

**DNA fingerprinting based on SSR amplification profiles
for *Piper* species identification (Piperaceae)**

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List S1. Voucher material used in molecular analysis.

17.XI.2014, fl., J.A. Christ 87 (VIES); 17.XI.2014, fl., J.A. Christ 42 (VIES); 4.XII.2014, fr., J.A. Christ 59 (VIES); 17.XII.2014, fl., J.A. Christ *et al.* 89; 21. VIII. 2015, fl. J.A. Christ 94 (VIES); 25. VIII. 2015, fl. J.A. Christ 93 (VIES); 16.IV.2015, fl., J.A. Christ *et al.* 92 (VIES); 11.XII.2014, fl., J.A. Christ 73 (VIES); 17.XI.2014, fl., J.A. Christ 44 (VIES); 11.XII.2014, fl., J.A. Christ 78 (VIES); 5.XII.2014, fr., J.A. Christ 65 (VIES); 4.XII.2014, fl., J.A. Christ 52 (VIES); 4.XII.2014, fr., J.A. Christ 50 (VIES); 11.XII.2014, fl., J.A. Christ 68 (VIES); 25. VIII. 2015, fl. J.A. Christ 99 (VIES); 11.XII.2014, fr., J.A. Christ 76 (VIES)

Table S2. Morphological characters of the *Piper* species studied, used in the multivariate analyses, coded as binary data. The code 0 means absence and 1 means presence. *Piper aduncum* (adu), *P. amalago* (ama), *P. anisum* (ani), *P. arboreum* (arb), *P. bowiei* (bow), *P. caldense* (cal), *P. cernuum* (cer), *P. dilatatum* (dil), *P. gaudichaudianum* (gau), *P. glabratum* (gla), *P. miquelianum* (mig), *P. piliovarium* (pil), *P. pubisubmarginalum* (pub), *P. tuberculatum* (tub), *P. umbellatum* (um), *P. visosanum* (vic).

Character	adu	ama	ani	arb	bow	cal	cer	dil	gau	gla	miq	pil	pub	tub	umb	vic
1- Branch glabrous	0	0	0	1	1	1	1	0	0	1	0	1	1	1	1	1
2- Branch pilose	1	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0
3- Branch puberulous	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
4- Branch pubescent	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5- Petiole striated	1	1	1	0	0	0	0	1	1	1	1	1	1	1	0	0
6- Petiole canaliculate	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	1
7- Sheath short	1	0	1	0	1	1	0	1	1	1	1	1	1	0	0	0
8- Sheath invaginating	0	1	0	1	0	0	1	0	0	0	0	0	0	1	1	1
9- Lamina asymmetric	0	0	0	0	0	0	1	1	1	0	0	0	1	1	0	0
10- Lamina symmetric	1	1	1	1	1	1	0	0	0	1	1	1	0	0	1	1
11- Lamina scabrous	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
12- Lamina glabrous	0	1	1	1	1	1	1	0	0	1	0	1	1	1	1	1
13- Lamina pubertal	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
14- Lamina pilose	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
15- Lamina elliptic	1	0	1	0	1	1	1	1	1	1	1	1	0	1	0	1
16- Lamina deltooid	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17- Lamina cordiform	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
18- Lamina ovate	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
19- Lamina lanceolate	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0	0
20- Margin entire	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21- Base symmetric	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0
22- Base asymmetric	1	0	1	1	0	1	1	1	1	1	1	1	0	1	0	1
23- Base cordate	1	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0
24- Base round	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0
25- Base subcordate	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0
26- Base acute	0	0	0	0	1	1	0	1	1	1	0	0	0	0	0	1
27- Apex acute	1	0	1	1	1	1	1	0	1	1	0	1	1	1	0	1
28- Apex obtuse	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
29- Apex attenuated	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0
30- Apex acuminate	1	0	1	1	1	0	0	0	1	1	0	0	0	0	1	0
31- Venation acrodromous	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32- Venation eucamptodromous	1	0	0	1	1	1	1	1	1	1	0	1	1	1	0	1
33- Campilodromous venation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
34- Brochidodromous venation	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
35- Secondary venation straight	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0
36- Secondary venation arcuate	1	0	1	1	1	1	1	0	0	1	1	1	1	1	1	1
37- Venation pilose	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
38- Venation scabrous	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
39- Venation puberulous	0	0	1	0	0	0	0	1	0	1	0	0	1	0	0	0
40- Venation glabrous	0	0	0	1	1	1	1	0	0	0	0	1	0	1	1	1
41- Margin anastomosed	1	1	1	0	0	1	1	0	0	0	0	0	0	1	0	1
42- Spike solitary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
43- Spike erect	0	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1
44- Spike pendulum	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0



Table S2. Cont.

