Supplementary Materials

Appendix S1: Table of each individual from each breeding group.

Population, breeding group	**Adult ID (without Alpha part of the code – PPO)**
Tāwharanui, HAY1N	1043, 1064, 928, 990. 1041, 1042, 1111
Tāwharanui, NPBS	1034, 1035, 1056, 941, 942, 943, 1053, 1054, 931
Tāwharanui, NPBE	1068, 1070, 957, 933, 947
Tāwharanui, RFSE	954, 891, 953, 955, 956, 923
Otokia, W1	290, 291, 292, 293
Otokia, W2	294, 295, 296, 297

Appendix S2: PCR recipe and thermocycling conditions for each multiplex/monoplex.

Multiplex/Monoplex	Locus	Primer Sequences	Fluorophore	Expected Size (bp)	Tm (°C)	#Alleles (N, S)
Multiplex 1	TAWH226	F: aggacaggcaggattaagatga R: aagaggagggagggaaggaa	NED	116	55.5	2, 5
	TAWH252	F: gcactggagcgttagtacca R: tggattctcgggtatgtagct	HEX	156		4, 3
	TAWH111	F: cgctagggaaatgggctcta R: ttgcttgacagtggaattacttc	FAM	243		3, 6
Multiplex 2	TAWH49	F: aactgaacagacacatgcct R: accatcactagttcctcctgc	NED	150	55	Non-Microsatellite
	TAWH7	F: tgcagacgaggtgtaatagaga R: tagctgagtctggaggtgga	HEX	216		1
	TAWH240	F: cccttccaacctagaccagt R: gtcacttcccctctacccag	FAM	245		5, 4
Multiplex 3	TAWH269	F: cataagaaagccagaaccaaagt R: gtttgctgtattccttagggca	HEX	247	59.3	4, 5
	TAWH53	F: ctctcacagcagcaggtttg R: ggatgtcctgacctgtcctc	NED	200		5, 4

	TAWH104	F: cttgggtggttaaggggct R: cgacagacagacagaggct	FAM	150		3, 4
Multiplex 4	TAWH33	F: aaccaaatctcatgctttccag R: aggcagtcaatttgtagcagt	FAM	247	60	Non-Microsatellite
	TAWH191	F: cccactctgtttaactttctggg R: agctaaagaatgatacagcagca	HEX	101		3, 2
	TAWH46	F: caggagggtttgcagacttg R: tcacatcctcagagagcagc	NED	150		2, 4
Multiplex 5	TAWH84	F: tggcacaggaaggtatcagg R: gatggtccctgtggtggtg	FAM	246	59.5	7, 6
	TAWH223	F: atggacagacggacagacag R: ctagtgtgggcctactcctg	NED	112		3, 2
	TAWH138	F: caagagcccagagttacagc R: agtgatgtaagtgggactcagg	HEX	207		2, 1
Monoplex	TAWH182	F: caaggctctgctcatgtgtt R: cctcctttgacattgctggc	FAM	242	56	5, 4
Monoplex	TAWH280	F: tctttgtagctgggttttggg R: ttttgcaggttgacagctca	HEX	160	58	3, 4
Monoplex	TAWH3	F: cacgtggctctggatctcc R: agttactcaatgggctgcct	FAM	233	60	3, N/A

Monoplex	TAWH171	F: agcagcattcagagcccata R: ttggccagaaagagaaacgg	FAM	206	56.3	2, 2
Monoplex	TAWH199	F: cctgccaagtctatctaccca R: aatgggctgtttggtggttg	HEX	166	56	3, 3
Monoplex	TAWH14	F: gacagacagacggagggatg R: atctgtccatcgtcttcccc	HEX	249	52	3, 2
Monoplex	TAWH139	F: caagagcccagagttacagc R: agtgatgtaagtgggactcagg	FAM	207	52	1

PCR Multiplexes	**Volume per Tube (ul)**
dH2O	16.9
Buffer (10X)	2.5
MgCl2 (50uM)	1
dNTPs (10uM)	0.5
Forward Primer 1 (10uM)	0.5
Reverse Primer 1 (10uM)	0.5
Forward Primer 2 (10uM)	0.5
Reverse Primer 2 (10uM)	0.5
Forward Primer 3 (10uM)	0.5

