

Supplementary Table S1. Collection localities for all *Phragmites australis* samples used for DNA and morphological data. All localities are in British Columbia, Canada.

| Sample or accession # | ID | Locality | Collector | Sample type | Collection Date | UTM or lat/long | Voucher for morphology |
|-----------------------|------------|--|---------------------|--------------|-----------------|------------------------|------------------------|
| A3 | Introduced | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440926N 313552E | VX |
| BUR1 | Introduced | B.C., Burnaby | Becky Brown | silica-dried | 12 Sep 2012 | 10 5448363N 501915E | VX |
| RIC1 | Introduced | B.C., Richmond | J. Eric Portelance | silica-dried | 16 Sep 2010 | | VX |
| VER1 | Introduced | B.C., Vernon | Becky Brown | silica-dried | 15 Sep 2012 | 11 5577403N 340314E | VX |
| VER2 | Introduced | B.C., Vernon | Becky Brown | silica-dried | 15 Sep 2011 | 11 5576548N 340141E | VX |
| VIC1 | Introduced | B.C., Victoria, Hector Road | Becky Brown | silica-dried | 28 Aug 2012 | 10 5370861N 468078E | VX |
| Kam1 | Introduced | B.C., Kamloops, Copperhead Road and Hwy5/1 | Sandy Cesselli | silica-dried | 29 Aug 2014 | 10 5615440N 683600E | |
| Kam2 | Introduced | B.C., Kamloops, Copperhead Road and Hwy5/1 | Sandy Cesselli | silica-dried | 29 Aug 2014 | 10 5615440N 683600E | |
| A0 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440808N 313492E | VX |
| A1 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440812N 313635E | |
| A2a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440780N 313605E | |
| A2b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440803N 313598E | VX |
| A4 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440893N 313597E | |
| A5a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441013N 313558E | |

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|-----------------------|--------|---------------|---------------------|--------------|-----------------|------------------------|------------------------|
| A5b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441027N 313569E | |
| A5c | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441079N 313552E | VX |
| A5d | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441077N 313560E | |
| A5e | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441114N 313541E | VX |
| A6 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441187N 313542E | |
| A8 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442126N 313229E | |
| A9a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442119N 313107E | VX |
| A9b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441300N 313078E | |
| A10 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5443148N 312450E | |
| A12a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442320N 313509E | |
| A12b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442360N 313457E | |
| A12c | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442312N 313505E | |
| A12d | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442296N 313505E | |

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|-----------------------|--------|---------------|---------------------|--------------|-----------------|------------------------|------------------------|
| A12e | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442304N 313540E | |
| A13a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442066N 313691E | |
| A13b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442049N 313680E | VX |
| A14a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442046N 313709E | |
| A14b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442033N 313701E | |
| A15 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5442012N 313741E | |
| A16 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441971N 313737E | |
| A17 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441972N 313766E | |
| A18 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441867N 313813E | VX |
| A19 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441814N 313866E | |
| A20 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441732N 313931E | VX |
| A21 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441654N 313997E | |
| A22 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441296N 314279E | VX |

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|-----------------------|--------|--|---------------------|--------------|-----------------|------------------------|------------------------|
| A25 | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5441202N 314362E | |
| A40a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5442827N 313055E | VX |
| A40b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5442809N 313069E | |
| A41a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 18 Sep 2012 | 11 5440973N 313585E | VX |
| A41b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5441949N 313689E | |
| A42a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5441843N 313754E | VX |
| A42b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5441853N 313760E | |
| A43a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5441253N 314146E | |
| A43b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5441254N 314157E | VX |
| A43c | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5441285N 314151E | |
| ALA1 | Native | B.C., Ladner, Alaksen National Wildlife Area, Westham Island | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5439323N 486361E | |
| ALA2 | Native | B.C., Ladner, Alaksen National Wildlife Area, Westham Island | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5439158N 486407E | VX |
| ALA3 | Native | B.C., Ladner, Alaksen National | B. Brown, B. | silica-dried | 23 Aug 2012 | 10 5439074N 486531E | VX |

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|-----------------------|--------|--|-------------------------|--------------|-----------------|------------------------|------------------------|
| | | Wildlife Area, Westham Island | Smith | | | | |
| ALA4 | Native | B.C., Ladner, Alaksen National Wildlife Area, Westham Island | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5439072N 486539E | |
| BA2a | Native | B.C., Brisco | B. Haegedorn, C. MacRae | silica-dried | 1 Oct 2012 | 11 5634863N 547881E | VX |
| C1 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440751N 313619E | |
| C2 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440738N 313614E | VX |
| C3 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440690N 313631E | |
| C4 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440682N 313613E | |
| C5 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440434N 313791E | |
| C6 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440377N 313825E | |
| C7a | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440235N 313913E | |
| C7b | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440184N 313924E | |
| C8 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5439605N 315550E | VX |
| C9 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5435280N 315614E | |

