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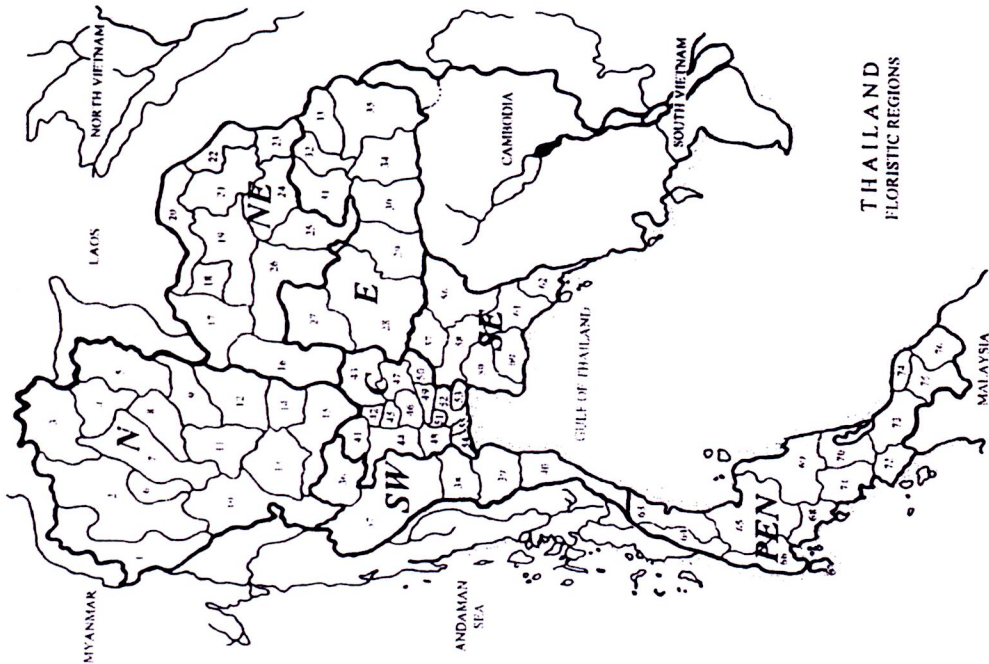
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APPENDICES

Appendix A
Floristic regions and provinces of Thailand

Floristic regions and province of Thailand

(Applied from Flora of Thailand, Cyperaceae, vol. 6, part 4)



- I. N (NORTHERN)
- 1 Mae Hong Son
 - 2 Chiang Mai
 - 3 Chiang Rai
 - 4 Phayao
 - 5 Nan
 - 6 Lamphun
 - 7 Lampang
 - 8 Phrae
 - 9 Uttaradit
 - 10 Tak
 - 11 Sukhothai
 - 12 Phitsnulok
 - 13 Kamphaeng Phet
 - 14 Phichit
 - 15 Nakhon Sawan
- II. NE (NORTH-EASTERN)
- 16 Phetchabun
 - 17 Loei
 - 18 Nong Bua Lum Phu
 - 19 Udon Thani
 - 20 Nong Khai
 - 21 Sakon Nakhon
 - 22 Nakhon Phanom
 - 23 Mukdahan
 - 24 Kalasin
 - 25 Maha Sarakham
 - 26 Khon Kaen
- III. E (EASTERN)
- 27 Chaiyaphum
 - 28 Nakhon Ratchasima
 - 29 Burirum
 - 30 Surin
 - 31 Roi Et
 - 32 Yasothon
 - 33 Amnat Charoen
 - 34 Si Sa Ket
 - 35 Ubon Ratchathani
- IV. SW (SOUTH-WESTERN)
- 36 Uthai Thani
 - 37 Kanchanaburi
 - 38 Ratchaburi
- V. C (CENTRAL)
- 39 Phetchaburi
 - 40 Prachuap Khiri Khan
 - 41 Chai Nat
 - 42 Sing Buri
 - 43 Lop Buri
 - 44 Suphan Buri
 - 45 Ang Thong
 - 46 Phra Nakhon Si Ayutthaya
 - 47 Saraburi
 - 48 Nakhon Pathom
 - 49 Pathum Thani
 - 50 Nakhon Nayok
 - 51 Nonthaburi
 - 52 Bangkok
 - 53 Samut Prakan
 - 54 Samut Songkhram
 - 55 Samut Sakhon
- VI. SE (SOUTH-EASTERN)
- 56 Sa Kaeo
 - 57 Prachin Buri
 - 58 Chachoengsao
 - 59 Chon Buri
 - 60 Rayong
 - 61 Chanthaburi
 - 62 Trat
- VII. PEN (PENINSULAR)
- 63 Chumphon
 - 64 Ranong
 - 65 Surat Thani
 - 66 Phangnga
 - 67 Phuket
 - 68 Krabi
 - 69 Nakhon Si Thammarat
 - 70 Phatthalung
 - 71 Trang
 - 72 Satun
 - 73 Songkhla
 - 74 Pattani
 - 75 Yala
 - 76 Narathiwat

