

Supplementary Data

SM Table 1. Number of images examined from salp specimens of each life cycle stage and species. Specimens collected via SCUBA diving off Kona are shown as numbers in black. Other images from different sources are highlighted in red.

| Species | Architecture | Adult colony specimens | Total adult colony specimens | Developing colony specimens | Total developing colony specimens |
|-------------------------------------|--------------|---------------------------------|------------------------------|---|-----------------------------------|
| <i>Pegea</i> sp. | Transversal | 5 | 10 | 4 | 5 |
| <i>Pegea confederata</i> | Transversal | 4 (Semenov, LJL videos) | | | |
| <i>Pegea socia</i> | Transversal | 2 (R/V Sikuliaq 2022) | | | |
| <i>Pegea bicaudata</i> | Transversal | 1 (Ryo Minemizu) | | | |
| <i>Traustedtia multitentaculata</i> | Transversal | 1 (Dennis Rabeing) | | 1 (Suzan Meldonian) | |
| <i>Cyclosalpa affinis</i> | Whorl | 3 | 10 | 1 | 6 |
| <i>Cyclosalpa bakeri</i> | Whorl | 4 | | 2 | |
| <i>Cyclosalpa quadruminis</i> | Whorl | 3 | | 3 | |
| <i>Cyclosalpa polae</i> | Cluster | 5 | 9 | 4 | 7 |
| <i>Cyclosalpa sewelli</i> | Cluster | 3 | | 3 | |
| <i>Cyclosalpa pinnata</i> | Cluster | 1 (Kona GoPro footage) | | | |
| <i>Helicosalpa younti</i> | Helical | 1 | 2 | | 2 |
| <i>Helicosalpa virgula</i> | Helical | 1 | | 2 (D. Wrobel , Ringvold et al. 2020 Fig. 2EF) | |
| <i>Helicosalpa komaii</i> | Helical | 1 (Ringvold et al. 2020 Fig. 4) | | | |
| <i>Thalia cicar</i> | Oblique | 1 | 6 | 1 (KAUST formalin specimen) | 2 |
| <i>Thalia longicauda</i> | Oblique | 2 | | | |
| <i>Thalia democratica</i> | Oblique | 1 (David Shale) | | | |
| <i>Thetys vagina</i> | Oblique | 2 (NaturePL, MBA) | | 1 | |
| <i>Iasis cylindrica</i> | Linear | 6 | 18 | 6 | 14 |
| <i>Ithlea punctata</i> | Linear | 1 | | 1 | |
| <i>Metcalfina hexagona</i> | Linear | 1 | | | |
| <i>Salpa aspera</i> | Linear | 1 | | | |
| <i>Salpa fusiformis</i> | Linear | 2 | | 4 | |
| <i>Salpa maxima</i> | Linear | 3 | | | |
| <i>Salpa thompsoni</i> | Linear | 1 (LJL video) | | 1 (Mike Stukel) | |
| <i>Soestia zonaria</i> | Linear | 3 | | 2 (FSU photos) | |
| <i>Brooksia rostrata</i> | Bipinnate | 3 | 9 | 2 | 6 |
| <i>Ritteriella amboinensis</i> | Bipinnate | 3 | | 3 | |
| <i>Ritteriella retracta</i> | Bipinnate | 3 | | 1 | |