Supplementary Material

Article Title: Genetic diversity and distinctiveness of Chilean Limachino tomato (*Solanum lycopersicum L.)* reveal an *in situ* conservation during the 20th century

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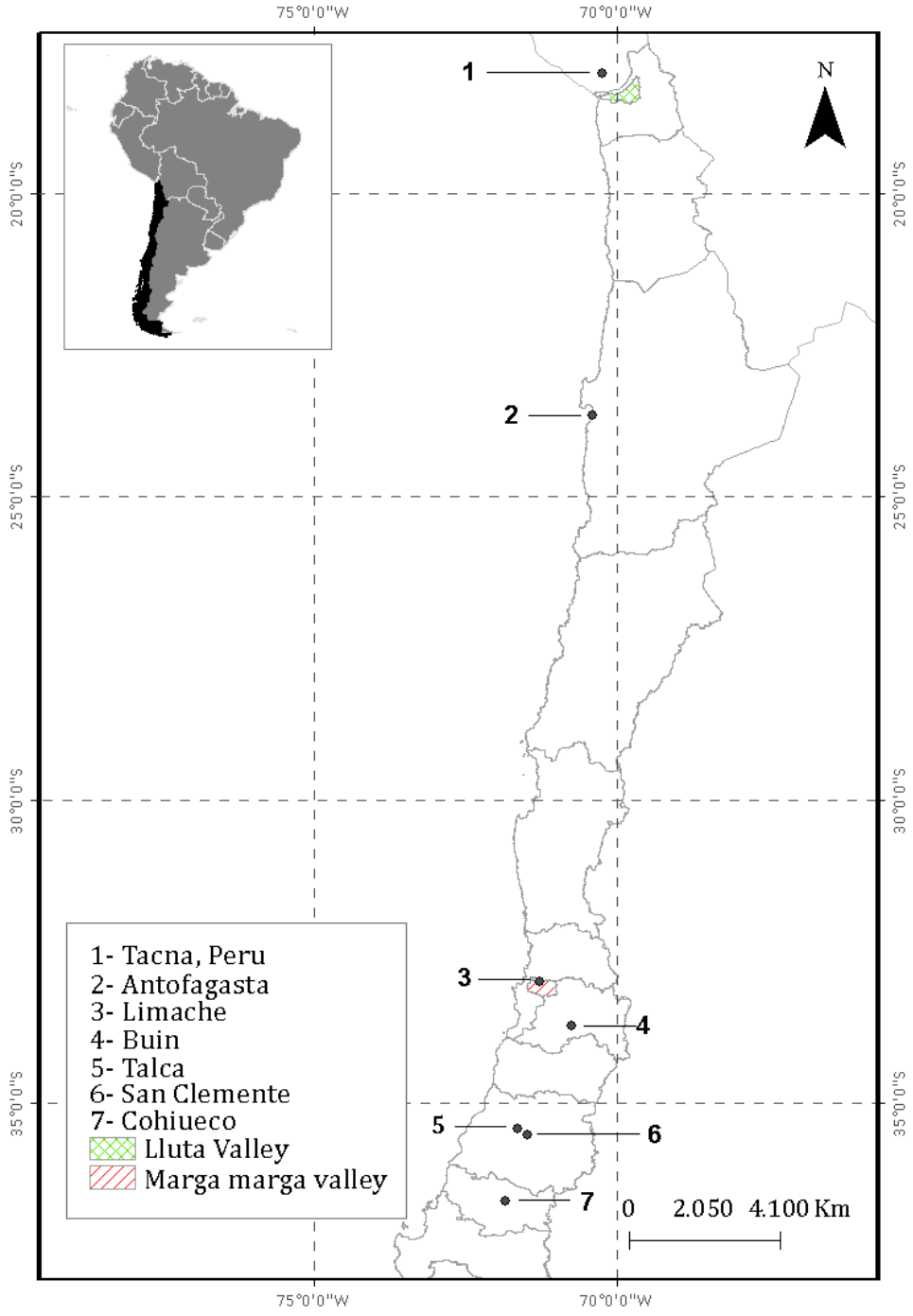
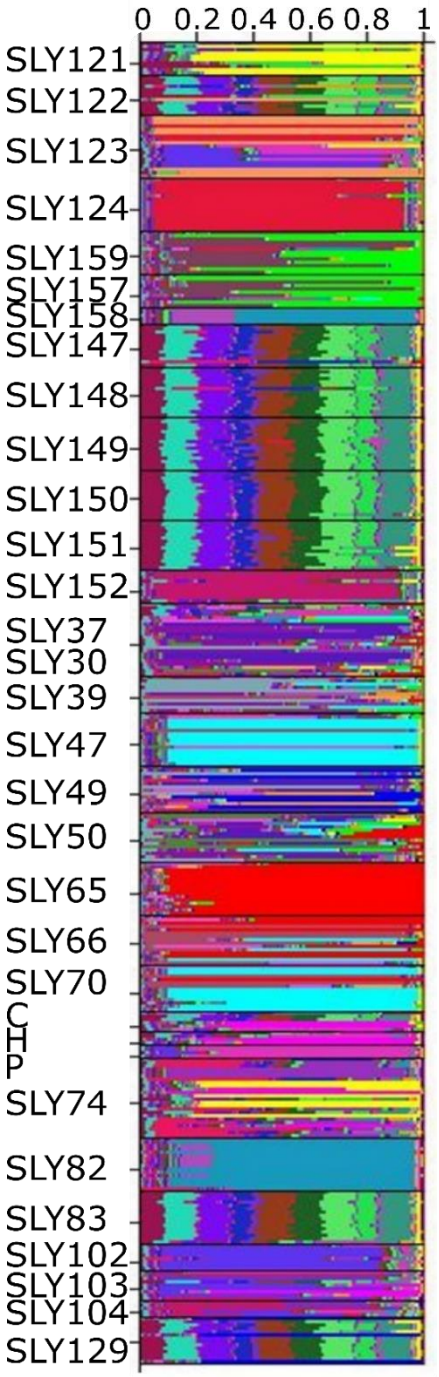
1 Supplementary Figures and Tables