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|-----------------------|--------|---------------|-------------------------|--------------|-----------------|------------------------|------------------------|
| C40a | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5440024N 314112E | VX |
| C40b | Native | B.C., Osoyoos | B. Brown, M. DeWolf | silica-dried | 19 Sep 2012 | 11 5440018N 314127E | |
| C100 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440806N 314584E | VX |
| C101 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440816N 314501E | VX |
| C102 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5441282N 314201E | VX |
| D1 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440048N 315457E | |
| D2 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440060N 315475E | |
| D3 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440079N 315547E | |
| D4 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440107N 315598E | VX |
| D5 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440624N 315253E | |
| D6 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440199N 315190E | |
| D7 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440174N 315194E | |
| D8 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5440141N 315200E | |

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|-----------------------|--------|---------------|-------------------------|--------------|-----------------|------------------------|------------------------|
| D9a | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5439984N 315333E | |
| D9b | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5439960N 315368E | |
| D10 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5439856N 315496E | VX |
| D11 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5439837N 315486E | |
| D12 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5439848N 315484E | |
| D13 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 18 Sep 2012 | 11 5439604N 315652E | |
| D14 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440997N 315113E | |
| D15 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5441034N 314991E | |
| D16 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5441124N 314983E | |
| D17a | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5441065N 314724E | |
| D17b | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5441058N 314764E | |
| D18 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5441051N 314784E | |
| D19 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440971N 314741E | |

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|-----------------------|--------|--|-------------------------|--------------|-----------------|------------------------|------------------------|
| D20 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440994N 314791E | |
| D21 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 21 Sep 2012 | 11 5440962N 314805E | |
| D22a | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440995N 314852E | |
| D22b | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440951N 314910E | |
| D23 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440938N 314956E | |
| D24 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440898N 315003E | |
| D25 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440950N 315012E | |
| D26 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440884N 315036E | |
| D27 | Native | B.C., Osoyoos | C. MacRae, B. Haegedorn | silica-dried | 19 Sep 2012 | 11 5440861N 315048E | |
| DAW1 (V224664) | Native | B.C., near Dawson Creek | Denise McLean | silica-dried | 16 Aug 2012 | 10 6226135N 685618E | |
| DUC1 | Native | B.C., Creston; Duck Lake-Six Mile Slough, Pond 5 | K. May, R. Haegedorn | silica-dried | 07 Aug 2012 | 11 5450125N 525875E | V |
| FA2 | Native | B.C., Fairmont Hot Springs | B. Haegedorn, C. MacRae | silica-dried | 01 Oct 2012 | 11 5576222N 582163E | vX |
| GAL1 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425458N 459489E | |

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|-----------------------|--------|--|-------------------------|--------------|-----------------|------------------------|------------------------|
| GAL2 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425441N 459477E | |
| GAL3 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425460N 459478E | |
| GAL4 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425521N 459435E | |
| GAL5 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425561N 459441E | |
| GAL6 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425584N 459441E | VX |
| GAL7 | Native | B.C., Galiano Island | B. Brown, B. Smith | silica-dried | 16 Aug 2012 | 10 5425590N 459422E | |
| HAY1 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | vX |
| HAY2 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |
| HAY3 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |
| HAY4 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |
| HAY5 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | vX |
| HAY6 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |
| HAY7 (V056279) | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haagedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |

