

Supplementary Tables S3 a – d.

The mean estimates of the posterior probabilities of the data for a given cluster number $L(K)$ and the statistic ΔK proposed by Evanno et al. (2005) were used to estimate the number of significant clusters K using STRUCTURE Harvester (Earl and von Holdt, 2012) as an indicator of the signal detected by STRUCTURE. Runs of STRUCTURE simulations for the most appropriate K were aligned using the Greedy option in CLUMPP v1.1.2 (Jakobsson and Rosenberg, 2007)

a) AFLP data without *G. illyricus* but all hybrids/putatively introgressed individuals as revealed by SplitsTree analysis. Results with Admixture option active.

K	Reps	Mean LnP(K)	Stdev LnP(K)	Ln'(K)	Ln''(K)	Delta K
1	10	-9592,5	3,3456	NA	NA	NA
2	10	-8865,76	5,7291	726,74	872,22	152,243623
3	10	-9011,24	18,9505	-145,48	251,36	13,264008
4	10	-8905,36	18,8641	105,88	42,71	2,26409
5	10	-8842,19	13,6356	63,17	11,89	0,871981
6	10	-8790,91	11,2709	51,28	18,85	1,672456
7	10	-8758,48	14,1279	32,43	5,09	0,36028
8	10	-8731,14	13,1839	27,34	12,74	0,966328
9	10	-8716,54	14,6146	14,6	8,28	0,566556
10	10	-8693,66	9,0926	22,88	NA	NA

b) AFLP data without *G. illyricus* but all hybrids/putatively introgressed individuals as revealed by SplitsTree analysis. Results with NO Admixture option active.

K	Reps	Mean LnP(K)	Stdev LnP(K)	Ln'(K)	Ln''(K)	Delta K
1	10	-9511,95	4,2264	NA	NA	NA
2	10	-7859,15	40,9021	1652,8	2185,62	53,435453
3	10	-8391,97	2280,4121	-532,82	884,14	0,387711
4	10	-8040,65	401,6952	351,32	NA	NA
5	10	NA	NA	NA	NA	NA
6	10	-7934,87	407,72	NA	NA	NA
7	10	-8097,16	435,6147	-162,29	2234,92	5,130497
8	10	-10494,37	7766,9597	-2397,21	4607,04	0,593159
9	10	-8284,54	316,1845	2209,83	2637,77333	8,342514
10	6	-8712,4833	510,3443	-427,94	NA	NA

c) AFLP data without *G. illyricus* and without all hybrids/putatively introgressed individuals as revealed by SplitsTree analysis. Results with Admixture option active.

K	Reps	Mean LnP(K)	Stdev LnP(K)	Ln'(K)	Ln''(K)	Delta K
1	10	-6879,1	3,0916	NA	NA	NA
2	10	-6906,12	4,9202	-27,02	16,02	3,25596
3	10	-6917,12	3,072	-11	3	0,976555
4	10	-6925,12	6,4368	-8	1,03	0,160016
5	10	-6932,09	3,4285	-6,97	2,9	0,845861
6	10	-6936,16	4,4458	-4,07	1,26	0,283415
7	10	-6938,97	4,4129	-2,81	4,46	1,01068
8	10	-6946,24	2,4337	-7,27	6,54	2,687318
9	10	-6946,97	3,5892	-0,73	1,43	0,398418
10	10	-6946,27	5,3012	0,7	NA	NA

d) AFLP data without *G. illyricus* and without all hybrids/putatively introgressed individuals as revealed by SplitsTree analysis. Results with NO Admixture option active.

K	Reps	Mean LnP(K)	Stdev LnP(K)	Ln'(K)	Ln''(K)	Delta K
1	10	-6176,97	2,7681	NA	NA	NA
2	10	-7117,06	329,604	-940,09	696,37	2,112748
3	10	-7360,78	1405,5102	-243,72	774,41	0,550981
4	10	-6830,09	186,9328	530,69	331	1,77069
5	10	-6630,4	41,3036	199,69	512,46	12,407145
6	10	-6943,17	401,1835	-312,77	300,6	0,749283
7	10	-6955,34	337,8037	-12,17	971,16	2,874924
8	10	-7938,67	1042,2982	-983,33	889,83	0,853719
9	10	-8032,17	1020,2128	-93,5	426,15	0,417707
10	10	-7699,52	625,1164	332,65	NA	NA