

Supplemental Appendix D. List of 20 additional modern species (not Mussinae) used in the phylogenetic analysis.

Family Montastraeidae Yabe & Sugiyama, 1941

Montastraea cavernosa (Linnaeus, 1767)

Family Merulinidae Verrill, 1865

Trachyphyllia geoffroyi (Audouin, 1826)

Caulastraea furcata Dana, 1846

Oulophyllia bennettiae (Veron *et al.*, 1977)

Oulophyllia crispa (Lamarck, 1816)

Dipsastraea favus (Forskål, 1775)

Dipsastraea pallida (Dana, 1846)

Family Lobophylliidae Dai & Horng, 2009

Lobophyllia hemprichii (Ehrenberg, 1834)

Lobophyllia corymbosa (Forskål, 1775)

Lobophyllia vitiensis (Brüggeman, 1877)

Homophyllia australis (Milne Edwards & Haime, 1849)

Cynaria lacrymalis (Milne Edwards & Haime, 1849)

Acanthastrea echinata (Dana, 1846)

Family Faviidae Milne Edwards & Haime, 1857

Subfamily Faviinae Milne Edwards & Haime, 1857

Colpophyllia breviserialis Milne Edwards & Haime, 1849

Colpophyllia natans (Houttuyn, 1772)

Diploria labyrinthiformis (Linnaeus, 1758)

Pseudodiploria strigosa (Dana, 1846)

Pseudodiploria clivosa (Ellis & Solander, 1786)

Favia fragum (Esper, 1795)

Manicina areolata (Linnaeus, 1758)

Additional references for Supplemental Appendix D not included in the text:

Dai, C. F. & Horng, S. 2009. *Scleractinia fauna of Taiwan. II. The robust group*. Taipei: National Taiwan University, 162 pp.

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Forskål, P. 1775. *Icones rerum naturalium quam in itinere orientali depingi curavit Petrus Forskål, post mortem auctorio ad regis mandatum acri incisas edidit Carsten Niebur*: Hauniae. 15 pp., 43 pls.

Houttuyn, M. 1772. *Natuurlyke historie of uitvoerige beschryving ver dieren, planten en mineraalen, volgens het samenstel van den heer Linnaeus*. Amsterdam: De erven van F. Houttuyn. 614 pp., pl. 126-138.

de Lamarck, J. B. P. 1816. *Histoire naturelle des animaux sans vertèbres*. Vol. 2. Paris: Verdière, Libraire. 568 pp.

Linnaeus, C. 1758. *Systema Naturae per regna tria naturae, secundum Classes, Ordines, Genera, Species, cum characteribus, differentiis, synonymis, locis. Tomus I. Regnum Animale*. Holmiae, Editio Decima, Reformata. 824 pp.

Linnaeus, C. 1767. *Systema naturæ. Tomus I. Pars II*. Vindobonae: Ioannis Thomae, p.533-1328.

Yabe, H. & Sugiyama, T. 1941. Recent reef-building corals from Japan and the South Sea Islands under the Japanese mandate. II. *Science Reports of the Tôhoku Imperial University, Second Series (Geology), Special Volume 2*, p. 67–91.