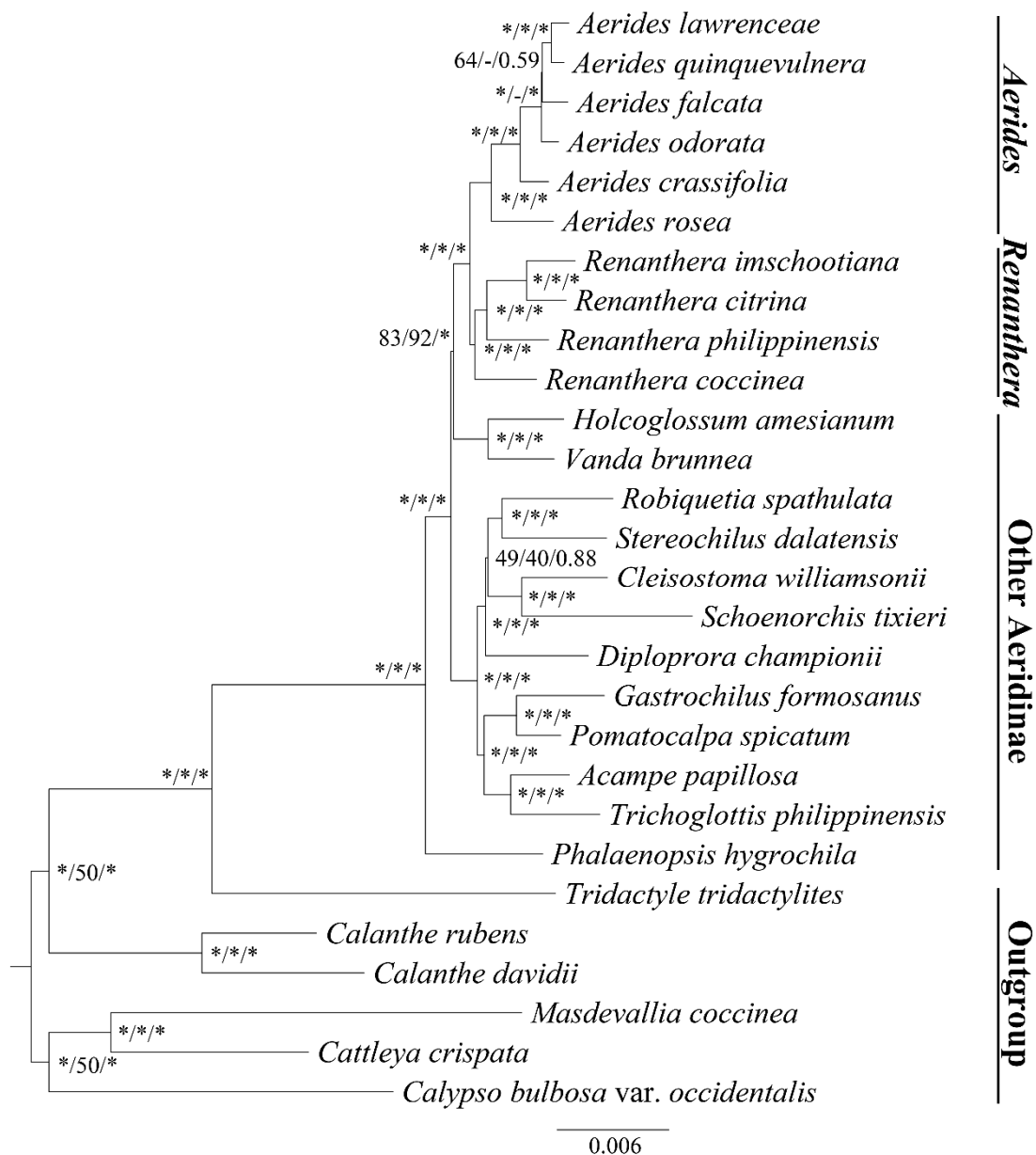


Supplementary Figure 1. Phylogenetic analysis of 22 Aeridinae species based on 68 protein coding genes.



Supplementary Figure 1. Phylogenetic analysis of 22 Aeridinae species based on 68 protein coding genes. Numbers near the nodes are bootstrap percentages and Bayesian posterior probabilities (BSML left, BSMP middle, and PP right). - indicates that a node is inconsistent between the topology of the MP/ML trees and the Bayesian tree. * indicates that the node is 100 bootstrap percentage or 1.00 posterior probability.

