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APPENDIX

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APPENDIX A

Morphology of plant samples used in this study

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Figure A1 *Aristolochia anguicida* Jacq. The plant (A); leaf (B); flower (C); fruit (D).

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Barcode

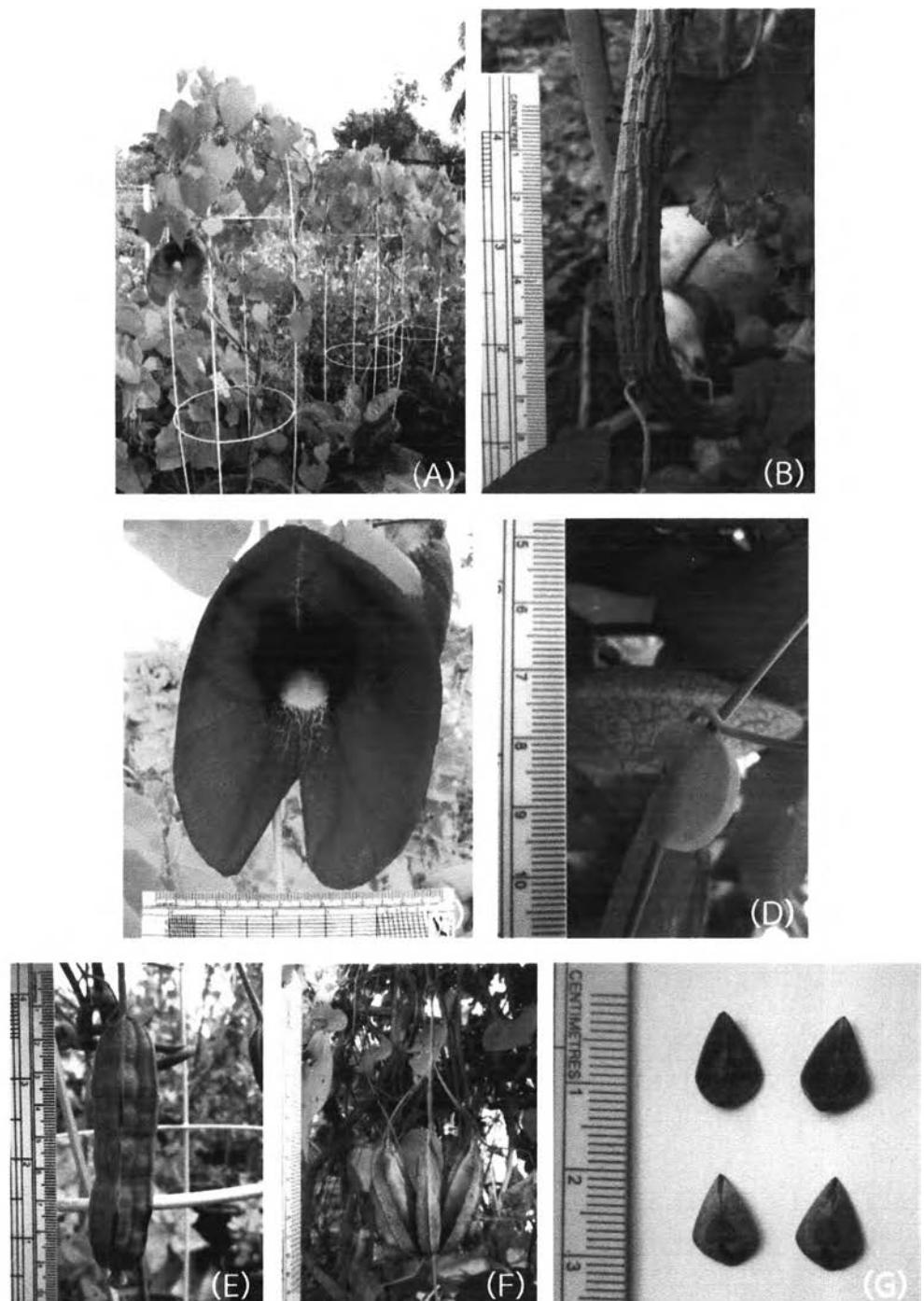


Figure A2 *Aristolochia gigantea* Mart. et Zucc. The plant (A); stem (B); flower (C); stipule (D), fruit (E); fruit (F); seeds (G).

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Figure A3 *Aristolochia grandiflora* Sw. Leaf (A); flower (B); flower (C); flower (D).

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Barcode

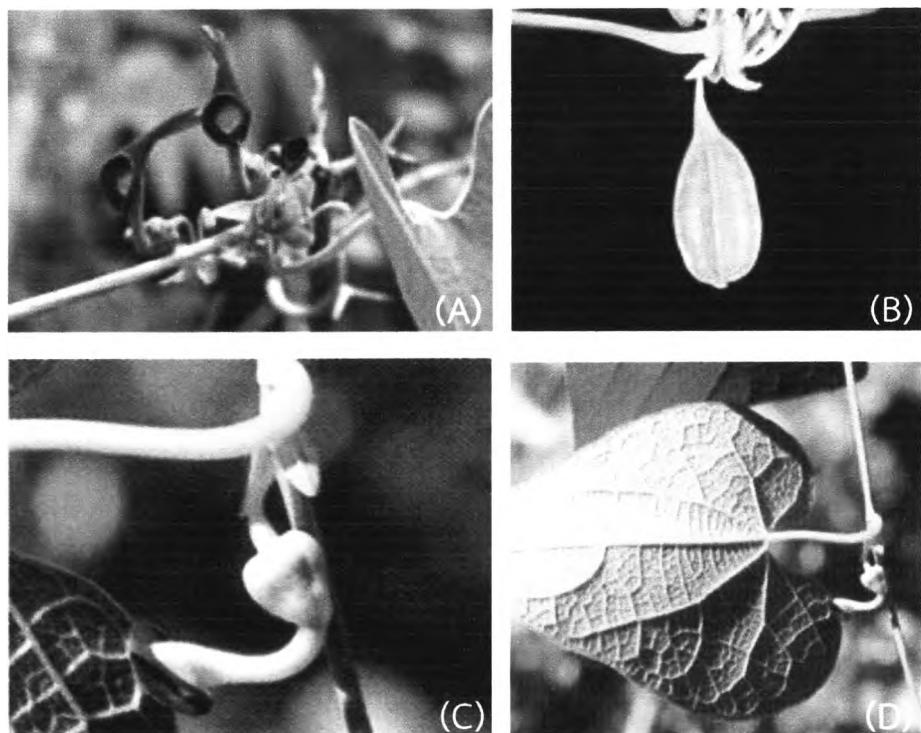


Figure A4 *Aristolochia kerrii* Craib.

Flowers (A); fruit (B) [cited 2015 March 12] Available from:

<http://web3.dnp.go.th/botany/detail.aspx?wordsnamesci=Aristolochia0kerrii0Craib>

Flower (C); leaf (D) [cited 2015 March 12] Available from:

http://www.rspg.or.th/plants_data/rare_plants/scien_name_a24.htm

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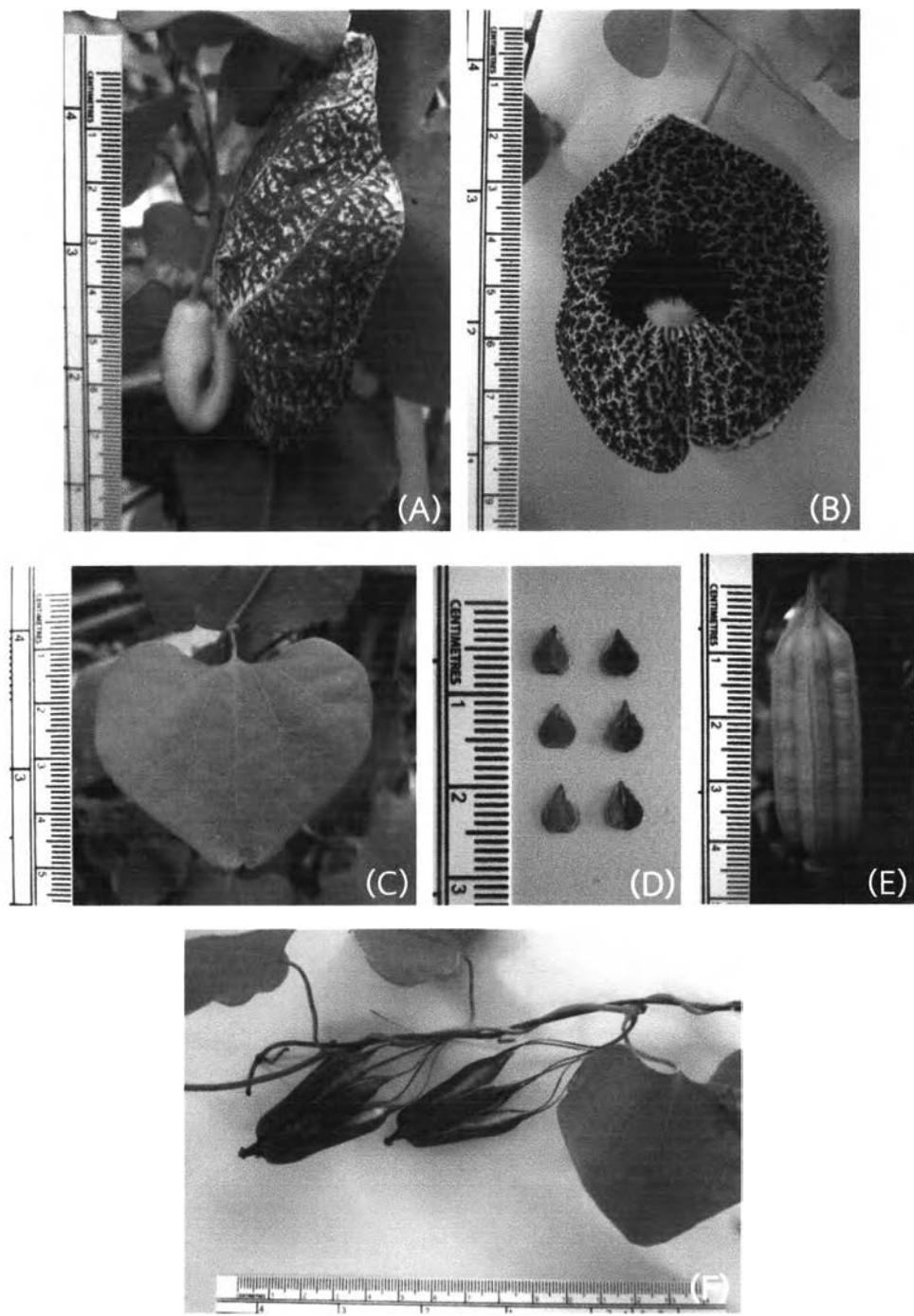


Figure A5 *Aristolochia littoralis* D. Parodi. Flower (A); flower (B); leaf (C); seeds (D); fruit (E); dry fruit (F).

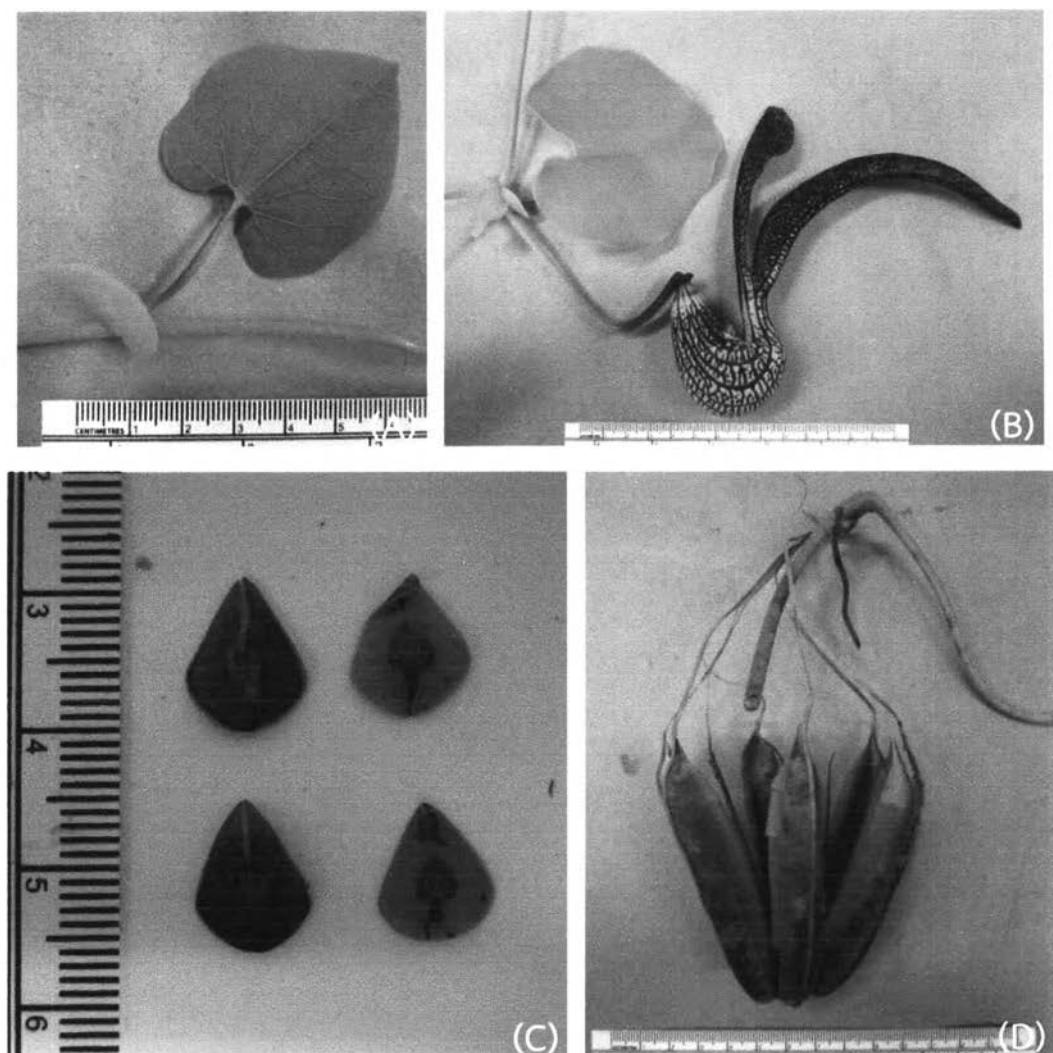


Figure A6 *Aristolochia ringens* Vahl. Leaf and stipule (A); flower and leaf (B); seeds (C); dry fruit (D).

