

## Supplemental online materials

**Table S1.** Examined taxa information analyzed in this study including species and section names, locality and voucher plus GenBank accession numbers for the sequences.

No.	Taxa	Section	Locality	Voucher	GenBank acc. ITS/ETS/matK
1	<i>A. aduncus</i> Willd.	<i>Onobrychoidei</i>	Iran	GenBank	KX954888/-/KX955059
2	<i>A. alaschanus</i> Bunge ex Maxim.	<i>Oroboidei</i>	China	GenBank	KX954889/-/KX955208
3	<i>A. alopecias</i> Pall.	<i>Alopecuroidei</i>	Iran	GenBank	AB741272.1/JF409729.1/AB741308.1
4	<i>A. altimontanus</i> Podlech & Maassoumi	<i>Stereothrix</i>	Iran	Babakhanlu & Amin, 15417, TARI, Holotype	OP218887/OP231645/OP231692
5	<i>A. alyssoides</i> Lam.	<i>Hololeuce</i>	Iran	GenBank	KX954892/-/KX955061
6	<i>A. andabilensis</i> Ranjbar & Mahmoudian	<i>Stereothrix</i>	Iran	Bidar, s.n., TARI	OP218888/OP231646/OP231693
7	<i>A. annularis</i> Forssk.	<i>Annulares</i>	Iran	GenBank	KX954893/JF409730.1/KX955062
8	<i>A. atricapillus</i> Bornm.	<i>Hypoglottidei</i>	Iran	Charkhchian, 2144, TARI	OP218889/OP231647/OP231694
9	<i>A. australis</i> (L.) Lam.	<i>Hemiphragmium</i>	Unkown	GenBank	KX954898/-/KX955067
10	<i>A. badelehensis</i> Maassoumi & Taheri	<i>Stereothrix</i>	Iran	Maddah, 2874, TARI, Holotype	OP218890/OP231648/OP231695
11	<i>A. barbatus</i> Lam.	<i>Stereothrix</i>	Iran	Nydegger, 45613, MSB	OP218891/OP231649/OP231696
12	<i>A. bavanatensis</i> Zarre & Podlech	<i>Stereothrix</i>	Iran	No collector, 80517, TARI	OP218892/OP231650/OP231697
13	<i>A. beckii</i> Bornm.	<i>Malacothrix</i>	Iran	GenBank	KX954902/-/KX955071
14	<i>A. bojnurdensis</i> Podlech	<i>Brachylobium</i>	Iran	Borani & Ramasani, 383, TARI	MN812585/MN812601/OP231698
15	<i>A. bojnurdensis</i> Podlech	<i>Brachylobium</i>	Iran	Gazeri & Sheikh, 738, TARI, Holotype	MN812586/MN812602/OP231699
16	<i>A. brachyodontus</i> Boiss.	<i>Ornithopodium</i>	Iran	GenBank	KX954908/-/KX955076
17	<i>A. brachypetalus</i> Trautv.	<i>Stereothrix</i>	Iran	Termeh, Moussavi & Tehrani, 41381, TARI	OP218893/OP231651/OP231700
18	<i>A. brachypetalus</i> Trautv.	<i>Stereothrix</i>	Iran	Maassoumi, Pakravan & Nasseh, 72314, TARI	OP218894/OP231652/OP231701
19	<i>A. brachypetalus</i> Trautv.	<i>Stereothrix</i>	Iran	Akhani, 9390, M	OP218895/OP231653/OP231702
20	<i>A. brachypetalus</i> Trautv.	<i>Stereothrix</i>	Turkmenistan	Sintenis, 730b, MSB Isotype	OP218896/OP231654/OP231703
21	<i>A. capito</i> Boiss. & Hohen.	<i>Stereothrix</i>	Iran	Charkhchian, 2129, TARI	OP218897/OP231655/OP231704
22	<i>A. capito</i> Boiss. & Hohen.	<i>Stereothrix</i>	Iran	Runemark & Maassoumi, 21777, MSB	OP218898/OP231656/OP231705
23	<i>A. chamberlainianus</i> H.Sümbül	<i>Stereothrix</i>	Turkey	Nydegger, 46384, MSB	OP218899/OP231657/OP231706
24	<i>A. chamberlainianus</i> H.Sümbül	<i>Stereothrix</i>	Turkey	Ulrich, 9/31, MSB	OP218900/OP231658/OP231707

