

Table S1: Test for evidence of null alleles. **A:** number of alleles per locus and population (FSTAT 2.9.3.2). Total number of alleles = 6969. **B:** Test for null alleles (MICROCHECKER 2.2.3). Total number of putative null alleles = 112, i.e. 1.6% of total number of alleles.

A

loci	BAR	AWU	AMS	AMP	CHS	DON	ILZ	INN	KOS	NAB	ROT	STS	WAS	WLS	EID
Elu87	3	4	9	5	6	7	4	3	5	3	4	7	7	4	3
Eluc045	6	4	10	8	8	6	5	6	10	8	6	8	8	8	8
B451	15	11	19	11	11	11	7	6	15	11	11	13	11	11	15
PkB47	5	5	7	7	8	5	5	4	5	6	7	8	6	8	5
Elu19	6	4	6	3	4	5	4	6	6	4	4	8	4	4	4
EI02	7	5	11	6	8	7	6	2	6	4	6	8	5	5	7
Pkb16	15	6	15	11	11	10	7	7	12	11	10	16	16	13	18
Elu76	6	7	8	7	9	8	5	4	7	5	7	8	7	5	10
EL27	4	6	6	4	5	6	5	3	5	6	6	5	6	4	8
EmaD12a	14	8	13	10	11	13	7	7	14	9	7	14	12	10	13
EL01	4	6	10	7	8	7	5	3	4	6	7	7	6	6	8
EluB108	5	2	4	4	6	5	4	3	5	5	3	4	3	4	5
EluBe	3	2	5	5	4	4	3	3	3	2	3	3	3	4	3
B24	8	8	12	9	10	11	7	6	13	11	10	16	11	11	12
Eluc033	10	4	12	7	6	10	3	2	6	4	6	7	9	7	7

loci	DRS	ELB6	ELB7	GKB	GST	HAV	JAG	KAR	KRK	MUR	STP	EMS2	EMS3	NEI1	NEI2
Elu87	5	7	5	6	6	5	5	7	6	5	4	4	3	3	3
Eluc045	4	6	4	7	5	6	4	5	4	4	7	6	4	3	2
B451	6	13	13	15	15	21	16	19	20	8	12	7	9	8	9
PkB47	4	5	9	10	9	9	7	11	7	7	6	10	5	5	5
Elu19	3	5	4	3	6	4	4	7	5	4	4	4	2	2	2
EI02	5	9	10	12	9	1	10	11	8	13	6	6	7	6	4
Pkb16	13	17	17	22	16	20	14	21	21	18	11	16	16	8	6
Elu76	5	5	8	7	7	7	6	9	8	6	6	8	6	5	6
EL27	6	9	5	5	5	9	7	8	9	6	8	7	4	4	5
EmaD12a	11	15	15	14	13	14	10	16	13	14	10	13	8	9	8
EL01	5	7	7	8	6	5	7	6	7	4	9	5	5	4	3
EluB108	6	7	7	6	5	7	3	7	6	6	4	6	5	5	6
EluBe	2	4	4	4	3	5	4	4	3	3	4	3	3	3	3
B24	9	12	8	12	13	10	11	11	14	10	11	12	8	7	4
Eluc033	5	7	7	10	10	10	7	8	8	8	3	6	6	5	4

loci	NEI4	ODE2	ODE7	WBS	BAS1	BAS2	BAS4	BAL2	BAL3	BAS5	BAL4	BAS6	PEE	BOS1	BOS3
Elu87	5	5	5	5	4	5	5	5	5	5	5	6	6	6	5
Eluc045	4	10	10	9	8	12	5	6	4	6	7	10	10	9	6
B451	6	20	18	14	11	15	15	21	16	16	20	14	19	17	12
PkB47	2	7	7	5	7	7	5	6	6	3	5	7	8	8	5
Elu19	2	5	6	5	4	7	6	7	4	7	7	6	4	5	4
EI02	4	1	6	8	8	13	8	3	14	12	13	7	11	6	4
Pkb16	7	18	21	15	10	17	14	16	16	13	21	13	17	20	13
Elu76	5	8	13	7	8	11	5	9	9	5	10	9	9	6	3
EL27	3	8	7	5	6	5	5	7	6	6	6	4	6	5	3
EmaD12a	5	16	18	16	12	22	10	21	14	17	15	12	16	17	11
EL01	2	9	9	7	8	11	4	12	7	10	11	5	8	6	4
EluB108	5	7	10	5	6	7	6	5	5	4	6	6	6	4	4
EluBe	3	3	5	3	3	4	3	3	3	4	4	3	3	5	4
B24	6	12	13	10	6	14	8	12	11	10	11	11	11	19	11
Eluc033	5	7	10	9	8	9	3	9	3	7	7	7	9	8	4