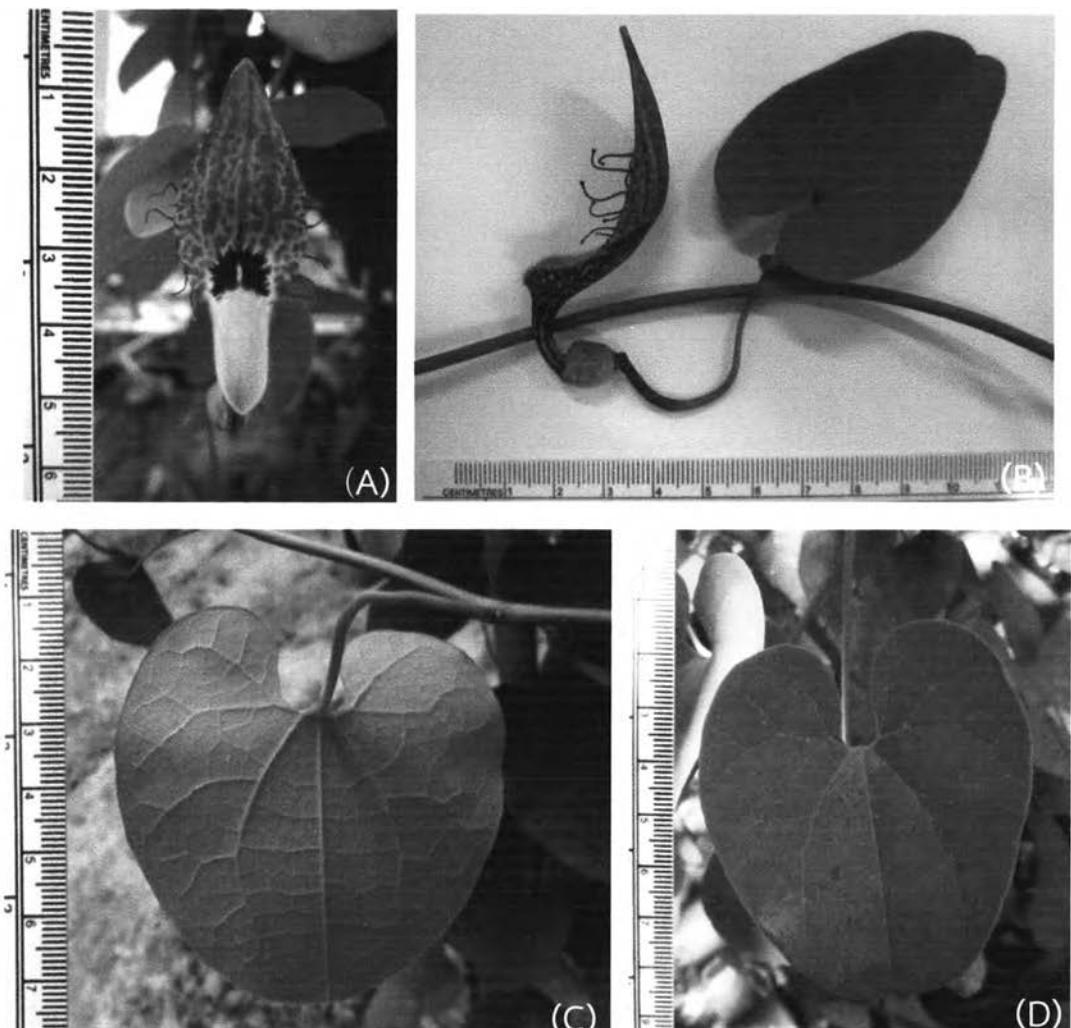


Figure A7 *Aristolochia tentaculata* Schmidt in Fedde. Flower (A); flower and leaf (B); leaf (C); leaf (D).

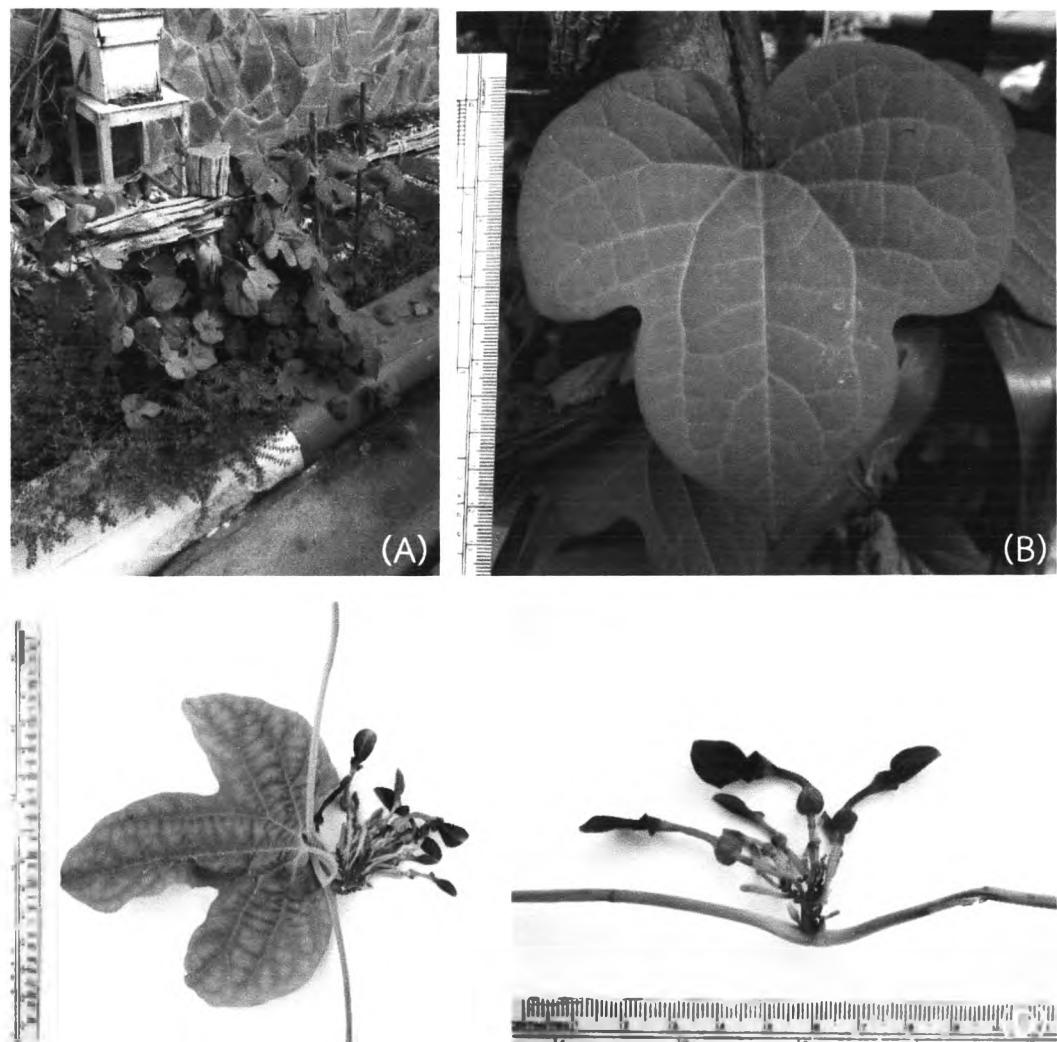


Figure A8 *Aristolochia pothieri* Pierre ex Lecomte. The plant (A); leaf (B); flowers and leaf (C); flowers (D).

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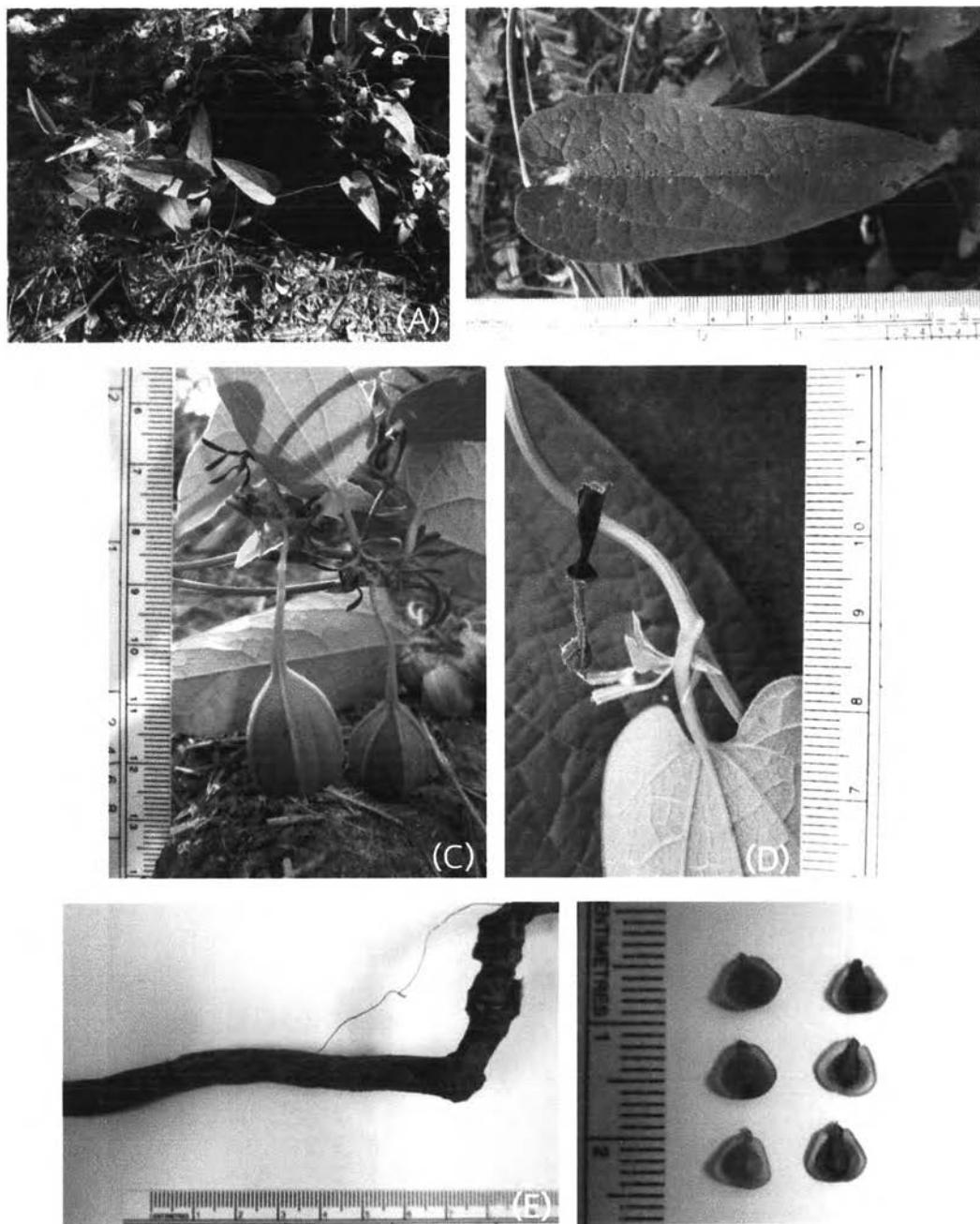


Figure A9 *Aristolochia pierrei* Lecomte. The plant (A); leaf (B); flowers and fruits (C); flower (D); stem and root (E); seeds (F).

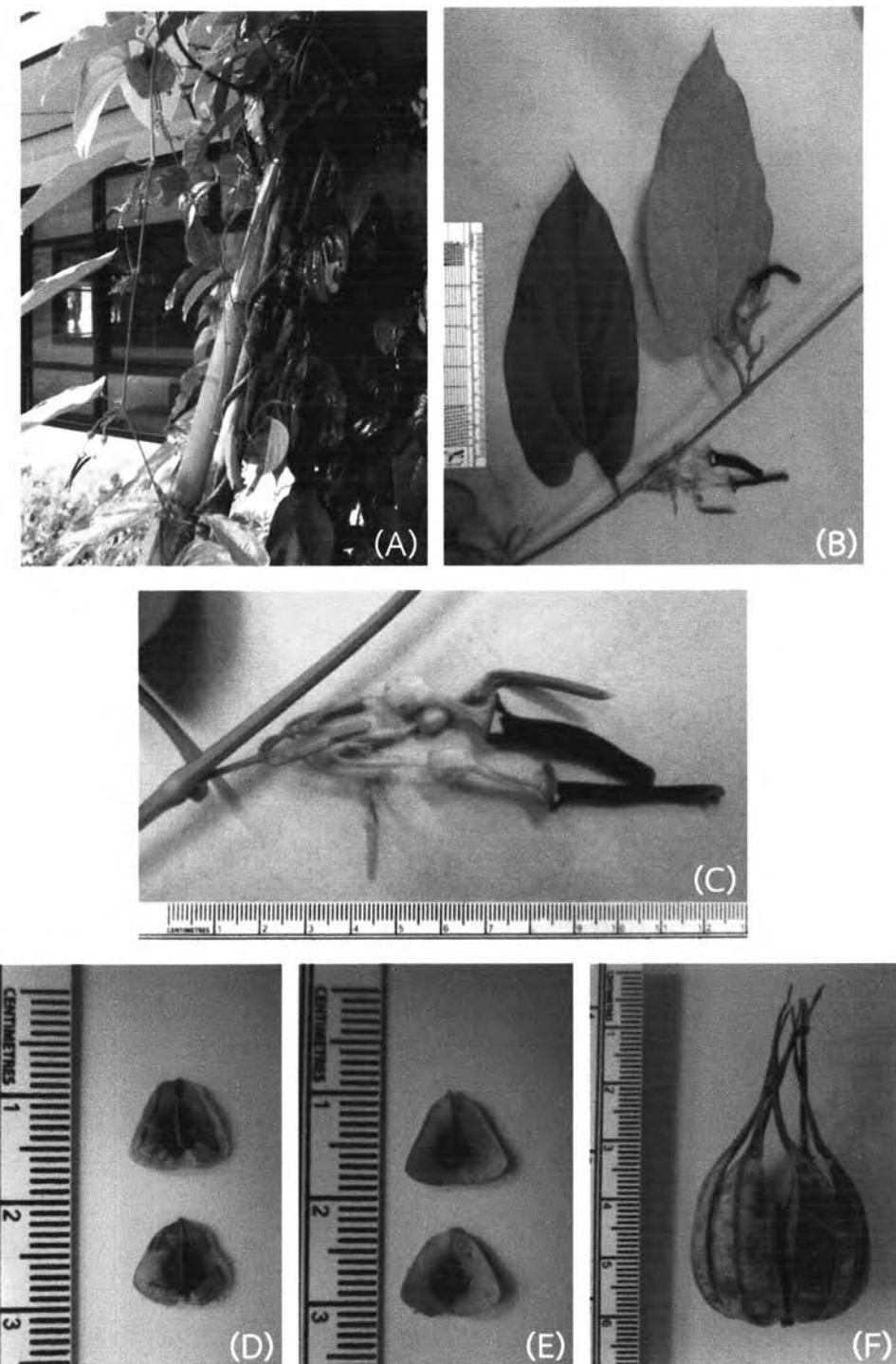


Figure A10 *Aristolochia tagala* Cham. The plant (A); flowers and leaves (B); flowers (C); seeds (D); seeds (E); dry fruit (F).