PCR Monoplexes	**Volume per Tube (ul)**
dH2O	18.9
Buffer (10X)	2.5
MgCl2 (50uM)	1
dNTPs (10uM)	0.5
Forward Primer 1 (10uM)	0.5
Reverse Primer 1 (10uM)	0.5
Taq (5U/uL)	1
DNA (20ng/ul)	0.1
Total	**25**

Reverse Primer 3 (10uM)	0.5
Taq (5U/uL)	1
DNA (20ng/ul)	0.1
Total	**25**

Appendix S3: Ethanol precipitation ('cleanup' or 'desalting') of PCR products to be sent to Trent for genotyping on the ABI 3730.

1. Add 10% of PCR volume (uL) of 7.5M Ammonium Acetate (in fridge) to each well.

(e.g. 10uL PCR reaction add 1uL ammonium acetate)

e. g. 96 wells x 1 ul each = 96 uL

To keep it cold while you are adding it, set up ice packs inside a beaker

2. Add x uL of cold 95% EtOH to each well (so final concentration is at 70% EtOH).

e.g. 96 wells x 30.8 uL = about 3 mL

Solve for x :

CiVi = CfVf so: (0.95 • x) = 0.7 • (x + total PCR volume + ammonium acetate).

OR:

x = Ethanol volume = (PCR volume + ammonium acetate volume)/0.35714

PCR Volume	**Ammonium Acetate**	**95% Ethanol**
3 µL	0.3 µL	9.24 µL
4 µL	0.4 µL	12.32 µL
5 µL	0.5 µL	15.4 µL
6 µL	0.6 µL	18.48 µL
7 µL	0.7 µL	21.56 µL
7.4 µL	0.74 µL	22.79 µL
7.5 µL	0.75 µL	23.10 µL

7.6 µL	0.76 µL	23.410 µL
7.7 µL	0.77 µL	23.716 µL
8 µL	0.8 µL	24.64 µL
9 µL	0.9 µL	27.72 uL
10 µL	1 µL	30.8 µL
12 µL	1.2 µL	37 µL
15 µL	1.5 µL	46.2 µL

3. Two choices on how to seal the plate at this step:

1) Use the heat sealer to seal the plate with foil (READ FOIL PACKAGE BEFORE TAKING FOIL OUT. Keep shiny side up and place directly onto plate and do not move it after it had been placed so as to avoid contamination). Compress heater head fully downwards onto the plate, for about 3 seconds per plate orientation. We have two kinds of foil: the other kind of foil needs 4-5 seconds to seal.

2) If you already did your PCR in a plastic plate with caps anyways, use plastic caps, instead of foil sealing.

4. Ethanol precipitation step: Invert plate (sealed or with caps on), tap and mix in a horizontal position. MIX WELL at this stage. If you do not do this step, you will lose your DNA.
Weigh your plate and make a balance plate of the same weight (balance plates are stored in the centrifuge)– to balance add strips of masking tape to the balance plate until it weighs the same amount. Spin them cap/foil side up (right side up, so DNA is centrifuged to bottom of wells) in the large IEC CL31 centrifuge for plates for 35 minutes at 2161 g (=4100 rpm, the max this

plate-holder of the centrifuge can handle) – this is Program 1 on the centrifuge. The centrifuge will make some low-level whirring noise. During the centrifuge spin, make up 70% ethanol:

96 wells x 150 uL each = 14 400 so you need ~ 15 mL of fresh 70%

(70% ethanol = 36.8mL of 95% ethanol made up to 50mL with water)

(70% ethanol = 18.4mL of 95% ethanol made up to 25 mL with water)

(70% ethanol = 11.04 mL of 95% ethanol made up to 15 mL with water)

(70% ethanol = 5.53 mL of 95% ethanol made up to 7.5mL with water) for a 48 well plate

Make sure that you go to the next step immediately when this 35 min. spin is over – if not, spin again for another 10 minutes.

5. Remove foil seal or caps and throw them out – you won't need them again. Turn the plate upside down and flick alcohol out of the plate into sink (ahh!). Dab the plate upside down on a Kim wipe. With masking tape, attach a Kim wipe to the top of the plate, weigh the plate, and get a balance plate.

