

Figure S1. Top panel: Wider area of study and surroundings, named northwardly: Punta San Juan de Marcona, Bahía San Nicolás, and sampling stations; scale bar=10km. Bottom panel: Inset map zooming in to the sampling stations scale bar=2 km. Project made in ©Google Earth.



Figure S2. Screenshots from the Magicseaweed MSW Mobile App showing the daily conditions (Tuesday and Wednesday 29 and 30 June 2021, respectively) for “Playa Los Ingleses” site (15.1267°S, 75.3719°W). In each report surf heights (m), crescendo (wave interval, s), wind speed (km/h) and wind direction (arrows) are shown. Working hours are indicated in by red rectangle. See Table S1 for more information on MSW Pro access.

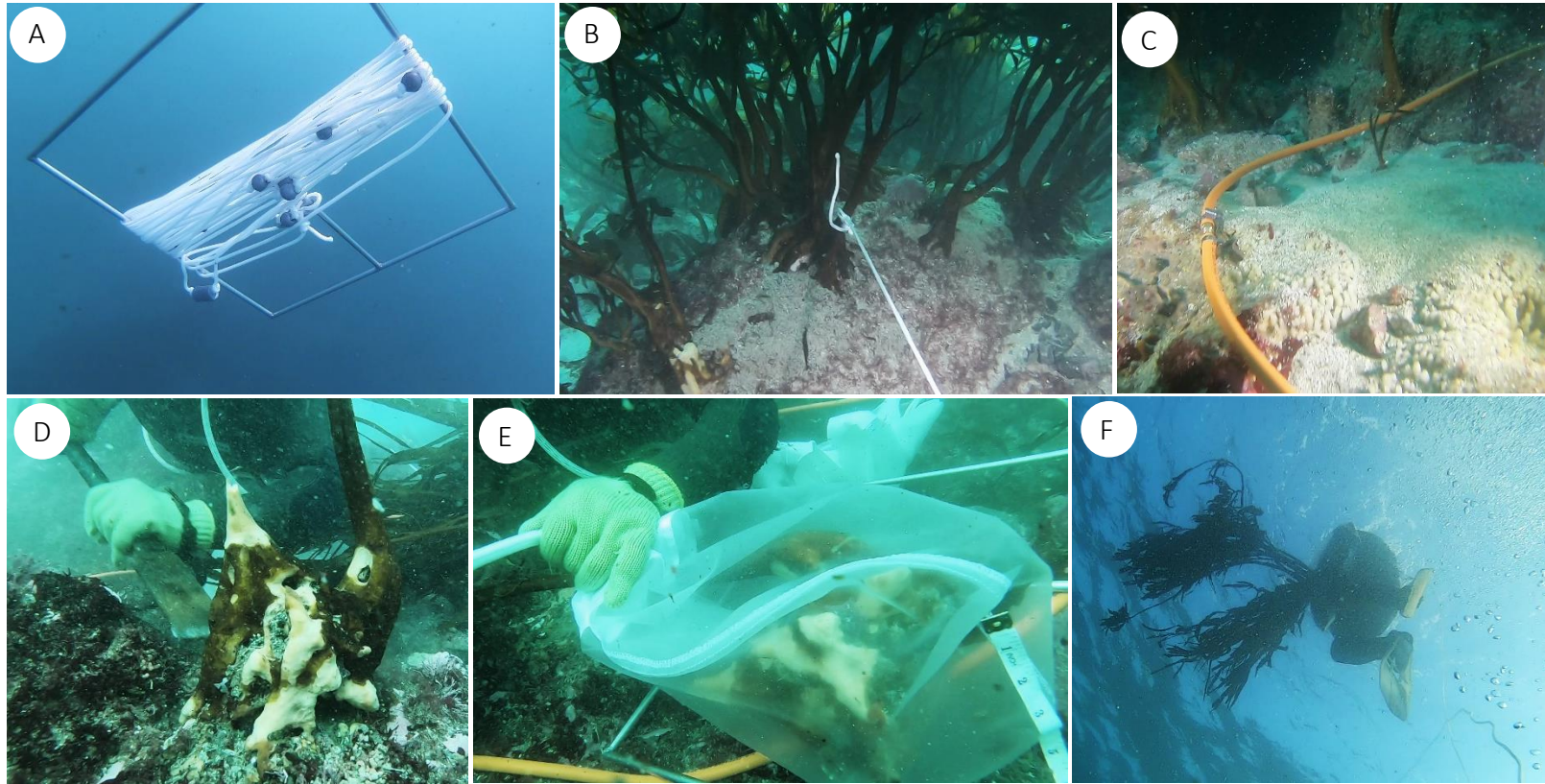


Figure S3. Underwater work. A) Use of the 0.25m² quadrat to reel the 20m-transect before deployment. B) 20m-transect is deployed, tying up the start and end to help stipes. C) Dismountable circumference is put next to pre-selected random points (knot-and-lead) to measure holdfast attributes. D) Using the “barreta” the artisanal diver cuts the (coalescent) holdfast to extract the sporophytes, and E) immediately places it into the collection bag (500µm-mesh). F) Artisanal diver takes the collected sporophytes to the surface to continue more detailed measurements on-board.

