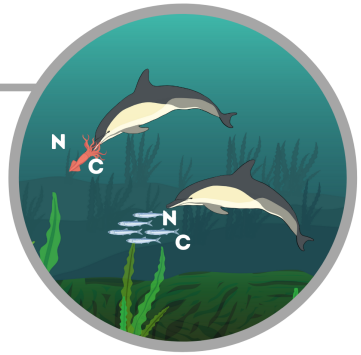
Dolphins forage at sea

Depending on where and what they feed on, dolphins take up different amounts of stable isotopes of carbon and nitrogen with their diet, which is stored within their tissues

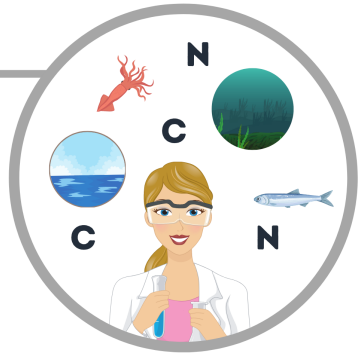


Sample collection at strandings

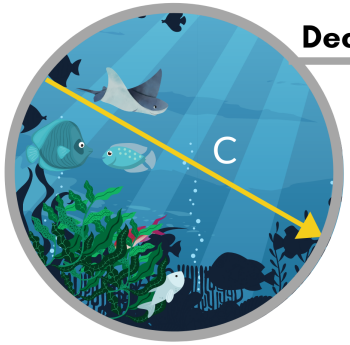
Along the coast of the Hauraki Gulf, New Zealand, dolphins regularly strand or are washed ashore.
We collected skin samples from dead common dolphins between 2004 and 2016

Analysis in the lab

We measured the carbon and nitrogen isotope ratios in the dolphin skin. This gives us information about where and at which trophic level the dolphins were feeding



Decline in carbon



Carbon isotope values decreased throughout the study period (2004-2016), which could indicate a change in primary productivity and/or a change in dolphin diet

Increase in nitrogen

Nitrogen isotope values in male dolphins increased from 2004-2016, which could be due to a rise in urbanisation and agriculture along the Hauraki Gulf coastline

Differences between seasons

We found higher nitrogen isotope values in autumn/winter compared to spring/summer. This could indicate that dolphins have a broader diet in autumn/winter compared to spring/summer