1.1 Supplementary Figures

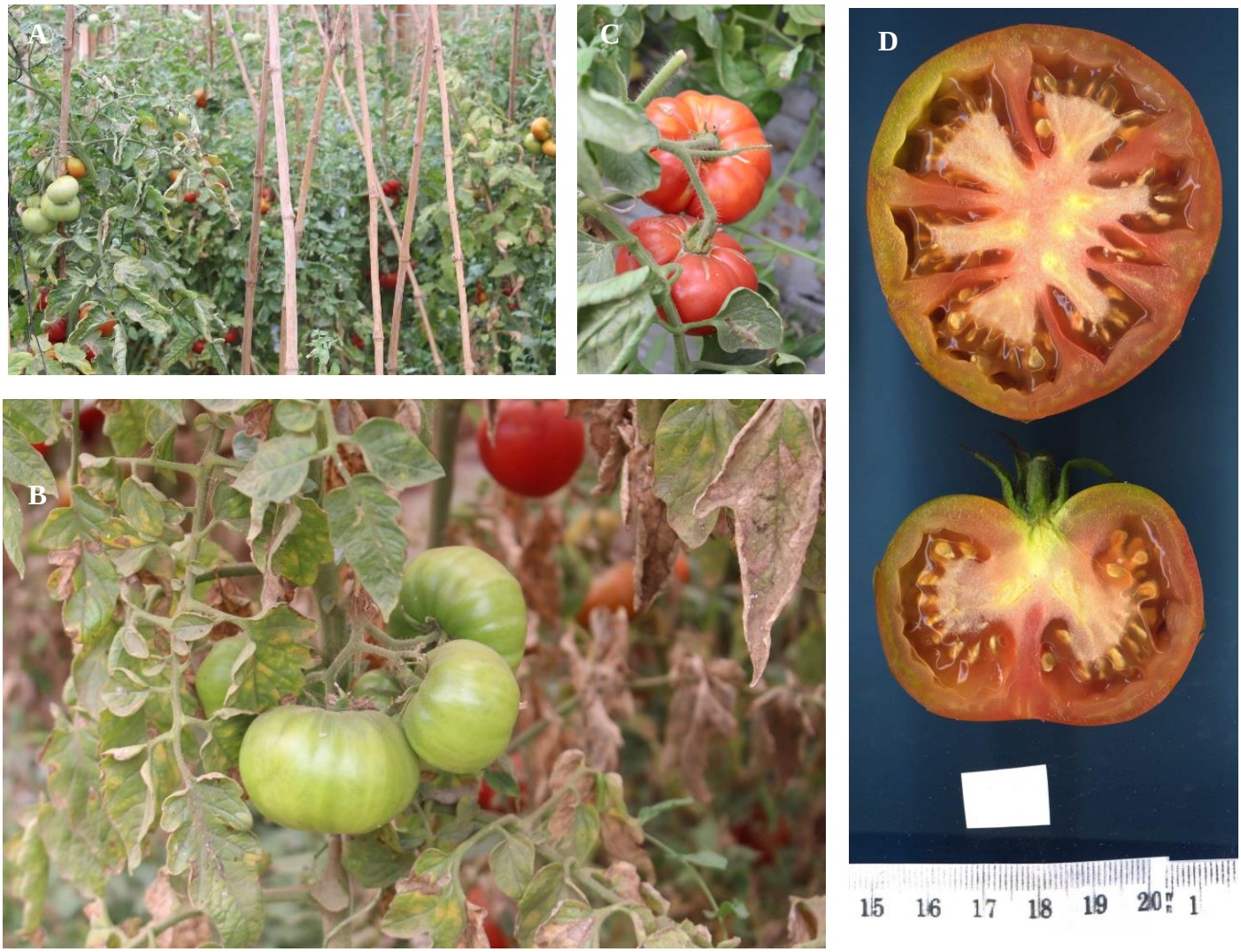


Supplementary Figure 1. Collection sites of Chilean tomato landraces

Supplementary Figure 2. Fruit morphotype of tomato landraces. Above: Mature green stage. Below: Breaker, turning, pink and light red stage. Cluster II accessions of the phenotypic dendrogram: (A) SLY82 Marglobe tomato landrace and (B) SLY123 Limachino italiano tomato landrace. Cluster III accessions of the phenotypic dendrogram: (C) SLY157 Rosado tomato landrace and (D) SLY159 Rosado tomato landrace



Supplementary Figure 3. Structure classification with K = 32.



Supplementary Figure 4. Limachino tomato. (A-C): SLY124 plant and fruit morphology, (D) SLY74 fruit morphology.

1.2 Supplementary Tables

Supplementary Table 1. Soil and environmental characteristics of the 2016-2017 season.

Variable	La Platina Experimental Station*
Temperature	Average minimal/ maximum (°C)
September	4.8 / 23.5
October	7.6 / 23.8
November	9.4 / 28.9
December	11.3 / 29.1
January	13.9 / 33.4
February	12.7 / 30.8
March	10.1 / 27.9
Mean relative humidity	(%)
September	60.3
October	61.6
November	55.8
December	60.2
January	49.7
February	56.8
March	57.9
Soil	
Soil type	Mollisol
Soil origin	Alluvial
pH H2O 1:1 (0-65 cm)	7.9
Soil texture	Clay-sandy
Organic matter (0-40 cm) %	2.2

Weather conditions during the growth season were obtained from INIA La Platina weather station, Santiago, Chile (33°34'20.20" S, 70°37'31.22" O, 620 m.a.s.l). www.agrometeorologia.cl

Supplementary Table 2. Phenological, morphological and yield descriptors evaluated in this study

Acronym	Description	Unit
	Vegetative	
LH	Length of the leaf from the stem to the tip of the terminal leaflet	cm
AH	Width of the leaf at the second pair of primary leaflets	cm
LFP	Length of the lamina of the terminal leaflet.	cm
LEN	Length of the internode	cm
NF	Number of primary leaflets	number
NSL	Number of secondary leaflets	number
LPL	Length from the petiole to the lamina	cm
RLA	Relation of length by width of the leaf	ratio
RFL	Relation of length of the terminal leaflet against the leaf length	ratio
RFF	Relation of number of secondary leaflets against number of primary leaflets	ratio