6. Spin inverted plate up to 300 rpm (goes up fast, lift finger off centrifuge button when it reaches around 200-250 rpm) and down again. This is to get the rest of the alcohol out of the wells. Both the plate and centrifuge balance need to be upside down.

7. Take out of centrifuge, and remove Kim wipe. Add 150µL (Can add 140µL as 150µL makes the wells quite full) of the fresh cold 70% ethanol to each well.

8. Weigh to balance plate. Spin unsealed balanced plate in centrifuge (careful you don't spill when placing in centrifuge) to maximum (4100 rpm for our machine) for a minute and then down again – this is Program 3 on the centrifuge.

9. Drain in sink, spin inverted up to 300 rpm and down again (just like before) with Kim Wipe on bottom. Allow to air dry for about 2 minutes – do not overdry.

10. Re-suspend in original PCR volume (µl) with ddH20 but if you feel that you need to concentrate your DNA based on previous results, add less water. (They will add the Hi-Di). If you use an Eppendorf pipettor and tips, held on an angle, the droplet of water will fall into the well without having to touch the sides, so you won't have to change tips 96 times. You can add about 9µl if you do not want to concentrate the DNA, less if you do. You can rehydrate different wells (PCRs) in different amounts if some need to be concentrated but others need to be diluted. Trent uses only 1µL, so the absolute minimum H2O to rehydrate in would therefore be about 1.5 µL.

11. Can leave plate to dry for another 2-5 minutes while you set up the Thermo-sealer. This will further minimize the risk of ethanol being left in the wells (water won't evaporate as fast as ethanol will, so ethanol will be gone but H2O should be unchanged).

12. Seal the plate with the heat sealer and a new piece of foil sealing. This is the final seal before shipping so do it very tightly. Seal all the edges by pressing them against the hot plate afterwards (seal in multiple orientations).

13. Label the edges of the foil top with the letter and #s so that the technicians know which plate it is and who it was from.

Label and double bag the plate in case there is some leakage somewhere. You can include a temperature indicator that you make yourself with half coloured H2O and half clear water – then if it melts the person on the receiving end will know.

Pack in styrofoam box with an ice pack below and an ice pack above, then put in cardboard box. Attach Fedex Intra-Canada Air Waybill.

Appendix S4: Hardy-Weinberg test values for each breeding group at each locus.

		Population																							
		Tāwharanui (North Island)																Otokia (South Island)							
		HAY1N (N = 7)				**NPBS** (N = 9)				**NPBE** (N = 5)				**RFSE** (N = 6)				**W1** (N = 4)				**W2** (N = 4)			
		#ind	**Ho**	**He**	**p**	**#ind**	**Ho**	**He**	**p**	**#ind**	**Ho**	**He**	**p**	**#ind**	**Ho**	**He**	**p**	**#ind**	**Ho**	**He**	**p**	**#ind**	**Ho**	**He**	**p**
Locus	**226**	monomorphic				monomorphic				monomorphic				6	0.67	0.48	1.00	2	0.50	0.83	0.33	1	1.00	1.00	1.00
	252	7	0.29	0.26	1.00	7	0.86	0.78	0.70	5	1.00	0.71	0.70	6	0.83	0.68	1.00	4	0.50	0.43	1.00	4	0.50	0.61	0.43
	111	5	0.60	0.82	0.54	6	0.67	0.48	1.00	monomorphic				4	0.75	0.54	1.00	4	1.00	0.86	1.00	3	1.00	0.87	1.00
	240	monomorphic				4	0.75	0.79	1.00	4	1.00	0.57	0.31	3	0.67	0.73	1.00	4	1.00	0.68	0.31	4	0.75	0.61	1.00
	269	4	0.00	0.71	0.03	3	0.33	0.33	1.00	4	0.75	0.71	1.00	5	0.20	0.47	0.33	3	0.33	0.87	0.07	2	1.00	0.83	1.00
	53	6	1.00	0.79	1.00	3	0.33	0.33	1.00	4	1.00	0.68	0.31	5	0.80	0.53	0.43	4	0.25	0.75	0.03	4	0.50	0.86	0.08
	104	7	0.57	0.53	1.00	6	0.67	0.67	0.72	4	0.50	0.43	1.00	5	1.00	0.71	0.70	4	0.50	0.75	0.09	4	0.50	0.43	1.00
	191	7	0.00	0.26	0.08	monomorphic				monomorphic				monomorphic				3	0.00	0.53	0.20	3	0.33	0.60	1.00
	46	6	0.17	0.17	1.00	monomorphic				4	0.75	0.54	1.00	5	0.4	0.36	1.00	4	0.50	0.46	1.00	4	0.25	0.68	0.09
	84	monomorphic				9	0.44	0.39	1.00	5	0.6	0.64	0.62	4	0.75	0.89	0.46	4	0.75	0.86	0.66	3	1.00	0.87	1.00
	223	6	0.00	0.55	0.01	monomorphic				3	0.33	0.33	1.00	monomorphic				monomorphic				3	0.00	0.53	0.20
	138	monomorphic				monomorphic				5	0.4	0.53	1.00	monomorphic				monomorphic				monomorphic			
	182	7	0.43	0.36	1.00	8	0.38	0.51	0.28	monomorphic				monomorphic				4	1.0	0.75	1.0	4	1.00	0.82	1.00
	280	7	0.57	0.36	1.00	8	0.5	0.43	1.00	monomorphic				monomorphic				4	0.5	0.46	1.0	4	0.25	0.46	0.14
	3	7	0.57	0.62	0.51	6	0.00	0.30	0.09	5	0.6	0.56	1.00	2	1.00	0.83	1.00	monomorphic				monomorphic			
	171	5	0.80	0.53	0.43	5	0.20	0.20	1.00	4	0.25	0.54	0.43	3	0.67	0.53	1.00	1	1.00	1.00	1.00	monomorphic			
	199	7	0.14	0.38	0.08	monomorphic				monomorphic				monomorphic				4	0.25	0.61	0.14	4	0	0.43	0.14
	14	7	0.71	0.58	0.63	8	0.88	0.58	0.14	monomorphic				monomorphic				4	0.50	0.43	1.00	3	0.33	0.33	1.00