25	<i>A. compactus</i> Lam.	<i>Rhacophorus</i>	Iran	GenBank	KX954924/-/KX955091
26	<i>A. daenensis</i> Boiss.	<i>Brachylobium</i>	Iran	GenBank	KX954930/-/KX955095
27	<i>A. damghanensis</i> Podlech	<i>Stereothrix</i>	Iran	Wendelbo & Assadi, 29574, TARI, Holotype	OP218901/OP231659/OP231708
28	<i>A. doshman-ziariensis</i> Maassoumi & Podlech	<i>Stereothrix</i>	Iran	Mozaffarian, 45827, TARI, Holotype	OP218902/OP231660/OP231709
29	<i>A. doshman-ziariensis</i> Maassoumi & Podlech	<i>Stereothrix</i>	Iran	Zehzad & Taheri, 66872, TARI	OP218903/OP231661/OP231710
30	<i>A. echinops</i> Boiss.	<i>Alopecuroidei</i>	Iran	GenBank	AB741278.1/JF409737.1/AB741318.1
31	<i>A. glaucacanthos</i> Fisch.	<i>Poterion</i>	Iran	GenBank	KX954951/-/KX955114
32	<i>A. griseus</i> Boiss.	<i>Malacothrix</i>	Iran	GenBank	KX954954/-/KX955117
33	<i>A. hakkariensis</i> Podlech	<i>Stereothrix</i>	Iran	Tarighi & Amini, 1351, TARI	OP218904/OP231662/OP231711
34	<i>A. hakkariensis</i> Podlech	<i>Stereothrix</i>	Turkey	Nydegger, 18427, MSB, Holotype	OP218905/OP231663/OP231712
35	<i>A. hakkariensis</i> Podlech	<i>Stereothrix</i>	Turkey	Rechinger, 53839, M	OP218906/OP231664/OP231713
36	<i>A. hemiphaca</i> Kar. & Kir.	<i>Oroboidei</i>	Kazakhstan	GenBank	KX954959/-/KX955220
37	<i>A. herbertii</i> Maassoumi	<i>Hypoglottidei</i>	Iran	Terme, Daneshpajuh & Zargani, 39851, TARI, Holotype	MN812587/MN812603/OP231714
38	<i>A. hymenostegis</i> Fisch. & C.A.Mey.	<i>Hymenostegis</i>	Iran	GenBank	KX954963/-/KX955124
39	<i>A. inexpectatus</i> Maassoumi & Podlech	<i>Malacothrix</i>	Iran	Nouroozi, 4507, TARI	OP218907/OP231665/OP231715
40	<i>A. issatissensis</i> Maassoumi & Mahmoodi	<i>Irania</i>	Iran	Mahmoodi & Noroozi, 98654, TARI, Holotype	MW342759/-/MW362137
41	<i>A. kaufmannii</i> Krylov	<i>Hemiphragmium</i>	Russia	GenBank	KX954970/-/KX955131
42	<i>A. koelzii</i> Barneby	<i>Koelziana</i>	Iran	Koelz, 15115, W, Isotype	OP218908/OP231666/OP231716
43	<i>A. ledinghamii</i> Barneby	<i>Stereothrix</i>	Iran	Assadi & Miller, 25179, TARI	OP218909/OP231667/OP231717
44	<i>A. ledinghamii</i> Barneby	<i>Stereothrix</i>	Iran	Mozaffarian, 44804, TARI	OP218910/OP231668/OP231718
45	<i>A. ledinghamii</i> Barneby	<i>Stereothrix</i>	Iran	Mozaffarian, 47005, TARI	OP218911/OP231669/OP231719
46	<i>A. ledinghamii</i> Barneby	<i>Stereothrix</i>	Iran	Mozaffarian, 71268, TARI	OP218912/OP231670/OP231720
47	<i>A. leucothrix</i> Freyn & Bornm.	<i>Stereothrix</i>	Turkey	Sintenis, 4217, MSB	OP218913/-/OP231721
48	<i>A. longirostratus</i> Pau	<i>Oroboidei</i>	Iran	No collector, 12345 (s.n), TARI	OP218914/OP231671/OP231722
49	<i>A. lunatus</i> Pall	<i>Ornithopodium</i>	Iran	GenBank	KX954980/-/KX955141
50	<i>A. macrourus</i> Fisch. & C.A.Mey.	<i>Malacothrix</i>	Iran	GenBank	KX954983/-/KX955144
51	<i>A. mahmutlarensis</i> Podlech	<i>Stereothrix</i>	Turkey	Ulrich, A/20, MSB, Holotype	OP218915/OP231672/OP231723

