

Table S1. Samples taken from accessions in the UK National Collections of *Liriope* and *Ophiopogon*.

| Sample Number | Accession number Brooksby Melton College | Genus | Species | Cultivar/hybrid | SNP |
|---------------|---|-------------------|-----------------------------|-----------------------------|-----|
| 624 | 1996-54 | <i>Liriope</i> | <i>exiliflora</i> | | A |
| 625 | 1996-02 | <i>Liriope</i> | <i>graminifolia</i> | Alba | A |
| 626 | 1996-03 | <i>Liriope</i> | <i>graminifolia</i> | Intermedia | A |
| 627 | 1996-05 | <i>Liriope</i> | <i>graminifolia</i> | Koreana | A |
| 628 | 1996-04 | <i>Liriope</i> | <i>graminifolia</i> | Pre Alba | G |
| 630 | 1996-01 | <i>Liriope</i> | <i>graminifolia</i> | | A |
| 631 | 1996-46 | <i>Liriope</i> | <i>minor</i> | | A |
| 632 | 1996-47 | <i>Liriope</i> | <i>Or Ophiopogon herifu</i> | | A |
| 633 | 1997-43 | <i>Liriope</i> | <i>muscari</i> | 1103 | A |
| 634 | 1998-25 | <i>Liriope</i> | <i>muscari</i> | 'Monroe White' | A |
| 636 | 1998-31 | <i>Liriope</i> | <i>muscari</i> | 'Silver Ribband' | A |
| 637 | 1996-07 | <i>Liriope</i> | <i>muscari</i> | Alba | A |
| 638 | 1996-08 | <i>Liriope</i> | <i>muscari</i> | Big Blue Riegel | A |
| 639 | 1996-09 | <i>Liriope</i> | <i>muscari</i> | Big Blue Tidwell | A |
| 640 | 1996-10 | <i>Liriope</i> | <i>muscari</i> | Blue Spire | A |
| 641 | 1996-40 | <i>Liriope</i> | <i>muscari</i> | BSWJ 561 | A |
| 642 | 1997-11 | <i>Liriope</i> | <i>muscari</i> | Crested White | A |
| 643 | 1996-12 | <i>Liriope</i> | <i>muscari</i> | Curly Twist | A |
| 644 | 1996-13 | <i>Liriope</i> | <i>muscari</i> | Densiflora | A |
| 645 | 1996-14 | <i>Liriope</i> | <i>muscari</i> | Exaltation | A |
| 646 | 1996-15 | <i>Liriope</i> | <i>muscari</i> | Franklin Mint | A |
| 647 | 1996-16 | <i>Liriope</i> | <i>muscari</i> | Gigantea | A |
| 648 | 1996-17 | <i>Liriope</i> | <i>muscari</i> | Gilner White | A |
| 649 | 1996-18 | <i>Liriope</i> | <i>muscari</i> | Gold Banded | A |
| 651 | 1996-42 | <i>Liriope</i> | <i>muscari</i> | Grandiflora | A |
| 652 | 1996-19 | <i>Liriope</i> | <i>muscari</i> | Green Midget | A |
| 653 | 1996-20 | <i>Liriope</i> | <i>muscari</i> | Hawk Feathers | A |
| 654 | 1996-21 | <i>Liriope</i> | <i>muscari</i> | Ingwersens variety. | A |
| 655 | 1996-22 | <i>Liriope</i> | <i>muscari</i> | John Burch | A |
| 656 | 1996-23 | <i>Liriope</i> | <i>muscari</i> | Majestic | A |
| 657 | 1996-26 | <i>Liriope</i> | <i>muscari</i> | New Wonder | A |
| 660 | 1996-28 | <i>Liriope</i> | <i>muscari</i> | Purple Bouquet | A |
| 661 | 1996-52 | <i>Liriope</i> | <i>muscari</i> | Rocket | A |
| 662 | 1996-49 | <i>Liriope</i> | <i>muscari</i> | Royal Purple | A |
| 663 | 1997-29 | <i>Liriope</i> | <i>muscari</i> | Samantha | A |
| 664 | 1997-30 | <i>Liriope</i> | <i>muscari</i> | Sheffield | A |
| 665 | 1996-50 | <i>Liriope</i> | <i>muscari</i> | Silver Banded/Silver Dragon | A |
| 666 | 1998-32 | <i>Liriope</i> | <i>muscari</i> | Silver variegated | A |
| 667 | 1997-37 | <i>Liriope</i> | <i>muscari</i> | Silvery Midget | G |
| 668 | 1996-33 | <i>Liriope</i> | <i>muscari</i> | Sun Proof | A |
| 669 | 1998-34 | <i>Liriope</i> | <i>muscari</i> | Superba | A |
| 670 | 1996-38 | <i>Liriope</i> | <i>muscari</i> | Variegata alba | A |
| 673 | 1996-41 | <i>Liriope</i> | <i>muscari</i> | Wonder Evergreen | A |
| 674 | 1996-35 | <i>Liriope</i> | <i>muscari</i> | Xmas Tree | A |
| 675 | 1996-06 | <i>Liriope</i> | <i>muscari</i> | | A |
| 676 | 1997-45 | <i>Liriope</i> | <i>spicata</i> | Alba | A |
| 677 | 1998-44 | <i>Liriope</i> | <i>spicata</i> | | G |
| 678 | 1996-01 | <i>Ophiopogon</i> | <i>bodinieri</i> | | G |
| 679 | 1996-02 | <i>Ophiopogon</i> | <i>chingii</i> | | G |
| 680 | 1996-03 | <i>Ophiopogon</i> | <i>clarkei</i> | | G |

