

Molecular and Morphological evidence support the delimitation of a new genus, *Hafezia* gen. nov. in Arabideae (Brassicaceae)

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Table S1: Voucher specimens of the examined taxa used in morphological analyses regarding the introduction of the new genus, *Hafezia*.

***Hafezia aucheri*.** The following specimens are housed in HSHU: PERSIA: **Fars:** Park-e Bamou, Kuh-e Sufia, 29°41'42.70"N-52°39'39.70"E, 2017 m, 2011.05.05, A.R. Khosravi, & A. Assadi, 47663; **Fars:** Shiraz, Pardis-e Eram, 29°39'19.87"N-52°30'9.18"E, 1632 m, A.R. Khosravi, 2023.04.24, 59547; **Fars:** Shiraz, Pardis-e Eram 29°39'19.87"N-52°30'9.18"E, 1653 m, A.R. Khosravi & A. Eslami-Farouji, 2023.03.09, 59718; **Fars:** Shiraz, Park-e Bamou, South slope of Kuh-e Bamou, 29°41'26.30"N-52°34'27.90"E, 1906 m, A.R. Khosravi & M. Dehghani, 43895; **Fars:** 5 km north of Sivand, Tang-e Khoshk, Tol-e Sangabi, 1786 m, Z. Moussavi, 2013.03.30, 98; **Fars:** Firuzabad, 1330 m, K. Najafi, 1992.05.08, 12132; **Fars:** Shiraz, Kuh payeh, 1798 m, A.R. Khosravi, 2007.03.24, 33896; **Fars:** Shiraz, Park-e Babakuhi, A. Hatami, 1500 m, 1993.03.10, 14219; **Kohgiluyeh & Boirahmad:** Below Sisakht, on road to Yasuj, 1900 m, Davis, P. Hadland & M.H. Bokhari, 1974.04.08, 56453; **Kohgiluyeh & Boirahmad:** Yasuj, Mahmudabad, M.J. Setudeh, 1994.04.06, 19441, Kohgiluyeh & Boirahmad: Below Sisakht, on road to Yasuj, 1974.04.08, 1900 m, Davis, Peter Hadland & Bokhari, Mumtaz Hussein, 56453 (HSHU!), Fars: Firuzabad, 1992.05.08, 1330 m, Najafi, Keykavous, 12132 (HSHU!), Fars: Shiraz, Park-e Babakuhi, 1500 m, 1993.03.10, Hatami, Ahmad, 14219 (HSHU!), Kohgiluyeh & Boirahmad: Yasuj, Mahmudabad, 1994.04.06, 19441 (HSHU!), Fars, Shiraz, Pardis-e Eram (29°39'19.87"N-52°30'9.18"E), 1632 m, 2023.03.09, Khosravi, Ahmad Reza & Eslami-Farouji, Atena, 59547 (HSHU!).

***Hafezia parvula*.** Hab. in schistosis c. Targuist, 1000 m, 1929.04.26, Univ. Mohammed 5-A, 12087, Institut Scientifique, Herbar National RAB; **Castille:** Ameyugo, Talus et Garigues, LY0079877, 1906.04.20, Herbiers Universite de Lyon; **Maroc:** Djebel Kerker, 600-850 m (Beni Bu Yahi), F. Sennen et Hno. Mauricio, 1934.04.22, 81155, 840611, 48428; **Z. Spanje:** oost van Ronda pas in de weg van Ronda naar Coin, 800 m, Bloemkroon Wit, 1984.04.18, L3767928; **Merindad de Ubierna (BU):** Desfiladero de Ubierna. Laderas pedregosas, soleadas, al pie de un rouedo calizo, 900-920 m, B. Fz de Betono et J. A. Alejandre, 1988.04.24, Z-000113708. Spain, Prov. **Burgos**, Ameyugo, sunny slope of the mountain, west of the town, 2006.04.16, 5 80-650 m, J. A. Alejandre & M.J. Escalante, 1122 (**AHIM!**), Morocco, Prov. oujda: Mts. of Beni Snassen, 6 km E of Tizi Oulal on the Street 5303,; holm oak forest; limestone rubble; 2°14' W - 34°51' N, 1993.04.11, 1070 m, D. Podlech, 51465. 1122 (**MA!**), Spain, Prov. **Burgos**, Santa Ol alla de Bureba (BU): On a sunny slope at the foot of a limestone rock. Holm oak forest environment. Limestone. 930-940 m, 1988.05.07, Juan Antonio Alejandre Sáenz (**MA!**), Spain, Prov. Álava, Elciego (VI): Las Lombas. In dismantled kermes oak forests. Disturbed gravelly soils. 500 m, 1988.03.26, Juan Antonio Alejandre Sáenz (**MA!**), Spain, Prov. Burgos, Las Lavas Valley (BU): Between Robledo-Temiño and Tobes and Ranedo. At the base of dolomitic rocks. Heated environments, from 920 to 950 m. 1988.05.01, M. L. Gil Zíñiga & J. A. Alejandre (**MA!**).