Supplementary Table 1 Source and voucher information for this study. Voucher specimens were deposited in the herbariums of Forestry College of Fujian Agriculture and Forestry University (FJFC) and National Center for Biotechnology Information (NCBI).

Species	Source	Voucher	GenBank accession numbers
<i>Aerides lawrenceae</i> .	This study		OR159898
<i>Aerides odorata</i>	This study		OR159899
<i>Aerides quinquevulnera</i> .	This study		OR159900
<i>Aerides crassifolia</i>	This study		OR159897
<i>Aerides falcata</i>	This study		OR159896
<i>Aerides rosea</i> .	This study		OR159901
<i>Acampe papillosa</i>	Liu et al., 2020	Liu3246	MN124418
<i>Cleisostoma williamsonii</i>	Liu et al., 2020	Liu4525	MN124426
<i>Diploprora championii</i>	Liu et al., 2020	Liu4480	MN124409
<i>Gastrochilus formosanus</i>	Liu et al., 2020	Liu4265	MN124435
<i>Holcoglossum amesianum</i>	Li et al., 2019	9419	NC041511
<i>Phalaenopsis hygrophila</i>	Liu et al., 2020	Liu3336	MN124430
<i>Pomatocalpa spicatum</i>	Liu et al., 2020	Liu4589	MN124411
<i>Renanthera citrina</i>	Zhang et al., 2021	OR-001	OK377033
<i>Renanthera coccinea</i>	Zhang et al., 2021	OR-002	OK377034
<i>Renanthera imschootiana</i>	Zhang et al., 2021	OR-003	OK377035
<i>Renanthera philippinensis</i>	Zhang et al., 2021	OR-004	OK377036
<i>Robiquetia spathulata</i>	Liu et al., 2020	Liu5248	MN124410
<i>Schoenorchis tixieri</i>	Liu et al., 2020	Liu4123	MN124407
<i>Stereochilus dalatensis</i>	Liu et al., 2020	Lior003	MN124431
<i>Trichoglottis philippinensis</i>	Liu et al., 2020	Lior075	MN124404
<i>Vanda brunnea</i>	Li et al., 2019	13059	NC041522
Outgroup			
<i>Calanthe davidii</i>	Dong et al., 2018	-	MG925365
<i>Calanthe triplicata</i>	Yang et al., 2014	-	KF753635
<i>Calypso bulbosa</i> var. <i>occidentalis</i>	Barrett et al., 2018	CFB 349 OR	MG874037
<i>Cattleya crispata</i>	da Rocha et al., 2016	-	KP168671
<i>Masdevallia coccinea</i>	Kim et al., 2015	-	KP205432
<i>Tridactyle tridactylites</i>	D'hajjère et al., 2022	-	MW760855

Supplementary Table 2. The details information of long repeats.

seq len	species	<i>A. crassifolia</i>	<i>A. falcata</i>	<i>A. lawrenceae</i>	<i>A. odorata</i>	<i>A. quinquevulnera</i>	<i>A. rosea</i>
40+	Complement	0	0	0	0	0	0
	Forward	2	0	0	1	4	10
	Palindrome	3	4	5	4	4	15
	Reverse	0	1	1	1	0	0
30-39	Forward	3	4	4	6	4	7
	Palindrome	9	11	9	9	7	11
	Reverse	1	2	7	3	2	3
	Complement	2	0	0	0	0	0
20-29	Forward	17	10	9	11	13	1
	Palindrome	16	12	12	9	12	1
	Reverse	11	5	1	3	3	1

Supplementary Table 3. The details information Small simple repeats.

species	mono	di	tri	tetra	penta	hexa	total
<i>Aerides crassifolia</i>	51	10	4	3	1	2	71
<i>Aerides falcata</i>	52	10	7	3	1	1	74
<i>Aerides lawrenceae</i>	47	11	9	5	3	1	76
<i>Aerides odorata</i>	51	10	6	3	1	1	72
<i>Aerides quinquevulnera</i>	50	9	8	3	3	1	74
<i>Aerides rosea</i>	53	12	6	4	2	0	77

species	LSC	SSC	IR	total
<i>Aerides crassifolia</i>	49	14	8	71
<i>Aerides falcata</i>	53	13	8	74
<i>Aerides lawrenceae</i>	48	20	8	76
<i>Aerides odorata</i>	46	20	6	72
<i>Aerides quinquevulnera</i>	47	17	10	74
<i>Aerides rosea</i>	54	15	8	77

Supplementary Table 4. The nucleotide diversity of six *Aerides* plastome.

Supplementary Table 5. The nucleotide diversity of 68 protein coding genes in *Aerides*.