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|-----------------------|--------|---|----------------------|--------------|-----------------|------------------------|------------------------|
| HAY8 V056279 | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |
| HAY9 V056279 | Native | B.C., Osoyoos, Radio Tower Rd, Hayne's Lease Ecoreserve | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5439769N 316065E | |
| KER1 (V228452) | Native | B.C., Keremeos/Cawston | Becky Brown | silica-dried | 29 Jul 2012 | 11 5453878N 298580E | VX |
| KER2 (V228452) | Native | B.C., Keremeos/Cawston | Becky Brown | silica-dried | 29 Jul 2012 | 11 5453698N 298585E | |
| KER3 | Native | B.C., Keremeos/Cawston | Becky Brown | silica-dried | 02 Aug 2012 | 11 5448506N 300431E | VX |
| KER4 | Native | B.C., Keremeos/Cawston | Becky Brown | silica-dried | 02 Aug 2012 | 11 5448486N 300415E | X |
| KER5 | Native | B.C., Keremeos/Cawston | Becky Brown | silica-dried | 02 Aug 2012 | 11 5453698N 298585E | VX |
| MET1 | Native | B.C., Metchosin | Becky Brown | silica-dried | 03 Apr 2012 | 10 5357506N 460667E | |
| Phrag1 | Native | B.C., Metchosin | Becky Brown | silica-dried | Sep 2011 | 10 5357506N 460667E | VX |
| RIV1 | Native | B.C., Ladner, River Road | Becky Brown | silica-dried | 24 Aug 2012 | 10 5435022N 488624E | X |
| RIV2 | Native | B.C., Ladner, River Road | Becky Brown | silica-dried | 24 Aug 2012 | 10 5435211N 489448E | VX |
| VAS1 (V130184) | Native | B.C., North of Osoyoos on Hwy 97, Vaseux Lake, Bird Observatory | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5465242N 314723E | |

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|-----------------------|--------|---|----------------------|--------------|-----------------|------------------------|------------------------|
| VAS2 (V130185) | Native | B.C., North of Osoyoos on Hwy 97, Vaseux Lake, Bird Observatory | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5465242N 314723E | |
| VAS3 (V130186) | Native | B.C., North of Osoyoos on Hwy 97, Vaseux Lake, Bird Observatory | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5465242N 314723E | |
| VAS4 (V130187) | Native | B.C., North of Osoyoos on Hwy 97, Vaseux Lake, Bird Observatory | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5465242N 314723E | VX |
| VAS5 (V130188) | Native | B.C., North of Osoyoos on Hwy 97, Vaseux Lake, Bird Observatory | K. May, R. Haegedorn | silica-dried | 09 Aug 2012 | 11 5465242N 314723E | VX |
| WES1 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 22 Aug 2012 | 10 5437789N 486632E | |
| WES2 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 22 Aug 2012 | 10 5438796N 486383E | |
| WES3 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 22 Aug 2012 | 10 5438814N 486394E | VX |
| WES4 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438815N 486392E | X |
| WES5 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438848N 486380E | VX |
| WES6 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438318N 486655E | |
| WES7 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438326N 486690E | |

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|-----------------------|--------|---|--------------------|--------------|-----------------|------------------------|------------------------|
| WES8 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438671N 486436E | |
| WES9 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438677N 486450E | |
| WES10 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438656N 486450E | |
| WES11 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 22 Aug 2012 | 10 5438276N 486553E | |
| WES12 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438296N 486566E | |
| WES13 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438316N 486590E | |
| WES14 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438309N 486599E | |
| WES15 | Native | B.C., Ladner, Westham Island, Reifel Bird Sanctuary | B. Brown, B. Smith | silica-dried | 23 Aug 2012 | 10 5438321N 486611E | |
| 15-1 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 15 Sep 2014 | 11 5656724N 524545E | |
| 15-2 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 15 Sep 2014 | 11 5652825N 532863E | |
| 16-1 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5653839N 530357E | |
| 16-2 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5648984N 537403E | |
| 16-3 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5648964N 537386E | |

Supplementary Table S1. Collection localities for all *Phragmites australis* samples used for DNA and morphological data. All localities are in British Columbia, Canada.

| Sample or accession # | ID | Locality | Collector | Sample type | Collection Date | UTM or lat/long | Voucher for morphology |
|-----------------------|--------|---|-----------|--------------|-----------------|------------------------|------------------------|
| 16-4 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5648443N 537771E | |
| 16-5a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5648317N 537857E | |
| 16-5b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5648310N 537859E | |
| 16-6 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5643977N 541851E | |
| 16-7a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5643684N 542167E | |
| 16-7b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5643677N 542177E | |
| 16-8 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 16 Sep 2014 | 11 5654898N 547885E | |
| 17-1a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5646143N 540332E | |
| 17-1b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5646133N 540393E | |
| 17-1c | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5646131N 540413E | |
| 17-2 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5646105N 540427E | |
| 17-3 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5646040N 540533E | |
| 17-4a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5653894N 530275E | |