***Aubrieta parviflora* Boiss.:** Fars: Gorge 23-24 km from Firuzabad to Farashband, 1974.04.03, Davis, Peter Hadland & Bokhari, Mumtaz Hussein, 56381 (HSHU!), Fars: E-6, 70 km from Shiraz, on old road to Kazerun, 2500 m, Bokhari, Mumtaz Hossein, 1226 (HSHU!), Tehran: N of Tehran, 1989.06.05, Khosravi, Ahmad Reza, 64 (HSHU!), Fars: 5 km north of Sivand, Tang-e Khoshk, Kouh-e Tome karam,

1861m, 2013.03.29, Moussavi, Zahra, 88 (HSHU!), Fars: Shiraz, Kuh-e Derak (29°38'35.73"N-52°27'6.19"E), 1671m, 2021.03.10, Khosravi, Ahmad Reza, 60230 (HSHU!)

***Arabis caucasica* Willd.:** Tehran: N of Tehran, 1989.06.05, Khosravi, Ahmad Reza, 65 (HSHU!), Ardebil: Meshkinshah, Kuh-e Sabalan (38°12'34.50"N-47°51'43.84"E), 3200 m, 1994.07.29, Baharvand, Hossein, 22205 (HSHU!), Gilan: Langrud, Leila Kuh, 81 m, 2006.05.31, Dashtpeyma, Mohammad Reza, 32391 (HSHU!), Esfahan: 8 km after Vanak to Semrom, 2587, Heidarian, Salman, 37943 (HSHU!), Fars: Sepidan, Abshar-e Margun (30°29'32.39"N-51°53'45.28"E), 2008.05.19, 2316 m, 41167 (HSHU!), PERSIA: **Fars:** Shiraz, Park-e Bamu, Kuh-e Gowd-e Lubia, 1924 m, 2011.05.18, A.R. Khosravi, & A. Assadi; **Fars:** Rostam, Babameydan, Kuh-e Zardeh Shehneh, 30°19'28"N-51°32'15.78"E, 1369 m, A. Gorjian, 2012.05.04, 126; **Fars:** 17 km after Dasht-e Arjan to Kazerun, on old road, 2450 m, A.R. Khosravi, A. Hatami & H. Safaei, 1997.06.27; **Fars:** 25 km West of Firuzabad, Khergheh (Emamzadeh Dawood), 28°53'36.96"N-52°22'35.40"E, 1500 m, E. Bahrani Fard, 2013.03.18, 62; **Fars:** 25 km West of Firuzabad, Khergheh (Emamzadeh Dawood), 28°53'42.36"N-52°22'58.44"E, 1679 m, E. Bahrani Fard, 2013.04.26, 229; **Fars:** 40 km SW of Abadeh, before Khosrow & Shirin, D. Lotfi Azad, 1993.05.05; **Fars:** 5 km north of Sivand, Tang-e Khoshk, Kouh-e Shekaf, 1884 m, Z. Moussavi, 2014.04.24, 357; **Fars:** 5 km north of Sivand, Tang-e Khoshk, Kouh-e Tom karam, 1861 m, Z. Moussavi, 2013.03.29, 88; **Fars:** Arsanjan, Tang Eshkan, Kuh-e Khom, 2446 m, M. Zare, 2012.04.26, 174; **Fars:** Bavanat, Sarchuhan, Golpa village, 2559 m, J. Hashemi, 2005.05.14, 28582, 2005.05.14; **Fars:** E6 (Times Atlas) Gorge 23-24 km from Firuzabad to Farashband, 2500 m, Davis, P. Hadland & M.H. Bokhari, 1974.04.03, 56381; **Fars:** Mamassani, Dosmanziari, Tasak, 2596 m, A. Assadi, 2011.04.26, 634; **Fars:** River gorge 12 km from Firuzabad to Kavar, 1450 m, Davis, P. Hadland & M.H. Bokhari, 1974.04.03, 56372; **Fars:** S of Shiraz, Kuh-e Sabzpushan, 2100 m, M. Arabzadeh, 1999.04.23; **Fars:** Sepidan, 2110 m, M.S. Tadayyon, 1992.07.03; **Fars:** Shiraz, Kuh-e Derak, 29°38'35.73"N-52°27'6.19"E, 1671 m, A.R. Khosravi, 2021.03.10, 58792; **Fars:** S of Shiraz, Eslamlu village, 29°29'15.88"N-52°29'16.6"E, 1537 m, Z. Najafi Ghareghani, 2006.04.02; **Kermanshah:** 30 km NE of Kermanshah, Bistun, J. Maleki Samangani, 1994.03.27, 18976; **Kermanshah:** Bistun, J. Maleki Samangani, 1994.03.26; **Lorestan:** Kuh-e Sefidkuh, 34°11'40.26"N-47°07'50.52"E, 2061 m, A. Eslami-Farouji, 2016.05.20, 113; **Tehran:** Tehran, Darband, H. Moazzeni, 2005.07.17, 28910; **Tehran:** N of Tehran, A.R. Khosravi, 1989.06.05, 64.

