

### **Online Resource 3**

#### **Consistency indices of the morphological characters calculated along the consensus tree reconstructed from the concatenated data 28S rDNA + CO1 of Polymastiidae**

**Paper:** Molecular phylogenies challenge the classification of Polymastiidae (Porifera, Demospongiae) based on morphology

**Journal:** Organisms Diversity and Evolution

#### **Authors:**

Alexander Plotkin, corresponding author (Department of Biology, University of Bergen, Postbox 7803, 5020 Bergen, Norway, e-mail: alexander.s.plotkin@gmail.com)

Oliver Voigt (Department of Earth and Environmental Sciences, Paleontology and Geobiology, Ludwig-Maximilians-Universität München, Richard-Wagner-Str. 10, 80333 München, Germany)

Endre Willassen (Natural History Collections, University Museum of Bergen, University of Bergen, Postbox 7800, 5020 Bergen, Norway)

Hans Tore Rapp (Department of Biology and Centre for Geobiology, University of Bergen, Postbox 7803, 5020 Bergen, Norway)

**Supplementary Table 3** Consistency indices of the morphological characters calculated along the consensus tree reconstructed from the concatenated data 28S rDNA + CO1 of Polymastiidae

Character	Consistency index	Rescaled consistency index
1. Growth pattern	0.250	0.063
2. Upper surface	0.100	0.025
3. Lateral surface	0.143	0.048
4. Basal surface	0.250	0.000
5. Exhalant papillae	1.000	1.000
6. Number of exhalant papillae	0.333	0.111
7. Development of exhalant papillae	0.333	0.222
8. Inhalant papillae	0.143	0.082
9. Oscula on the body surface	1.000	1.000
10. Ostia on the body surface	0.125	0.037
11. Upper cortex: middle layer of collagen fibres	0.333	0.200
12. Upper cortex: middle layer of aquiferous cavities	0.333	0.000
13. Upper cortex: inner layer of criss-cross monactines	0.333	0.200
14. Exotyles	0.200	0.067
15. Specialised basal cortex	0.250	0.000
16. Marginal spicule fringe	0.333	0.200
17. Well developed and regular choanosomal skeleton	0.500	0.000
18. Arrangement pattern of the regular choanosomal skeleton	0.250	0.000
19. Auxiliary choanosomal monactines	0.333	0.000
20. Non-monactines in choanosome	0.500	0.250
21. Total number of the size categories of monactines (excluding exotyles and spicules of the fringe)	0.200	0.086