

Genome-wide analysis confirms the independent origin of the Japanese and Korean *Adonis amurensis* (Ranunculaceae)

Running Title: *Adonis amurensis* from Japan and Korea

Diego Tavares VASQUES^{1*}, Daiki Takahashi², Naoko Ishikawa³, Seikan Kurata⁴, Satoshi Nanami⁵, & Hiroshi Ikeda⁶

¹Botanical Gardens, Graduate School of Science, The University of Tokyo, 3-7-1, Hakusan, Bunkyo-ku, Tokyo, 112-0001 JAPAN, ORCID: 0000-0001-79

²Faculty of Agriculture, Kyushu University, 744, Motoooka, Nishi-ku, Fukuoka, 819-0395, JAPAN

³Kawatabi Field Science Centre, Tohoku University, 232-3, Yomogida, Narukoonsen, Osaki, Miyagi, 989-6711, JAPAN

⁴Field Science Center for Northern Biosphere, Hokkaido University, Takaoka, Tomakomai, Hokkaido, 053-0035, JAPAN

⁵Laboratory of Plant Evolution and Adaptation, Graduate School of Science, Osaka Metropolitan University, 2000 Kisaichi, Katano, Osaka 576-0004, Jap

⁶The University Museum, The University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo, 113-0033 JAPAN

*Corresponding author: dtvasques@gmail.com

Online Resource 1: List of samples used for the molecular and morphological analysis. Vouchers are organized by Sample ID (in correspondence to the IDs in the tips of the phylogenetic tree), Genus name, Species identification, Country, Locality, Collection date, Clustering in the Network tree, Clustering in the Phylogenetic tree, deposited herbarium ID (when available), and chromosome number count (when available).

Sample ID	Collection date	Genus	species ident.	Country	Locality1	Locality2	Clustering	Phylogeny	TI Number	Chrm no
D10393	20170501	Adonis	indet	Korea	Hwasun		B5	B5		
D10889	20190322	Adonis	indet	Korea	Jeollanam-do		B5	B5	TI00272605	
D10890	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272606	
D10891	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272647	
D10892	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272648	
D10893	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272649	
D10894	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272650	
D10895	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272651	
D10896	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272652	
D10897	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272653	
D10898	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Dolsan	B5	B5	TI00272654	
D10899	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272655	
D10900	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5		
D10901	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272656	
D10902	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272657	
D10903	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272658	
D10904	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272659	
D10905	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272660	
D10906	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272661	
D10907	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272662	
D10908	20190323	Adonis	shikokuensis	Korea	Jeollanam-do	Moaksan	B5	B5	TI00272663	
D10420	20160301	Adonis	indet	Japan	Tokyo	Hachijoji, Otsumachi	B3	B3		
D10424	20160315	Adonis	shikokuensis	Japan	Mie	Fujiwaragatake	B4	B4		
D10425	20160315	Adonis	shikokuensis	Japan	Mie	Fujiwaragatake	B4	B4		
D10426	20160315	Adonis	shikokuensis	Japan	Mie	Fujiwaragatake	B4	B4		
D10440	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10441	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10442	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10443	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10444	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10445	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10446	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10447	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10448	20160316	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4		
D10450	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3	TI00272598	
D10451	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3	TI00272599	
D10452	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3	TI00272600	
D10453	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3	TI00272601	
D10454	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3		
D10455	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3		
D10456	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3		
D10457	20160330	Adonis	indet	Japan	Chiba	Tomisatocho	B3	B3		
D10469	20160406	Adonis	shikokuensis	Japan	Mie	Suzushika, Nyudogadake	B4	B4	TI00272593	
D10470	20160406	Adonis	shikokuensis	Japan	Mie	Suzushika, Nyudogadake	B4	B4	TI00272594	
D10471	20160406	Adonis	shikokuensis	Japan	Mie	Suzushika, Nyudogadake	B4	B4	TI00272595	
D10472	20160406	Adonis	shikokuensis	Japan	Mie	Suzushika, Nyudogadake	B4	B4	TI00272596	
D10473	20160406	Adonis	shikokuensis	Japan	Mie	Suzushika, Nyudogadake	B4	B4	TI00272597	
D10492	20160407	Adonis	indet	Japan	Kanagawa	Sagamihara	B3	B3		
D10494	20160407	Adonis	indet	Japan	Tokyo	Hachijoji, Katakuracho	B3	B3		
D10495	20160407	Adonis	indet	Japan	Kanagawa	Sagamihara	B3	B3		