Appendix B

The multiple sequence alignment of ITS sequences

		10	20	30	40	50
<i>B. plicata</i>	-----	-----	-----AGCTT	T--GAATGAT	GGATGGTTGC	
<i>B. pulcherrima</i>	-----	-----TGTT	GAGAGAGCAT	A--TAATGAT	GGATGGTTGT	
<i>K. rotunda</i>	-----	-----TTGTT	GAGAGAGCAC	G--GACCGAT	GGATGGTTGT	
<i>Z. officinale</i>	-----	-----TT	GAGAGAGCAT	ATAGAATGAC	GGATGGTTGC	
<i>H. biflorum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. biflorum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. coccineum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. coccineum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. collinum</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAC	GGATGATTGT	
<i>H. coronarium</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. coronarium</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. coro</i> var. <i>chry</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. coro</i> var. <i>chry</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. coro</i> var. <i>fla</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. coro</i> var. <i>fla</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. siamense</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. ellipticum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. ellipticum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. ellipticum</i> 3	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. gomezianum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. gomezianum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. kaomaenense</i>	-----	-----	-----	-----	-----	
<i>H. longicornutum</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAC	GGATGATTGT	
<i>H. malayanum</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. mueniwongyatiae</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. neocarneum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. neocarneum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. pauciflorum</i> 1	CCTGCGGAAG	GATCATTGTC	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. pauciflorum</i> 2	CCTGCGGAAG	GATCATTGTC	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. phuluangense</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. roxburghii</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. roxburghii</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. roxburghii</i> 3	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. spi</i> var. <i>acum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. spi</i> var. <i>acum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. stenopetalum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. stenopetalum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	
<i>H. tomentosum</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGGTTGT	
<i>H. villosum</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGC	
<i>H. villosum</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGC	
<i>H. aff. siamense</i> 1	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. aff. siamense</i> 2	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. aff. roxburghii</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAT	A--AGACGAT	GGATGATTGT	
<i>H. aff. spicatum</i>	CCTGCGGAAG	GATCATTGTT	GAGAGAGCAC	A--AGACGAT	GGATGGTTGT	

		60		70		80		90		100
<i>B. plicata</i>	GACCGTGTGA	TTGTGTCACT	TTC--CTTGC	C---CCACCA	TGGTG-GGCA					
<i>B. pulcherrima</i>	GAACGTGTGA	ATGTGTCCCT	TTC--CATGC	C---CGATCT	TAGTG-GGCA					
<i>K. rotunda</i>	GAATGTGTGA	ATGTGTCCCT	TCCTTCCCC	C---CCACGT	AGGCG-GGCG					
<i>Z. officinale</i>	GAATGCGTGA	ATGTGTCCCT	CTCTTCGCCC	CACCCACGT	CGGTG-GGCG					
<i>H. biflorum</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTGGG-CG					
<i>H. biflorum</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTGGG-CG					
<i>H. coccineum</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. coccineum</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. collinum</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTGGG-CG					
<i>H. coronarium</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. coronarium</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. coro</i> var. <i>chry</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. coro</i> var. <i>chry</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. coro</i> var. <i>fla</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. coro</i> var. <i>fla</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. siamense</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. ellipticum</i> 1	GAACGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					
<i>H. ellipticum</i> 2	GAACGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					
<i>H. ellipticum</i> 3	GAACGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					
<i>H. gomezianum</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCGGGGCG					
<i>H. gomezianum</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCGGGGCG					
<i>H. kaomaenense</i>	-----	-----	-----	-----	-----					
<i>H. longicornutum</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTGGG-CG					
<i>H. malayanum</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. muenwongyatie</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. neocarneau</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. neocarneau</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. pauciflorum</i> 1	GAACGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCGAGGCG					
<i>H. pauciflorum</i> 2	GAACGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCGAGGCG					
<i>H. phuluangense</i>	GAACGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					
<i>H. roxburghii</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. roxburghii</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. roxburghii</i> 3	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. spi</i> var. <i>acum</i> 1	GAATGTGTGA	ATGTGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					
<i>H. spi</i> var. <i>acum</i> 2	GAATGTGTGA	ATGTGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					
<i>H. stenopetalum</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. stenopetalum</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-GCCCATGT	CGGCG-GGCG					
<i>H. tomentosum</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCG-GGCA					
<i>H. villosum</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCG-GGCG					
<i>H. villosum</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGCG-GGCG					
<i>H. aff. siamense</i> 1	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. aff. siamense</i> 2	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. aff. roxburghii</i>	GAATGTGTGA	ACGCGCCCCT	TTCTTCGCCC	CCACCCATGT	CGGCGGG-CG					
<i>H. aff. spicatum</i>	GAATGTGTGA	ATGTGCCCCT	TTCTTCGCCC	C-ACCCATGT	CGGTG-GGCG					