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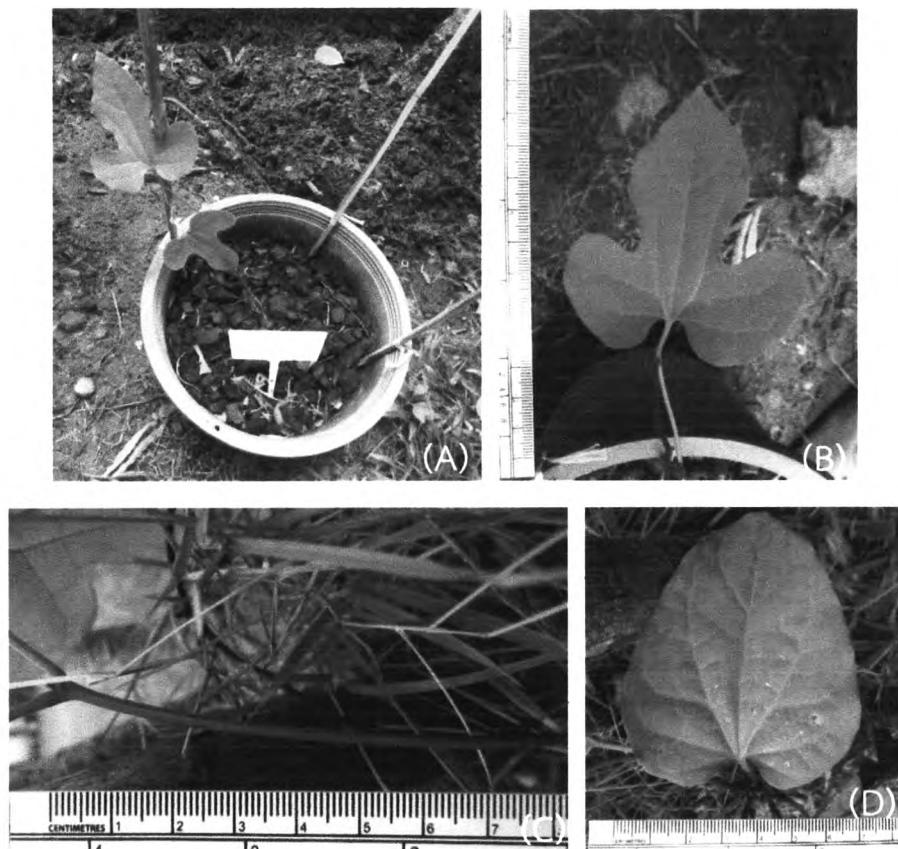


Figure A11 A. sp. The plant (A); leaves (B); stem (C); leaf (D).

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Figure A12 *Raphistemma pulchellum* (Roxb.) Wall Craib.

The plant (A), flowers (B), flowers (C) [cited 2015 March 12] Available from:

http://www.rspg.or.th/plants_data/herbs/herbs_29.htm

Flowers (D) [cited 2015 March 12] Available from:

http://www.qsbg.org/database/botanic_book%20full%20option/search_detail.asp?botanic_id=2047

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Figure A13 *Jasminum sambac* (L.) Aiton. The plant (A); flower and leaves (B); flower and leaves (C); flower (D).

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Figure A14 *Jasminum adenophyllum* Wall. Ex C.B. Clarke. Flowers and leaves (A); flowers and leaves (B); flowers (C); flower (D).

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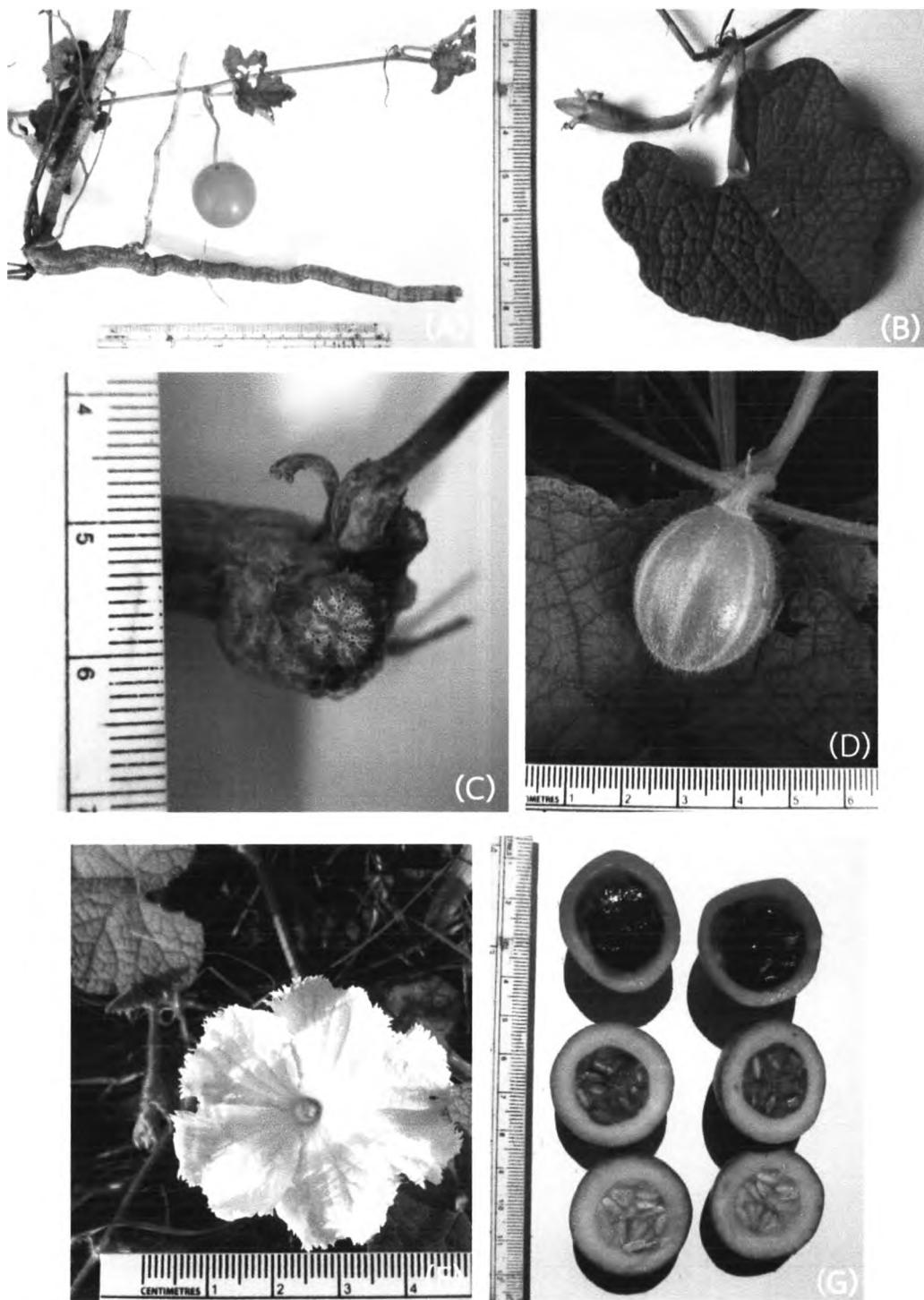


Figure A15 *Gymnopetalum integrifolium* Kurz. Fruit, stem and root (A); flowers and leaf (B); stem (C); fruit (D); flower (E); fruits (G)

APPENDIX B

Multiple sequence alignments of the eleven *Aristolochia* plants



Figure B16 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.

The numbers on the top line represent the base numbers in sequence alignment. The altered bases indicate the sequence differences. ‘.’ represents the base being identical to the first sequence.

	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	A T G T C A C C A C A A A C A G A G A C T A A A G C A A G T G T G G A T T C C A A G C T G G T G T				
<i>A. gigantea</i> (KP998764)	.	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	.	.	.	.
<i>A. kerrii</i> (KP998766)	.	.	.	.	.
<i>A. littoralis</i> (KP998767)	.	.	.	.	.
<i>A. pierrei</i> (KP998768)	.	.	.	.	.
<i>A. pothieri</i> (KP998769)	.	.	.	.	A
<i>A. pothieri</i> (KP998776)	.	.	.	.	A
<i>A. ringens</i> (KP998770)	.	.	.	.	.
<i>A. tagala</i> (KP998772)	.	.	.	.	.
<i>A. tagala</i> (KP998774)	.	.	.	.	.
<i>A. tagala</i> (KP998775)	.	.	.	.	.
<i>A. tentaculata</i> (KP998773)	.	.	.	.	.
<i>A. sp</i> (KP998771)	.	.	.	.	.
					1
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	T A A A G A T T A C A A A T T G A C T T A T T A T C T C T G A A T A T G A A A C C A A A G A T A				
<i>A. gigantea</i> (KP998764)	.	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	.	.	C	.
<i>A. kerrii</i> (KP998766)	.	.	.	C	.
<i>A. littoralis</i> (KP998767)	.	.	.	C	.
<i>A. pierrei</i> (KP998768)	.	.	.	C	.
<i>A. pothieri</i> (KP998769)	.	.	.	C	.
<i>A. pothieri</i> (KP998776)	.	.	.	C	.
<i>A. ringens</i> (KP998770)	.	.	.	.	.
<i>A. tagala</i> (KP998772)	.	.	.	C	.
<i>A. tagala</i> (KP998774)	.	.	.	C	.
<i>A. tagala</i> (KP998775)	.	.	.	C	.
<i>A. tentaculata</i> (KP998773)	.	.	.	C	.
<i>A. sp</i> (KP998771)	.	.	.	C	.
					1
1	1	1	1	1	1
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	C T G A T A T C T T G G C A G C A T T C C G A G T A A C T C C T C A A C C G G G G G T T C C G C C T				
<i>A. gigantea</i> (KP998764)	.	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	.	.	.	.
<i>A. kerrii</i> (KP998766)	.	.	.	.	.
<i>A. littoralis</i> (KP998767)	.	.	.	.	.
<i>A. pierrei</i> (KP998768)	.	.	.	.	.
<i>A. pothieri</i> (KP998769)	.	.	.	.	.
<i>A. pothieri</i> (KP998776)	.	.	.	.	.
<i>A. ringens</i> (KP998770)	.	.	.	.	.
<i>A. tagala</i> (KP998772)	.	.	.	.	.
<i>A. tagala</i> (KP998774)
<i>A. tagala</i> (KP998775)
<i>A. tentaculata</i> (KP998773)
<i>A. sp</i> (KP998771)

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

1	1	1	1	1	2
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) G A G G A A G C A G G G G C T G C A G T A G C T G C C G A A T C T T C T A C T G G T A C A T G G A C					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765) A					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767) C					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769) T					
<i>A. pothieri</i> (KP998776) T					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773) G					
<i>A. sp</i> (KP998771)					
2	2	2	2	2	2
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) A A C T G T G T G G A C T G A T G G A C T T A C T A G C C T T G A T C G T T A C A A A G G A C G A T					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769) A					
<i>A. pothieri</i> (KP998776) A					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
2	2	2	2	2	3
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) G C T A C C A C A T C G A G C C C G T T G C T G G G G A G G A A A T C A A T A T A T T G C T T A T					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765) G					
<i>A. kerrii</i> (KP998766) C G T					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768) C G T					
<i>A. pothieri</i> (KP998769) C G T					
<i>A. pothieri</i> (KP998776) C G T					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772) C G T					
<i>A. tagala</i> (KP998774) C G T					
<i>A. tagala</i> (KP998775) C G T					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

3 0 1	3 1 0	3 2 0	3 3 0	3 4 0	3 5 0
<i>A. anguicida</i> (KP903720) G T A G C T T A C C C T T A G A C C T T T T G A A G A A G G T T C T G T T A C T A A C A T G T T					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
3 5 1	3 6 0	3 7 0	3 8 0	3 9 0	4 0 0
<i>A. anguicida</i> (KP903720) T A C T T C C A T T G T A G G T A A T G T A T T T G G G T T C A A A G C C T T A C G A G C T T A C					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
4 0 1	4 1 0	4 2 0	4 3 0	4 4 0	4 5 0
<i>A. anguicida</i> (KP903720) G T C T G G A G G A T C T A C G A A T T C C T C C C G C T T A T A T C A A A A C T T T C C A A G G T					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