D10497	20160407	Adonis	indet	Japan	Kanagawa	Sagamihara	B3	B3	
D10498	20160407	Adonis	indet	Japan	Kanagawa	Sagamihara	B3	B3	
D10499	20160407	Adonis	indet	Japan	Kanagawa	Sagamihara	B3	B3	
D10500	20160407	Adonis	shikokuensis	Japan	Mie	Nyudogadake	B4	B4	
D10501	20160407	Adonis	shikokuensis	Japan	Mie	Fujiwaradake	B4	B4	
D10502	20160407	Adonis	indet	Japan	Chiba		B3	B3	
D10505	20160407	Adonis	indet	Japan	Tokyo	Hachijoji, Otsumachi	B3	B3	
D10627	20160508	Adonis	shikokuensis	Japan	Mie	Hatayama	B4	B4	TI00272586
D10628	20160508	Adonis	shikokuensis	Japan	Mie	Hatayama	B4	B4	TI00272587
D10629	20160508	Adonis	shikokuensis	Japan	Mie	Hatayama	B4	B4	TI00272588
D10755	20170312	Adonis	indet	Japan	Kyoto	Mt. Ponpon	B4	B4	2n = 16
D10756	20170312	Adonis	indet	Japan	Kyoto	Mt. Ponpon	B4	B4	
D10757	20170312	Adonis	indet	Japan	Kyoto	Mt. Ponpon	B4	B4	
D10758	20170312	Adonis	indet	Japan	Kyoto	Mt. Ponpon	B4	B4	
D10371	20170430	Adonis	indet	Japan	Hokkaido		B4		TI00272720 2n = 16
D10292	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272638 2n = 16
D10293	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272639
D10294	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	
D10295	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272640
D10296	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272641
D10297	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272642
D10298	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272643
D10299	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272644
D10300	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272645
D10301	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272646
D10305	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272633
D10306	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	
D10307	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272634
D10308	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272635
D10309	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272636
D10310	20170421	Adonis	shikokuensis	Japan	Kumamoto	Itsuki	B1	B1	TI00272637
D10776	20170421	Adonis	indet	Japan	Kumamoto		B1	B1	
D10777	20170421	Adonis	indet	Japan	Kumamoto		B1	B1	
D10515	20160418	Adonis	shikokuensis	Japan	Kochi		B2	B2	
D10516	20160418	Adonis	shikokuensis	Japan	Kochi		B2	B2	
D10909	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272624
D10910	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272625
D10911	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272626
D10912	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272627
D10913	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	
D10914	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272628
D10915	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272629
D10916	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272630
D10917	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272631
D10918	20190324	Adonis	pseudoamurensis	Korea	Gyeonggi-do		D	D	TI00272632
D10921	20190324	Adonis	amurensis	Korea	Gyeonggi-do		D	D	TI00272617
D10929	20190324	Adonis	amurensis	Korea	Gyeonggi-do		D		
D10919	20190324	Adonis	amurensis	Korea	Gyeonggi-do		C	C	TI00272615
D10920	20190324	Adonis	amurensis	Korea	Gyeonggi-do		C	C	TI00272616
D10922	20190324	Adonis	amurensis	Korea	Gyeonggi-do		C	C	TI00272618
D10923	20190324	Adonis	amurensis	Korea	Gyeonggi-do		C	C	TI00272619