C	Center of the leaf calculated as: C = LH - LFP - LPL	cm
CA	Relation between the center of the leaf against the width of the leaf	ratio
SD	Diameter of the stem	mm
	Phenology and yield	
CGDD	Average day degrees per cluster	degree days/cluster
FRU	Average number of harvested fruits per cluster	fruits/cluster
CLU	Total number of harvested clusters per plant per m^{-2}	clusters/plant/m^{-2}
NFM	Total number of fruits per plant per m^2	plant fruits/m^2
FFW	Average fresh fruit weight of all harvested fruits	g/fruit
Y	Total fresh fruit yield	g/m^2
	Flower	
NP	Number of petals	number
OL	Ovary length	mm

OD	Ovary diameter	mm
STL	Style length	mm
PL	Petal length	mm
AL	Anthers length	mm
STE	Stigma exertion calculated as: STE = STL + OL - AL	mm
RO	Relation of ovary length by ovary diameter	ratio
RP	Relation between petal length and anther length	ratio
	Inflorescence	
NFL	Number of flowers in the inflorescence	number
NSF	Number of set fruits in the inflorescence	number
RFC	Relation set fruits over number of flowers	ratio
	Fruit	
FBL	Relation between WMH and the width of the fruit in the superior zone (X)	ratio
FDB	Relation between WMH and the width of the fruit in the inferior zone (Y)	ratio
ELL	Error of the adjustment to the best ellipse function. Minor values indicate a more ellipsoid fruit	
CIR	Error of the adjustment to best circle function. Minor values indicate a rounder fruit	
RET	Relation between the areas of the rectangle that adjust to the interior of the fruit and the rectangle that adjust to the exterior of the fruit	ratio
SHE	Relation between the average height of the shoulder and the fruit height	ratio
APM	Angle of the best lineal regressions at each side of the proximal point of the fruit	grades
APX	Angle of the best lineal regressions at each side of the proximal point of the fruit	grades
API	Relation between the shoulders aperture and the area, by 10	ratio
ADM	Angle of the best lineal regressions at each side of the distal point of the fruit	grades
ADX	Angle of the best lineal regressions at each side of the distal point of the fruit	grades
SHV	Green shoulder, presence or absence	