	4	4	4	4	4	5
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	C	C	T	G	A	C
<i>A. gigantea</i> (KP998764)	.	.	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	.	.	.	.	.
<i>A. kerrii</i> (KP998766)	.	.	C	.	.	.
<i>A. littoralis</i> (KP998767)	.	.	.	.	.	.
<i>A. pierrei</i> (KP998768)	.	.	C	.	.	.
<i>A. pothieri</i> (KP998769)	.	.	C	.	.	.
<i>A. pothieri</i> (KP998776)	.	.	C	.	.	.
<i>A. ringens</i> (KP998770)	.	.	.	.	.	.
<i>A. tagala</i> (KP998772)	.	.	C	.	.	.
<i>A. tagala</i> (KP998774)	.	.	C	.	.	.
<i>A. tagala</i> (KP998775)	.	.	C	.	.	.
<i>A. tentaculata</i> (KP998773)	.	.	C	.	.	.
<i>A. sp</i> (KP998771)	.	.	.	.	.	.
	5	5	5	5	5	5
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	T	C	C	T	C	G
<i>A. gigantea</i> (KP998764)	.	.	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	.	.	.	.	.
<i>A. kerrii</i> (KP998766)	.	.	.	.	.	.
<i>A. littoralis</i> (KP998767)	.	.	.	.	.	.
<i>A. pierrei</i> (KP998768)	.	.	.	.	.	.
<i>A. pothieri</i> (KP998769)	.	.	.	.	.	.
<i>A. pothieri</i> (KP998776)	.	.	.	.	.	.
<i>A. ringens</i> (KP998770)	.	.	.	T	.	.
<i>A. tagala</i> (KP998772)	.	.	.	.	.	.
<i>A. tagala</i> (KP998774)	.	.	.	.	.	.
<i>A. tagala</i> (KP998775)	.	.	.	.	.	.
<i>A. tentaculata</i> (KP998773)	.	.	.	.	.	.
<i>A. sp</i> (KP998771)	.	.	.	.	.	.
	5	5	5	5	5	6
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	A	C	T	C	C	T
<i>A. gigantea</i> (KP998764)	C	G	G	G	G	C
<i>A. grandiflora</i> (KP998765)	G	A	T	T	T	A
<i>A. kerrii</i> (KP998766)	T	G	A	T	G	C
<i>A. littoralis</i> (KP998767)	A	T	C	T	C	T
<i>A. pierrei</i> (KP998768)	T	A	G	C	G	C
<i>A. pothieri</i> (KP998769)	C	G	G	G	G	C
<i>A. pothieri</i> (KP998776)	G	A	T	T	T	A
<i>A. ringens</i> (KP998770)	T	T	T	T	T	T
<i>A. tagala</i> (KP998772)	T	T	T	T	T	T
<i>A. tagala</i> (KP998774)	T	T	T	T	T	T
<i>A. tagala</i> (KP998775)	T	T	T	T	T	T
<i>A. tentaculata</i> (KP998773)	T	T	T	T	T	T
<i>A. sp</i> (KP998771)	T	T	T	T	T	T

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

6 0 1	6 1 0	6 2 0	6 3 0	6 4 0	6 5 0
<i>A. anguicida</i> (KP903720) A A G G A C G A T G A G A A C G T G A A C T C C C A A C C A T T T A T G C G T T G G A G A G A C C G					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768) A					
<i>A. pothieri</i> (KP998769) A					
<i>A. pothieri</i> (KP998776) A					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772) A					
<i>A. tagala</i> (KP998774) A					
<i>A. tagala</i> (KP998775) A					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
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6 5 1	6 6 0	6 7 0	6 8 0	6 9 0	7 0 0
<i>A. anguicida</i> (KP903720) T T T C T T A T T T G T G C C G A A G C A C T T T A T A A A G C A C A G G C C G A A A C A G G T G					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769) A					
<i>A. pothieri</i> (KP998776) A					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772) A					
<i>A. tagala</i> (KP998774) A					
<i>A. tagala</i> (KP998775) A					
<i>A. tentaculata</i> (KP998773) A					
<i>A. sp</i> (KP998771)					
101968121					
7 0 1	7 1 0	7 2 0	7 3 0	7 4 0	7 5 0
<i>A. anguicida</i> (KP903720) A A A T C A A A G G A C A T T A C T T A A A T G C A A C T G C G G G T A C A T G T G A A G A A A T G					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					

Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

7	7	7	7	7	8
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) A T G A A A A G G G C G A T A T T G C C A G A G A A T T G G G A G T T C C T A T C G T T A T G C A					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
.					
8	8	8	8	8	8
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) T G A C T A C T T A A C G G G A G G A T T C A C T G C A A A T A C T A G C T T G G C T C A T T A T T					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
.					
8	8	8	8	8	9
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) G C C G A G A C A A T G G C C T A C T T C T T C A C A T C C A T C G C G C A A T G C A T G C A G T T					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
.					

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

9	9	9	9	9	9
0	1	2	3	4	5
1	0	0	0	0	0
<i>A anguicida</i> (KP903720) A T T G A T A G A C A G A A G A A T C A T G G T A T G C A C T T C C G A G T A C T T G C A A A A G C					
<i>A gigantea</i> (KP998764)					
<i>A grandiflora</i> (KP998765)					
<i>A kerrii</i> (KP998766) A					
<i>A littoralis</i> (KP998767)					
<i>A pierrei</i> (KP998768)					
<i>A pothieri</i> (KP998769)					
<i>A pothieri</i> (KP998776)					
<i>A ringens</i> (KP998770)					
<i>A tagala</i> (KP998772)					
<i>A tagala</i> (KP998774)					
<i>A tagala</i> (KP998775)					
<i>A tentaculata</i> (KP998773)					
<i>A sp</i> (KP998771)					
T					
9	9	9	9	9	0
5	6	7	8	9	0
1	0	0	0	0	0
<i>A anguicida</i> (KP903720) A T T A C G T T T G T C C G G T G G A G A T C A T A T T C A C G C C G G T A C C G T A G T A G G T A					
<i>A gigantea</i> (KP998764)					
<i>A grandiflora</i> (KP998765)					
<i>A kerrii</i> (KP998766)					
<i>A littoralis</i> (KP998767)					
<i>A pierrei</i> (KP998768) A					
<i>A pothieri</i> (KP998769) A					
<i>A pothieri</i> (KP998776) A					
<i>A ringens</i> (KP998770)					
<i>A tagala</i> (KP998772) A					
<i>A tagala</i> (KP998774) A					
<i>A tagala</i> (KP998775) A					
<i>A tentaculata</i> (KP998773)					
<i>A sp</i> (KP998771)					
1					
1	1	1	1	1	1
0	0	0	0	0	0
0	1	2	3	4	5
1	0	0	0	0	0
<i>A anguicida</i> (KP903720) A A C T G G A A G G G G A A C G G G A A A T C A C T T T G G G T T T G T G A T T A C T A C G T					
<i>A gigantea</i> (KP998764)					
<i>A grandiflora</i> (KP998765)					
<i>A kerrii</i> (KP998766)					
<i>A littoralis</i> (KP998767)					
<i>A pierrei</i> (KP998768) T					
<i>A pothieri</i> (KP998769) T					
<i>A pothieri</i> (KP998776) T					
<i>A ringens</i> (KP998770)					
<i>A tagala</i> (KP998772) T					
<i>A tagala</i> (KP998774) T					
<i>A tagala</i> (KP998775) T					
<i>A tentaculata</i> (KP998773)					
<i>A sp</i> (KP998771)					

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
 (continued)

1	1	1	1	1	1
0	0	0	0	0	0
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	G A T G A T T T G T T G A A A A G A C C G A A G T C G C G G T A T T T A T T C A C T C A A G A				
<i>A. gigantea</i> (KP998764)	.....A.....				
<i>A. grandiflora</i> (KP998765)	.....A.....				
<i>A. kerrii</i> (KP998766)	.....A.....				
<i>A. littoralis</i> (KP998767)	.....A.....				
<i>A. pierrei</i> (KP998768)	.....A.....				
<i>A. pothieri</i> (KP998769)	.....A.....				
<i>A. pothieri</i> (KP998776)	.....A.....				
<i>A. ringens</i> (KP998770)	.....A.....				
<i>A. tagala</i> (KP998772)	.....A.....				
<i>A. tagala</i> (KP998774)	.....A.....				
<i>A. tagala</i> (KP998775)	.....A.....				
<i>A. tentaculata</i> (KP998773)	.....A.....				
<i>A. sp</i> (KP998771)	.....A.....				
1	1	1	1	1	1
1	1	1	1	1	1
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	T T G G G T C T C T C T T C C G G G T G T T C T G C C C G T G G C T T C C G G A G G T A T T C A C G				
<i>A. gigantea</i> (KP998764)	.....			
<i>A. grandiflora</i> (KP998765)	.....			
<i>A. kerrii</i> (KP998766)	.....			
<i>A. littoralis</i> (KP998767)	.....			
<i>A. pierrei</i> (KP998768)	.....			
<i>A. pothieri</i> (KP998769)	.....			
<i>A. pothieri</i> (KP998776)	.....			
<i>A. ringens</i> (KP998770)	.....			
<i>A. tagala</i> (KP998772)	.....			
<i>A. tagala</i> (KP998774)	.....			
<i>A. tagala</i> (KP998775)	.....			
<i>A. tentaculata</i> (KP998773)	.....			
<i>A. sp</i> (KP998771)	.....			
1	1	1	1	1	1
1	1	1	1	1	2
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720)	T T T G G C A T A T G C C T G C C C T G A C C G A G A T C T T T G G G G A T G A T T C C G T A C T A				
<i>A. gigantea</i> (KP998764)	.....			
<i>A. grandiflora</i> (KP998765)	.....			
<i>A. kerrii</i> (KP998766)	.....			
<i>A. littoralis</i> (KP998767)	.....			
<i>A. pierrei</i> (KP998768)	.....			
<i>A. pothieri</i> (KP998769)	.....			
<i>A. pothieri</i> (KP998776)	.....			
<i>A. ringens</i> (KP998770)	.....			
<i>A. tagala</i> (KP998772)	.....			
<i>A. tagala</i> (KP998774)	.....			
<i>A. tagala</i> (KP998775)	.....			
<i>A. tentaculata</i> (KP998773)	.....			
<i>A. sp</i> (KP998771)	.....			

Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

1	1	1	1	1	1
2	2	2	2	2	2
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) C A G T T C G G C G G A G G A A C T T T A G G A C A C C T T G G G G A A A T G C A C C T G G T G C					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765) T					
<i>A. kerrii</i> (KP998766) T					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773) A G					
<i>A. sp</i> (KP998771)					
1	1	1	1	1	1
2	2	2	2	2	3
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) A G T A G C T A A T A G G G T G G C T T T A G A A G C G T G T G T A C A A G C T C G T A A C G A G G					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765)					
<i>A. kerrii</i> (KP998766)					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768)					
<i>A. pothieri</i> (KP998769)					
<i>A. pothieri</i> (KP998776)					
<i>A. ringens</i> (KP998770)					
<i>A. tagala</i> (KP998772)					
<i>A. tagala</i> (KP998774)					
<i>A. tagala</i> (KP998775)					
<i>A. tentaculata</i> (KP998773)					
<i>A. sp</i> (KP998771)					
1	1	1	1	1	1
3	3	3	3	3	3
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP903720) G G C G T G A T C T T G C T C G C G A A G G T A A T G A A G T T A T C C G T G A A G C T G C C A A A					
<i>A. gigantea</i> (KP998764)					
<i>A. grandiflora</i> (KP998765) T C					
<i>A. kerrii</i> (KP998766) T A					
<i>A. littoralis</i> (KP998767)					
<i>A. pierrei</i> (KP998768) T					
<i>A. pothieri</i> (KP998769) T					
<i>A. pothieri</i> (KP998776) T					
<i>A. ringens</i> (KP998770) T					
<i>A. tagala</i> (KP998772) T					
<i>A. tagala</i> (KP998774) T					
<i>A. tagala</i> (KP998775) T					
<i>A. tentaculata</i> (KP998773) T					
<i>A. sp</i> (KP998771)					

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Figure B1 Sequence alignment of full length *rbcL* genes of eleven *Aristolochia* plants.
(continued)

1	1	1	1	1
3	3	3	3	3
5	6	7	8	9
1	0	0	0	0
<i>A. anguicida</i> (KP903720)	T G G A G C C C T G A A C T A G C G G T G C T T G T G A A G T A T G G A A G G A G A T C A A A T T			
<i>A. gigantea</i> (KP998764)	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	.	.	.
<i>A. kerrii</i> (KP998766)	.	.	.	T
<i>A. littoralis</i> (KP998767)	.	.	.	.
<i>A. pierrei</i> (KP998768)	.	.	T	.
<i>A. pothieri</i> (KP998769)	.	.	T	.
<i>A. pothieri</i> (KP998776)	.	.	T	.
<i>A. ringens</i> (KP998770)	.	.	T	.
<i>A. tagala</i> (KP998772)	.	.	T	.
<i>A. tagala</i> (KP998774)	.	.	T	.
<i>A. tagala</i> (KP998775)	.	.	T	.
<i>A. tentaculata</i> (KP998773)	.	.	.	.
<i>A. sp</i> (KP998771)	.	.	.	.
1	1	1	1	1
4	4	4	4	4
0	1	2	2	2
1	0	0	8	8
<i>A. anguicida</i> (KP903720)	C G A A T T C G A A G C A A T G G A T A C C T T G T A A			
<i>A. gigantea</i> (KP998764)	.	.	.	.
<i>A. grandiflora</i> (KP998765)	.	C C G	.	.
<i>A. kerrii</i> (KP998766)	.	C C	.	.
<i>A. littoralis</i> (KP998767)	.	.	.	.
<i>A. pierrei</i> (KP998768)	.	C C G	.	.
<i>A. pothieri</i> (KP998769)	.	C C G	.	.
<i>A. pothieri</i> (KP998776)	.	C C G	.	.
<i>A. ringens</i> (KP998770)	.	.	.	.
<i>A. tagala</i> (KP998772)	.	C C G	.	.
<i>A. tagala</i> (KP998774)	.	C C G	.	.
<i>A. tagala</i> (KP998775)	.	C C G	.	.
<i>A. tentaculata</i> (KP998773)	.	C C G	.	.
<i>A. sp</i> (KP998771)	.	.	.	.

Figure B17 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.

The numbers on the top line represent the base numbers in sequence alignment. The altered bases indicate the sequence differences. ‘.’ represents the base being identical to the first sequence. ‘-’ represents gap.