Appendix S5: Coancestry Wang relatedness values and 95% confidence intervals.

Wang Relatedness Values					
Tawharanui			**Otokia**		
Ind1	Ind2	Wang	Ind1	Ind2	Wang
1043	1064	0.3221	290	291	0.0823
1043	928	0.1811	290	292	-0.2922
1043	990	0.565	290	293	-0.1904
1043	1041	-0.4537	290	294	0.0619
1043	1042	0.2687	290	295	0.1113
1043	1111	0.4779	290	296	-0.2055
1043	1034	0.2792	290	297	-0.01
1043	1035	-0.4663	291	292	-0.1242
1043	1056	-0.2347	291	293	0.5133
1043	941	-0.3546	291	294	-0.0845
1043	942	-0.1635	291	295	-0.0727
1043	943	-0.1565	291	296	-0.1733
1043	1053	-0.3395	291	297	-0.0028
1043	1054	-0.2983	292	293	-0.0651
1043	931	0.0351	292	294	0.2148
1043	1068	-0.0889	292	295	-0.0123
1043	1070	-0.5252	292	296	0.0396
1043	957	-0.2662	292	297	-0.2683
1043	933	-0.0925	293	294	-0.0754
1043	947	-0.7736	293	295	0.0212
1043	954	-0.3217	293	296	-0.192
1043	891	0.1236	293	297	0.1548
1043	953	-0.1927	294	295	-0.0607

Population structure in communal bird

1043	955	0.3398
1043	956	0.274
1043	923	-0.9772
1064	928	0.3785
1064	990	0.299
1064	1041	-0.1431
1064	1042	0.1109
1064	1111	-1.2242
1064	1034	0.2792
1064	1035	-0.0707
1064	1056	-0.1195
1064	941	-0.0681
1064	942	-0.0587
1064	943	-0.2332
1064	1053	-0.5649
1064	1054	0.1589
1064	931	0.1876
1064	1068	0.0955
1064	1070	-0.4066
1064	957	-0.0118
1064	933	-0.1575
1064	947	-0.3082
1064	954	-0.27
1064	891	-0.0201
1064	953	-0.0022
1064	955	0.1323
1064	956	-0.1088