***Arabis nova* Vill.:** Fars: 5 km from Masiri to Basht, 700m, 1974.03.20, Davis, Peter Hadland & Bokhari, Mumtaz Hussein, 55648 (HSHU!), Tehran: N of Tehran, 1989.06.05, Khosravi, Ahmad Reza, 56 (HSHU!), Lorestan: 70 km from Andimeshk to Khorramabad, Kuh-e Shah Ahmad, 1991.04.02, Baharvand, Hossein, 16 (HSHU!), Yazd: Taft, Kuh-e Sefid, 1991.04.16, Salehi, K., 47 (HSHU!), Qazvin: road of Lowshan to Ghazvin (36°32'6.70"N-49°30'56.50"E), 2009.04.24, 574 m, Khosravi, Ahmad Reza, 42740 (HSHU!)

***Arabis sagittata* (Bertol.) DC.:** North Khorasan: Central parts of Golestan National park, Almeh valley, Darreh Palang, 1999.04.23, 1600 m, Akhani, Hossein, 13406 (HSHU!), Mazandaran: Chalus road, 2009.06.26, 2201 m, Khosravi, Ahmad Reza & Kavousi, Kurowsh, 43638 (HSHU!)

***Draba rimarum*:** Mazandaran: Pol-e Sefid, Ashak (35°59'36.7"N-53°13'18.90"E), 2265 m, 2009.06.25, Khosravi, Ahmad Reza & Kavousi, Kurowsh, 24985 (HSHU!).

Table S2: Voucher specimens of the examined taxa used in phylogenetic analyses regarding the introduction of the new genus, *Hafezia*.

Chalcone synthase: *Pseudoturritis turrita*: LN623711.1; *Arabis aucheri*: LK937209.1, LK937203.1, LK937208.1, LK937207.1, LK937202.1, LK937201.1, JQ919881.1; *Arabis alpina*: AF112084.1; *Arabis purpurea*: LK937253.1; *Arabis montbretiana*: JQ919886.1; *Arabis nordmanniana*: LK937243.1; *Arabis auriculata*: LK937216.1; *Arabis nova*: LK937244.1; *Draba hispanica*: JQ919894.1; *Draba aizoides*: JQ919893.1; *Aubrieta parviflora*: LK937252.1; *Arabis verna*: JQ919890.1; *Arabis hirsuta*: AF112096.1; *Arabis collina*: LK937227.1.

Alcohol dehydrogenase: *Pseudoturritis turrita*: KC814712.1; *Arabis aucheri*: KC814699.1; *Arabis alpina*: AF110429.1; *Arabis purpurea*: KC814703.1; *Arabis montbretiana*: KC814708.1; *Arabis nordmanniana*: KC814702.1; *Arabis auriculata*: KC814700.1; *Arabis nova*: KC814709.1; *Draba hispanica*: KC814711.1; *Draba aizoides*: KC814710.1; *Arabis verna*: KC814704.1; *Arabis hirsuta*: KC814701.1; *Arabis collina*: KC814707.1 .