Character	Species Code	adu	ama	ani	arb	bow	cal	cer	dil	gau	gla	miq	pil	pub	tub	umb	vic
45- Spike curved		1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
46- Peduncle puberulous		0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
47- Peduncle glabrous		0	0	0	1	0	1	1	0	0	1	0	1	1	0	0	1
48- Peduncle pilose		1	1	1	0	1	0	0	0	1	0	1	0	0	1	1	0
49- Flowers pedicelate		0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
50- Bractola round		0	1	1	0	0	0	0	1	0	1	1	0	0	0	0	1
51- Bractola triangular		1	0	0	1	0	0	1	0	1	0	0	1	1	1	1	0
52- Bractola cuculate		0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0
53- Styles inconspicuous		1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
54- Stylus long		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
55- 3-stigma		1	1	0	1	1	1	1	1	1	1	0	0	1	1	1	1
56- Stigma ligulate		1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
57- Stigma thick		0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0
58- Stigma acute		0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
59- Stigma filiform		0	0	0	1	0	1	0	1	1	1	0	1	0	1	1	0
60- Fruit oblong		0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
61- Fruit globose		1	1	0	1	1	1	1	0	0	0	0	1	1	0	0	0
62- Fruit angulate		0	0	1	0	0	0	0	1	0	1	0	0	0	1	1	1
63- Fruto pilose		0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0

Table S3. Microsatellite loci primers developed for *Piper solmsianum*, *P. cordulatum*, *P. polysiphonum* and *P. nigrum* used in this study. Citation of the study in which the primer sequence was provided: a. Yoshida *et al.* (2014); b. Andree *et al.* (2010); c. Liao *et al.* (2009); d. Menezes *et al.* (2009). * Primers that did not amplify in the species of this study.

Code	Species	Primer name	Sequence 5' - 3'	Ref.	Species amplifications
1	<i>P. solmsianum</i>	Psol1F Psol1R	AGTCCTAACGGACCTGTGAA GAGGTGTTGTTGATGTGAGC	a	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. caldense</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i>
2	<i>P. solmsianum</i>	Psol2F Psol2R	CCTAACCGACCTGTGAGGTA TCGATTACGTGCCGAGT	a	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. caldense</i> , <i>P. cernuum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. vicosanum</i>
3	<i>P. solmsianum</i>	Psol3F Psol3R	GCGGATCTTACCAGAATCAG GAGTAGCCTTTGGTTGTTGC	a	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
4	<i>P. solmsianum</i>	Psol4F Psol4R	GCTTGTCTTGTGGGAAACC CAGGAAAACATACCGTCGTC	a	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
5	<i>P. solmsianum</i>	Psol5F Psol5R	ACCTCTGTCATTTACCTTG GGGTGTGTTTTAGAATGGA	a	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
6	<i>P. solmsianum</i>	Psol6F Psol6R	CTCTTGGCAAAAGTCACTTG ATCCCATACCGATCTCCTTC	a	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
7	<i>P. solmsianum</i>	Psol7F Psol7R	TTGCTTACGCCTGGACTAAC CAAGATCTGAGTCCCAGTG	a	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
8	<i>P. solmsianum</i>	Psol8F Psol8R	GGCAGATCAAGCTGAGAGAA GGATTGGTGGTGGAGTGT	a	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
9	<i>P. solmsianum</i>	Psol9F Psol9R	GGAACCCACGAGTTTCTTG GGGTCTTTTTACGTTGAG	a	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
*	<i>P. solmsianum</i>	Psol10F Psol10R	CAGACGGATTCCCACTGAT GGACTTGTAAACCATCGAGA	a	
*	<i>P. solmsianum</i>	Psol11F Psol11R	TTATTTGGTTGGAGCTGTGTG CCACGGTGGGTTATCACAC	a	



**DNA fingerprinting based on SSR amplification profiles
for *Piper* species identification (Piperaceae)**

Table S3. Cont.