WG	Weight of the scanned tomato	g
NLC	Number of locules of a tomato of the third cluster	number
COL	Luminosity of the color CIELAB (L)	
COa	Position of the color between red and green (a)	
Cob	Position of the color between blue and yellow (b)	
PER	Perimeter of the fruit	mm
ARE	Area of the fruit	mm^2
WMH	Width of the fruit at the half of the mean height	mm
MXW	Maximum width of the fruit	mm
HMW	Height at the half of the average width	mm
MXH	Maximum height in curvature	mm
CH	Curvature height at half the average width	mm
SI	Relation between MXW and MXH.	ratio
SII	Relation between WMH and HMW	ratio
SCU	Relation between CH and width curve	ratio
STR	Relation between X and Y	ratio
ADI	Relation between the distal aperture and the fruit area by 10	ratio
ADE	Relation between the distal tail and the fruit area by 10	ratio
ECC	Eccentricity (relation between the height of the nestled ellipse and the maximum height)	ratio
ECP	Relation between the ellipse and the proximal height with the maximum height	ratio
ECD	Relation between the ellipse and the distal height with the maximum height	ratio
SEC	Relation between the heights of the nestled ellipse	ratio
EAI	Relation between the area of the fruit outside of the ellipse and the total fruit area	ratio
OBO	Obovoidity. Area of the fruit higher below half the average height	mm^2
OVO	Ovoidity. Area of the fruit higher above half the average height	mm^2
SYV	Residuals of the difference of the half point of the heights and the line of half the height	

SYB	If the fruit is obovoid, estimates the residuals as in SYV in width	
SYV1	If the fruit is ovoid, estimates the residuals as in SYV in width	
WWP	Relation between the maximum height and the height from the base to the point of the highest diameter	ratio

Supplementary Table 3. Cross classification matrix.

Group	SLY152	SLY49	Ia	Ib1	Ib2L	Ib2M	IIa	IIb	III	Total	Error (%)
SLY152	14	0	0	0	0	0	0	0	0	14	0.0
SLY49	0	14	1	1	0	0	0	0	0	16	12.5
Ia	0	1	56	7	0	0	0	0	0	64	12.5
Ib1	1	1	1	47	0	0	0	1	0	51	7.8
Ib2L	1	0	0	1	127	2	1	0	0	132	3.8
Ib2M	0	0	0	0	3	27	0	0	0	30	10.0
IIa	0	0	0	0	2	1	8	0	0	11	27.3
IIb	0	0	0	0	0	0	0	17	0	17	0.0
III	0	0	0	0	0	0	0	1	21	22	4.6
Total	16	16	58	56	132	30	9	19	21	357	7.3

Supplementary Table 4. Correlation of morphological descriptors with the two principal components.

Variable	CP 1	CP 2
ADE	0.49	0.17
ADI	0.62	-0.02
ADM	0.51	-0.44
ADX	0.33	-0.41
AH	0.56	0.52
API	0.16	0.32
APM	0.46	0.12
APX	0.37	0.09
ARE	0.5	0.68
C	-0.17	0.41
CA	-0.48	0.09
CH	**0.76**	0.26
CIR	0.47	0.08
COa	0.08	-0.24
COb	0.13	-0.53
COL	0.65	-0.3
OD	0.56	0.64
SD	0.67	0.43
EAI	**0.84**	-0.4
ECC	0.68	**-0.67**
ECD	**0.79**	-0.57
ECP	0.44	-0.38
STE	0.47	0.22
ELL	0.55	0.08
FBL	**0.79**	-0.44
FDB	0.69	-0.61
FFW	0.07	**0.92**
Y	0.34	0.13
HMW	0.54	0.03
AL	0.67	0.39
LEN	**0.71**	0.13
STL	0.69	0.37
LFP	0.65	0.27
LH	0.35	0.57
OL	0.6	0.37
PL	0.64	0.37
LPL	0.29	-0.02
MXH	0.66	0.19
MXW	**0.78**	0.37

NSF	0.12	**-0.65**
NF	-0.24	0.08
NFL	0.4	-0.24
NFM	0.21	**-0.75**
NSL	0.13	0.47
NL	0.17	0.3
NP	0.63	0.32
OBO	-0.13	-0.09
OVO	0.5	-0.05
PER	**0.78**	0.34
WG	0.4	**0.83**
RET	**0.82**	-0.51
RFC	-0.18	**-0.64**
RFF	0.13	0.46
RFL	0.65	0.05
RLA	-0.12	0.03
RO	0.51	0.42
RP	**0.71**	0.15
SCU	0.62	-0.56
SEC	0.37	-0.6
SHE	0.31	0.42
SHV	0.37	-0.34
SI	0.48	-0.59
SII	0.38	-0.6
STR	**0.81**	-0.3
SYB	-0.44	-0.09
SYV	-0.29	-0.3
SYV1	-0.07	-0.3
CLU	0.47	-0.43
CGDD	-0.55	0.48
FRU	-0.28	**-0.67**
WMH	**0.78**	0.37
WWP	0.69	-0.61

Supplementary Table 5. Yield, yield components and flower traits adjusted means and variation coefficient by accession. Different letters in vertical sense means significant differences (Tukey ≤0,05). Means are adjusted by the linear model of each variable.