	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	A T G G A G G A A T T A C A A G G A T A T T A G A A A T G G G T A G A T C T C C A C A A A A A C A				
<i>A. gigantea</i> (KP998778)	.....			A	
<i>A. grandiflora</i> (KP998779)	.....			
<i>A. kerrii</i> (KP998780)	.....			
<i>A. littoralis</i> (KP998781)	.....			A	
<i>A. pierrei</i> (KP998782)	.....			
<i>A. pothieri</i> (KP998783)	..... G			G	G
<i>A. pothieri</i> (KP998790)	..... G			G	G
<i>A. ringens</i> (KP998784)	.....				G
<i>A. tagala</i> (KP998786)	.....			
<i>A. tagala</i> (KP998788)	.....			
<i>A. tagala</i> (KP998789)	.....			
<i>A. tentaculata</i> (KP998787)	.....		T		
<i>A. sp</i> (KP998785)	..... G			G	G
					1
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	C T T C C T A T A T C C A C T T C T C T T C A G G A G T C T A T C T A T G T A C T T G C T C A T A				
<i>A. gigantea</i> (KP998778)	.....			
<i>A. grandiflora</i> (KP998779)	.....	A			
<i>A. kerrii</i> (KP998780)	.....			C	
<i>A. littoralis</i> (KP998781)	.....			
<i>A. pierrei</i> (KP998782)	.....			C	
<i>A. pothieri</i> (KP998783)	.....			C	
<i>A. pothieri</i> (KP998790)	.....			C	
<i>A. ringens</i> (KP998784)	.....			
<i>A. tagala</i> (KP998786)	.....			
<i>A. tagala</i> (KP998788)	.....			
<i>A. tagala</i> (KP998789)	.....			
<i>A. tentaculata</i> (KP998787)	.....			
<i>A. sp</i> (KP998785)	.....			C	
					1
1	1	1	1	1	1
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	A T C A T G A T T A A A T G G A T C A A T T G T T A C G A A T C G A T G G A A A A T T T A G G T				
<i>A. gigantea</i> (KP998778)	.....			
<i>A. grandiflora</i> (KP998779)	.....		G		
<i>A. kerrii</i> (KP998780)	..... T			G	
<i>A. littoralis</i> (KP998781)	.....			
<i>A. pierrei</i> (KP998782)	.....		G		
<i>A. pothieri</i> (KP998783)	.....		G		G
<i>A. pothieri</i> (KP998790)	.....		G		G
<i>A. ringens</i> (KP998784)	.....			
<i>A. tagala</i> (KP998786)	.....		G		
<i>A. tagala</i> (KP998788)		G		
<i>A. tagala</i> (KP998789)		G		
<i>A. tentaculata</i> (KP998787)		G		
<i>A. sp</i> (KP998785)		G		

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

1	1	1	1	1	2
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T A T G A C A A A A G A T T C A G T T C A C T A A T T G T G A A A C G T T A A T T A T T C G A A T					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779)					
<i>A. kerrii</i> (KP998780)					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782)					
<i>A. pothieri</i> (KP998783)					
<i>A. pothieri</i> (KP998790)					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786)					
<i>A. tagala</i> (KP998788)					
<i>A. tagala</i> (KP998789)					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785)					
2	2	2	2	2	2
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) G C A T C A A C A G A A C C A T T T T T T A T T T G G T T A C C A A T T T - - - - C A C C					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779)					
<i>A. kerrii</i> (KP998780)					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782)					
<i>A. pothieri</i> (KP998783)					
<i>A. pothieri</i> (KP998790)					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786)					
<i>A. tagala</i> (KP998788)					
<i>A. tagala</i> (KP998789)					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785)					
2	2	2	2	2	3
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) A A A A T A G A T T C G T T A G G A A A G C A A T A A T T G G A T T A T C A A A C C A T A C A					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779)					
<i>A. kerrii</i> (KP998780)					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782)					
<i>A. pothieri</i> (KP998783)					
<i>A. pothieri</i> (KP998790)					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786)					
<i>A. tagala</i> (KP998788)					
<i>A. tagala</i> (KP998789)					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785)					

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

3	3	3	3	3	3
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) G A G G C T T T T G C A G T C A T T A T G G A A A T T C C A C T C T C C C T G C A A T T A G T A T C					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779)					
<i>A. kerrii</i> (KP998780)					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782)					
<i>A. pothieri</i> (KP998783) T C					
<i>A. pothieri</i> (KP998790) T C					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786)					
<i>A. tagala</i> (KP998788)					
<i>A. tagala</i> (KP998789)					
<i>A. tentaculata</i> (KP998787) A G					
<i>A. sp</i> (KP998785) T C					
3	3	3	3	3	4
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T T G C C T G G A A G A A A A A G A A A T A G C C A A A T C T C A T A A T T A C G A T C T A T T C					
<i>A. gigantea</i> (KP998778) A					
<i>A. grandiflora</i> (KP998779) A					
<i>A. kerrii</i> (KP998780) C A					
<i>A. littoralis</i> (KP998781) A					
<i>A. pierrei</i> (KP998782) A					
<i>A. pothieri</i> (KP998783) A A					
<i>A. pothieri</i> (KP998790) A A					
<i>A. ringens</i> (KP998784) A					
<i>A. tagala</i> (KP998786) A					
<i>A. tagala</i> (KP998788) A					
<i>A. tagala</i> (KP998789) A					
<i>A. tentaculata</i> (KP998787) A					
<i>A. sp</i> (KP998785) A A					
4	4	4	4	4	4
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) A T T C A A T A T T T C C C T T T T C G A G G A C A A A T T A T C A C A T T T A A T C A T G T G					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779) C					
<i>A. kerrii</i> (KP998780) T					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782) T					
<i>A. pothieri</i> (KP998783) T					
<i>A. pothieri</i> (KP998790) T					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786) T					
<i>A. tagala</i> (KP998788) T					
<i>A. tagala</i> (KP998789) T					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785) T					

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

4	4	4	4	4	5
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T T A G A T A T C C T A A T A C C C C A C C C C G T C C A T C T G G A A A T C T T G G T T C A A A C					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779)					
<i>A. kerrii</i> (KP998780)					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782)					
<i>A. pothieri</i> (KP998783)					
<i>A. pothieri</i> (KP998790)					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786)					
<i>A. tagala</i> (KP998788)					
<i>A. tagala</i> (KP998789)					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785)					
5	5	5	5	5	5
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) C C T T C A C T E C T G G A T A C A A G A T G C T C C C T C T T T G C A T T A T T G A G A T T T					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779) G					
<i>A. kerrii</i> (KP998780) G					
<i>A. littoralis</i> (KP998781) T T					
<i>A. pierrei</i> (KP998782) A					
<i>A. pothieri</i> (KP998783) G A T					
<i>A. pothieri</i> (KP998790) G A T					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786) G A					
<i>A. tagala</i> (KP998788) G A					
<i>A. tagala</i> (KP998789) G A					
<i>A. tentaculata</i> (KP998787) G A					
<i>A. sp</i> (KP998785) G A					
5	5	5	5	5	6
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T T C T C C A C G A G T A T C G T A A T T C A A A T A G T T C A T T A T T C A A A G A G A T C C					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779) T A A					
<i>A. kerrii</i> (KP998780) G A					
<i>A. littoralis</i> (KP998781) A					
<i>A. pierrei</i> (KP998782) C G A					
<i>A. pothieri</i> (KP998783) C G A A					
<i>A. pothieri</i> (KP998790) C G A A					
<i>A. ringens</i> (KP998784) C A T					
<i>A. tagala</i> (KP998786) C G A					
<i>A. tagala</i> (KP998788) C G A					
<i>A. tagala</i> (KP998789) C G A					
<i>A. tentaculata</i> (KP998787) C A T					
<i>A. sp</i> (KP998785)					

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

	6	6	6	6	6
<i>A. anguicida</i> (KP998777)	T	T	T	T	T
<i>A. gigantea</i> (KP998778)	.	.	.	AAAAGAGAATCAAAAGAAAAGA	.
<i>A. grandiflora</i> (KP998779)	A	.	A	.	.
<i>A. kerrii</i> (KP998780)	.	.	T	.	.
<i>A. littoralis</i> (KP998781)	.	.	.	.	TCA G A
<i>A. pierrei</i> (KP998782)	A	.	C	.	.
<i>A. pothieri</i> (KP998783)	A	.	C	.	.
<i>A. pothieri</i> (KP998790)	A	.	C	.	.
<i>A. ringens</i> (KP998784)	A	.	.	.	.
<i>A. tagala</i> (KP998786)	A	.	C	.	.
<i>A. tagala</i> (KP998788)	A	.	C	.	.
<i>A. tagala</i> (KP998789)	A	.	C	.	.
<i>A. tentaculata</i> (KP998787)	A	.	.	.	.
<i>A. sp</i> (KP998785)	.	.	.	.	.
	6	6	6	6	6
	5	6	7	8	9
	1	0	0	0	0
<i>A. anguicida</i> (KP998777)	G A A T C A A A G A T T A T T C T T G T T C C T A T A T A A T T C T C A T G T A T A T G A A T G C G				
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	.	.	.	.	G
<i>A. kerrii</i> (KP998780)	.	.	C	.	.
<i>A. littoralis</i> (KP998781)	.	.	.	T	.
<i>A. pierrei</i> (KP998782)	.	.	.	.	A
<i>A. pothieri</i> (KP998783)	.	.	.	.	.
<i>A. pothieri</i> (KP998790)	.	.	.	.	.
<i>A. ringens</i> (KP998784)	.	.	.	.	.
<i>A. tagala</i> (KP998786)	.	.	.	.	.
<i>A. tagala</i> (KP998788)	.	.	.	.	.
<i>A. tagala</i> (KP998789)	.	.	.	.	.
<i>A. tentaculata</i> (KP998787)	.	.	A	.	.
<i>A. sp</i> (KP998785)	.	.	.	.	.
	7	7	7	7	7
	0	t	2	3	4
	1	0	0	0	0
<i>A. anguicida</i> (KP998777)	A A T C C A T A T T C G T T T T C T C G G T A A A C A A G C C T C T C G T T T A C G A T C A A C A				
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	.	.	GT	.	.
<i>A. kerrii</i> (KP998780)	.	.	.	.	.
<i>A. littoralis</i> (KP998781)	.	.	.	.	A
<i>A. pierrei</i> (KP998782)	.	C	.	.	T
<i>A. pothieri</i> (KP998783)	.	.	T	.	T
<i>A. pothieri</i> (KP998790)	.	.	T	.	T
<i>A. ringens</i> (KP998784)	.	.	.	.	.
<i>A. tagala</i> (KP998786)	.	.	.	T	.
<i>A. tagala</i> (KP998788)	.	.	.	T	.
<i>A. tagala</i> (KP998789)	.	.	.	T	.
<i>A. tentaculata</i> (KP998787)	.	.	.	T	.
<i>A. sp</i> (KP998785)	.	.	.	A	.

Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
 (continued)

	7	7	7	7	7
<i>A. anguicida</i> (KP998777)	T	C	G	A	C
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	.	.	.	.	T
<i>A. kerrii</i> (KP998780)	.	.	C	.	A
<i>A. littoralis</i> (KP998781)	.	.	.	T	.
<i>A. pierrei</i> (KP998782)	.	T	.	.	.
<i>A. pothieri</i> (KP998783)	.	T	.	.	.
<i>A. pothieri</i> (KP998790)	.	T	.	.	.
<i>A. ringens</i> (KP998784)	.	.	.	.	.
<i>A. tagala</i> (KP998786)	.	T	.	.	.
<i>A. tagala</i> (KP998788)	.	T	.	.	.
<i>A. tagala</i> (KP998789)	.	T	.	.	.
<i>A. tentaculata</i> (KP998787)	.	.	.	.	.
<i>A. sp</i> (KP998785)	.	.	.	.	.
	8	8	8	8	8
	0	1	2	3	4
	1	0	0	0	0
<i>A. anguicida</i> (KP998777)	T	T	T	T	T
<i>A. gigantea</i> (KP998778)	A	.	.	.	.
<i>A. grandiflora</i> (KP998779)	.	.	.	C	.
<i>A. kerrii</i> (KP998780)	.	.	.	C	.
<i>A. littoralis</i> (KP998781)	.	G	.	A	G
<i>A. pierrei</i> (KP998782)	.	.	.	C	.
<i>A. pothieri</i> (KP998783)	.	.	.	C	.
<i>A. pothieri</i> (KP998790)	.	.	.	C	.
<i>A. ringens</i> (KP998784)	.	.	.	.	.
<i>A. tagala</i> (KP998786)	.	.	.	C	.
<i>A. tagala</i> (KP998788)	.	.	.	C	.
<i>A. tagala</i> (KP998789)	.	.	.	C	.
<i>A. tentaculata</i> (KP998787)	T	.	.	.	.
<i>A. sp</i> (KP998785)	.	.	A	A	G
	8	8	8	8	9
	5	6	7	8	0
	1	0	0	0	0
<i>A. anguicida</i> (KP998777)	A	G	G	A	T
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	G	.	.	.	.
<i>A. kerrii</i> (KP998780)	G	.	.	.	.
<i>A. littoralis</i> (KP998781)	.	.	A	.	.
<i>A. pierrei</i> (KP998782)	G	.	.	.	.
<i>A. pothieri</i> (KP998783)	G	.	.	.	A
<i>A. pothieri</i> (KP998790)	G	.	.	.	T
<i>A. ringens</i> (KP998784)	.	.	.	.	A
<i>A. tagala</i> (KP998786)	G	.	.	.	.
<i>A. tagala</i> (KP998788)	G
<i>A. tagala</i> (KP998789)	G
<i>A. tentaculata</i> (KP998787)	G
<i>A. sp</i> (KP998785)	.	.	A	.	.