Code	Species	Primer name	Sequence 5' - 3'	Ref.	Species amplifications
10	<i>P. solmsianum</i>	Psol12F Psol12R	CCCTCGAACGAGAGAGAAG ATGGCCAGGGGAGTAAGATA	a	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. umbellatum</i>
11	<i>P. solmsianum</i>	Psol13F Psol13R	ACGCAAAGTATTGCCTTAGC TTTAACCATCTTTCGGTCCA	a	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i>
12	<i>P. solmsianum</i>	Psol14F Psol14R	GCTCAACTCCGGAATCTACA GTATGCGTGCCGAGTGTTTA	a	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
13	<i>P. solmsianum</i>	Psol15F Psol15R	CGCGGACTAACACAGATTAC GCCAAAAACCCACTCA	a	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
14	<i>P. solmsianum</i>	Psol16F Psol16R	GAAGTCCTAACGGACCTGTG GAGGTGTTGTTGATGTGAGC	a	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
15	<i>P. solmsianum</i>	Psol17F Psol17R	TATTCCTATGCGAGATGC CGGCATAACCACTAAACCAC	a	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. miquelianum</i>
16	<i>P. solmsianum</i>	Psol18F Psol18R	ACTGTTGTGGACCTTGTGTC TGTATTAGCCCCATCGAC	a	<i>P. aduncum</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. caldense</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
17	<i>P. solmsianum</i>	Psol19F Psol19R	CGCGTGATGCATGCTTAT GCTCAACTCCGGAATCTACA	a	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. glabratum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
18	<i>P. cordulatum</i>	PcoCA02F PcoCA02R	CAGCTCAAACACCAAACACC TTTGGGGTGATTCAAGTTCC	b	<i>P. anisum</i> , <i>P. cernuum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
19	<i>P. cordulatum</i>	PcoCAAT01F PcoCAAT01R	TCATACACAGCCTCACACTGG GTTTGATTGATGGTGCCTTG	b	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
*	<i>P. cordulatum</i>	PcoCT04F PcoCT04R	ATATTTGTTGCCATTGACC TCAGTTGATATGCTGGATTGG	b	
20	<i>P. cordulatum</i>	PcoCT05F PcoCT05R	TGCCTTTGTTGCACTTCC CAATTTTCCAGTCACAAACCTC	b	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
21	<i>P. cordulatum</i>	PcoCT06F PcoCT06R	TGGACATCAACATGTACTGCAC ATCGGATATGGCAGAGAACC	b	<i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. miquelianum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i>
22	<i>P. cordulatum</i>	PcoCT07F PcoCT07R	AAGCGCAGTATTGCATAGAGG TACTGCGCAACAAAGGTGAC	b	<i>P. aduncum</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. gaudichaudianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
23	<i>P. cordulatum</i>	PcoCTT01F PcoCTT01R	AAGAGGGAGGATTAGGAGGTC ATCCACAGCCAACAACCTTC	b	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
24	<i>P. cordulatum</i>	PcoGA04F PcoGA04R	CGCTTCCGAAGAAAAGGTC GGGTGCTGTTCCGTAATTATC	b	<i>P. aduncum</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
25	<i>P. cordulatum</i>	PcoGA16F PcoGA16R	CTTCCAACCACATTCTGAAG TCCTAATGTTGGAGGTTGGTG	b	<i>P. aduncum</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i>
26	<i>P. cordulatum</i>	PcoGAT01F PcoGAT01R	GGTGATCGGGTAAAAGAATACG CCTGCTATTCAAAGTTCAAACC	b	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. bowiei</i> , <i>P. caldense</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
*	<i>P. cordulatum</i>	PcoGT03F PcoGT03R	TGTATATTGGTGTCCGGATCG ACCTCAAATCCCCAACC	b	
*	<i>P. cordulatum</i>	PcoTC02F PcoTC02R	TGTCTTAACAAGCCAATGCAG CGACAGCACCAAAATTAAC	b	
27	<i>P. polysyphonium</i>	Pc-b1F Pc-b1R	CCATCACCTTTTACGGTTCC TAATTGAGGAGGGGCTCACC	c	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i>
28	<i>P. polysyphonium</i>	Pc-b2F Pc-b2R	GAGGTAACCTTTCAACACTCCC ACTATAGGGCAGCGTG	c	<i>P. arboreum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. umbellatum</i>
29	<i>P. polysyphonium</i>	Pc-b3F Pc-b3R	ACAATGGATGTCCTTCTGAC AGTGATTACTATAGGGCAGCG	c	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i>



Table S3. Cont.