52	<i>A. mahneshanensis</i> Maassoumi & Moussavi	<i>Stereothrix</i>	Iran	Moussavi, 3957, TARI, Holotype	OP218916/OP231673/OP231724
53	<i>A. montis-alamkuhi</i> Maassoumi	<i>Stereothrix</i>	Iran	Ghelichkhani, s.n. (4300), TARI, Holotype	OP218917/OP231674/OP231725
54	<i>A. montis-varvashti</i> Podlech	<i>Stereothrix</i>	Iran	Mozaffarian, 81162, TARI	OP218918/OP231676/OP231727
55	<i>A. montismishoudaghi</i> Sheikh Akbari Mehr, Ghorbani & Maassoumi	<i>Stereothrix</i>	Iran	Sheikh-Akbari Mehr & Ghorbani, 92499, TARI, Holotype	OP218919/OP231675/OP231726
56	<i>A. nezva-montis</i> Podlech & Zarre	<i>Malacothrix</i>	Iran	Wendelbo, 1282, W, Holotype	OP218920/OP231677/OP231728
57	<i>A. nezva-montis</i> Podlech & Zarre	<i>Malacothrix</i>	Iran	Maddah, 2410, TARI	OP218921/OP231678/OP231729
58	<i>A. nurensis</i> Boiss. & Buhse	<i>Stereothrix</i>	Iran	Assadi & Maassoumi, 51549, TARI	MN812588/MN812604/OP231730
59	<i>A. penetratus</i> Maassoumi	<i>Brachylobium</i>	Iran	GenBank	KX955003/-/KX955162
60	<i>A. perpexus</i> Maassoumi (= <i>A. longirostratus</i> )	<i>Oroboidei</i>	Iran	Nouroozi & Rahiminejad, 1602, TARI	OP218922/OP231679/OP231731
61	<i>A. pish-chakensis</i> Maassoumi (= <i>A. nurensis</i> )	<i>Hypoglottidei</i>	Iran	Assadi & Maassoumi, 51407, TARI	MN812592/MN812608/OP231732
62	<i>A. pish-chakensis</i> Maassoumi (= <i>A. nurensis</i> )	<i>Hypoglottidei</i>	Iran	Maassoumi, 75471, TARI	MN812591/MN812607/OP231733
63	<i>A. plagiophacos</i> Maassoumi & Podlech	<i>Plagiophaca</i>	Iran	GenBank	AB231132.1/-/-
64	<i>A. podosphaerus</i> Boiss. & Hausskn.	<i>Stereothrix</i>	Iran	Kalvandi & Faramarzi, 2085, TARI	OP218923/OP231680/OP231734
65	<i>A. podosphaerus</i> Boiss. & Hausskn.	<i>Stereothrix</i>	Iran	Ranjbar, 2590, TARI	OP218924/OP231681/OP231735
66	<i>A. podosphaerus</i> Boiss. & Hausskn.	<i>Stereothrix</i>	Iran	Lamond & Termeh, 42598, MSB	OP218925/OP231682/OP231736
67	<i>A. pseudocapito</i> Podlech	<i>Stereothrix</i>	Iran	Termeh & Daneshpajouh, 41369, MSB, Holotype	OP218926/OP231683/OP231737
68	<i>A. pseudocapito</i> Podlech	<i>Stereothrix</i>	Iran	Mozaffarian & Ramezani, 96404, TARI	OP218927/OP231684/OP231738
69	<i>A. rimarum</i> Bornm.	<i>Hypoglottidei</i>	Iran	Maassoumi, 59427, TARI	OP218928/OP231685/OP231739
70	<i>A. saganlugensis</i> Trautv.	<i>Hypoglottidei</i>	Iran	Maassoumi & Bagheri, 98378, TARI	MN812598/MN812614/OP231740
71	<i>A. saganlugensis</i> Trautv.	<i>Hypoglottidei</i>	Turkey	Meierott & Gergor, s.n. 2010, MSB	OP218929/OP231686/OP231741
72	<i>A. saganlugensis</i> Trautv.	<i>Hypoglottidei</i>	Armenia	Akhverdov, 0076367, W	OP218930/OP231687/OP231742
73	<i>A. saganlugensis</i> Trautv.	<i>Hypoglottidei</i>	Iran	Szovits, 1889-0152923, W	OP218931/OP231688/OP231744
74	<i>A. saganlugensis</i> Trautv.	<i>Hypoglottidei</i>	Armenia	Akhverdov, 2006-0007466, W	OP218932/OP231689/OP231743

75	<i>A. setosulus</i> Gontsch.	<i>Stereothrix</i>	Ukraine	Krijukova, s.n. (1963), MSB	OP218933/OP231690/OP231745
76	<i>A. sphaeranthus</i> Boiss.	<i>Stereothrix</i>	Iran	Riazi, 10230, TARI	MN812599/MN812615/OP231746
77	<i>A. sphaeranthus</i> Boiss.	<i>Stereothrix</i>	Iraq	Rechinger, 11434, MSB	OP218934/OP231691/OP231747
78	<i>A. sphaeranthus</i> Boiss.	<i>Stereothrix</i>	Iran	Mozaffarian, 96975, TARI	MN812600/MN812616/OP231748
79	<i>A. vegetus</i> Bunge	<i>Onobrychoidei</i>	Iran	GenBank	KX955046/-/KX955203
80	<i>A. yazdii</i> (Vassilcz.) Podlech & Maassoumi	<i>Brachylobium</i>	Iran	GenBank	KX954886/-/KX955057
81	<i>Colutea persica</i> Boiss.	-	Iran	GenBank	KX954877/-/KX955051
82	<i>Oxytropis aucheri</i> Boiss.	-	Iran	GenBank	LC213309.1/JF409764.1/KM387602.1
83	<i>Oxytropis pilosa</i> (L.) DC.		Armenia	GenBank	KX954880/-/KX955052