| | | | | |
|-----|----------|--------------------------------|-------------------|---|
| 682 | 1996-05 | <i>Ophiopogon intermedius</i> | Shiroshiga Ryu | G |
| 683 | 1997-29 | <i>Ophiopogon intermedius</i> | variegatus | G |
| 684 | 1996-04 | <i>Ophiopogon Intermedius</i> | | G |
| 685 | 1997 -07 | <i>Ophiopogon jaburan</i> | Variegatus | G |
| 686 | 1997-27 | <i>Ophiopogon jaburan</i> | | G |
| 688 | 1997-09 | <i>Ophiopogon japonicus</i> | Compactus | G |
| 690 | 1996-12 | <i>Ophiopogon japonicus</i> | Little Tabby | G |
| 691 | 1997-10 | <i>Ophiopogon japonicus</i> | Nippon | G |
| 692 | 1997-11 | <i>Ophiopogon japonicus</i> | Tama ryu number 2 | G |
| 693 | 1998-31 | <i>Ophiopogon japonicus</i> | Torafu | A |
| 695 | 1996-08 | <i>Ophiopogon japonicus</i> | | A |
| 697 | 1998-33 | <i>Ophiopogon planiscapus</i> | 'Black Dragon' | G |
| 698 | 1998-32 | <i>Ophiopogon planiscapus</i> | 'Silver Edge' | G |
| 699 | 2001-34 | <i>Ophiopogon planiscapus</i> | Black beard | G |
| 700 | 1996-16 | <i>Ophiopogon planiscapus</i> | Leucanthus | G |
| 701 | 1996-15 | <i>Ophiopogon planiscapus</i> | Nigrescens | G |
| 702 | 1996-14 | <i>Ophiopogon planiscapus</i> | | G |
| 703 | 1996-17 | <i>Ophiopogon Sp. DF 86128</i> | | G |
| 704 | 1996-19 | <i>Ophiopogon wallichianus</i> | | G |
| 705 | 1997-25 | <i>Ophiopogon</i> | 'Buncho' | G |
| 706 | 1997-20 | <i>Ophiopogon</i> | 'Fuko-ho-ryu' | G |
| 708 | 1997-21 | <i>Ophiopogon</i> | 'Rhyuko' | G |
| 709 | 1997-22 | <i>Ophiopogon</i> | 'Spring Gold' | A |
| 711 | 1996-18 | <i>Ophiopogon</i> | Stephen Tappler | A |

Figure S1 supplied in pdf format

Figure S1. Multiple alignment of the *rbcLa* region of all of the *Lirope* and *Ophiopogon* samples tested. The first group of sequences represents reference sequences from the GenBank database.



Figure S2. Photographs of misidentified specimens attributed to the incorrect genus. The original incorrect names are listed here. (A,B) Sample 628: *Liriope graminifolia*; (C) Sample 693: *Ophiopogon japonicus*; (D) Sample 695: *Ophiopogon japonicus*; (E) Sample 709: *Ophiopogon japonicus*; (F) Sample 667: *Liriope muscari*; (G) Sample 711: *Ophiopogon intermedius*; (H) Sample 677: *Liriope spicata*.