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Figure B2 Sequence alignment of full length matK genes of eleven *Aristolochia* plants.
(continued)

9	9	9	9	9	9
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T C A A A G G G G A C T C A T T T T A T G A T G A A G A A A T G G A A A T A T C A T C T T G T C A A					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779) T C					
<i>A. kerrii</i> (KP998780) T C					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782) C					
<i>A. pothieri</i> (KP998783) A C					
<i>A. pothieri</i> (KP998790) A C					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786) C					
<i>A. tagala</i> (KP998788) C					
<i>A. tagala</i> (KP998789) A C					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785) A					
1					
9	9	9	9	9	0
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T T T A T G G C A G T G T C A T T T C A C T T G T G G T C T C A A C C G G G C A G A A T C C A T A					
<i>A. gigantea</i> (KP998778)					
<i>A. grandiflora</i> (KP998779) T					
<i>A. kerrii</i> (KP998780)					
<i>A. littoralis</i> (KP998781) G A					
<i>A. pierrei</i> (KP998782)					
<i>A. pothieri</i> (KP998783)					
<i>A. pothieri</i> (KP998790)					
<i>A. ringens</i> (KP998784)					
<i>A. tagala</i> (KP998786)					
<i>A. tagala</i> (KP998788)					
<i>A. tagala</i> (KP998789)					
<i>A. tentaculata</i> (KP998787)					
<i>A. sp</i> (KP998785) G					
1					
1	1	1	1	1	1
0	0	0	0	0	0
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777) T A A A C C G A T T A T G C A A T C A T T C C T T C T A T T T T A T G G G C T A T C T C T C A A G T					
<i>A. gigantea</i> (KP998778) A					
<i>A. grandiflora</i> (KP998779) A					
<i>A. kerrii</i> (KP998780) G A T					
<i>A. littoralis</i> (KP998781)					
<i>A. pierrei</i> (KP998782) A					
<i>A. pothieri</i> (KP998783) A					
<i>A. pothieri</i> (KP998790) A					
<i>A. ringens</i> (KP998784) A					
<i>A. tagala</i> (KP998786) A					
<i>A. tagala</i> (KP998788) A					
<i>A. tagala</i> (KP998789) A					
<i>A. tentaculata</i> (KP998787) A					
<i>A. sp</i> (KP998785)					

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
 (continued)

1	1	1	1	1	1
0	0	0	0	0	1
5	6	7	8	9	0
1	0	0	0	0	0

1	1	1	1	1	1
1	1	1	1	1	1
0	1	2	3	4	5
1	0	0	0	0	0

1	1	1	1	1	1
1	1	1	1	1	2
5	6	7	8	9	0
1	0	0	0	0	0

Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

1	1	1	1	1	1
2	2	2	2	2	2
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. angulicida</i> (KP998777)	T C A G G A C A T C C C A T T A G T A A G C C G G C T C G G T C T G A T T C G T C T G A T T T T G A				
<i>A. gigantea</i> (KP998778)	.....			C	
<i>A. grandiflora</i> (KP998779)	.....	.....	T	G	C
<i>A. kerrii</i> (KP998780)	.....	.....	.....	T	
<i>A. littoralis</i> (KP998781)	.....	.....	.....	.....	C
<i>A. pierrei</i> (KP998782)	.....	.....	.....	.....	C
<i>A. pothieri</i> (KP998783)	.....	.....	A .....	.....	C
<i>A. pothieri</i> (KP998790)	.....	.....	A .....	.....	C
<i>A. ringens</i> (KP998784)	.....	.....	.....	.....	C A
<i>A. tagala</i> (KP998786)	.....	.....	.....	.....	C
<i>A. tagala</i> (KP998788)	.....	.....	.....	.....	C
<i>A. tagala</i> (KP998789)	.....	.....	.....	.....	C
<i>A. tentaculata</i> (KP998787)	.....	.....	.....	.....	C
<i>A. sp</i> (KP998785)	.....	.....	.....	.....	.....
1	1	1	1	1	1
2	2	2	2	2	3
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. angulicida</i> (KP998777)	T A T T A T T G A T C G A T T T G G C C A T A T A T G C A G A A A T C T T T C T C A T T A T T A C A				
<i>A. gigantea</i> (KP998778)	.....			
<i>A. grandiflora</i> (KP998779)	.....	C .....	.....	
<i>A. kerrii</i> (KP998780)	.....	C	G	A	
<i>A. littoralis</i> (KP998781)	.....	.....	.....	.....
<i>A. pierrei</i> (KP998782)	.....	C	G	A	
<i>A. pothieri</i> (KP998783)	.....	C	G	A	
<i>A. pothieri</i> (KP998790)	.....	C	G	A	
<i>A. ringens</i> (KP998784)	.....	.....	G .....	.....
<i>A. tagala</i> (KP998786)	.....	C	G	A	
<i>A. tagala</i> (KP998788)	.....	C	G	A	
<i>A. tagala</i> (KP998789)	.....	C	G	A	
<i>A. tentaculata</i> (KP998787)	.....	C	G .....	.....
<i>A. sp</i> (KP998785)	.....	.....	.....	.....
1	1	1	1	1	1
3	3	3	3	3	3
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. angulicida</i> (KP998777)	G T G G A T C C T C A A A A A A C A T A G T T T G T A T C G A A T C A A G T A T A T C T C G A				
<i>A. gigantea</i> (KP998778)	.....			
<i>A. grandiflora</i> (KP998779)	.....			
<i>A. kerrii</i> (KP998780)	.....			
<i>A. littoralis</i> (KP998781)	.....			
<i>A. pierrei</i> (KP998782)	.....			
<i>A. pothieri</i> (KP998783)	.....		A . G		
<i>A. pothieri</i> (KP998790)	.....		A . G		
<i>A. ringens</i> (KP998784)	.....			
<i>A. tagala</i> (KP998786)	.....			
<i>A. tagala</i> (KP998788)				
<i>A. tagala</i> (KP998789)				
<i>A. tentaculata</i> (KP998787)				
<i>A. sp</i> (KP998785)				

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

1	1	1	1	1	1
3	3	3	3	3	4
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	C T T T C A T G T G C T A G A A C T T T G G C T C G T A A A C A C A A A A G T A C G G T A C G C A C				
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	.	.	.	.	.
<i>A. kerrii</i> (KP998780)	.	.	.	.	.
<i>A. littoralis</i> (KP998781)	.	.	.	.	.
<i>A. pierrei</i> (KP998782)	.	.	.	.	.
<i>A. pothieri</i> (KP998783)	.	.	.	.	.
<i>A. pothieri</i> (KP998790)	.	.	.	.	.
<i>A. ringens</i> (KP998784)	.	.	.	.	.
<i>A. tagala</i> (KP998786)	.	.	.	.	.
<i>A. tagala</i> (KP998788)	.	.	.	.	.
<i>A. tagala</i> (KP998789)	.	.	.	.	.
<i>A. tentaculata</i> (KP998787)	.	.	.	.	.
<i>A. sp</i> (KP998785)	.	.	.	.	.
1	1	1	1	1	1
4	4	4	4	4	4
0	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	C T T T T T G A A A A A T T A G G T T C G G A A T T C T T A G A G G A A T T C C T T A T G G A G G				
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	T T . . . .	.	.	C . . . .	.
<i>A. kerrii</i> (KP998780)	T . . . . . . . .	.	.	C A	.
<i>A. littoralis</i> (KP998781)	. . . . . . . . T .	.	.	.	.
<i>A. pierrei</i> (KP998782)	T . . . . . . . .	.	.	T . . . C . . . A	.
<i>A. pothieri</i> (KP998783)	T . . . . . . . .	.	A	T . . . C . . . A	.
<i>A. pothieri</i> (KP998790)	T . . . . . . . .	.	A	T . . . C . . . A	.
<i>A. ringens</i> (KP998784)	.	.	.	.	C
<i>A. tagala</i> (KP998786)	T . . . . . . . .	.	.	T . . . C . . . A	.
<i>A. tagala</i> (KP998788)	T . . . . . . . .	.	.	T . . . C . . . A	.
<i>A. tagala</i> (KP998789)	T . . . . . . . .	.	.	T . . . C . . . A	.
<i>A. tentaculata</i> (KP998787)	.	.	.	C . . . .	.
<i>A. sp</i> (KP998785)	.	.	.	.	.
1	1	1	1	1	1
4	4	4	4	4	5
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	A A G A A C A A G T T C T T T C T T G A T C T T C C C A A G A A C C T C T T C T A T T C A C A T				
<i>A. gigantea</i> (KP998778)	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	.	.	A . . . . . . .	.	G
<i>A. kerrii</i> (KP998780)	.	.	.	.	G
<i>A. littoralis</i> (KP998781)	.	.	.	.	.
<i>A. pierrei</i> (KP998782)	.	.	.	.	G
<i>A. pothieri</i> (KP998783)	.	.	.	.	A G . . .
<i>A. pothieri</i> (KP998790)	.	.	.	.	A G . . .
<i>A. ringens</i> (KP998784)	.	.	T . . . . . . .	.	G
<i>A. tagala</i> (KP998786)	.	.	.	.	G
<i>A. tagala</i> (KP998788)	G
<i>A. tagala</i> (KP998789)	G
<i>A. tentaculata</i> (KP998787)	.	.	.	C	G
<i>A. sp</i> (KP998785)

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Figure B2 Sequence alignment of full length *matK* genes of eleven *Aristolochia* plants.
(continued)

	1	1	1	1	1	1
	5	5	5	5	5	5
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998777)	A A G T T A C A T A A G G A A T G T A T T T G G T A T T T G G A T A T T A T C C G T A T C A C C G A					
<i>A. gigantea</i> (KP998778)	.	.	.	.	.	.
<i>A. grandiflora</i> (KP998779)	G			T		T
<i>A. kerrii</i> (KP998780)	G . . . . .			.	.	T
<i>A. littoralis</i> (KP998781)	.	.	.	.	.	.
<i>A. pierrei</i> (KP998782)	G . . . . .			.	G . T . . .	.
<i>A. pothieri</i> (KP998783)	G		T . C . . .	.	.	T
<i>A. pothieri</i> (KP998790)	G		T . C . . .	.	.	T
<i>A. ringens</i> (KP998784)	G . . . . .		.	.	.	T
<i>A. tagala</i> (KP998786)	G . . . . .		.	.	.	G . T . . .
<i>A. tagala</i> (KP998788)	G . . . . .		.	.	.	G . T . . .
<i>A. tagala</i> (KP998789)	G . . . . .		.	.	.	G . T . . .
<i>A. tentaculata</i> (KP998787)	G . . . . .		.	.	.	T
<i>A. sp</i> (KP998785)	.	.	.	.	.	.
	1	1	1			
	5	5	5			
	5	6	6			
	1	0	9			
<i>A. anguicida</i> (KP998777)	C C T G G C T A A T C A T G A A T G A					
<i>A. gigantea</i> (KP998778)	. T					
<i>A. grandiflora</i> (KP998779)	.	C . . . T . C T C . . .				
<i>A. kerrii</i> (KP998780)	.	.	T C			
<i>A. littoralis</i> (KP998781)	.	.	.			
<i>A. pierrei</i> (KP998782)	.	C . . . T C . . .				
<i>A. pothieri</i> (KP998783)	.	C T C . . .				
<i>A. pothieri</i> (KP998790)	.	C T C . . .				
<i>A. ringens</i> (KP998784)	.	C T C . . .				
<i>A. tagala</i> (KP998786)	.	C T C . . .				
<i>A. tagala</i> (KP998788)	.	C T C . . .				
<i>A. tagala</i> (KP998789)	.	C T C . . .				
<i>A. tentaculata</i> (KP998787)	.	C T C . . .				
<i>A. sp</i> (KP998785)	.	.	.			

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Figure B18 Sequence alignment of ITS regions of eleven *Aristolochia* plants.

The numbers on the top line represent the base numbers in sequence alignment. The altered bases indicate the sequence differences. ‘.’ represents the base being identical to the first sequence. ‘-’ represents gap.

	1	2	3	4	5	
	1	0	0	0	0	
<i>A. anguicida</i> (KP998791)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. gigantea</i> (KP998792)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. grandiflora</i> (KP998793)	- - - - -	- - - - -	G G A A G G A T C A T T G C C G A T T C C A C G A A A C G A	- - - - -	- - - - -	
<i>A. kerrii</i> (KP998794)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. littoralis</i> (KP998795)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. pierrei</i> (KP998796)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. pothieri</i> (KP998797)	- - - - -	G A A C C T G C G G A A G G A T C A T T G T C G G T T C C G C G A G A G G C	- - - - -	- - - - -	- - - - -	
<i>A. pothieri</i> (KP998804)	C T T C C G T A G G G T G A A C C T G C G G A A G G A T C A T T G T C G G T T C C G C G A G A G G C	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. ringens</i> (KP998798)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tagala</i> (KP998800)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tagala</i> (KP998802)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tagala</i> (KP998803)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tentaculata</i> (KP998801)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. sp</i> (KP998799)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	
	5	6	7	8	9	1
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. gigantea</i> (KP998792)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. grandiflora</i> (KP998793)	G C A C G A C C C A T G C G A A C T G T A T T G C A C C C C A T G T C G C C C G C T C G T G C C	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. kerrii</i> (KP998794)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. littoralis</i> (KP998795)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. pierrei</i> (KP998796)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. pothieri</i> (KP998797)	G C A C G A C C C A C G C G A A C G A G T T G C G G C C G C A C G G G A C G C C G C G G G C G T C	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. pothieri</i> (KP998804)	G C A C G A C C C A C G C G A A C G A G T T G C G G C C G C A C G G G A C G C C G C G G G C G T C	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. ringens</i> (KP998798)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tagala</i> (KP998800)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tagala</i> (KP998802)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tagala</i> (KP998803)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tentaculata</i> (KP998801)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. sp</i> (KP998799)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
	1	1	1	1	1	1
	0	1	2	3	4	5
<i>A. anguicida</i> (KP998791)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. gigantea</i> (KP998792)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. grandiflora</i> (KP998793)	C C A C G C C G A G T G A C A G G C G C T G C G T T T G G G G G G G A C T T T G C G C C G C G A	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. kerrii</i> (KP998794)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. littoralis</i> (KP998795)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. pierrei</i> (KP998796)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. pothieri</i> (KP998797)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. pothieri</i> (KP998804)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. ringens</i> (KP998798)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tagala</i> (KP998800)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tagala</i> (KP998802)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tagala</i> (KP998803)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. tentaculata</i> (KP998801)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
<i>A. sp</i> (KP998799)	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