294	296	-0.0163
294	297	-0.1465
295	296	-0.5995
295	297	0.1986
296	297	-0.1691

Population structure in communal bird

1064	923	-0.1162
928	990	0.6382
928	1041	-0.3838
928	1042	0.7448
928	1111	0.1595
928	1034	0.2792
928	1035	-0.5543
928	1056	-0.1074
928	941	-0.5668
928	942	-0.4953
928	943	-0.6379
928	1053	-0.3267
928	1054	-0.5567
928	931	-0.625
928	1068	-0.1389
928	1070	-0.1504
928	957	-0.2145
928	933	-0.2414
928	947	-0.4563
928	954	-0.2942
928	891	-0.3424
928	953	-0.2972
928	955	-0.4024
928	956	-0.4044
928	923	-0.9772
990	1041	-0.2075
990	1042	0.7087

Population structure in communal bird

990	1111	0.4779
990	1034	0.2792
990	1035	-0.1733
990	1056	-0.144
990	941	-0.4213
990	942	-0.3938
990	943	-0.2039
990	1053	-0.2174
990	1054	-0.3683
990	931	-0.4026
990	1068	0.1106
990	1070	0.191
990	957	0.0416
990	933	-0.2149
990	947	-0.4698
990	954	-0.3494
990	891	-0.3079
990	953	-0.1921
990	955	-0.2649
990	956	-0.0556
990	923	-1.0192
1041	1042	-0.2008
1041	1111	1
1041	1034	0.2792
1041	1035	-0.5394
1041	1056	-0.3001
1041	941	-0.4801

Population structure in communal bird

1041	942	-0.52
1041	943	-0.6593
1041	1053	-0.6889
1041	1054	-0.3455
1041	931	-0.6552
1041	1068	-0.3459
1041	1070	-0.8879
1041	957	-0.6274
1041	933	-0.7766
1041	947	-1.37
1041	954	-0.6589
1041	891	-0.8324
1041	953	-0.4826
1041	955	-0.3604
1041	956	-0.6237
1041	923	-1.4452
1042	1111	1
1042	1034	0.2792
1042	1035	-0.6286
1042	1056	-0.0739
1042	941	-0.6337
1042	942	-0.4252
1042	943	-0.4436
1042	1053	-0.3962
1042	1054	-0.7856
1042	931	-0.4226
1042	1068	-0.071

Population structure in communal bird

1042	1070	-0.369
1042	957	-0.3546
1042	933	-0.3822
1042	947	-0.4703
1042	954	-0.459
1042	891	-0.6241
1042	953	-0.1765
1042	955	0.1045
1042	956	0.147
1042	923	-1.0618
1111	1034	0
1111	1035	-0.0625
1111	1056	0
1111	941	-1.9327
1111	942	-1.9327
1111	943	-0.8218
1111	1053	0.0754
1111	1054	-1.2242
1111	931	-1.2242
1111	1068	0.1595
1111	1070	0.4779
1111	957	0.0754
1111	933	0.0754
1111	947	-1.2242
1111	954	0
1111	891	0
1111	953	0.4779

Population structure in communal bird

1111	955	-0.0625
1111	956	0.4779
1111	923	0
1034	1035	0.2792
1034	1056	0.2792
1034	941	1
1034	942	1
1034	943	0.2792
1034	1053	0.2792
1034	1054	0.2792
1034	931	0.2792
1034	1068	0.9136
1034	1070	-0.1754
1034	957	-1.3934
1034	933	-0.9387
1034	947	-0.9387
1034	954	0.2792
1034	891	-1.2745
1034	953	1
1034	955	0
1034	956	0.2792
1034	923	0
1035	1056	0.5986
1035	941	0.5705
1035	942	0.4025
1035	943	0.6784
1035	1053	0.11

Population structure in communal bird

1035	1054	0.8802
1035	931	0.7514
1035	1068	-0.3278
1035	1070	-0.0043
1035	957	0.029
1035	933	0.1372
1035	947	-0.3651
1035	954	0.06
1035	891	-0.8735
1035	953	-0.0374
1035	955	-0.2681
1035	956	-0.0742
1035	923	0.2122
1056	941	0.6902
1056	942	0.5996
1056	943	0.716
1056	1053	0.3577
1056	1054	0.5693
1056	931	0.5417
1056	1068	0.0986
1056	1070	-0.3754
1056	957	-0.3574
1056	933	-0.111
1056	947	-0.0779
1056	954	0.2273
1056	891	-0.2435
1056	953	0.2928