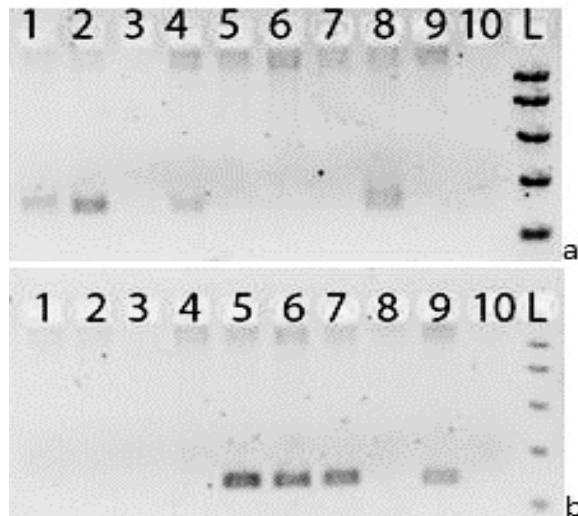


Figure S3. Agarose gel electrophoresis of PCR products of a re-sampled specimens using *Ophiopogon*- and *Liriope*-specific primers. (a) Testing the new collection of samples with *Liriope*-specific primers. (b) Testing the new collection of samples with *Ophiopogon*-specific primers. Gel lanes: 1. *Ophiopogon* Sample 693; 2. *Ophiopogon* Sample 695; 3. *Ophiopogon* Sample 709; 4. *Ophiopogon* Sample 711; 5. *Liriope* Sample 628; 6. *Liriope* Sample 667; 7. *Liriope* Sample 677; 8. *Liriope* Sample 625; 9. *Ophiopogon* Sample 692; 10. Negative (no template) control; L. Easy Ladder I (Bioline).

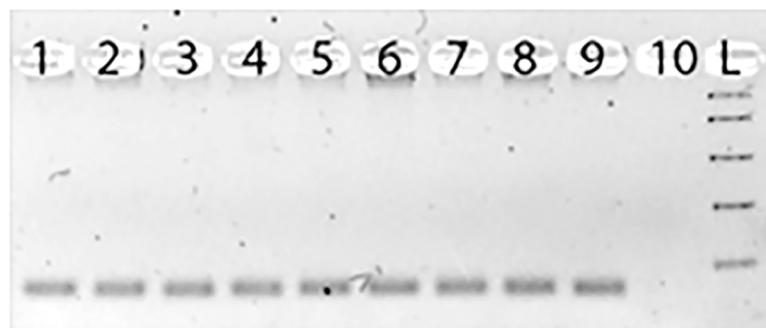


Figure S4. Agarose gel electrophoresis of PCR products using HRM primers. Gel lanes: 1. *Ophiopogon* Sample 678; 2. *Ophiopogon* Sample 679; 3. *Ophiopogon* Sample 693; 4. *Ophiopogon* Sample 695; 5. *Ophiopogon* Sample 709; 6. *Ophiopogon* Sample 711; 7. *Liriope* Sample 624; 8. *Liriope* Sample 628; 9. *Liriope* Sample 677; 10. Negative (no template) control; L. Easy Ladder I (Bioline).

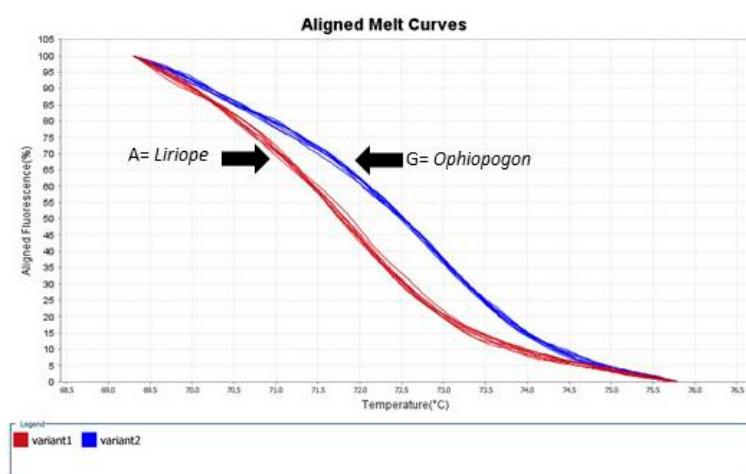


Figure S5. HRM assay. The melting curve plot shows two distinct variants. Variant 1: *Liriope* samples; Variant 2: *Ophiopogon* samples.