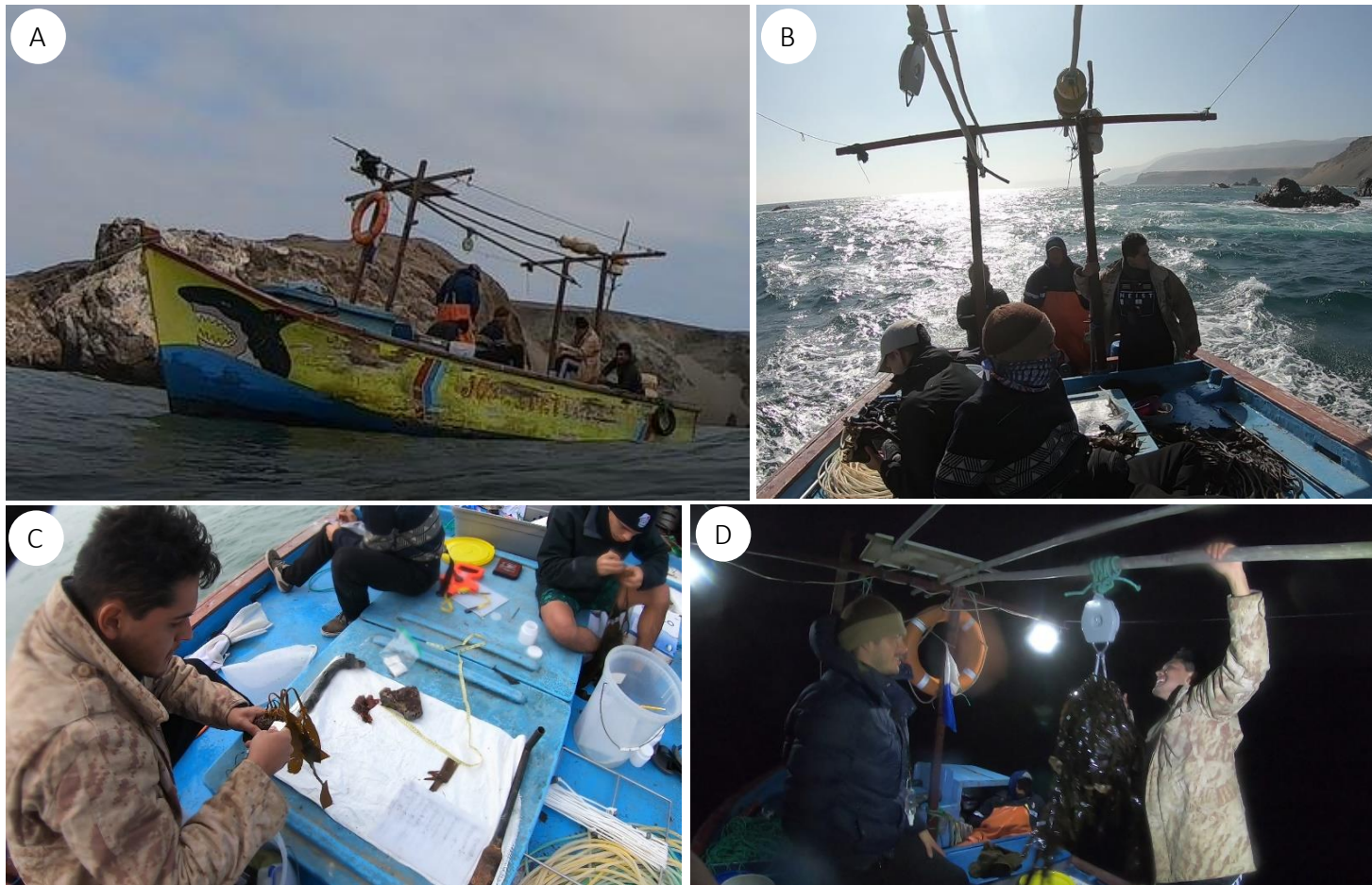


Figure S4. Work on-board artisanal boat (A) Registered as ‘JOSE Y PETTHER’ (SN-41834-BM) 8.1m length and 2.92m width (class II small-boat category) . B) Distribution of the workforce during navigation towards next sampling point. C) Distribution of personnel over the workspace, measurement of holdfast attributes and photographic station (white background). D) Wet biomass measurement using hanging scale during night time.