Accession ID	Y					STE			PL			NFL			FFW			NFM			CLU			FRU			CGDD		
	Mean		min	max.	CV	Mean		CV	Mean		CV	Mean		CV	Mean		CV	Mean		CV	Mean		CV	Mean		CV	Mean		CV
SLY147	4264	a	2743	5277	17.72	-0.1775	eh	2997.32	10.82	cdei	2997.32	12	ab	30.94	79.9	df	15.73	53	a	11.58	13	ab	21.87	3.9	a	24.0	94	bcf	15.17
SLY148	2597	ce	943	4574	47.03	-0.498	fh	124.25	10.08	hi	124.25	9	ab	30.06	77.1	ef	34.15	32	ceh	34.35	12	ab	34.82	3.1	abd	34.63	102	ace	64.25
SLY149	4178	a	2449	6186	21.61	-0.96833	hj	65.83	10.62	ei	65.83	12	ab	45.75	88.1	cf	21.69	48	abc	22.16	14	a	24.5	3.3	abd	28.86	92	bcf	20.49
SLY150	3449	ac	791	5094	32.42	-0.30625	eh	166.54	10.23	gi	166.54	9	ab	45.36	81.5	cf	19.28	42	aef	27.69	12	ab	28.32	3.2	abd	35.2	97	acf	67.83
SLY151	3360	acd	1706	5880	32.45	-0.53615	fhi	89.09	9.64	i	89.09	8	b	63.66	78.0	df	29.41	42	aef	25.07	12	ab	21.93	3.6	ac	28.34	101	acf	21.69
SLY152	2032	de	517	6100	66.95	-1.98444	k	19.64	14.55	a	19.64	12	ab	67.35	68.5	ef	26.96	25	gh	63.98	9	b	45.18	3.3	abd	55.53	135	a	49.61
SLY39	3216	ace	1020	5766	41.16	0.44875	be	167.36	12.41	be	167.36	10	ab	92.48	91.6	cde	21.59	34	beh	48.52	12	ab	32.35	2.8	abd	37.98	98	acf	27.09
SLY47	3183	ace	1343	5534	37.07	1.146	ab	69.19	12.15	bef	69.19	10	ab	53.53	91.2	cef	25.69	32	ceh	61.75	14	a	25.77	2.2	cbd	42.25	88	bcf	23.28
SLY65	3105	ace	1634	7011	43.09	1.31412	a	46.38	12.47	bc	46.38	10	ab	25.52	111.3	ac	25.03	29	eh	37.85	14	a	24.5	2.1	d	37.46	87	bcf	17.76
SLY66	3038	ace	623	9043	62.38	0.80857	ad	102.68	11.93	befh	102.68	12	ab	45.53	74.6	ef	51.71	39	aeg	64.4	15	a	42.73	2.5	abd	31.06	75	ef	42.36
SLY70	3133	ace	926	6909	45.24	0.83647	abc	73.96	12.66	abd	73.96	13	ab	47.9	88.6	cf	35.77	33	beh	69.91	16	a	31.78	2.2	cbd	52.74	79	cf	28.69
SLY121	3978	ac	2209	5754	26.18	-0.03765	defg	1644.48	10.72	cei	1644.48	9	ab	42.38	84.7	cf	14.47	46	ae	23.8	12	ab	32.43	3.6	acb	30.68	101	ace	18.16
SLY122	3014	ace	803	4254	30.27	-0.22929	eh	261.16	11.45	cdei	261.16	12	ab	42.05	86.2	cf	33.75	32	ceh	31.56	12	ab	23.13	2.8	abd	36.75	104	acd	17.89
SLY123	3808	ac	866	5843	31.97	0.1	cdef	524.04	12.21	beg	524.04	10	ab	35.65	145.3	a	33.61	24	fgh	55.24	13	ab	36.7	2.1	cd	35.83	96	acf	61.25
SLY124	2616	bce	1394	6917	42.98	0.30083	bef	277.31	10.70	cdei	277.31	10	ab	33.9	98.0	bcde	14.12	28	deh	33.15	12	ab	42.41	2.3	abd	60.5	113	ab	43.68
SLY159	3330	ace	654	8371	56.51	0.43286	be	232.21	13.76	ab	232.21	9	ab	33.68	137.6	ab	31.3	20	h	79.73	11	ab	50.01	2.0	d	43.36	106	ac	56.27
SLY157	3527	ace	1471	6577	40.07	1.05125	abc	82.98	12.85	abc	82.98	12	ab	35.9	168.3	a	18.1	19	h	45.88	10	ab	19.42	1.9	d	57.63	111	ac	13.09
SLY129	3507	ac	283	5226	44.12	-1.51091	ijk	42.67	11.22	cdei	42.67	13	a	68.33	73.6	ef	28.53	47	ae	43.79	14	a	35.39	3.2	abd	38.35	88	bcf	40.14
SLY30	4033	ab	2614	9334	38.63	0.9175	abc	69.54	12.27	be	69.54	12	ab	75.52	75.3	ef	31.66	52	ab	41.39	17	a	24.04	3.0	abd	37.3	75	def	18.77
SLY49	1914	e	200	4260	61.42	0.40056	be	240.94	12.07	bef	240.94	11	ab	69.45	27.8	g	41.42	47	abcd	62.75	17	a	35.5	3.1	abd	44.41	73	f	31.24
SLY50	3327	ace	1257	5646	37.23	0.99167	abc	75.14	10.27	gi	75.14	13	ab	76.5	65.2	f	37.11	44	ae	52.42	15	a	31.31	2.9	abd	43.32	83	bcf	32.82
SLY74	3382	acd	1417	6877	39.57	-0.84471	ghj	92,0	10.35	fgi	92,0	9	ab	39.38	85.7	cf	23.11	41	aeg	34.1	12	ab	27.61	3.4	abd	21.22	105	ac	24.08
SLY82	3323	ace	1014	7220	40.75	-0.35118	eh	135.51	13.62	ab	135.51	11	ab	47.69	108.6	acd	24.85	33	ceh	33.72	14	a	26.98	2.5	abd	32.56	98	acf	25.24
SLY83	3539	ac	1206	5049	31.5	-1.48857	jk	47.33	12.20	be	47.33	11	ab	36.51	85.9	cf	20.25	40	aeg	27.18	14	a	22.76	2.9	abd	32.15	88	bcf	13.97