Population structure in communal bird

1056	955	0.2764
1056	956	0.0385
1056	923	0.2122
941	942	0.6391
941	943	0.7524
941	1053	-0.1062
941	1054	0.4858
941	931	0.4409
941	1068	-0.1418
941	1070	-0.2366
941	957	-0.0744
941	933	0.0022
941	947	-0.217
941	954	0.3572
941	891	-0.4861
941	953	-0.0962
941	955	0.3282
941	956	-0.0196
941	923	0.0821
942	943	0.3672
942	1053	0.1423
942	1054	0.1952
942	931	0.3691
942	1068	0.1141
942	1070	-0.5643
942	957	-0.1189
942	933	-0.0473

Population structure in communal bird

942	947	0.0408
942	954	0.3364
942	891	0.0233
942	953	0.3746
942	955	0.243
942	956	0.3056
942	923	-0.3807
943	1053	-0.1959
943	1054	0.6869
943	931	0.1826
943	1068	-0.1663
943	1070	-0.2719
943	957	-0.3915
943	933	-0.0296
943	947	-0.2696
943	954	-0.1203
943	891	-0.3561
943	953	0.1662
943	955	-0.3864
943	956	0.4264
943	923	1
1053	1054	-0.1142
1053	931	-0.0709
1053	1068	-0.166
1053	1070	-0.5159
1053	957	-0.441
1053	933	-0.3089

Population structure in communal bird

1053	947	-0.5555
1053	954	-0.0059
1053	891	-0.5975
1053	953	0.1012
1053	955	-0.9077
1053	956	-0.1962
1053	923	-0.3807
1054	931	0.8906
1054	1068	0.0359
1054	1070	-0.2699
1054	957	-0.326
1054	933	-0.2011
1054	947	-0.6465
1054	954	0.048
1054	891	-0.3818
1054	953	0.2075
1054	955	0.0925
1054	956	0.2639
1054	923	0.4209
931	1068	0
931	1070	-0.489
931	957	-0.5586
931	933	-0.3858
931	947	-0.4258
931	954	-0.1397
931	891	-0.0021
931	953	-0.1165

Population structure in communal bird

931	955	0.3255
931	956	0.4419
931	923	0.7017
1068	1070	0.3511
1068	957	0.4865
1068	933	0.3208
1068	947	0.1849
1068	954	-0.018
1068	891	0.2516
1068	953	-0.0125
1068	955	0.5884
1068	956	0.2935
1068	923	0.0603
1070	957	0.244
1070	933	0.1352
1070	947	-0.0157
1070	954	-0.6608
1070	891	-0.1779
1070	953	-0.4803
1070	955	-0.0015
1070	956	0.0141
1070	923	0.0821
957	933	0.6333
957	947	0.372
957	954	-0.1863
957	891	-0.2472
957	953	-0.2999

Population structure in communal bird

957	955	-0.4088
957	956	-0.3395
957	923	-0.5326
933	947	0.3978
933	954	0.1075
933	891	0.0396
933	953	-0.3635
933	955	-0.1836
933	956	-0.1454
933	923	-0.5941
947	954	-0.3401
947	891	-0.0941
947	953	-0.2457
947	955	-0.1296
947	956	-0.4007
947	923	-0.3807
954	891	-0.0049
954	953	0.4145
954	955	0.4025
954	956	-0.2288
954	923	0.267
891	953	0.0378
891	955	0.4372
891	956	0.123
891	923	0.618
953	955	-0.2202
953	956	0.1741

953	923	0.6869
955	956	0.6634
955	923	0.4825
956	923	0.2497

95% Confidence Intervals

Tawharanui

Dyad	Ind1	Ind2	Wang 0.25	Wang 97.5
1	1043	1064	-0.2416	0.657
2	1043	928	-0.3433	0.7105
3	1043	990	0.0016	0.9287
4	1043	1041	-1.1804	0.0266
5	1043	1042	-0.3409	0.7056
6	1043	1111	0.1595	1
7	1043	1034	0.1544	1
8	1043	1035	-1.1661	0.4528
9	1043	1056	-0.9842	0.3079
10	1043	941	-0.8428	0.1741
11	1043	942	-0.7849	0.3779
12	1043	943	-0.7701	0.4967
13	1043	1053	-0.8771	0.1447
14	1043	1054	-0.8409	0.7374
15	1043	931	-0.6105	0.7265
16	1043	1068	-0.9731	0.4888
17	1043	1070	-1.1236	-0.0746
18	1043	957	-0.9965	0.2756

