

Supplementary Table S2. Continued

Clade / Species	Accession No.	Collection information	Reference	Published in GenBank
	MT247766	Visakhapatnam, Andhra Pradesh, India; Mar 5, 2018	Chellamanimegalai et al. (2020)	" <i>G. orientalis</i> "
	MT247767	Visakhapatnam, Andhra Pradesh, India; Mar 5, 2018	Chellamanimegalai et al. (2020)	" <i>G. orientalis</i> "
	MT247872	India	Chellamanimegalai et al. (2020)	" <i>G. lithophila</i> "
	MT247873	India	Chellamanimegalai et al. (2020)	" <i>G. lithophila</i> "
	MT247874	India	Chellamanimegalai et al. (2020)	" <i>G. lithophila</i> "
	MT247875	India	Chellamanimegalai et al. (2020)	" <i>G. lithophila</i> "
	MT247876	India	Chellamanimegalai et al. (2020)	" <i>G. lithophila</i> "
	MT247862	India	Chellamanimegalai et al. (2020)	" <i>G. filicina</i> "
	MT247863	India	Chellamanimegalai et al. (2020)	" <i>G. filicina</i> "
	MT247864	India	Chellamanimegalai et al. (2020)	" <i>G. filicina</i> "
	KY009958	India	Babitha and Vasuki (unpublished)	" <i>G. filicina</i> "
	KY009959	India	Babitha and Vasuki (unpublished)	" <i>G. filicina</i> "
	KX791434	India	Babitha and Vasuki (unpublished)	" <i>G. filicina</i> "
<i>Yonagunia zollingeri</i>	JX627436	Malang, Indonesia; Jun 9, 2012	Boo et al. (2013)	-
<i>Y. mailardii</i>	MT501473	Thalaraba, Sri Lanka; Jan 5, 1996	Lin et al. (2020)	-

Supplementary Table S3. Genetic distance of several species within each clade using *rbcl* gene

		1	2	3	4	5	6	7	8	9
<i>Prionitis</i> clade	1. <i>G. asiatica</i>	0–1.3%	15–21 bp	13–22 bp	26–36 bp	79–89 bp	29–34 bp	65–71 bp		
	2. <i>G. serra</i>	1.2–1.9%	0%	20–24 bp	34 bp	92 bp	33–36 bp	66–67 bp		
	3. <i>G. livida</i>	1.2–2.0%	1.8–2.1%	0–0.5%	35–40 bp	89–93 bp	29–33 bp	61–65 bp		
	4. <i>G. variata</i>	2.3–3.2%	3%	3.1–3.6%	0%	91 bp	42–44 bp	69–70 bp		
	5. <i>G. dalianensis</i>	7.3–7.9%	8.2%	7.9–8.3%	8.10%	0%	98–101 bp	114–117 bp		
	6. <i>G. acuminata</i>	2.7–3.5%	2.9–3.2%	2.8–2.9%	3.7–3.9%	8.7–9.0%	0–0.27%	66–67 bp		
	7. <i>G. divaricata</i>	5.8–6.3%	5.9–6.0%	5.4–5.8%	6.1–6.2%	10.2–10.4%	5.9–6.0%	0–0.27%		
<i>Grateloupia sensu stricto</i> clade	1. <i>G. catenata</i>	0–1.0%	43–49 bp	30–37 bp	66–76 bp	47–52 bp	43–49 bp	55–75 bp	56–62 bp	59–64 bp
	2. <i>G. ramosissima</i>	1.9–2.4%	0–0.8%	37–41 bp	66–75 bp	51–54 bp	49–54 bp	60–73 bp	56–62 bp	53–60 bp
	3. <i>G. tenuis</i>	2.7–3.3%	3.4–3.7%	0%	40–46 bp	29 bp	29 bp	44–50 bp	44–45 bp	58–62 bp
	4. <i>G. orientalis</i>	5.9–6.8%	5.9–6.7%	3.6–4.1%	0–1.9%	31–37 bp	43–46 bp	35–44 bp	49–54 bp	59–70 bp
	5. <i>G. huanghaiensis</i>	4.2–4.6%	4.5–4.8%	2.60%	2.8–3.3%	0%	23–24 bp	22–33 bp	43–45 bp	51–55 bp
	6. <i>G. ramosa</i>	3.8–4.3%	4.3–4.8%	2.9–3.0%	3.8–4.1%	2.0–2.1%	0%	23–33 bp	42–44 bp	54–59 bp
	7. <i>G. yinggenhaiensis</i>	4.9–6.7%	5.3–6.6%	3.9–4.4%	4.3–6.0%	3.1–3.9%	2.0–2.9%	0–1.4%	36–40 bp	63–73 bp
	8. <i>G. yangjiangensis</i> & <i>G. hawaiiiana</i>	4.8–5.6%	5.0–5.6%	3.9–4.1%	4.4–4.9%	3.8–4.0%	3.7–4.0%	3.2–3.8%	0.2–0.3%	62–64 bp
	9. <i>G. filicina</i>	4.8–5.7%	4.6–5.3%	4.8–5.4%	5.1–6.2%	4.1–4.9%	4.4–5.3%	5.1–6.5%	5.0–5.9%	0–1.0%