ITS: *Pseudoturritis turrita*: JQ919845.1; *Arabis parvula*: HQ646618.1, HQ646617.1, HM046186.1, HM046178.1, HM046177.1, FJ407224.1; *Arabis aucheri*: KF547281.1, FJ187881.1, HM046191.1; *Arabis alpina*: KU321355.1; *Arabis purpurea*: JN189758.1; *Arabis montbretiana*: KF547279.1; *Arabis nordmanniana*: FJ187924.1; *Arabis auriculata*: KF547244.1; *Arabis nova*: JQ919839.1; *Draba hispanica*: DQ467449.1; *Draba aizoides*: AF120721.1; *Aubrieta parviflora*: DQ357518.1; *Arabis verna*: KF547397.1; *Arabis hirsuta*: MT881090.1; *Arabis collina*: KF547250.1.

trnL-F: *Pseudoturritis turrita*: JQ919867.1; *Arabis parvula*: FJ407244.1, HM046207.1, HM046208.1, HM046213.1, HQ646677.1, HQ646678.1; *Arabis aucheri*: FJ187992.1, FJ188027.1, HM046216.1; *Arabis setosifolia*: GU182022.1, *Arabis alpina*: KU321355.1; *Arabis purpurea*: JN189776.1; *Arabis montbretiana*: FJ188011.1; *Arabis nordmanniana*: FJ407242.1; *Arabis auriculata*: GU182023.1; *Arabis nova*: FJ407267.1; *Draba hispanica*: DQ466990.1, DQ467077; *Draba aizoides*: DQ466991.1; *Aubrieta canescens*: KU513584.1; *Arabis verna*: FJ188036.1; *Arabis hirsuta*: KF547629.1; *Arabis collina*: KF547466.1 .

Table S3: Summary of indel (insertion/deletion) polymorphisms identified across ITS, *trnL-F*, alcohol dehydrogenase, and chalcone synthase molecular markers among the clade *Arabis aucheri* and related clades. Indel positions, nucleotide sequences, and clade-specific distributions are provided, which highlight molecular informative variation.

| Alcohol dehydrogenase | |
|--|--|
| Draba Clade | 1- Insertion: Bases 518-592 TGAGATTGAGATTGGTTCTTATGTAGGATTTTGAAGAAAGGCTTAATCTTCTTCATTTTCAGTGT TAAAGT 2- Insertion: Bases 650-669 TTATTCAATTTTGGGTAGT |
| Arabis aucheri Clade | 3- Deletion: Bases 1225-1232/ 1237-1239/ 1747-1751/ 1757-1758 AGTCTTT/ GAC/ CTAAT/ AA |
| Arabis auriculata Clade | 4- Insertion: Bases 1233-1235 TTT |
| Arabis aucheri, Draba, Aubrieta Clades | 5- Deletion: Bases 1283-1293 TTGATATGTTG |
| Aubrieta Clade | 6- Deletion: Bases 1475-1504 TTCCTTT-TCGACATTTCTTGTAATCGGAT |
| Chalcone synthase | |
| Arabis auriculata Clade | 7- Insertion: Bases 460-463 TATT |
| Arabis nordmanniana Clade | 8- Deletion: Bases 475-485 AGTTAGTTTT |
| ITS | |
| Main Arabis clade | 9- Insertion: Bases 367-373 GTAAAAT |
| trnL-F | |
| Arabis aucheri Clade | 10- Deletion: Bases 46-52 TTTTTT |
| Aubrieta Clade | 11- Insertion: Bases 122-127/ 142-147/ 331-339 TTATTA/ TCTTGT/ TTAATTGAC |
| Draba Clade | 12- Insertion: Bases 145-147 AAG |
| Main Arabis clade | 13- Insertion: Bases 367-373 GTAAAAT |

Table S4: Summary of single-nucleotide polymorphisms identified across ITS, *trnL-F*, alcohol dehydrogenase, and chalcone synthase molecular markers among the clade *Arabis aucheri* and related clades. The position of single-nucleotide polymorphisms, nucleotide sequences, and clade-specific distributions is provided.