loci	BOS4	BOS5	MAI7	RHE2	GPS	HAH	KDO	MAZ	OST	SUS	WIS	GRA	UCK4	EDS	STM
Elu87	4	6	8	3	3	6	3	4	5	4	6	4	5	5	5
Eluc045	5	7	11	3	8	7	4	14	11	3	6	5	8	8	6
B451	4	9	18	4	19	19	11	25	8	8	15	15	14	8	11
PkB47	2	5	7	3	4	6	2	11	4	2	6	2	6	10	10
Elu19	3	3	6	3	3	7	3	5	5	1	4	4	4	4	3
EI02	3	6	13	6	8	7	11	14	6	7	7	13	12	6	10
Pkb16	11	14	21	11	16	15	12	16	15	8	15	17	12	19	20
Elu76	2	5	9	6	7	9	8	12	10	3	8	8	7	11	9
EL27	3	5	7	4	7	9	6	7	6	5	4	7	7	6	7
EmaD12a	11	10	15	7	16	19	16	17	16	7	14	12	12	16	16
EL01	4	6	7	3	8	8	4	11	8	1	8	8	7	7	7
EluB108	2	5	6	5	5	5	4	8	5	3	5	6	4	6	7
EluBe	5	3	5	3	3	4	3	4	3	2	2	4	5	5	3
B24	12	16	16	11	14	11	10	13	14	8	12	12	9	12	13
Eluc033	2	5	13	2	6	4	6	9	8	3	6	8	6	6	9

Population IDs are explained in Table 1 of the main document.

B

loci	BAR	AWU	AMS	AMP	CHS	DON	ILZ	INN	KOS	NAB	ROT	STS	WAS	WLS	EID
Elu87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eluc045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B451	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pkb47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elu19	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
EL02	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Pkb16	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Elu76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
EL27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EmaD12a	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
EL01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EluB108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EluBe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B24	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Eluc033	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

loci	DRS	ELB6	ELB7	GKB	GST	HAV	JAG	KAR	KRK	MUR	STP	EMS2	EMS3	NEI1	NEI2
Elu87	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0
Eluc045	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0
B451	0	0	1	0	0	np	0	0	0	0	1	2	0	0	0
Pkb47	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0
Elu19	0	0	1	0	0	np	0	0	0	0	0	0	0	0	0
EL02	0	0	0	5	0	np	0	0	2	0	0	0	0	0	0
Pkb16	2	0	2	0	0	np	0	0	1	0	0	0	0	0	0
Elu76	1	0	0	1	0	np	0	0	0	0	0	0	0	0	0
EL27	0	0	0	0	0	np	0	2	0	0	0	0	0	0	0
EmaD12a	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0
EL01	0	0	0	0	0	np	0	0	0	0	0	1	0	0	0
EluB108	0	1	0	0	0	np	0	0	0	0	0	0	0	0	0
EluBe	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0
B24	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0
Eluc033	0	0	0	0	0	np	0	0	0	0	0	0	0	0	0

loci	NEI4	ODE2	ODE7	WBS	BAS1	BAS2	BAS4	BAL2	BAL3	BAS5	BAL4	BAS6	PEE	BOS1	BOS3
Elu87	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
Eluc045	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
B451	np	np	0	0	0	0	2	0	1	0	0	0	0	0	0
Pkb47	np	np	2	0	0	2	0	2	0	0	0	0	0	0	0
Elu19	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
EL02	np	np	1	0	1	2	2	0	5	3	2	1	0	2	0
Pkb16	np	np	0	4	0	0	0	0	0	0	2	0	0	0	0
Elu76	np	np	0	1	0	0	0	0	1	1	0	0	2	0	0
EL27	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
EmaD12a	np	np	0	0	0	0	0	0	0	0	2	0	0	0	0
EL01	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
EluB108	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
EluBe	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0
B24	np	np	0	0	0	0	0	0	0	0	2	0	0	0	0
Eluc033	np	np	0	0	0	0	0	0	0	0	0	0	0	0	0

loci	BOS4	BOS5	MAI7	RHE2	GPS	HAH	KDO	MAZ	OST	SUS	WIS	GRA	UCK4	EDS	STM
Elu87	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
Eluc045	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B451	1	0	2	0	0	0	0	0	5	0	0	1	0	1	1
Pkb47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elu19	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
EL02	0	0	0	0	0	0	3	5	0	0	1	2	1	0	0
Pkb16	0	0	0	0	0	3	0	1	2	0	0	0	2	0	0
Elu76	0	0	0	2	1	0	2	0	0	0	0	0	0	0	0
EL27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EmaD12a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EL01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EluB108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EluBe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eluc033	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0

Population IDs are explained in Table 1 of the main document.
 np = analysis not possible