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| Sample or accession # | ID | Locality | Collector | Sample type | Collection Date | UTM or lat/long | Voucher for morphology |
|-----------------------|--------|---|---------------|--------------|-----------------|---------------------------|------------------------|
| 17-4b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5653881N 530289E | |
| 17-5a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5653842N 530359E | |
| 17-5b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5653831N 530364E | |
| 17-6a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5634723N 548004E | |
| 17-6b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 17 Sep 2014 | 11 5634699N 548034E | |
| 17-7 | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | Pressed | 17 Sep 2014 | 11 5634589N 548189E | |
| 18-1a | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 18 Sep 2014 | 11 5576235N 582191E | |
| 18-1b | Native | B.C., between Golden and Radium Hot Springs | C. MacRae | silica-dried | 18 Sep 2014 | 11 5576235N 582191E | |
| Alexis Creek A | Native | B.C., Alexis Creek | CM/DM | silica-dried | 23 Jul 2014 | 52°04'49"N 123°18'19"W | |
| Alexis Creek B | Native | B.C., Alexis Creek | CM/DM | silica-dried | 23 Jul 2014 | 52°04'49"N 123°18'19"W | |
| ES1 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736848N 549680E | |
| ES10 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5735816N 549377E | |
| ES11 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5735816N 549377E | |

Supplementary Table S1. Collection localities for all *Phragmites australis* samples used for DNA and morphological data. All localities are in British Columbia, Canada.

| Sample or accession # | ID | Locality | Collector | Sample type | Collection Date | UTM or lat/long | Voucher for morphology |
|-----------------------|--------|---|----------------|--------------|-----------------|---------------------------------|------------------------|
| ES2 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736647N 549567E | |
| ES3 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736416N 549504E | |
| ES4 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736352N 549332E | |
| ES5 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736209N 549186E | |
| ES6 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736659N 550429E | |
| ES7 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5736659N 550429E | |
| ES8 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5735835N 549433E | |
| ES9 | Native | B.C., Alkali Lake, nw of Cache Creek | Emily Sonntag | silica-dried | 21 Aug 2014 | 10 5735835N 549433E | |
| Halfmoon Bay | Native | B.C., Halfmoon Bay - Sargeant Bay Provincial Park | Rand Rudland | silica-dried | 20 Aug 2014 | 49°28'41.33"N 123°51'43.73"W | |
| OKlanding | Native | B.C., Okanagan Landing | C. MacRae | silica-dried | 11 Sep 2014 | 11 5567964N 333065E | |
| V090474 | Native | B.C., Alkali Lake | T. C. Brayshaw | Pressed | 17 Aug 1978 | 51°47'00"N 122°16'00"W | |
| V095301 | Native | B.C., Vanderhoof | T. C. Brayshaw | Pressed | 11 Jul 1979 | 54°07'00"N 124°09'00"W | |
| V097666 | Native | B.C., Galiano Island | A. Wood | Pressed | 24 Jul 1975 | 48°56'00"N 123°27'00"W | |
| V099911 | Native | B.C., Williams Lake | T. C. Brayshaw | Pressed | 08 Aug 1979 | 52°07'00"N 122°02'00"W | |

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| Sample or accession # | ID | Locality | Collector | Sample type | Collection Date | UTM or lat/long | Voucher for morphology |
|-----------------------|------------|----------------------------------|--------------------|-------------|-----------------|---------------------------|------------------------|
| V116801 | Native | B.C., Brisco | T. C. Brayshaw | Pressed | 09 Aug 1978 | 50°53`00"N 116°20`00"W | |
| V116804 | Native | B.C., Skookumchuck; Premier Lake | T. C. Brayshaw | Pressed | 04 Aug 1978 | 49°55`00"N 115°39`00"W | |
| V133601 | Native | B.C., Nicola Lake | N. J. Turner | Pressed | 04 Oct 1985 | 50°09`00"N 120°37`00"W | |
| V166865 | Native | B.C., Mara Meadows | H. L. Roemer | Pressed | 01 Aug 1979 | 50°41`00"N 119°06`20"W | |
| V169227 | Native | B.C., Metchosin | I. Sutherland | Pressed | 01 Sep 1992 | 48°23`00"N 123°32`00"W | |
| V198564 | native | B.C., Enderby | M. E. Martin | Pressed | 20 Jun 2006 | 50°41`14"N 119°07`05"W | |
| V198566 | Introduced | B.C., Vernon | M. E. Martin | Pressed | 21 Aug 2006 | 50°19`09"N 119°14`44"W | |
| V199191 | Native | B.C., Clayhurst | V. Huff, B. Haddow | Pressed | 20 Jun 2006 | 56°08`41"N 120°00`37"W | |
| V224664 #1 | Native | B.C., N of Dawson Creek | D. McLean | Pressed | 16 Aug 2012 | 56°08`39"N 120°00`44"W | V |
| V224664 #2 | Native | B.C., N of Dawson Creek | D. McLean | Pressed | 16 Aug 2012 | 56°08`39"N 120°00`44"W | |