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Figure B3 Sequence alignment of ITS regions of eleven *Aristolochia* plants. (continued)

	1	1	1	1	1	2
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	-	-	-	-	-	-
<i>A. gigantea</i> (KP998792)	-	-	-	-	-	-
<i>A. grandiflora</i> (KP998793)	G G C G C C G G G C C T G C A C T C C T T G C G C G C G T C T C G C G T C C G G A C C G T C T G G A					
<i>A. kerrii</i> (KP998794)	-	-	-	-	-	-
<i>A. littoralis</i> (KP998795)	-	-	-	-	-	-
<i>A. pierrei</i> (KP998796)	-	-	-	-	-	-
<i>A. pothieri</i> (KP998797)	-	-	G G G G G G C T C G G A C G A G G G C G C C C G C C C G			
<i>A. pothieri</i> (KP998804)	-	-	G G G G G G C T C G G A C G A G G G C G C C C G C C C G			
<i>A. ringens</i> (KP998798)	-	-	-	-	-	-
<i>A. tagala</i> (KP998807)	-	-	-	-	-	-
<i>A. tagala</i> (KP998802)	-	-	-	-	-	-
<i>A. tagala</i> (KP998803)	-	-	-	-	-	-
<i>A. tentaculata</i> (KP998801)	-	-	-	-	-	-
<i>A. sp</i> (KP998799)	-	-	-	-	-	-
	2	2	2	2	2	2
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	-	-	-	-	-	-
<i>A. gigantea</i> (KP998792)	-	-	-	-	-	-
<i>A. grandiflora</i> (KP998793)	C G A G C G G A C G C A C A A C A C A C G G G C G C G A T G T G C G C C A A G C G A A A T G T A G A G					
<i>A. kerrii</i> (KP998794)	-	-	-	-	-	-
<i>A. littoralis</i> (KP998795)	-	-	-	-	-	-
<i>A. pierrei</i> (KP998796)	-	-	-	-	-	-
<i>A. pothieri</i> (KP998797)	C G C G G C G G C A A A A A C A C T C G G G C G C G A T C C G G G C C A A G C G A A A C G C A A C G					
<i>A. pothieri</i> (KP998804)	C G C G G C G G C A A A A A C A C T C G G G C G C G A T C C G G G C C A A G C G A A A C G C A A C G					
<i>A. ringens</i> (KP998798)	-	-	-	-	-	-
<i>A. tagala</i> (KP998800)	-	-	-	-	-	-
<i>A. tagala</i> (KP998802)	-	-	-	-	-	-
<i>A. tagala</i> (KP998803)	-	-	-	-	-	-
<i>A. tentaculata</i> (KP998801)	-	-	-	-	-	-
<i>A. sp</i> (KP998799)	-	-	-	-	-	-
	2	2	2	2	2	3
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	-	-	-	-	-	-
<i>A. gigantea</i> (KP998792)	-	-	-	-	-	-
<i>A. grandiflora</i> (KP998793)	G A A G G A G G A - - - - C T G C C G C G G C C C G G C C G G C G T T C G C C C C					
<i>A. kerrii</i> (KP998794)	-	-	-	-	-	-
<i>A. littoralis</i> (KP998795)	-	-	-	-	-	-
<i>A. pierrei</i> (KP998796)	-	-	-	-	-	-
<i>A. pothieri</i> (KP998797)	G C G G G G A G G G C C G C C G C C G C C G G T G C G G G G G T C C C G G A T G C C C C G					
<i>A. pothieri</i> (KP998804)	G C G G G G A G G G C C G C C G C C G C C G G T G C G G G G G T C C C G G A T G C C C C G					
<i>A. ringens</i> (KP998798)	-	-	-	-	-	-
<i>A. tagala</i> (KP998800)	-	-	-	-	-	-
<i>A. tagala</i> (KP998802)	-	-	-	-	-	-
<i>A. tagala</i> (KP998803)	-	-	-	-	-	-
<i>A. tentaculata</i> (KP998801)	-	-	-	-	-	-
<i>A. sp</i> (KP998799)	-	-	-	-	-	-

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Figure B3 Sequence alignment of ITS regions of eleven *Aristolochia* plants. (continued)

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	3	3	3	3	3	3
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	-	-	-	-	-	-
<i>A. gigantea</i> (KP998792)	-	-	-	-	-	T G
<i>A. grandiflora</i> (KP998793)	G A A T T G T T A A C C A A C A C A A C G A C T C T C G G C A A C G G A T A T C T T G G C T C T C G	-	-	-	-	-
<i>A. kerrii</i> (KP998794)	-	-	-	-	-	-
<i>A. littoralis</i> (KP998795)	-	-	-	-	-	-
<i>A. pierrei</i> (KP998796)	-	-	-	-	-	-
<i>A. pothieri</i> (KP998797)	A C G G A C G G A T A A A C C A C C A C G A C T C T C G G C A A C G G A T A T C T T G G C T C T C G	-	-	-	-	-
<i>A. pothieri</i> (KP998804)	A C G G A C G G A T A A A C C A C C A C G A C T C T C G G C A A C G G A T A T C T T G G C T C T C G	-	-	-	-	-
<i>A. ringens</i> (KP998798)	-	-	-	-	-	-
<i>A. tagala</i> (KP998800)	-	-	-	-	-	-
<i>A. tagala</i> (KP998802)	-	-	-	-	-	-
<i>A. tagala</i> (KP998803)	-	-	-	-	-	-
<i>A. tentaculata</i> (KP998801)	-	-	-	-	-	-
<i>A. sp</i> (KP998799)	-	-	-	-	-	-

	3	3	3	3	3	4
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	-	-	-	-	-	T A A T T G C A G A A -
<i>A. gigantea</i> (KP998792)	C A T C G A T G A A G A A C G C A G C G A A A T G C G A T A C T T G G T G T G	-	-	-	-	T
<i>A. grandiflora</i> (KP998793)	C A T C G A T G A A G A A C G T A G C G A A A T G C G A T A C T T G G T G T G	-	-	-	-	T
<i>A. kerrii</i> (KP998794)	-	-	-	-	-	-
<i>A. littoralis</i> (KP998795)	-	-	-	-	-	-
<i>A. pierrei</i> (KP998796)	-	-	-	-	-	-
<i>A. pothieri</i> (KP998797)	C A T C G A T G A A G A A C G T A G C G A A A T G C G A T A C T T G G T G T G	-	-	-	-	T
<i>A. pothieri</i> (KP998804)	C A T C G A T G A A G A A C G T A G C G A A A T G C G A T A C T T G G T G T G	-	-	-	-	T
<i>A. ringens</i> (KP998798)	-	-	-	-	-	-
<i>A. tagala</i> (KP998800)	-	-	-	-	-	-
<i>A. tagala</i> (KP998802)	-	-	-	-	-	-
<i>A. tagala</i> (KP998803)	-	-	-	-	-	-
<i>A. tentaculata</i> (KP998801)	-	-	-	-	-	-
<i>A. sp</i> (KP998799)	-	-	-	-	-	-

	4	4	4	4	4	4
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	A C C G C G A A C C A T C G A G T C T T T G A A C G C A A G T T G C A C C C G A G G C C A C T A G G	-	-	-	-	-
<i>A. gigantea</i> (KP998792)	C	-	-	-	-	-
<i>A. grandiflora</i> (KP998793)	C T	-	-	-	-	T
<i>A. kerrii</i> (KP998794)	-	-	-	-	-	T
<i>A. littoralis</i> (KP998795)	C	-	-	-	-	-
<i>A. pierrei</i> (KP998796)	-	-	-	-	-	T
<i>A. pothieri</i> (KP998797)	C	-	-	-	-	T G
<i>A. pothieri</i> (KP998804)	C	-	-	-	-	T G
<i>A. ringens</i> (KP998798)	C	-	-	-	-	-
<i>A. tagala</i> (KP998800)	C	-	-	-	-	T
<i>A. tagala</i> (KP998802)	C	-	-	-	-	-
<i>A. tagala</i> (KP998803)	C	-	-	-	-	T
<i>A. tentaculata</i> (KP998801)	C	-	-	-	-	-
<i>A. sp</i> (KP998799)	C	-	-	-	-	-

Figure B3 Sequence alignment of ITS regions of eleven *Aristolochia* plants. (continued)

	4	4	4	4	4	5
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	T C G A G G G T A C A C C T G C C T G G G C G T C A C G C C C G A C - - G T G T T C T - C C C C C					
<i>A. gigantea</i> (KP998792)	.	.	.	.	C	.
<i>A. grandiflora</i> (KP998793)	.	.	.	.	.	.
<i>A. kerrii</i> (KP998794)	C C . . . .	.	.	.	C C	.
<i>A. littoralis</i> (KP998795)	.	.	.	.	C C . . . .	.
<i>A. pierrei</i> (KP998796)	C A . . . .	.	.	.	C T . . . .	.
<i>A. pothieri</i> (KP998797)	C C . . . .	.	.	.	C C A .	.
<i>A. pothieri</i> (KP998804)	C C . . . .	.	.	.	C C A .	.
<i>A. ringens</i> (KP998798)	.	.	.	.	C . C . . . .	.
<i>A. tagala</i> (KP998800)	C A . . . .	.	.	.	C . . . .	.
<i>A. tagala</i> (KP998802)	C A . . . .	.	.	.	C . . . .	.
<i>A. tagala</i> (KP998803)	C A . . . .	.	.	.	C . . . .	.
<i>A. tentaculata</i> (KP998801)	C . . . .	.	.	G T	C A	.
<i>A. sp</i> (KP998799)	.	.	.	.	.	.
	5	5	5	5	5	5
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	A C C C C G C G C G C C C C G C C C G C G C G G G C G G C G C G C G T C G - A C G G G -					
<i>A. gigantea</i> (KP998792)	G T A T . . . . .	.	.	.	G . . . . .	.
<i>A. grandiflora</i> (KP998793)	C . . T - - - - A A C . C C - - G . T C . . . .	.	.	.	.	.
<i>A. kerrii</i> (KP998794)	G . . . . .	.	.	.	T C G C C . . . .	.
<i>A. littoralis</i> (KP998795)	G T A . . . . .	.	.	.	G G . . . . .	.
<i>A. pierrei</i> (KP998796)	G . . . . .	.	.	.	A . G T . . . .	.
<i>A. pothieri</i> (KP998797)	G . . T . C . . . . .	.	.	.	T T G G G A T G C	.
<i>A. pothieri</i> (KP998804)	G . . T . C . . . . .	.	.	.	T T G G G A T G C	.
<i>A. ringens</i> (KP998798)	G C A A . . . . .	.	.	.	C G . . . . .	.
<i>A. tagala</i> (KP998800)	G . . . . .	.	.	.	T G . . . . .	.
<i>A. tagala</i> (KP998802)	G . . . . .	.	.	.	T G . . . . .	.
<i>A. tagala</i> (KP998803)	G . . . . .	.	.	.	T G . . . . .	.
<i>A. tentaculata</i> (KP998801)	C . . . T . . . C . T . . . G A G . . . T C T . . . G . . . . .	.	.	.	T . . . . .	.
<i>A. sp</i> (KP998799)	.	.	.	.	.	.
	5	5	5	5	5	6
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	G G C G A G C A G A T T G G C C G T C C C T G C C C C C - - - G G G G C G A G G T T G G C T G A					
<i>A. gigantea</i> (KP998792)	.	.	.	.	.	.
<i>A. grandiflora</i> (KP998793)	.	.	.	.	C T	.
<i>A. kerrii</i> (KP998794)	.	.	.	.	C T C C C . . . C T	.
<i>A. littoralis</i> (KP998795)	.	.	.	.	T . . . .	.
<i>A. pierrei</i> (KP998796)	.	.	.	.	G A C C C G G . . T C . . . C T .	.
<i>A. pothieri</i> (KP998797)	.	.	.	.	C T C G - C G A C . . . C C .	.
<i>A. pothieri</i> (KP998804)	.	.	.	.	C T C G - C G A C . . . C C .	.
<i>A. ringens</i> (KP998798)	.	.	.	.	T C . . . .	.
<i>A. tagala</i> (KP998800)	.	.	.	.	G C E C G G . . T C . . . T .	.
<i>A. tagala</i> (KP998802)	G C E C G G . . T C . . . T .	.
<i>A. tagala</i> (KP998803)	G C E C G G . . T C . . . T .	.
<i>A. tentaculata</i> (KP998801)	G T
<i>A. sp</i> (KP998799)

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Figure B3 Sequence alignment of ITS regions of eleven *Aristolochia* plants. (continued)

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6	6	6	6	6	6
0	1	2	3	4	5
1	0	0	0	0	0

A. anguicida (KP998791) *A. gigantea* (KP998792) *A. grandiflora* (KP998793) *A. kerrii* (KP998794) *A. littoralis* (KP998795) *A. pierrei* (KP998796) *A. pothieri* (KP998797) *A. pothieri* (KP998804) *A. ringens* (KP998798) *A. tagala* (KP998800) *A. tagala* (KP998802) *A. tagala* (KP998803) *A. tentaculata* (KP998801) *A. sp* (KP998799)

.....-AT-----T-----A-----.....-T-----A-----G-----T-----
.....GGAAATCGAAG.....GC.....T-----G-----G-----CGT.....
.....AT-----T-----A-----A-----T-----G-----G-----T.C.....
.....GGAA-----A-----A-----T-----G-----G-----T.C.....
.....GC-----G-----C.GG-----T-----G-----G-----TGC.....
.....GC-----G-----C.GG-----T-----G-----G-----TGC.....
.....G-----T-----A-----A-----T-----G-----G-----T.C.....
.....GGAA-----A-----A-----T-----G-----G-----T.C.....
.....GGAA-----A-----A-----T-----G-----G-----T.C.....
.....GGAA-----A-----A-----T-----G-----G-----T.C.....
.....TG-----T.T-----A-----A-----G-----G.....
.....GGCCCT-----CCCCGGGCCCT-----GCGTGGCTCGAAGTCGTGTCCGAGG-----CCC
.....-----T-----.....-----T.T-----TTA-----.....-----T...CC...
.....G-----.....-----T-----T.T-----TTA-----.....-----T...CC...
.....GAAG...C.....CCA...CG...C.....C.E...C.TCC...
.....A.G.AC.....T.G...CG...C.....C.CA...C.AAC...
.....GATG...C-----CG...GG.....C.AT...C.AA...
.....GATG...C-----CG...GG.....C.AT...C.AA...
.....A.G...C.....T.G...CG...C.....C.C...C.AAC...
.....A.G...C.....T.G...CG...C.....C.C...C.AAC...
.....A.G...C.....T.G...CG...C.....C.C...C.AAC...
.....A.G...C.....T.G...CG...C.....C.C...C.AAC...
.....GGGC-----TGTGAAG-----AAGGACCCCTGCCGGCAGTCGCCCTC---CG
.....C...CC...C.....C.....C.....C.....C.....C.G...
.....C.TT-----G.GCTAC---G...C.....C.....T.CT...CGGT...
.....CC...TC...G...GCCCCGAGG.....C.....C.CTT...GC...CTC...
.....C...C...C.....C.....C.....C.....C.....C...CGC...
.....CC...G...TCTGC---G.....C.....T.C...GC...TC...T
.....C...C...G...GCGC---G.....AATG...C...C...GC...C...
.....C...C...G...GCGC---G.....AATG...C...C...GC...C...
.....A...CC...C.....C.....C.....C.....C.....C...
.....CC...G...GCTGC---G.....T.C...GC...TC...
.....CC...G...GCGC---G.....C.C...GC...TC...
.....CC...G...GCTGC---G.....T.C...GC...TC...
.....A...T...G...G-----S.....