D10924	20190324	Adonis	amurensis	Korea	Gyeonggi-do	C	C	TI00272620
D10925	20190324	Adonis	amurensis	Korea	Gyeonggi-do	C	C	TI00272621
D10926	20190324	Adonis	amurensis	Korea	Gyeonggi-do	C	C	
D10927	20190324	Adonis	amurensis	Korea	Gyeonggi-do	C	C	TI00272622
D10928	20190324	Adonis	amurensis	Korea	Gyeonggi-do	C	C	TI00272623
D10857	20190320	Adonis	multiflora	Korea	Cheju-do	A2		TI00272696 2n = 16
D10858	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272697 2n = 16
D10859	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272698 2n = 16
D10860	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272699 2n = 16
D10861	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272700 2n = 16
D10862	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	2n = 16
D10863	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272701 2n = 16
D10864	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272702 2n = 16
D10865	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272703 2n = 16
D10866	20190320	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272704 2n = 16
D10867	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272687
D10868	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272688
D10869	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272689
D10870	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272690
D10871	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272691
D10872	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272692
D10873	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272693
D10874	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	
D10875	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272694
D10876	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272695
D10878	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	
D10879	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	
D10880	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272678
D10881	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272679
D10882	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272680
D10883	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272681
D10884	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272682
D10885	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272683
D10886	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272684
D10887	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272685
D10888	20190321	Adonis	multiflora	Korea	Cheju-do	A2	A2	TI00272686
D10276	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272664
D10277	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272665
D10278	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272666
D10279	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272667
D10280	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272668
D10281	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272669
D10282	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272670
D10283	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272671
D10284	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	
D10285	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272672
D10286	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272705
D10287	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272706
D10288	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272707
D10289	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	
D10290	20170420	Adonis	multiflora	Japan	Kumamoto Aso	A1	A1	TI00272708

D10418	20160301	Adonis	cultivar 'Ōkujaku'	Japan		A1		
D10419	20160301	Adonis	indet	Japan	Nagano	A1	A1	
D10476	20160406	Adonis	cultivar 'Hanazono'	Japan		A1	A1	
D10484	20160406	Adonis	cultivar 'Nanako'	Japan		A1		2n = 16 = 8m + 5sm + 3st
D10485	20160406	Adonis	cultivar 'Hōzan-nishiki'	Japan		A1		
D10487	20160406	Adonis	cultivar 'Hakuju'	Japan		A1		2n = 16 = 8m + 8sm
D10488	20160406	Adonis	cultivar 'Kotobuki'	Japan		A1		2n = 16 = 8m + 8sm
D10489	20160406	Adonis	cultivar 'Tama-kujaku'	Japan		A1		
D10493	20160407	Adonis	multiflora	Japan	Hiroshima	A1	A1	
D10503	20160407	Adonis	indet	Japan	Nagano	A1	A1	
D10514	20160409	Adonis	multiflora	Japan	Hiroshima	A1	A1	
D10768	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	TI00272673
D10769	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	TI00272674
D10770	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	TI00272675
D10771	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	TI00272676
D10772	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	
D10773	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	TI00272677
D10775	20170420	Adonis	indet	Japan	Kumamoto	A1	A1	
DV2023002	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272787
DV2023004	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272788
DV2023005	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272789
DV2023006	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272790
DV2023007	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272791
DV2023009	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272792
DV2023010	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272793
DV2023011	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272794
DV2023012	20220514	Adonis	multiflora	Japan	Yamagata	A1	A1	TI00272795
D10317	20170428	Adonis	indet	Japan	Hokkaido	G1		TI00272709 2n = 32
D10318	20170428	Adonis	indet	Japan	Hokkaido	G1		TI00272710 2n = 32
D10319	20170428	Adonis	indet	Japan	Hokkaido	G1		TI00272711 2n = 32
D10320	20170428	Adonis	indet	Japan	Hokkaido	G1		TI00272712 2n = 32
D10321	20170428	Adonis	indet	Japan	Hokkaido	G1		TI00272713 2n = 32
D10363	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272714 2n = 32
D10364	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272715 2n = 32
D10365	20170430	Adonis	indet	Japan	Hokkaido	G1		
D10366	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272716 2n = 32
D10367	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272717 2n = 32
D10368	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272718
D10369	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272719
D10370	20170430	Adonis	indet	Japan	Hokkaido	G1		2n = 32
D10372	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272721 2n = 32
D10373	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272722
D10374	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272723 2n = 32
D10375	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272724 2n = 32
D10376	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272725 2n = 32
D10377	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272726
D10378	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272727 2n = 32
D10379	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272736
D10380	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272737 2n = 32
D10381	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272738
D10382	20170430	Adonis	indet	Japan	Hokkaido	G1		TI00272739