| Alcohol dehydrogenase | |
|---|--|
| Outgroup | 854-bp (C→T), 995-bp (T→G), 1296-bp (A→G), 1458-bp (T→C), 1563-bp (T→C), 1710-bp (C→T) |
| <i>Arabis alpina</i> & <i>Arabis nordmanniana</i> Clades | 773-bp (G→A), 779-bp (G→A), 1531-bp (A→T) |
| <i>Arabis nordmanniana</i> , <i>Arabis alpina</i> , <i>Arabis aucheri</i> Clades | 782-bp (A/T→C) |
| <i>Arabis alpina</i> , <i>Arabis nordmanniana</i> & <i>Arabis auriculata</i> Clades | 785-bp (C→T), 1506-bp (T→A), 1507-bp (C→T), 1852-bp (A/C→G) |
| <i>Aubrieta</i> , <i>Arabis aucheri</i> & <i>Draba</i> Clades | 821-bp (G/A/T→C), 950-bp (T→C), 1169-bp (T→C), 1267-bp (T→G), |
| <i>Aubrieta</i> & <i>Arabis aucheri</i> Clades | 1139-bp (T→C), 1559-bp (- →G), 1668-bp (T→A), |
| <i>Aubrieta</i> & <i>Draba</i> Clades | 1262-bp (C→A), |
| <i>Arabis aucheri</i> & <i>Draba</i> Clades | 1365-bp (A→G), 1509-bp (G/T→A), |
| Main <i>Arabis</i> Clade | 808-bp (G→C), 857-bp (T→C) |
| <i>Arabis auriculata</i> Clade | 1512-bp (C→G) |
| <i>Arabis nordmanniana</i> Clade | 215-bp (G→T), 442-bp (C→T), 451-bp (A→G), 1298-bp (- →T), 1299-bp (- →A), 1398-bp (T/G→A), 1623-bp (C→T), 1692-bp (C→T), 1760-bp (G→T) |
| <i>Arabis alpina</i> Clade | 220-bp (G→A), 848-bp (C/T→A), 1196-bp (C→T), 1395-bp (A/G→T), 1777-bp (G/T→A) |
| <i>Aubrieta</i> Clade | 77-bp (A→T), 78-bp (T→C), 238-bp (T→C), 707-bp (T→A), 711-bp (T-C), 800-bp (T/A→C), 932-bp (T→G), 1245-bp (A/T→G), 1446-bp (A→G), 1526-bp (- →C), 1527-bp (- →T), 1577-bp (- →C), 1637-bp (C→G), 1793-bp (A/G→C), 1798-bp (T→C), 1926-bp (G→A) |
| <i>Arabis aucheri</i> Clade | 230-bp (C→G), 989-bp (C→A), 1223-bp (T→C), 1326-bp (C/G/T→A), 1404-bp (G→T), 1413-bp (G→A), 1427-bp (T→C), 1602-bp (T/G→A), 1805-bp (-/A→C), 1929-bp (T→C) |
| <i>Draba</i> Clade | 10-bp (T→C), 797-bp (T→C), 1126-bp (C→G), 1146-bp (A→C), 1245-bp (G/T→A), 1339-bp (G/C→T), 1368-bp (G→A), 1401-bp (C→T), 1641-bp (T→C), 1730-bp (A→T), 1815-bp (G→A), 1852-bp (A/G→C), 1860-bp (A→G), 1896-bp (C→T), 1927-bp (G→A) |
| Chalcone synthase | |
| Outgroup | 389-bp (T→C), 560-bp (C→T), 665-bp (A→G), 770-bp (A→G), 743-bp (T→C), 758-bp (T→C), 842-bp (T→C), 953-bp (G→C), 980-bp (T→C), 1036-bp (T→C), 1121-bp (G→A), 1157-bp (T→C), 1196-bp (C→A), 1292-bp (G→A) |
| <i>Arabis alpina</i> & <i>Arabis nordmanniana</i> Clades | 1298-bp (A/T→G) |
| <i>Arabis nordmanniana</i> , <i>Arabis alpina</i> , <i>Arabis auriculata</i> , <i>Aubrieta</i> Clades | 974-bp (C/T→A) |
| <i>Arabis alpina</i> , <i>Arabis nordmanniana</i> & <i>Arabis auriculata</i> Clades | 1247-bp (A→C) |
| <i>Arabis nordmanniana</i> & <i>Arabis auriculata</i> Clades | 572-bp (A→C), |
| <i>Aubrieta</i> & <i>Arabis aucheri</i> Clades | 510-bp (- →A), 511-bp (- →T), 557-bp (G→A), 1064-bp (G→C), 1136-bp (A/T→G) |
| <i>Aubrieta</i> , <i>Arabis aucheri</i> & <i>Draba</i> Clades | 1172-bp (A→G) |
| <i>Arabis aucheri</i> & <i>Draba</i> Clades | 268-bp (A/C/G→T), 839-bp (C→T), 1094-bp (T/G→C), 1226-bp (C→T), 1274-bp (A→G) |
| Main <i>Arabis</i> Clade | 974-bp (A/C→T), 998-bp (C/G→A) |
| <i>Arabis auriculata</i> Clade | 998-bp (A/C→G), 1088-bp (A→T) |
| <i>Arabis nordmanniana</i> Clade | 256-bp (A→G), 578-bp (C/G→T), 899-bp (C→T) |
| <i>Arabis alpina</i> Clade | 299-bp (A→C), 391-bp (-/C→T), 659-bp (C→A), 740-bp (C→T), 800-bp (C/G/T→A), 911-bp (C/G→A), 941-bp (C/T→A), 986-bp (C→T), 1043-bp (G→A), 1190-bp (T→C) |