Supplementary Table 6. Summary measures for the morphological descriptors by genetic group of classification of Structure (k=4)

Variable	A (n = 82)				B (n=34)				C (n=32)				D (n=136)				Admixture (n=79)			
	X	CV	Min.	Max.	X	CV	Min.	Max.	X	CV	Min.	Max.	X	CV	Min.	Max.	X	CV	Min.	Máx.
LH	25.4	17	17.6	35.6	24.8	16	18.2	32.6	26.2	21	14.4	38.4	24.1	19	12.6	40	24.3	21	9.9	35.4
AH	20.6	22	12.1	30.5	18.9	21	11.2	28.2	21.9	28	8.8	33.3	17.9	25	7.8	35.4	19.2	25	9.3	31.2
LFP	9.6	22	4.8	14.6	12.3	26	6.1	18.1	8.9	23	3.2	11.6	7.7	19	3.5	11.8	7.5	20	3.6	11.3
LEN	4.9	45	0.4	10.4	4.8	47	0.5	10.6	5.5	43	2.4	10.8	4.0	46	0.6	9.7	5.0	47	0.5	12.5
NF	6	21	3	7	5	24	3	7	7	5	5	7	7	0	7	7	7	8	5	7
NSF	4	110	0	23	1	284	0	10	5	79	0	16	3	57	0	8	5	79	0	20
LPL	3.3	22	1.4	5.4	3.21	28	1.8	5.6	3.42	31	1.8	7.8	3.17	26	1.3	6.4	3.36	33	1.4	6.2
RLA	1.25	13	0.93	1.67	1.34	16	1.07	2.13	1.24	18	0.94	2.19	1.39	16	0.81	2.48	1.29	16	0.95	1.92
RFL	0.39	27	0.24	0.71	0.5	26	0.24	0.7	0.34	24	0.14	0.67	0.32	13	0.21	0.45	0.31	16	0.12	0.53
RFF	0.62	110	0	3.29	0.13	284	0	1.43	0.73	79	0	2.29	0.48	57	0	1.14	0.74	78	0	2.86
C	12.5	36	3.7	21.4	9.3	50	5	20.5	13.86	31	2.1	23.8	13.29	24	4.4	23.5	13.46	28	2.7	23.9
CA	0.61	30	0.21	1.04	0.50	47	0.24	1.34	0.64	32	0.24	1.55	0.76	23	0.33	1.71	0.71	21	0.29	1.2
NP	8	24	5	14	8	21	5	12	7	14	6	10	9	19	6	18	8	20	6	13
LO	1.65	14	1.2	2.5	1.64	12	1.1	2.1	1.81	17	1.0	2.4	1.52	18	1.1	2.7	1.68	20	1.0	2.7
DO	2.85	33	1.5	5.4	2.48	22	1.7	3.9	2.68	23	1.9	4.1	2.55	23	1.3	4.9	2.58	31	1.2	5.6
LES	8.62	11	6.7	10.2	8.61	13	6.3	11.5	7.16	11	5.4	8.3	6.01	13	3.7	8.8	7.37	18	4.0	10.8
PL	12.46	14	8.3	16.6	12.22	11	9.9	15.4	14.74	13	8.5	17.6	10.55	17	6.1	15.6	11.57	18	8.0	18.5
LA	9.41	10	7.0	11.2	9.02	8	7.7	10.3	10.22	9	7.6	11.7	8.2	11	5.6	10.6	8.78	12	6.1	11.6
STE	0.86	92	-1.1	3.3	1.24	72	-1.0	3.4	-1.25	86	-3.0	0.2	-0.67	141	-3.1	3.5	0.28	384	-2.3	2.6
RO	1.73	30	0.99	3.41	1.51	19	1.07	2.2	1.5	23	1.06	2.61	1.7	22	0.84	3.31	1.58	33	0.74	3.42
RP	1.32	9	1.03	1.56	1.36	11	1.09	1.78	1.44	10	1.12	1.71	1.28	12	0.86	1.68	1.32	11	0.99	1.64
DT	10.5	26	5.1	19.5	10.6	24	5.9	16.7	10.6	28	6.0	18.1	8.7	25	4.7	16.7	9.3	27	4.6	16.3
SHV	0.22	62	0	0.5	0.2	54	0	0.5	0.18	82	0	0.5	0.24	52	0	1	0.18	87	0	0.5
NFL	12	56	4	51	11	40	4	24	13	58	3	35	11	43	3	32	13	77	2	59
NC	7	66	0	24	5	54	1	15	8	58	2	22	7	47	1	22	8	74	1	32
RFC	0.59	45	0	1	0.52	32	0.08	0.75	0.67	33	0.2	1	0.71	31	0.11	1	0.64	34	0.17	1