	
	110 120 130 140 150
<i>B. plicata</i>	-TGAACCGTA GCTCGGTGCG ATCCGCACTA AGGAAAAATG AA-CTCGGAA
<i>B. pulcherrima</i>	-TTGACCGTA GCTCAGTGCG ATCCGCACTA AGAAACAATA AG-CTCGAAA
<i>K. rotunda</i>	GTTGACCGTC GSTCRGTCCG TTCGGCAYTA AGKAACAATS AA-TTMC GAM
<i>Z. officinale</i>	ATTGACCGAA GCTCGGTGCG ATCGGCACTA AGGAACAACG AA-CTCGGAA
<i>H. biflorum</i> 1	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. biflorum</i> 2	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coccineum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coccineum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. collinum</i>	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coronarium</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coronarium</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coro</i> var. <i>chry</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coro</i> var. <i>chry</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coro</i> var. <i>fla</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. coro</i> var. <i>fla</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. siamense</i>	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. ellipticum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. ellipticum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. ellipticum</i> 3	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. gomezianum</i> 1	ATCGATCGCA GACGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. gomezianum</i> 2	ATCGATCGCA GACGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. kaomaenense</i>	----- -A-CTCGGAA
<i>H. longicornutum</i>	ATTGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. malayanum</i>	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. muenwongyatiae</i>	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. neocarneum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. neocarneum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. pauciflorum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. pauciflorum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. phuluangense</i>	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. roxburghii</i> 1	AACGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. roxburghii</i> 2	AACGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. roxburghii</i> 3	AACGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. spi</i> var. <i>acum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATA AA-CTCGGAA
<i>H. spi</i> var. <i>acum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATA AA-CTCGGAA
<i>H. stenopetalum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. stenopetalum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. tomentosum</i>	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. villosum</i> 1	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. villosum</i> 2	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. aff. siamense</i> 1	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. aff. siamense</i> 2	ATCGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. aff. roxburghii</i>	AACGACCGCA GCCGGGTGCG ATCGGCACCA AGGAACAATG AA-CTCGGAA
<i>H. aff. spicatum</i>	ATTGACCGTA GCCGGGTGCG ATCGGCACCA AGGAACAATA AA-CTCGGAA