Otokia

Dyad	Ind1	Ind2	Wang 0.25	Wang 97.5
1	290	291	-0.3956	0.4043
2	290	292	-0.6196	0.1213
3	290	293	-0.4549	0.2717
4	290	294	-0.4034	0.403
5	290	295	-0.2103	0.7521
6	290	296	-0.5027	0.1533
7	290	297	-0.3519	0.3418
8	291	292	-0.4102	0.231
9	291	293	0.3313	0.7585
10	291	294	-0.4658	0.3571
11	291	295	-0.4659	0.3144
12	291	296	-0.5748	0.1937
13	291	297	-0.5613	0.4584
14	292	293	-0.5567	0.1999
15	292	294	-0.3775	0.716
16	292	295	-0.523	0.4015
17	292	296	-0.5329	0.3153
18	292	297	-0.877	0.2093

Population structure in communal bird

19	1043	933	-0.5434	0.3318
20	1043	947	-1.4513	0.1787
21	1043	954	-0.9658	0.3416
22	1043	891	-0.7769	0.5935
23	1043	953	-0.9112	0.34
24	1043	955	-0.4042	1
25	1043	956	-0.4453	0.8025
26	1043	923	-2.8578	0.8972
27	1064	928	-0.0781	0.6984
28	1064	990	-0.0995	0.6155
29	1064	1041	-1.0524	0.4603
30	1064	1042	-0.3799	0.6236
31	1064	1111	-1.9327	-0.0625
32	1064	1034	0.1544	1
33	1064	1035	-0.7807	0.6691
34	1064	1056	-0.8334	0.4139
35	1064	941	-0.8127	0.6402
36	1064	942	-0.6461	0.4147
37	1064	943	-0.9996	0.6245
38	1064	1053	-1.0332	-0.0786
39	1064	1054	-0.3034	0.6182
40	1064	931	-0.5298	0.564
41	1064	1068	-0.9178	0.4488
42	1064	1070	-1.1109	0.201
43	1064	957	-0.5275	0.3003
44	1064	933	-0.772	0.3678
45	1064	947	-1.2677	0.5613

19	293	294	-0.5637	0.4467
20	293	295	-0.4715	0.4497
21	293	296	-0.6048	0.2729
22	293	297	-0.2012	0.5228
23	294	295	-0.6271	0.7065
24	294	296	-0.6583	0.409
25	294	297	-0.6647	0.3415
26	295	296	-1.2942	-0.2303
27	295	297	-0.1229	0.483
28	296	297	-0.7199	0.2237

Population structure in communal bird

46	1064	954	-1.2358	0.367
47	1064	891	-0.6897	0.5697
48	1064	953	-0.7307	0.4551
49	1064	955	-0.757	0.7538
50	1064	956	-0.8597	0.5402
51	1064	923	-2.6205	1
52	928	990	-0.1008	1
53	928	1041	-1.1286	0.3165
54	928	1042	0.4844	0.9422
55	928	1111	0.1595	0.1595
56	928	1034	0.1544	1
57	928	1035	-1.1871	0.3444
58	928	1056	-0.6971	0.5717
59	928	941	-0.9672	0.4568
60	928	942	-1.0797	0.3807
61	928	943	-1.342	0.3735
62	928	1053	-1.07	0.4647
63	928	1054	-1.1477	0.424
64	928	931	-1.0929	0.5986
65	928	1068	-0.7957	0.3999
66	928	1070	-0.7655	0.6567
67	928	957	-0.9439	0.4397
68	928	933	-0.7891	0.3324
69	928	947	-1.3476	0.3794
70	928	954	-0.9213	0.1758
71	928	891	-1.4075	0.4986
72	928	953	-1.356	0.3903

