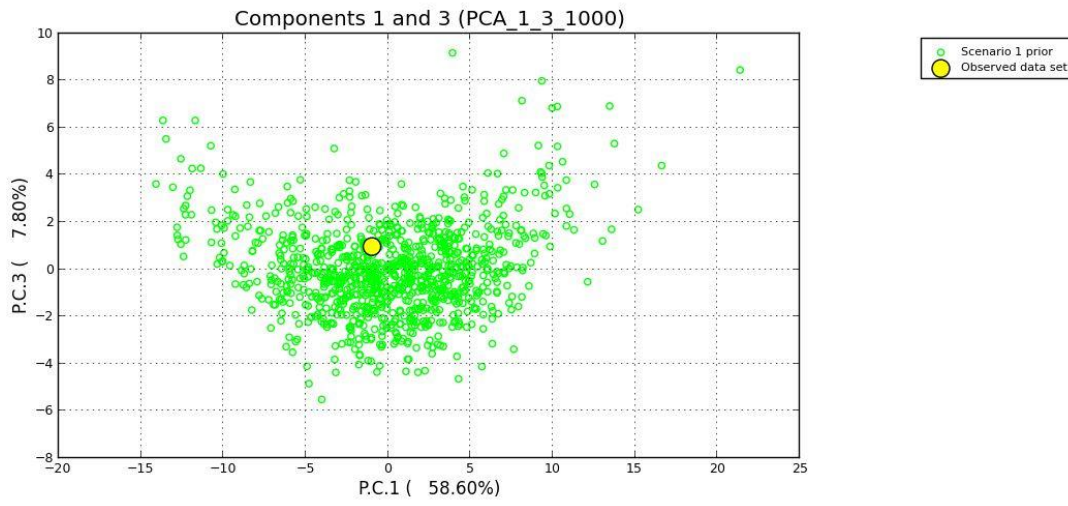


Supporting information 1.

Estimation of population divergence time and potential distribution of the protected evergreen *Rhododendron brachycarpum* in Russia Data from DYABC analyses

1) PRIOR CHECKING for Scenarios for divergence within *R. brachycarpum*



Number of simulated data sets : 100000

Values indicate for each summary statistics the proportion of simulated data sets which have a value below the observed one

Summary observed scenario statistics value 1

NAL_1_1 (1.2308) 0.0720

NAL_1_2 (3.2308) 0.3557

HET_1_1 (0.1114) 0.1334

HET_1_2 (0.3610) 0.2500

VAR_1_1 (1.5573) 0.5637

VAR_1_2 (5.7616) 0.5925

MGW_1_1 (0.5926) 0.1531

MGW_1_2 (0.3636) 0.0052 (**)

N2P_1_1&2 (3.8462) 0.1695

N2P_1_1&3 (10.2308) 0.4016

H2P_1_1&2 (0.5072) 0.1041

H2P_1_1&3 (0.6633) 0.1278

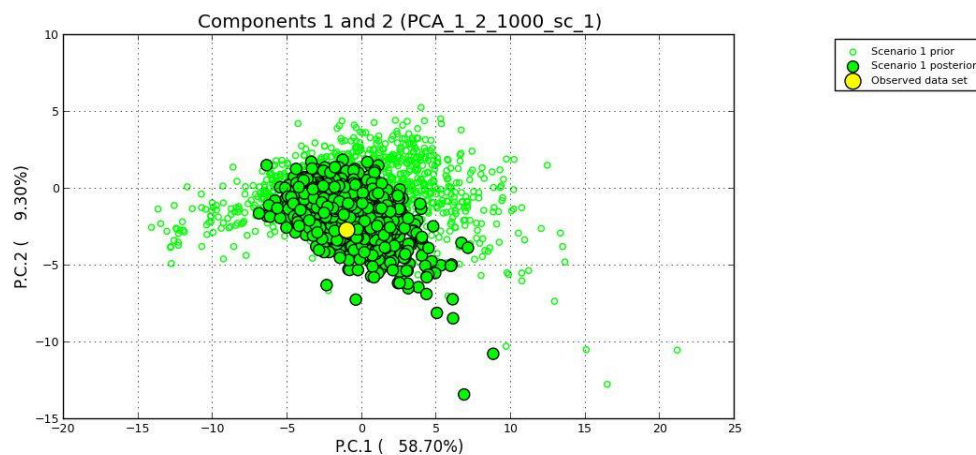
V2P_1_1&2 (14.5838) 0.5714

V2P_1_1&3 (11.1281) 0.3631

FST_1_1&2 (0.6869) 0.8294

FST_1_1&3 (0.3978) 0.7269

2)MODEL CHECKING for Scenarios 1for divergence within *R. brachycarpum*



Chosen scenario : 1

Number of simulated data sets used to compute posterior : 100000

Number of simulated data sets used in the local regression : 10000

Number of data sets simulated from the posterior : 1000

Transformation of parameters : Logit

summary	observed	proportion
statistics	value	(simulated<observed)
NAL_1_1	1.2308	0.3495
NAL_1_2	3.2308	0.4670
HET_1_1	0.1114	0.6690
HET_1_2	0.3610	0.1555
VAR_1_1	1.5573	0.8930
VAR_1_2	5.7616	0.4190
MGW_1_1	0.5926	0.0900
MGW_1_2	0.3636	0.0575
N2P_1_1&2	3.8462	0.3185
N2P_1_1&3	10.2308	0.6765
H2P_1_1&2	0.5072	0.1090
H2P_1_1&3	0.6633	0.0540
V2P_1_1&2	14.5838	0.6210
V2P_1_1&3	11.1281	0.2750
FST_1_1&2	0.6869	0.5930
FST_1_1&3	0.3978	0.2090

3)PARAMETERS ESTIMATION

For the four groups within *R. brachycarpum*

Number of simulated data sets : 100000

Number of selected data sets : 10000

Parameter	mean	median	mode	q025	q050	q250	q750	q950	q975
N1	1.04e+003	7.93e+002	5.64e+002	1.98e+002	2.52e+002	5.06e+002	1.22e+003	2.57e+003	3.63e+003
N2	6.94e+003	6.40e+003	5.68e+003	1.82e+003	2.34e+003	4.46e+003	8.69e+003	1.39e+004	1.60e+004
N3	6.80e+004	6.98e+004	7.74e+004	4.56e+004	5.03e+004	6.30e+004	7.50e+004	7.89e+004	7.95e+004
N4	4.30e+004	4.31e+004	4.47e+004	2.11e+004	2.45e+004	3.55e+004	5.04e+004	6.16e+004	6.56e+004
t1	1.03e+003	8.22e+003	7.21e+003	2.33e+003	2.89e+003	5.41e+003	1.25e+004	2.60e+004	3.36e+004
t2	3.84e+004	2.18e+004	3.78e+004	1.52e+004	1.88e+004	3.27e+004	6.19e+004	7.82e+004	8.34e+004