						
	160	170	180	190	200	
<i>B. plicata</i>	GCAAAGGGCC	CCCTTGGCGT	GCACAGGGA-	-GCCCAATGC	GTCGGAGATT	
<i>B. pulcherrima</i>	GCAGAGGGCC	CC-TTGGCGT	GCACAGGGA-	-GCCCAAAGC	GTCGGAGATT	
<i>K. rotunda</i>	GCAGASGGCC	CC-CYGGCGT	GCTCAGGGA-	-GCCCAATGC	GTCGGAGATT	
<i>Z. officinale</i>	GCGAGGGGCC	CC-TCGGCGT	GCGCAGGGG-	AGCCCAGTGC	GTCGGAGATT	
<i>H. biflorum</i> 1	GCATAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. biflorum</i> 2	GCATAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. coccineum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AACCCAATGC	GTCGGAGACT	
<i>H. coccineum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AACCCAATGC	GTCGGAGACT	
<i>H. collinum</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. coronarium</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. coronarium</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. coro</i> var. <i>chry</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. coro</i> var. <i>chry</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. coro</i> var. <i>fla</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. coro</i> var. <i>fla</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. siamense</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. ellipticum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGATT	
<i>H. ellipticum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGATT	
<i>H. ellipticum</i> 3	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGATT	
<i>H. gomezianum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. gomezianum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. kaomaenense</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. longicornutum</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. malayanum</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. muenwongyatiae</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. neocarneum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. neocarneum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. pauciflorum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGCGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. pauciflorum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGCGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. phuluangense</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGATT	
<i>H. roxburghii</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. roxburghii</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. roxburghii</i> 3	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. spi</i> var. <i>acum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GCCGGAGATT	
<i>H. spi</i> var. <i>acum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GCCGGAGATT	
<i>H. stenopetalum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. stenopetalum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GTCGGAGACT	
<i>H. tomentosum</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. villosum</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. villosum</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. aff. siamense</i> 1	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. aff. siamense</i> 2	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. aff. roxburghii</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGG-	AGCCCAATGC	GTCGGAGATT	
<i>H. aff. spicatum</i>	GCAGAGGGCC	CC-TCGACGT	GCGCGGGGGG	AGCCCAATGC	GCCGGAGATT	

.....|.....||.....||.....||.....||.....|
 210 220 230 240 250

<i>B. plicata</i>	CCTCGGGATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>B. pulcherrima</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>K. rotunda</i>	SWTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>Z. officinale</i>	CCTCGGAATC	AAACGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. biflorum</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. biflorum</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coccineum</i> 1	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coccineum</i> 2	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. collinum</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coronarium</i> 1	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coronarium</i> 2	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coro</i> var. <i>chry</i> 1	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coro</i> var. <i>chry</i> 2	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coro</i> var. <i>fla</i> 1	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. coro</i> var. <i>fla</i> 2	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. siamense</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. ellipticum</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. ellipticum</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. ellipticum</i> 3	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. gomezianum</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. gomezianum</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. kaomaenense</i>	CCTCGGAATA	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. longicornutum</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. malayanum</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. muenwongyatiae</i>	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. neocarneum</i> 1	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. neocarneum</i> 2	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. pauciflorum</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. pauciflorum</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. phuluangense</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. roxburghii</i> 1	TCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. roxburghii</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. roxburghii</i> 3	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. spi</i> var. <i>acum</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. spi</i> var. <i>acum</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. stenopetalum</i> 1	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. stenopetalum</i> 2	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. tomentosum</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. villosum</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. villosum</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. aff. siamense</i> 1	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. aff. siamense</i> 2	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. aff. roxburghii</i>	CCTCGAAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA
<i>H. aff. spicatum</i>	CCTCGGAATC	AAATGACTCT	CGGCAATGGA	TATCTCGGCT	CTTGCATCGA

					
	260	270	280	290	300
<i>B. plicata</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>B. pulcherrima</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>K. rotunda</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>Z. officinale</i>	TAAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. biflorum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. biflorum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coccineum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coccineum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. collinum</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coronarium</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coronarium</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coro</i> var. <i>chry</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coro</i> var. <i>chry</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coro</i> var. <i>fla</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. coro</i> var. <i>fla</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. siamense</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. ellipticum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. ellipticum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. ellipticum</i> 3	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. gomezianum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. gomezianum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. kaomaenense</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. longicornutum</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. malayanum</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. muenwongyatiae</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. neocarneum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. neocarneum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. pauciflorum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. pauciflorum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. phuluangense</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. roxburghii</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. roxburghii</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. roxburghii</i> 3	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. spi</i> var. <i>acum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. spi</i> var. <i>acum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. stenopetalum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. stenopetalum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. tomentosum</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. villosum</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. villosum</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. aff. siamense</i> 1	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. aff. siamense</i> 2	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. aff. roxburghii</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG
<i>H. aff. spicatum</i>	TGAAGAACGT	AGTGAAATGC	GATACTTGGT	GTGAATTGCA	GAATCTCGTG