PG	147.6	57	36	501	129.3	40	19	298	111.0	43	15	238	106.4	30	34	203	96.4	60	6	373
NL	11	38	3	24	9	34	3	15	7	46	3	15	10	26	2	17	8	41	2	16
COL	36.3	11	29.5	46.8	36.2	9	30.8	43.9	36.6	15	29.8	58.0	35.3	10	27.0	46.1	34.4	9	28.5	44.7
COa	20.5	21	10.0	29.4	17.3	20	9.0	23.5	20.0	25	7.3	28.1	19.9	28	4.9	36.3	19.7	26	6.6	30.5
COb	14.7	18	9.5	24.9	12.4	17	7.6	17.2	15.7	21	9.9	24.0	15.5	19	9.7	26.5	14.6	20	7.3	22.2
PER	224.9	23	136.0	454.5	217.3	17	109.1	301.7	196.5	17	111.5	264.1	203.9	13	133.9	270.6	189.4	24	98.2	331.2
ARE	311.0	37	124.9	688.7	294.6	27	85.9	520.5	270.2	30	78.5	442.3	255.2	21	118.3	496.5	235.9	46	65.2	749.3
WMH	74.4	22	44.6	125.9	70.0	17	34.8	95.8	62.0	19	35.0	86.4	66.4	13	39.5	89.3	61.3	23	31.5	100.9
MXW	74.8	22	45.0	126.3	70.5	18	34.8	96.2	62.5	19	35.5	86.7	67.0	13	39.8	90.0	61.9	23	31.9	101.2
HMW	44.2	15	29.8	58.8	45.5	13	29.4	55.9	49.7	18	26.2	62.4	42.5	13	27.9	74.8	42.1	32	18.5	97.6
MXH	50.3	17	32.3	82.4	50.7	13	30.1	67.1	52.1	18	26.6	65.3	46.6	12	32.7	76.9	45.9	28	24.3	98.0
CH	61.3	22	38.4	131.7	61.8	17	39.1	83.5	59.8	17	30.4	75.3	54.6	14	35.3	87.5	53.8	26	25.5	103.8
SI	0.68	13	0.53	0.94	0.73	12	0.6	1.02	0.84	14	0.64	1.06	0.7	13	0.56	1.48	0.75	19	0.51	1.16
SII	0.61	20	0.38	0.94	0.67	18	0.43	1.01	0.81	16	0.6	1.04	0.65	16	0.39	1.23	0.7	25	0.25	1.15
SCU	0.85	13	0.68	1.19	0.9	10	0.73	1.13	0.98	13	0.76	1.2	0.85	17	0.64	1.91	0.9	18	0.6	1.34
FBL	0.74	14	0.31	0.88	0.77	6	0.66	0.85	0.77	7	0.64	0.86	0.75	11	0.36	0.9	0.7	21	0.28	0.86
FDB	0.65	16	0.27	0.79	0.64	17	0.32	0.8	0.61	9	0.48	0.72	0.66	12	0.38	0.8	0.65	16	0.34	0.83
STR	1.19	32	0.45	3.01	1.26	28	0.86	2.68	1.27	13	0.98	1.71	1.16	19	0.61	2.15	1.12	32	0.37	2.39
ELL	0.06	39	0.02	0.19	0.06	34	0.03	0.1	0.04	29	0.02	0.06	0.06	34	0.03	0.13	0.05	40	0.02	0.14
CIR	0.15	35	0.04	0.3	0.13	37	0.03	0.22	0.08	56	0.02	0.16	0.14	26	0.03	0.25	0.13	50	0.03	0.33
RET	0.56	7	0.43	0.64	0.57	4	0.51	0.61	0.54	5	0.47	0.61	0.56	6	0.45	0.62	0.55	9	0.35	0.64
SHE	0.04	94	0	0.17	0.03	67	0	0.08	0.02	97	0	0.08	0.03	98	0	0.14	0.03	121	0	0.18
APM	154.67	67	0.1	356.7	144.07	73	2.2	345.6	127.88	74	0.6	343.7	134.91	76	0	343.6	139.94	68	0.2	329.2
APX	156.2	59	0	288.3	159.83	55	1.2	242	149.96	50	0.2	223.7	143.14	64	0.3	251.3	161.63	49	0.2	275.6
API	0.06	139	0	0.44	0.04	111	0	0.18	0.02	147	0	0.13	0.05	125	0	0.29	0.06	172	0	0.49
ADM	137.91	63	0	343.1	108.87	94	0	339.8	144.56	51	0.5	359.8	134.97	71	0	358.3	148.65	60	0	350.2
ADX	123.62	64	0.5	246.1	117.65	70	1.1	242.9	146	28	2.2	202.7	135.43	61	0	346.1	127.93	56	0.3	230.8
ADI	0.03	138	0	0.23	0.02	109	0	0.1	4.60E-03	247	0	0.04	0.02	147	0	0.12	0.02	132	0	0.11
ADE	0.04	136	0	0.44	0.04	103	0	0.17	0.01	172	0	0.07	0.04	192	0	0.51	0.04	192	0	0.46
OBO	0.03	167	0	0.22	0.03	194	0	0.2	4.70E-03	398	0	0.09	0.03	179	0	0.3	0.06	151	0	0.28
OVO	0.11	76	0	0.33	0.13	63	0	0.26	0.16	36	0	0.26	0.12	72	-0.01	0.32	0.1	82	0	0.29

