**Supplementary Note.** Laboratory culture and observation of *Tripedalia maipoensis* n. sp.

We collected the samples from Mai Po Nature Reserve using a plankton net (Fig. S1B). In the laboratory, we kept them in a kreisel aquarium with 181L natural seawater at 25 ℃ and 17 psu, the salinity of their natural habitat at the time of sampling. Most of the adults swam actively on the water surface in the first week after collection. We first fed the jellyfishes newly hatched brine shrimp nauplii twice daily. The nauplii were hatched by incubating commercially purchased brine shrimp cysts in seawater for 24 hrs. However, the stomach in most of the jellyfishes did not turn orange colour –indicating that they had eaten brine shrimp nauplii. We then offered live adult brine shrimp to them twice daily. The jellyfishes were found to catch the brine shrimp using their tentacles and bring them to their stomach. However, their condition started to deteriorate in the second week and most of jellyfishes were not able to swim, without the help of water flow generated by mild aeration. At the end of the second week, all of the adult jellyfishes were dead.

In the kreisel aquarium, we placed several scallop shells in order to promote the settlement of box jelly polyps when we started to rear the adults. 2 weeks later, we found tiny polyps on a scallop shell (Fig. S2A). We then transferred the polyps to a separated aquarium for further culture under 17 psu natural seawater at 25℃. We fed the polyps with newly hatched brine shrimp twice a week. The polyps successfully developed through strobilae, then free-swimming ephyrae. However, we were unable to culture them beyond 3.5 mm bell length, after they developed three pedalia per bell corner.

This species exhibited an interesting behaviour that was probably related to mating. In a few occasions, we found a female box jellyfish swam inside and stayed in the bell of a male for roughly one minute (Fig. S2D). We believe that this behaviour was not due to random movements of the jellyfishes, as they would readily reject live or dead adult brine shrimp we released using a pipette into the inside of the bell.