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310 320 330 340 350

<i>B. plicata</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>B. pulcherrima</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GCGGTCGAGG
<i>K. rotunda</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	CTGGCCGAGG
<i>Z. officinale</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. biflorum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. biflorum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. coccineum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. coccineum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. collinum</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. coronarium</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. coronarium</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. coro</i> var. <i>chry</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. coro</i> var. <i>chry</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. coro</i> var. <i>fla</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. coro</i> var. <i>fla</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. siamense</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GCGGTCGAGG
<i>H. ellipticum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. ellipticum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. ellipticum</i> 3	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. gomezianum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. gomezianum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. kaomaenense</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. longicornutum</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. malayanum</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. muenwongyatiae</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. neocarneum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. neocarneum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. pauciflorum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. pauciflorum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. phuluangense</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. roxburghii</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. roxburghii</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. roxburghii</i> 3	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. spi</i> var. <i>acum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. spi</i> var. <i>acum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. stenopetalum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. stenopetalum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. tomentosum</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	TTGGCCGAGG
<i>H. villosum</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. villosum</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG
<i>H. aff. siamense</i> 1	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GCGGTCGAGG
<i>H. aff. siamense</i> 2	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GCGGTCGAGG
<i>H. aff. roxburghii</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGTCGAGG
<i>H. aff. spicatum</i>	AACCATTGAG	TCTTTGAACG	CAAGTTGTGC	CCGAGGCCTT	GTGGCCGAGG

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 360 370 380 390 400

<i>B. plicata</i>	GCACGCCTGC	TTGGGCGTCA	TGACATCGTC	GCCTTCGCTC	CATGTACTGA
<i>B. pulcherrima</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCCTTTGCTC	CATGCGTTCT
<i>K. rotunda</i>	GCACGCCTGC	TTGGGAGTCA	TGGCATTGCC	GCCTTTGCAC	CATGTAATGA
<i>Z. officinale</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCCTCTGCTC	CTCTCGTCGG
<i>H. biflorum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. biflorum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. coccineum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. coccineum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. collinum</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. coronarium</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. coronarium</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. coro</i> var. <i>chry</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. coro</i> var. <i>chry</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. coro</i> var. <i>fla</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. coro</i> var. <i>fla</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. siamense</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. ellipticum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. ellipticum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. ellipticum</i> 3	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. gomezianum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. gomezianum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. kaomaenense</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. longicornutum</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATAGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. malayanum</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. muenwongyatiae</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. neocarneum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. neocarneum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. pauciflorum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. pauciflorum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. phuluangense</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. roxburghii</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. roxburghii</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. roxburghii</i> 3	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. spi</i> var. <i>acum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCATC	GCTTTCGCTC	CACGCGTTGT
<i>H. spi</i> var. <i>acum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCATC	GCTTTCGCTC	CACGCGTTGT
<i>H. stenopetalum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. stenopetalum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCATTGT
<i>H. tomentosum</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. villosum</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. villosum</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. aff. siamense</i> 1	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. aff. siamense</i> 2	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. aff. roxburghii</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCGTC	GCTTTCGCTC	CACGCGTTGT
<i>H. aff. spicatum</i>	GCACGCCTGC	TTGGGCGTCA	TGGCATCATC	GCTTTCGCTC	CACGCGTTGT

