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50 Shades of Red: the red-reticulate group of *Goniobranchus* (Heterobranchia: Nudibranchia: Chromodorididae)

Lynn J. Bonomo^{1,2}, Giun Yee Soong³, James D. Reimer^{3,4} & Terrence M. Gosliner²

Email: lbonomo@calacademy.org

The Chromodorididae family tree has been refined in recent years via molecular phylogenetic analyses which have clarified many relationships between taxa. The genus *Goniobranchus* is one clade within Chromodorididae that was previously included within the genus *Chromodoris*. However, based on recent molecular phylogenetic results, *Chromodoris* was determined to be non-monophyletic and *Goniobranchus* was resurrected. In this study, we performed molecular and morphological analyses to resolve the internal relationships among *Goniobranchus* species, specifically the red-reticulate species complex of three previously described species, *Goniobranchus tinctorius*, *G. reticulatus*, and *G. alderi*, which display a red network of lines over a white mantle and are widely distributed across the Indo-Pacific Ocean. We sequenced two mitochondrial genes (COI and 16S) and one nuclear gene (H3) for 339 *Goniobranchus* specimens, and in our phylogenetic analyses the red-reticulate species group emerged as a monophyly. This current work has indicated there are at least eleven distinct species within this species complex, including the only three previously described species and another described species, *G. splendidus*, was added to this clade. The molecular data and the morphological differences among species will be discussed, and we present a possible way forward to clarify the taxonomy of the red-reticulate species complex.

¹ Center for Comparative Genomics, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, CA, USA

² Department of Invertebrate Zoology and Geology, Institute for Biodiversity Science and Sustainability, California Academy of Sciences, San Francisco, CA, USA

³ Molecular Invertebrate Systematics and Ecology Laboratory, Graduate School of Engineering and Science, University of the Ryukyus, Okinawa, Japan

⁴ Tropical Biosphere Research Center, University of the Ryukyus, Okinawa, Japan