



**Figure S1.** (A) Schematic representations of the T-maze runaway (not to scale) used for investigating the consequences of elevated  $p\text{CO}_2$  and temperature levels on behavioural traits of small juvenile individuals of *Concholepas concholepas*. EI: experimental individual at the start of the experiment; arrow indicates the direction of locomotion  $B_1$  and  $B_2$ : barriers (in successive runs, EI were placed facing either barrier  $B_1$  or  $B_2$ ); DZ: decision zone; PI: prey items (in successive runs, PI was positioned either behind  $B_1$  or  $B_2$ ). (B) Photographic record showing the external asymmetries in an individual of *C. concholepas*; the umbus (U) and the siphon (S) on the right and left side respectively. (C) A magnification showing the pairs of the protruded left and right tentacles (LT and RT). In B and C the characteristic protruded S suctioning seawater during locomotor activity is shown. (D) the right pit eye (RPE) near the end section of the RT. In panels (B), (C) and (D) the white bar is 0.5 cm, 0.2 cm and 0.1 cm, respectively.