D10383	20170430	Adonis	indet	Japan	Hokkaido	G1	2n = 32
D10384	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272733 2n = 32
D10385	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272734 2n = 32
D10386	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272735 2n = 32
D10387	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272728 2n = 32
D10388	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272729
D10389	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272730 2n = 32
D10390	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272731 2n = 32
D10391	20170430	Adonis	indet	Japan	Hokkaido	G1	2n = 32
D10392	20170430	Adonis	indet	Japan	Hokkaido	G1	TI00272732 2n = 32
D10477	20160406	Adonis	cultivar 'Sado'	Japan		G1	
D10528	20160426	Adonis	indet	Japan	Hokkaido	G1	
D10529	20160426	Adonis	indet	Japan	Hokkaido	G1	
D10530	20160426	Adonis	indet	Japan	Hokkaido	G1	
D10531	20160426	Adonis	indet	Japan	Hokkaido	G1	
D10532	20160426	Adonis	indet	Japan	Hokkaido	G1	
D10543	20160428	Adonis	indet	Japan	Hokkaido	G1	
D10760	20170411	Adonis	indet	Japan	Niigata	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
23042804		Adonis	indet	Japan	Hokkaido	G1	
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272796
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272797
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272798
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272799
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272800
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272802
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272803
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272804
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272805
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272806
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272807
SK2023007		Adonis	indet	Japan	Hokkaido	G1	TI00272808
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272809
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272810
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272811
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272812
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272813
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272814
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272815
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272816
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272817
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272818
SK2023008		Adonis	indet	Japan	Hokkaido	G1	TI00272819

DV2023001		Adonis	indet	Japan	Yamagata	G1		TI00272820
DV2023003		Adonis	indet	Japan	Yamagata	G1		TI00272821
DV2023008		Adonis	indet	Japan	Yamagata	G1		TI00272822
D10322	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272762
D10323	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272763 2n = 16
D10324	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272764 2n = 16
D10325	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272765 2n = 16
D10326	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272783
D10327	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272784
D10328	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272785
D10329	20170428	Adonis	indet	Japan	Hokkaido	E	E	TI00272786
D10330	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272759 2n = 16
D10331	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272760 2n = 16
D10332	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10333	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272761
D10334	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272776
D10335	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272777
D10336	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10337	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272778
D10338	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272772
D10339	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272773
D10340	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272774
D10341	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272775 2n = 16
D10342	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272769
D10343	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272770
D10344	20170429	Adonis	indet	Japan	Hokkaido	E	E	2n = 16
D10345	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272771 2n = 16
D10346	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10347	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10348	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10349	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10350	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272779 2n = 16
D10351	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272780 2n = 16
D10352	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272781
D10353	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272782
D10354	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272756 2n = 16
D10355	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272757
D10356	20170429	Adonis	indet	Japan	Hokkaido	E	E	
D10357	20170429	Adonis	indet	Japan	Hokkaido	E	E	TI00272758
D10358	20170430	Adonis	indet	Japan	Hokkaido	E	E	TI00272751
D10359	20170430	Adonis	indet	Japan	Hokkaido	E	E	TI00272752
D10360	20170430	Adonis	indet	Japan	Hokkaido	E	E	TI00272753
D10361	20170430	Adonis	indet	Japan	Hokkaido	E	E	TI00272754
D10533	20160426	Adonis	indet	Japan	Hokkaido	E	E	
D10534	20160426	Adonis	indet	Japan	Hokkaido	E		
D10535	20160426	Adonis	indet	Japan	Hokkaido	E	E	
D10536	20160427	Adonis	indet	Japan	Hokkaido	E	E	
D10537	20160427	Adonis	indet	Japan	Hokkaido	E	E	
D10538	20160428	Adonis	indet	Japan	Hokkaido	E	E	
D10539	20160428	Adonis	indet	Japan	Hokkaido	E	E	
D10540	20160428	Adonis	indet	Japan	Hokkaido	E	E	

