Acoustic foraging behavior of beluga whales via combined technology:
Satellite telemetry, passive acoustics, accelerometry, and stomach temperature sensing

Feeding behavior is confirmed by drops in stomach temperature and the acoustic signature and foraging kinematics are documented.

Prey capture is dominated by Y axis jerks suggesting rotation at capture rather than forward sprint.

7 examples of acceleration jerks at prey capture (confirmed by prey crunch noise & stomach T drop)

Inter-click intervals from successful terminal buzzes down to 6 ms

21 examples of ICI from terminal buzzes ending in prey capture (confirmed by prey crunch noise & stomach T drop)

Main findings
- Feeding episodes occur at flooding and ebbing tide periods
- Preference for shallow waters (mud flats) or river channels
- Terminal buzzes are related to prey capture like in other odontocetes
- Buzzes are longer and emitted more often than other odontocetes
- Inter-click interval can be used to identify feeding events
- Body rotation might facilitate prey capture in shallow water

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