{rokbox title=|The experimental set-ups used for the experiments. A: The four chambers used in the feeding experiments (three experimental and one control). In each chamber two coral nubbins were placed. In the left part of the image the controllers that manipulate the speed of the paddles can be seen. B: An example Lophelia pertusa coral clump used in the flume experiment, the water flow direction was from the top of the image. :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-eficiencia-captura-lophelia-pertusa-orejas-et-al-2016-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-eficiencia-captura-lophelia-pertusa-orejas-et-al-2016.jpg{/rokbox}

Covadonga Orejas, Andrea Gori, Cecilia Rad-Menéndez, Kim S. Last, Andrew J. Davies, Christine M. Beveridge, Daniel Sadd, Konstadinos Kiriakoulakis, Ursula Witte, John Murray Roberts, 2016. **The effect of flow speed and food size on the capture efficiency and feeding behaviour of the cold-water coral *Lophelia pertusa***. Journal of Experimental Marine Biology and Ecology. 481 (2016). 34–40.

Abstract: The capture efficiency and feeding behaviour of the cold-water coral (CWC) *Lophelia pertusa* (Linnaeus, 1758) were investigated considering: (1) different food types, (2) different food sizes and (3) different current speeds and temperatures. This study used two different multifactorial experimental approaches: (1) Corals were subjected to three different flow speeds (2, 5 and 10 cm s− 1) in 5 l volume tanks, and three different food types (alive zooplankton, alive algae, and dry particulate organic carbon) were offered to the corals under each current regime, analysing the capture rates of the corals under these different flow velocities. (2) In a flume, the feeding behaviour of the coral polyps was studied under different current speed regimes (1, 7, 15 and 27 cm s− 1) and a temperature change over a range of 8–12 °C. The obtained results confirm that low flow speeds (below 7 cm s− 1) appear optimal for a successful prey capture, and temperature did not have an effect on polyp expansion behaviour for *L. pertusa*. In conclusion, flow speeds clearly impact food capture efficiency in *L. pertusa*, with zooplankton predominantly captured prey at low flow velocities (2 cm s− 1) and phytoplankton captured at higher flow velocities of 5 cm s− 1. This split in capture efficiency may allow corals to exploit different food sources under different tidal and flow conditions.

Keywords: Trophic ecology, Lophelia pertusa, NE Atlantic, Flow speed, Feeding experiments, Behavioural experiments