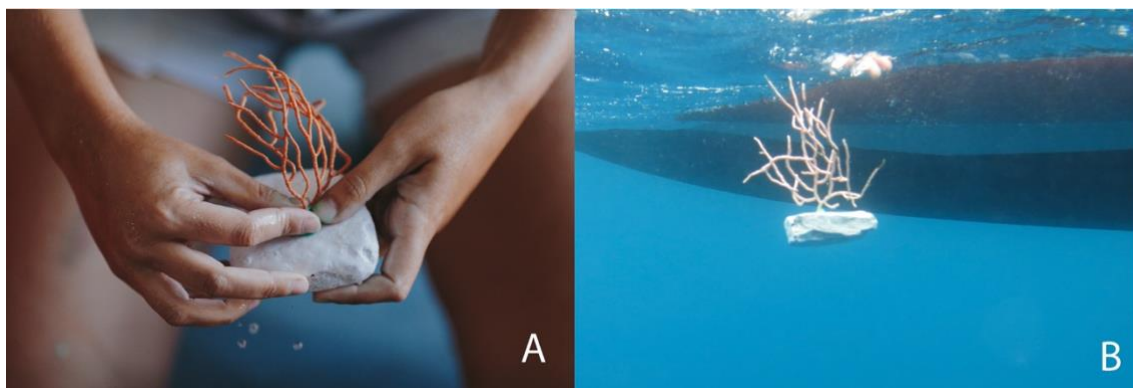


## **Box 2: A cost-effective and large-scale method to transplant gorgonians**

Once the capability of by-catch gorgonians to survive if returned to their environment was demonstrated on the Mediterranean continental shelf (Montseny et al., 2019), the challenge was to go one step further and find a cost-effective and large-scale restoration technique. The explored method (named “badminton method”) consists of transplanting bycatch gorgonians onto supporting cobbles (natural rocks) and returning them back to the continental shelf by gently dropping them from a boat (Montseny et al., 2020) (Box 2 Fig. 1). The fan-shaped morphology of the colonies makes the cobble-gorgonian acting as a “badminton shuttlecock”, slowing down the fall and facilitating a landing with colonies in upward position. Field results and modelling approaches suggest that the transplants would correctly land on the continental shelf in a predicted area around 60 m<sup>2</sup>, a much larger area than that covered by artificial structures. Following the technical validation study, a large-active restoration of more than 400 cold-water gorgonians was performed on the Mediterranean continental shelf using the “badminton method”. A two-years monitoring period confirmed the success of the restoration action, which involved local fishers and significantly reduced the cost as compared to the costs associated with the building and deployment of artificial structures (Montseny et al., submitted).



**Box 2 Figure 1** (A) A gorgonian colony is attached to a cobble using epoxy putty. (B) Transplant (cobble-gorgonian combination) gently falling down from the sea surface. Photo credits: (A) Laia Sabaté, (B) Núria Viladrich.