[illegible]

D10475	20160406	Adonis	cultivar 'Chichibu-akan'	Japan	Hokkaido		E	E	2n = 16
D10478	20160406	Adonis	cultivar 'Chichibukō'	Japan	Hokkaido		E	E	2n = 16
D10479	20160406	Adonis	cultivar 'Beni-nadeshiki'	Japan	Hokkaido		E	E	2n = 16
D10480	20160406	Adonis	fukujusō	Japan	Hokkaido		E	E	2n = 16
D10481	20160406	Adonis	fukujusō	Japan					
D10482	20160406	Adonis	cultivar 'Sakigake'	Japan	Saitama	Chichibu, Ogano	G3		
D10483	20160406	Adonis	fukujusō	Japan			G3		
D10486	20160406	Adonis	cultivar 'Tsumaoregasa'	Japan	Tokyo	Ome	G3		
D10491	20160406	Adonis	cultivar 'Bukō-jiro'	Japan			G3		2n = 32 = 17m + 9sm + 6st
D10496	20160407	Adonis	indet	Japan	Tokyo	Nishi-tama, Hinohara	G3		2n = 32 = 17m + 11sm + 4st
D10504	20160407	Adonis	indet	Japan	Tokyo	Nishi-tama, Hinode-cho	G3		
D10761	20170405	Adonis	indet	Japan	Nagano		G3		
D10762	20170405	Adonis	indet	Japan	Nagano	Hakuba	G3		
D10930	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272740	
D10931	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272741	
D10932	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272742	
D10933	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272743	
D10934	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272744	
D10935	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272745	
D10936	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272746	
D10937	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272747	
D10938	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272748	
D10939	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3		
D10940	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272749	
D10941	20190404	Adonis	ramosa	Japan	Nagano	Shiojiri, Honyama	G3	TI00272750	
D10987	20190421	Adonis	ramosa	Japan	Yamanashi	Kofu, Takidoyama	G3		
D10988	20190421	Adonis	ramosa	Japan	Yamanashi	Kofu, Takidoyama	G3		
D10989	20190421	Adonis	ramosa	Japan	Yamanashi	Kofu, Takidoyama	G3		
D10991	20190421	Adonis	ramosa	Japan	Yamanashi	Kofu, Takidoyama	G3		
D10997	20190309	Adonis	ramosa	Japan	Saitama	Chichibu, Yoshida-zawa	G3		
D10998	20190309	Adonis	ramosa	Japan	Saitama	Chichibu, Yoshida-zawa	G3		
D11000	20190309	Adonis	ramosa	Japan	Saitama	Chichibu, Ogano	G3		
D11001	20190309	Adonis	ramosa	Japan	Saitama	Chichibu, Ogano	G3		
D10490	20160406	Adonis	cultivar 'Fukurokuju'	Japan			F		
D10759	20170318	Adonis	indet	Japan	Shiga		F		2n = 24 = 12m + 12sm
D10506	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10507	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10508	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10509	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10510	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10511	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10512	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10513	20160409	Adonis	ramosa	Japan	Mie	Fujiwara-dake	G2		
D10754	20170226	Adonis	ramosa	Japan	Shiga		G2		
D10763	20170419	Adonis	indet	Japan	Kyoto		G2		
D10764	20170419	Adonis	indet	Japan	Kyoto		G2		
D10765	20170419	Adonis	indet	Japan	Kyoto	Yasakacho	G2		

D10766	20170419 Adonis	indet	Japan	Kyoto	Yasakacho	G2
D10767	20170419 Adonis	indet	Japan	Kyoto	Yasakacho	G2