Code	Species	Primer name	Sequence 5' - 3'	Ref.	Species amplifications
30	<i>P. polysyphorum</i>	Pc-b4F Pc-b4R	TCATAGCTGTATCGTGGGCG CGCACATAGCGTACACACTC	c	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i>
31	<i>P. polysyphorum</i>	Pc-b6F Pc-b6R	TGTTATTTGTGATCCGGGCAC TTGCTGATGCAATCCGACAC	c	<i>P. anisum</i> , <i>P. bowiei</i> , <i>P. glabratum</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i>
32	<i>P. polysyphorum</i>	Pc-b7F Pc-b7R	TCGGATTGCATCAGCAAGTG TACGGTCATGCGTATCTGCT	c	<i>P. amalago</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i>
*	<i>P. polysyphorum</i>	Pc-b8F Pc-b8R	AGCAGATACGCATGACCGTA CTTGCTAGTCTCGATTGCAC	c	
33	<i>P. polysyphorum</i>	Pc-b11F Pc-b11R	TCAGGAAACGTATGACACGC CGATGTCGCAACGTATGATG	c	<i>P. bowiei</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. umbellatum</i>
34	<i>P. polysyphorum</i>	Pc-b12F Pc-b12R	GCTGGTGCTGGTGCCCTTA TGCTGCCGCTGCTTTTGACG	c	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. piliovarium</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
35	<i>P. polysyphorum</i>	Pc-b13F Pc-b13R	AACGCGTTGAACGATGCATC CATATAGTCGTCTGAGAGG	c	<i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. umbellatum</i>
36	<i>P. polysyphorum</i>	Pc-b14F Pc-b14R	CCATCACCTTTTACGGTTCC GGCTCACCTTGACAAGTTT	c	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
37	<i>P. nigrum</i>	PN A5F PN A5R	CTTCCAGACCAATAATCAACTT ATCCAAAATACACAACAATTC	c	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
38	<i>P. nigrum</i>	PN B5F PN B5R	GTTTTGAATGGGTCGGTGAT ATTGTTCTGATTTCTTCGTTATG	d	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
39	<i>P. nigrum</i>	PN B9F PN B9R	AGTATTGGTTGTTTCTCTC ATGTAAAATCGATAGTCCTCA	d	<i>P. anisum</i> , <i>P. arboreum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
40	<i>P. nigrum</i>	PN E3F PN E3R	TTTGTCCTCTCCCTCTCC AAGACTAAATAGGCAAGGCAAA	d	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. miquelianum</i> , <i>P. pubisubmarginalum</i> , <i>P. vicosanum</i>
41	<i>P. nigrum</i>	PN F1F PN F1R	ACTTCAGTGCTATTTTATCTCC CCAACGCCACTCTCAT	d	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. cernuum</i> , <i>P. glabratum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i>
42	<i>P. nigrum</i>	PN G11F PN G11R	TTACTAGTGTCACCCCACT TCGATGGAAGTACCCCTCT	d	<i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
43	<i>P. nigrum</i>	PN H4F PN H4R	CTTTTCCACAATTCAGTCTCG ACCCATGCGTGATCTTCTCAG	d	<i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. bowiei</i> , <i>P. gaudichaudianum</i> , <i>P. miquelianum</i> , <i>P. piliovarium</i> , <i>P. umbellatum</i>
44	<i>P. nigrum</i>	PN H8aF PN H8aR	TGTGTCTTTTATATTTTGATG TATTAGTAGTCTCCCTTTTGA	d	<i>P. anisum</i> , <i>P. caldense</i> , <i>P. piliovarium</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>
45	<i>P. nigrum</i>	PN D10F PN D10R	GTGTTACCTTTGGGGCATTCA TGTGTCAGGGCATCAAACC	d	<i>P. aduncum</i> , <i>P. amalago</i> , <i>P. anisum</i> , <i>P. arboreum</i> , <i>P. cernuum</i> , <i>P. dilatatum</i> , <i>P. gaudichaudianum</i> , <i>P. glabratum</i> , <i>P. piliovarium</i> , <i>P. pubisubmarginalum</i> , <i>P. tuberculatum</i> , <i>P. umbellatum</i> , <i>P. vicosanum</i>

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