6	6	6	6	6	7
5	6	7	8	9	0
1	0	0	0	0	0

A. anguicida (KP998791) *A. gigantea* (KP998792) *A. grandiflora* (KP998793) *A. kerrii* (KP998794) *A. littoralis* (KP998795) *A. pierrei* (KP998796) *A. pothieri* (KP998797) *A. pothieri* (KP998804) *A. ringens* (KP998798) *A. tagala* (KP998800) *A. tagala* (KP998802) *A. tagala* (KP998803) *A. tentaculata* (KP998801) *A. sp* (KP998799)

7	7	7	7	7	7
0	1	2	3	4	5
1	0	0	0	0	0

A. anguicida (KP998791) *A. gigantea* (KP998792) *A. grandiflora* (KP998793) *A. kerrii* (KP998794) *A. littoralis* (KP998795) *A. pierrei* (KP998796) *A. pothieri* (KP998797) *A. pothieri* (KP998804) *A. ringens* (KP998798) *A. tagala* (KP998800) *A. tagala* (KP998802) *A. tagala* (KP998803) *A. tentaculata* (KP998801) *A. sp* (KP998799)

Figure B3 Sequence alignment of ITS regions of eleven *Aristolochia* plants. (continued)

	7	7	7	7	7	8
	5	6	7	8	9	0
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998791)	C G A G C - - - - -	G G A G G - - -	C C T T G C T C G G A T T G C G A C C C C A G G T C A G G T			
<i>A. gigantea</i> (KP998792)	A . C . - - - - -	C . T . - - - - -				
<i>A. grandiflora</i> (KP998793)	. . C A . T - - - - -	A G . - C . - - - - -				
<i>A. kerrii</i> (KP998794)	. C G T . T C - - - - -	C G . G C . - - - - -	A . - - - - -			
<i>A. littoralis</i> (KP998795)	- - - - - - - - - - -	C . - - - - -				
<i>A. pierrei</i> (KP998796)	G T G T - - - - -	T . C G . G C . - - - - -	A . - - - - -			
<i>A. pothieri</i> (KP998797)	G . G A . C C G G G G A G .	T . C G . G C C . - - - - -	A . - - - - -			
<i>A. pothieri</i> (KP998804)	G . G A . C C G G G G A G .	T . C G . G C C . - - - - -	A . - - - - -			
<i>A. ringens</i> (KP998798)	- - - - - - - - - - -	C . T C . - - - - -				
<i>A. tagala</i> (KP998800)	G T . T - - - - -	T . C G . G C . - - - - -	A . - - - - -			
<i>A. tagala</i> (KP998802)	G T . T - - - - -	T . C G . G C . - - - - -	A . - - - - -			
<i>A. tagala</i> (KP998803)	G T . T - - - - -	T . C G . G C . - - - - -	A . - - - - -			
<i>A. tentaculata</i> (KP998801)	T . G T . - - - - -	C . T . C . - - - - -	A . - - - - -			
<i>A. sp</i> (KP998799)	- - - - - - - - - - -	- - - - - - - - - - -				
	8	8	8	8	8	8
	0	1	2	3	4	4
	1	0	0	0	0	6
<i>A. anguicida</i> (KP998791)	G G G A A C A C C C G C T G A G T T T A A G C A T A T C A - - - - -					
<i>A. gigantea</i> (KP998792)	- - - - - - - - - - -	A T A A G C G G A G G G A A A T C G				
<i>A. grandiflora</i> (KP998793)	- - - - - T - - - - -	A T A - - - - -				
<i>A. kerrii</i> (KP998794)	- - - - - - - - - T G . - A C . - - - - -	G - - - - -				
<i>A. littoralis</i> (KP998795)	- - - - - - - - - T - - - - -	A T A - - - - -				
<i>A. pierrei</i> (KP998796)	- - - - - T - - - - -	A T A - - - - -				
<i>A. pothieri</i> (KP998797)	- - - - - T - - - - -	A T A - - - - -				
<i>A. pothieri</i> (KP998804)	- - - - - T - - - - -	A T A - - - - -				
<i>A. ringens</i> (KP998798)	- - - - - - - - - T - - - - -	A T A - - - - -				
<i>A. tagala</i> (KP998800)	- - - - - T - - - - -	A - - - - -				
<i>A. tagala</i> (KP998802)	- - - - - T - - - - -	A T A - - - - -				
<i>A. tagala</i> (KP998803)	- - - - - T - - - - -	A T A - - - - -				
<i>A. tentaculata</i> (KP998801)	- - - - - T - - - - -	A T A - - - - -				
<i>A. sp</i> (KP998799)	- - - - - - - - - T - - - - -	A T A - - - - -				

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Figure B19 Sequence alignment of *trnH-psbA* regions of eleven *Aristolochia* plants.

The numbers on the top line represent the base numbers in sequence alignment. The altered bases indicate the sequence differences. ‘.’ represents the base being identical to the first sequence. ‘-’ represents gap.

	1	2	3	4	5
1	0	0	0	0	0
<i>A. anguicida</i> (KP998805)	- - - - -	- - - - -	- - - - -	T C T A G A C C T G G C T G C T C T	
<i>A. gigantea</i> (KP998806)	- - - - -	- - - - -	C A A C T T C C C	- - - - -	
<i>A. grandiflora</i> (KP998807)	G G T A T G C A T G A A C G T A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	- - - - -	
<i>A. kerrii</i> (KP998808)	G G T A T G C A T G A A C G T A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	- - - - -	
<i>A. littoralis</i> (KP998809)	- - - - -	G C T C A C A A C T T C C C	- - - - -	- - - - -	
<i>A. pierrei</i> (KP998810)	- - - - -	A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	
<i>A. pothieri</i> (KP998811)	G G T A T G C A T G A A C G T A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	- - - - -	
<i>A. pothieri</i> (KP998818)	- - - T G C A T G A A C G T A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	- - - - -	
<i>A. ringens</i> (KP998812)	- - - - -	C A A C T T C C C	- - - - -	- - - - -	
<i>A. tagala</i> (KP998814)	- - - - -	T G C T C A C A A C T T C C C	- - - - -	- - - - -	
<i>A. tagala</i> (KP998816)	- - - - -	A C G T A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	
<i>A. tagala</i> (KP998817)	G G T A T G C A T G A A C G T A A T G C T C A C A A C T T C C C	- - - - -	- - - - -	- - - - -	
<i>A. tentaculata</i> (KP998815)	- - - - -	T G A A C G T A A T G C T C A C A A C T T C C C	- - - T	- - - - -	
<i>A. sp</i> (KP998813)	- - - - -	T G C T C A C A A C T T C C C	- - - - -	- - - - -	
					1
5	6	7	8	9	0
1	0	0	0	0	0
<i>A. anguicida</i> (KP998805)	T G A A G C T C C A T C T A C A A A T G G A T A A T A C A T C G G T	- - - - -	A T T A G T G T A T A		
<i>A. gigantea</i> (KP998806)	- - - - -	G	- - - - -	- - - - -	
<i>A. grandiflora</i> (KP998807)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. kerrii</i> (KP998808)	- - - - -	- - - - -	A	- - - - -	
<i>A. littoralis</i> (KP998809)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. pierrei</i> (KP998810)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. pothieri</i> (KP998811)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. pothieri</i> (KP998818)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. ringens</i> (KP998812)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tagala</i> (KP998814)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tagala</i> (KP998816)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. tagala</i> (KP998817)	- - - - -	C	- - - - -	- - - - -	
<i>A. tentaculata</i> (KP998815)	- - - - -	- - - - -	A T T A G	- - - - -	
<i>A. sp</i> (KP998813)	- - - - -	- - - - -	- - - - -	- - - - -	
¶	1	1	1	1	1
	0	1	2	3	4
	1	0	0	0	0
<i>A. anguicida</i> (KP998805)	C G A G T C G T T G	- - - - -	A A G G A G C A A T A C C C A A T C C T T T G G T C T T A T		
<i>A. gigantea</i> (KP998806)	- - - - -	A A G G A	- - - - -	A T	
<i>A. grandiflora</i> (KP998807)	- - - - -	- - - - -	- - - - -	T	
<i>A. kerrii</i> (KP998808)	- - - - -	- - - - -	- - - - -	T C	
<i>A. littoralis</i> (KP998809)	- - - - -	- - - - -	- - - - -	- - - - -	
<i>A. pierrei</i> (KP998810)	- - - - -	- - - - -	- - - - -	T	C A A G
<i>A. pothieri</i> (KP998811)	- - - - -	- - - - -	- - - - -	T	- - - - -
<i>A. pothieri</i> (KP998818)	- - - - -	- - - - -	- - - - -	T	- - - - -
<i>A. ringens</i> (KP998812)	- - - - -	- - - - -	- - - - -	T	- - - - -
<i>A. tagala</i> (KP998814)	- - - - -	- - - - -	- - - - -	T	C A A G
<i>A. tagala</i> (KP998816)	- - - - -	- - - - -	- - - - -	T	- - - - -
<i>A. tagala</i> (KP998817)	- - - - -	- - - - -	- - - - -	T	C A A G
<i>A. tentaculata</i> (KP998815)	- - - - -	- - - - -	- - - - -	T	- - - - -
<i>A. sp</i> (KP998813)	- - - - -	- - - - -	- - - - -	- - - - -	

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Figure B4 Sequence alignment of *trnH-psbA* regions of eleven *Aristolochia* plants.
 (continued)

Figure B4 Sequence alignment of *trnH-psbA* regions of eleven *Aristolochia* plants.
(continued)

	3	3	3	3	3	3
	0	1	2	3	4	5
	1	0	0	0	0	0
<i>A. anguicida</i> (KP998805)	T	T	A	G	T	T
<i>A. gigantea</i> (KP998806)	-	-	-	-	-	-
<i>A. grandiflora</i> (KP998807)	-	-	T	A	A	-
<i>A. kerrii</i> (KP998808)	-	-	A	A	A	-
<i>A. littoralis</i> (KP998809)	-	-	A	A	A	-
<i>A. pierrei</i> (KP998810)	-	-	A	A	A	-
<i>A. pothieri</i> (KP998811)	-	-	A	A	A	-
<i>A. pothieri</i> (KP998818)	-	-	A	A	A	-
<i>A. ringens</i> (KP998812)	-	-	-	-	-	-
<i>A. tagala</i> (KP998814)	-	-	-	-	-	-
<i>A. tagala</i> (KP998816)	-	-	-	-	-	-
<i>A. tagala</i> (KP998817)	-	-	-	-	-	-
<i>A. tentaculata</i> (KP998815)	-	-	-	-	-	-
<i>A. sp</i> (KP998813)	-	-	-	-	-	-
	3	3	3	3	3	3
	5	6	7	8	9	9
	1	0	0	0	0	7

	3	3	3	3	3	3
	5	6	7	8	9	9
	1	0	0	0	0	7
<i>A. anguicida</i> (KP998805)	G	T	A	G	C	C
<i>A. gigantea</i> (KP998806)	T	G	C	C	C	C
<i>A. grandiflora</i> (KP998807)	T	G	C	C	C	C
<i>A. kerrii</i> (KP998808)	T	G	C	C	C	C
<i>A. littoralis</i> (KP998809)	T	G	C	C	C	C
<i>A. pierrei</i> (KP998810)	T	G	C	C	C	C
<i>A. pothieri</i> (KP998811)	T	G	C	C	C	C
<i>A. pothieri</i> (KP998818)	T	G	C	C	C	C
<i>A. ringens</i> (KP998812)	T	G	C	C	C	C
<i>A. tagala</i> (KP998814)	T	G	C	C	C	C
<i>A. tagala</i> (KP998816)	T	G	C	C	C	C
<i>A. tagala</i> (KP998817)	T	G	C	C	C	C
<i>A. tentaculata</i> (KP998815)	T	G	C	C	C	C
<i>A. sp</i> (KP998813)	T	G	C	C	C	C

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VITA

Miss Piroonrat Dechbumroong was born on October 26, 1988 in Phetchaburi, Thailand. She received her Bachelor's Degree of Science in Pharmacy in 2012 from the Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand.

Poster presentation

1. Dechbumroong P., Amnuopol S., Sukrong S.. 2015. Sequencing analysis of the matK DNA of Aristolochia plants used as "Krai-Krue" herb. The 5th National and International Graduate Study Conference 2015; "Creative Education: Intellectual Capital toward ASEAN", July, 16-17, 2015, Bangkok, Thailand.

Research

1. Senior project "Isolation of alpha-glucosidase inhibitors from Mamecyton plebejum Kurz. var. ellipsoideum Craib leaf located at Samae-san Island, Chonburi". Undersupervisor of Associate Professor Dr. Surattana Amnuopol.

