



Les Jeudis de l'UMR

JEUDI 10 NOVEMBRE 2022 / 13H15 **Babett GÜNTHER** Chercheure Ifremer, UMR MARBEC Sète

## Metabarcoding for diet analyses reveals the importance of gelatinous prey for Atlantic bluefin tuna and the rehabilitation of a free-ranging beluga whale

Genetic analyses such as DNA metabarcoding can be a powerful tool for assessing the diet and trophodynamics of top marine predators. Here presented are two applications using metabarcoding based on two gene regions, the mitochondrial cytochrome *c* oxidase subunit I (COI) and the ribosomal 18S-V1V2 region. First, we analyzed the stomachs of 48 Atlantic bluefin tuna (*Thunnus thynnus*, approximately 15 to 60 kg, including juveniles and adult fishes) collected from the Mediterranean Sea. The identified prey taxa and their relative read abundances (RRAs) estimated results were in line with the findings of morphologically based inventories simultaneously performed on the same set of tuna samples. Another striking result was the detection, of a high prevalence and diversity of gelatinous organisms (RRA = 27.1%), including cnidarians, salps, and ctenophores, the latter increasing with the size of the predator. These results thus support the hypothesis of the role of gelatinous prey in the diet of Atlantic bluefin tuna, suggesting that this species is even more generalist and opportunistic than previously thought. Secondly presented is the rehabilitation of a free-ranging Norway beluga whale nick-named 'Hvaldimir'. Analyses of this fecal over time reflected the return to unassisted foraging and changes in his diet and health status. Therefore, we could show the non-intrusive tool of DNA analysis to track the progress of large mammals adapting to life in the wild following release from captivity and rehabilitation programs.

### > accès zoom

<https://umontpellier-fr.zoom.us/j/96426860643>

ID de réunion : 964 2686 0643

### > prochainement



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Jeudi 17 novembre 2022 : Aurore Receveur  
"Dynamiques spatio-temporelles et diversité du micronecton dans le Pacifique sud-ouest"  
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