SYV	0.06	139	0	0.68	0.04	80	0	0.14	0.03	86	0.01	0.14	0.1	109	0.01	0.51	0.06	106	0	0.3
SYB	0.02	291	0	0.34	0.01	208	0	0.06	5.60E-04	453	0	0.01	0.02	260	0	0.3	0.02	190	0	0.17
SYV1	0.03	130	0	0.22	0.03	132	0	0.25	0.04	84	0	0.21	0.07	158	0	0.59	0.04	155	0	0.26
WWP	0.46	9	0.36	0.56	0.47	11	0.38	0.57	0.44	8	0.35	0.52	0.46	11	0.3	0.68	0.48	11	0.37	0.61
ECC	0.71	10	0.45	0.82	0.72	8	0.52	0.8	0.76	4	0.69	0.8	0.73	7	0.54	0.79	0.73	10	0.38	0.8
ECP	1.12	129	0.87	10.25	0.89	1	0.86	0.9	0.89	1	0.87	0.9	0.96	86	0.88	10.5	0.89	1	0.88	0.96
ECD	0.88	1	0.83	0.9	0.88	1	0.87	0.89	0.88	1	0.87	0.89	0.88	1	0.85	0.93	0.88	1	0.85	0.93
SEC	0.61	20	0.37	0.93	0.66	18	0.43	1.01	0.81	16	0.6	1.05	0.65	16	0.38	1.23	0.7	25	0.25	1.15
EAI	0.46	9	0.38	0.59	0.46	9	0.41	0.57	0.43	5	0.37	0.48	0.45	8	0.36	0.57	0.44	12	0.34	0.68
Y	3602	44	926	9334	3583	51	623	9043	2922	57	517	7220	3611	30	943	6186	3147	43	200	6877
FFW	119.3	51	31.3	293.0	102.4	40	21.8	194.4	91.3	34	37.0	173.0	84.1	25	35.1	187.3	83.8	63	11.7	310.8
NFM	37.9	68	5.7	120.0	39.3	61	14.3	114.3	32.2	48	5.7	91.4	43.7	28	14.3	77.1	47.5	64	5.7	171.4
CLU	14.9	34	5.7	31.4	16.4	37	8.6	28.6	11.2	42	2.9	20.0	12.9	27	2.9	22.9	14.8	37	2.9	31.4
FRU	2	46	0	6	2	34	1	4	3	54	1	11	4	32	1	7	3	41	1	7
CGDD	95	29	45	183	84	27	50	130	133	52	65	366	100	34	52	418	97	40	45	346