| | |
|-------------------------------|--|
| Aubrieta Clade | 392-bp (T/C→A), 584-bp (G/A→T), 707-bp (T/C→A), 947-bp (T/C→G), 1191-bp (C→T), 1246-bp (A→G), 1265-bp (G→A), 1307-bp (-/A→T) |
| Arabis aucheri Clade | 277-bp (G/T→A), 289-bp (G/C→T), 334-bp (C→T), 440-bp (C→T), 447-bp (T→A), 448-bp (C→T), 475-bp (A/G/T/- →C), 502-bp (A/T→G), 707-bp (A/C→T), 725-bp (C→T), 890-bp (C/G/T→A), 923-bp (A→T), 1030-bp (C→T), 1116-bp (T→C), 1166-bp (T/C→A) |
| Draba Clade | 331-bp (C→T), 530-bp (C/G→A), 638-bp (G→T), 668-bp (T→G), 731-bp (C→T), 965-bp (T/C→A), 992-bp (C→T), 995-bp (A/T→G), 1007-bp (C→T), 1106-bp (A→C), 1136-bp (G/T→A), 1145-bp (C→T), 1148-bp (C/G→A), 1220-bp (A→T), 1256-bp (T→G), 1286-bp (G→A) |
| ITS | |
| Arabis aucheri & Draba Clades | 154-bp (A→T) |
| Main Arabis Clade | 143-bp (G→A), 408-bp (C→T), 479-bp (G/C→A), 600-bp (C→T), 606-bp (T→A), 639-bp (C→T), 643-bp (A/C/T→G) |
| Arabis auriculata Clade | 136-bp (T→C), 210-bp (T→A), 273-bp (A→G), 417-bp (A/G/T→C), 470-bp (A/T→C), 476-bp (G/T→A), 621-bp (C/T→A) |
| Arabis nordmanniana Clade | 464-bp (A→T), 470-bp (T/C→A), 522-bp (T/C→G), 537-bp (G→A), 546-bp (-/G→A) |
| Arabis alpina Clade | 421-bp (C→T), 479-bp (A/G→C), 577-bp (T→C), 640-bp (C→T) |
| Aubrieta Clade | 4-bp (A→T), 55-bp (G/T→A), 56-bp (G→A), 62-bp (T→G), 102-bp (C→T), 240-bp (C→T), 236-bp (G/T→A), 278-bp (A→T), 450-bp (T→A), 471-bp (G→T), 476-bp (A/T→G), 540-bp (C→T), 546-bp (G/A→ -), 588-bp (C→A), 604-bp (C→T) |
| Arabis aucheri Clade | 81-bp (C→T), 523-bp (A/T→C), |
| Draba Clade | 144-bp (T→C), 261-bp (A→G), 630-bp (A→T), 643-bp (A/G/T→C) |
| TrnL-F | |
| Arabis aucheri & Draba Clades | 138-bp (C→A) |
| Main Arabis Clade | 171-bp (T→G), 356-bp (T→C), 392-bp (T→C), |
| Aubrieta Clade | 255-bp (T→A), 257-bp (G/T→A), 295-bp (C→T), |
| Arabis aucheri Clade | 3-bp (T→C), 37-bp (C→T), 169-bp (C→A), 203-bp (A→G), 243-bp (T→G), 256-bp (T→C), 257-bp (A/T→G), 258-bp (T/G→A), 279-bp (C→A), 300-bp (A→C), 307-bp (T→G), |
| Draba Clade | 17-bp (A→C), 98-bp (T→C), 115-bp (T→A), 141-bp (G→A), 145-bp (- →A), 146-bp (- →A), 147-bp (- →G), 249-bp (T→G), 268-bp (T→C), 327-bp (T→G), 374-bp (G→A), 381-bp (G→A), |