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 410 420 430 440 450

<i>B. plicata</i>	TGGCGCCAAG	CGCGAAAATT	GGCCTSGTGT	GCCCTCGGGC	ACAGTCGGTC
<i>B. pulcherrima</i>	TGGTGCTGAG	CGCGGAAATT	GACCCCGTGT	GCCCTTGGGC	ACAGTCGGTT
<i>K. rotunda</i>	TGGTGCCGAG	CGCGTAAATT	GGCCCCGTGT	GCCCTCGGGC	ACAGTCGGTT
<i>Z. officinale</i>	CGGTGCGGAG	CGCGGAAATT	GGCCCCGTGT	GCCCTCGGGC	ACAGTCGGTC
<i>H. biflorum</i> 1	TGGTG--GCG	AACGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. biflorum</i> 2	TGGTG--GCG	AACGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coccineum</i> 1	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coccineum</i> 2	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. collinum</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coronarium</i> 1	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coronarium</i> 2	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coro</i> var. <i>chry</i> 1	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coro</i> var. <i>chry</i> 2	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coro</i> var. <i>fla</i> 1	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. coro</i> var. <i>fla</i> 2	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. siamense</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. ellipticum</i> 1	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGAC	ACAGTCGGTC
<i>H. ellipticum</i> 2	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGAC	ACAGTCGGTC
<i>H. ellipticum</i> 3	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGAC	ACAGTCGGTC
<i>H. gomezianum</i> 1	TGGTG--GCG	AACGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. gomezianum</i> 2	TGGTG--GCG	AACGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. kaomaenense</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGCC
<i>H. longicornutum</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. malayanum</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGCC
<i>H. muenwongyatiae</i>	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. neocarneum</i> 1	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGAC	ACAGTCGGTC
<i>H. neocarneum</i> 2	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGAC	ACAGTCGGTC
<i>H. pauciflorum</i> 1	TGGTGGGGCG	AGCGAAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. pauciflorum</i> 2	TGGTGGGGCG	AGCGAAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. phuluangense</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGAC	ACAGTCGGTC
<i>H. roxburghii</i> 1	TGGTG--GCG	AGCGGAAATT	GGCCTCGTGT	GTCTCTCGGGC	ACAGTCGGCC
<i>H. roxburghii</i> 2	TGGTG--GCG	AGCGGAAATT	GGCCTCGTGT	GTCTCTCGGGC	ACAGTCGGCC
<i>H. roxburghii</i> 3	TGGTG--GCG	AGCGGAAATT	GGCCTCGTGT	GTCTCTCGGGC	ACAGTCGGCC
<i>H. spi</i> var. <i>acum</i> 1	TGGTG--CCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. spi</i> var. <i>acum</i> 2	TGGTG--CCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. stenopetalum</i> 1	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. stenopetalum</i> 2	TGGCG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. tomentosum</i>	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. villosum</i> 1	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. villosum</i> 2	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. aff. siamense</i> 1	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. aff. siamense</i> 2	TGGTG--GCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC
<i>H. aff. roxburghii</i>	TGGTG--GCG	AGCGGAAATT	GGCCTCGTGT	GTCTCTCGGGC	ACAGTCGGCC
<i>H. aff. spicatum</i>	TGGTG--CCG	AGCGGAAATT	GGCCCCGTGT	GTCTCTCGGGC	ACAGTCGGTC

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 460 470 480 490 500

<i>B. plicata</i>	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCAT
<i>B. pulcherrima</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGAGGA	CGATGGGTGT	TGGTCGCCAT
<i>K. rotunda</i>	GAAGAGCGGG	CAGTCGCCAA	TCGTCAGGCA	CGATGGGTGT	TGGTCGCGGT
<i>Z. officinale</i>	GAAGAGCGTG	TAGTCGGCAG	TCGCGGGGCA	CGACGGGTGT	TGGTCGCCGT
<i>H. biflorum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. biflorum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coccineum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coccineum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. collinum</i>	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coronarium</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coronarium</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coro</i> var. <i>chry</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coro</i> var. <i>chry</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coro</i> var. <i>fla</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. coro</i> var. <i>fla</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. siamense</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. ellipticum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. ellipticum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. ellipticum</i> 3	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. gomezianum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. gomezianum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. kaomaenense</i>	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCT	CGATGGGTGT	TGGTCGCCGC
<i>H. longicornutum</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. malayanum</i>	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. mueniwongyatieae</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. neocarneum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. neocarneum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. pauciflorum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. pauciflorum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. phuluangense</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. roxburghii</i> 1	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. roxburghii</i> 2	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. roxburghii</i> 3	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. spi</i> var. <i>acum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. spi</i> var. <i>acum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. stenopetalum</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. stenopetalum</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. tomentosum</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGAGTGT	TGGTCGCCGC
<i>H. villosum</i> 1	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. villosum</i> 2	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. aff. siamense</i> 1	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. aff. siamense</i> 2	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. aff. roxburghii</i>	GAAGAGCGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC
<i>H. aff. spicatum</i>	GAAGAGTGGG	TAGTCGGCAG	TCGTCGGGCA	CGATGGGTGT	TGGTCGCCGC

