**Range Map Methodology**

Range data for each described species was downloaded from Aquamaps on August 8, 2016 (Kaschner et al. 2015). For regional the species *Abudefduf* *hoefleri, A. margariteus*, and *A. vaigiensis* “Kiritimati” no data were available from Aquamaps. We downloaded distribution data from museum specimens from FishNet2 (http://www.fishnet2.net/) on January 13, 2018 for *A. hoefleri* and *A. margariteus*. No data for distribution is available for *A. vaigiensis* “Kiritimati” besides the collection location for the sample examined in this study.

Each coordinate set from Aquamaps is associated with a probability of occurrence = 1.00, except *A. saxatilis* which was reduced to 0.90 to filter out occurrences outside known range. Data were uploaded in R version 3.3.0 (R Development Core Team 2016) and plotted on a world map with ggmap version 2.6.1 (Kahle and Wickham 2013)and ggplot version 2.2.1 (Wickham 2009). For each species the Aquamap distribution points are plotted as a single color, with collection locations bordered in black.

**Bibliography**

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