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510 520 530 540 550

<i>B. plicata</i>	GAGCGGGAAC	AGAACATCGT	CCGTGTCGTT	CTCGGACGAG	TCCTCAAGA-
<i>B. pulcherrima</i>	GAGCGGGAAC	AGAACATCGA	CCTCGTCGTT	TTTGGACGAA	TCCTCAAGA-
<i>K. rotunda</i>	GAGCGGGAAC	AGAACATCKT	CCCCGTCGTA	TTGGGATGAG	TCCCAAGA-
<i>Z. officinale</i>	GAGCGGGAAC	AGGACGTCGT	CCCCGTCGTT	TTCGGACTGA	ACCTCAAGAA
<i>H. biflorum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. biflorum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coccineum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coccineum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. collinum</i>	GAGCGGGAAC	AAAACGTCGT	TCCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coronarium</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coronarium</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coro</i> var. <i>chry</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coro</i> var. <i>chry</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coro</i> var. <i>fla</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. coro</i> var. <i>fla</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. siamense</i>	GTGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. ellipticum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. ellipticum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. ellipticum</i> 3	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. gomezianum</i> 1	GAGCGAGAAC	AGAACGTCGT	CTCCGTCGTC	TCGGGATGAG	TCCTCAATA-
<i>H. gomezianum</i> 2	GAGCGAGAAC	AGAACGTCGT	CTCCGTCGTC	TCGGGATGAG	TCCTCAATA-
<i>H. kaomaenense</i>	GAGCGGGAAC	AAAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. longicornutum</i>	GAGCGGGAAC	AAAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. malayanum</i>	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. muenwongyatiae</i>	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. neocarneum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. neocarneum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. pauciflorum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. pauciflorum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. phuluangense</i>	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. roxburghii</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. roxburghii</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. roxburghii</i> 3	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. spi</i> var. <i>acum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. spi</i> var. <i>acum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. stenopetalum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. stenopetalum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. tomentosum</i>	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCAGGATGAG	TCCTCAAGA-
<i>H. villosum</i> 1	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. villosum</i> 2	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. aff. siamense</i> 1	GTGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. aff. siamense</i> 2	GTGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. aff. roxburghii</i>	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-
<i>H. aff. spicatum</i>	GAGCGGGAAC	AGAACGTCGT	CCCCGTCGTC	TCGGGATGAG	TCCTCAAGA-

					
	560	570	580	590	
<i>B. plicata</i>	GACCCTATGT	GATTGTGGCG	TCGGGCGAAA	GCGC-CGTGC	CCATCAATT
<i>B. pulcherrima</i>	GACCCTRTGT	GATTATGGCA	TCGGGTGAAA	GTAC-CGTGC	CCATAAACT
<i>K. rotunda</i>	GACCCTGTGT	GATTGTGGCG	GCGGGCGAAA	ATGC-CGCGC	CCATCAACT
<i>Z. officinale</i>	GACCCTGCGC	GATTGCGGCG	GCAGGCGAAA	GAATGCGCGC	CTGCCTGCC
<i>H. biflorum</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. biflorum</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. coccineum</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. coccineum</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. collinum</i>	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. coronarium</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGTCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. coronarium</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGTCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. coro</i> var. <i>chry</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. coro</i> var. <i>chry</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. coro</i> var. <i>fla</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. coro</i> var. <i>fla</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. siamense</i>	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. ellipticum</i> 1	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. ellipticum</i> 2	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. ellipticum</i> 3	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. gomezianum</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. gomezianum</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. kaomaenense</i>	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. longicornutum</i>	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CTCGC	CCATCAAAT
<i>H. malayanum</i>	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. muenwongyatie</i>	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. neocarneum</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. neocarneum</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. pauciflorum</i> 1	GACCCTGTGT	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. pauciflorum</i> 2	GACCCTGTGT	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. phuluangense</i>	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. roxburghii</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. roxburghii</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. roxburghii</i> 3	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. spi</i> var. <i>acum</i> 1	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTAC-CGCGC	CCATCAAAT
<i>H. spi</i> var. <i>acum</i> 2	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTAC-CGCGC	CCATCAAAT
<i>H. stenopetalum</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. stenopetalum</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGCCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. tomentosum</i>	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTGC-CGCGC	CCATCAAAT
<i>H. villosum</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. villosum</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. aff. siamense</i> 1	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. aff. siamense</i> 2	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. aff. roxburghii</i>	GACCCTGTGC	GAATGCGGCG	TCGGGCGAAA	GCGC-CGCGC	CCATCAAAT
<i>H. aff. spicatum</i>	GACCCTGTGT	GAATGCGGCG	TCGGGCGAAA	GTAC-CGCGC	CCATCAAAT

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