Population structure in communal bird

73	928	955	-1.0029	0.9044
74	928	956	-0.9363	0.1985
75	928	923	-2.894	0.8773
76	990	1041	-0.7191	0.3834
77	990	1042	0.4334	0.9151
78	990	1111	0.1595	1
79	990	1034	0.1544	1
80	990	1035	-0.9657	0.6219
81	990	1056	-0.7824	0.6281
82	990	941	-0.8999	0.3797
83	990	942	-0.9105	0.1414
84	990	943	-0.9889	0.7662
85	990	1053	-0.9144	0.3198
86	990	1054	-1.0635	0.4478
87	990	931	-0.9137	0.5391
88	990	1068	-0.6733	0.6842
89	990	1070	-0.3087	0.7987
90	990	957	-0.6998	0.4588
91	990	933	-0.7724	0.3457
92	990	947	-1.1699	0.5552
93	990	954	-0.902	0.3524
94	990	891	-1.008	0.4709
95	990	953	-0.7473	0.2492
96	990	955	-0.924	0.7288
97	990	956	-0.5962	0.6981
98	990	923	-2.2045	1
99	1041	1042	-0.9378	0.3125

Population structure in communal bird

100	1041	1111	1	1
101	1041	1034	0.1544	1
102	1041	1035	-1.5798	0.3149
103	1041	1056	-1.0081	0.4209
104	1041	941	-0.9899	0.0914
105	1041	942	-1.242	0.0033
106	1041	943	-1.8849	0.4647
107	1041	1053	-1.2461	0.1976
108	1041	1054	-0.9974	0.3179
109	1041	931	-1.445	0.4028
110	1041	1068	-1.1701	0.1572
111	1041	1070	-1.6348	0.0836
112	1041	957	-1.1432	0.4602
113	1041	933	-1.272	-0.1227
114	1041	947	-2.5981	0.5264
115	1041	954	-1.455	0.142
116	1041	891	-1.4891	0.716
117	1041	953	-1.137	0.2418
118	1041	955	-0.9036	0.3782
119	1041	956	-0.9608	0.6578
120	1041	923	-5.4589	0.1864
121	1042	1111	1	1
122	1042	1034	0.1544	1
123	1042	1035	-1.2305	0.2576
124	1042	1056	-0.7281	0.4281
125	1042	941	-1.2297	-0.0462
126	1042	942	-0.9464	0.0063

Population structure in communal bird

127	1042	943	-1.2442	0.4201
128	1042	1053	-1.0891	0.1356
129	1042	1054	-1.3523	0.3995
130	1042	931	-1.0113	0.1881
131	1042	1068	-0.7385	0.3626
132	1042	1070	-0.8849	0.1832
133	1042	957	-0.981	0.3096
134	1042	933	-1.0242	0.363
135	1042	947	-1.0835	0.6295
136	1042	954	-1.1447	0.2243
137	1042	891	-1.4757	0.3503
138	1042	953	-0.7508	0.2557
139	1042	955	-0.6211	1
140	1042	956	-0.461	0.6668
141	1042	923	-1.6531	0.0177
142	1111	1034	0	0
143	1111	1035	-0.0625	-0.0625
144	1111	1056	0	0
145	1111	941	-1.9327	-1.9327
146	1111	942	-1.9327	-1.9327
147	1111	943	-1.9327	1
148	1111	1053	-0.0625	0.1595
149	1111	1054	-1.9327	-0.0625
150	1111	931	-1.9327	-0.0625
151	1111	1068	0.1595	0.1595
152	1111	1070	0.1595	1
153	1111	957	-0.0625	0.1595

Population structure in communal bird

154	1111	933	-0.0625	0.1595
155	1111	947	-1.9327	-0.0625
156	1111	954	0	0
157	1111	891	0	0
158	1111	953	0.1595	1
159	1111	955	-0.0625	-0.0625
160	1111	956	0.1595	1
161	1111	923	0	0
162	1034	1035	0.1544	1
163	1034	1056	0.1544	1
164	1034	941	1	1
165	1034	942	1	1
166	1034	943	0.1544	1
167	1034	1053	0.1544	1
168	1034	1054	0.1544	1
169	1034	931	0.1544	1
170	1034	1068	-8.2509	0.9136
171	1034	1070	-2.0804	0.1544
172	1034	957	-2.0804	-1.2745
173	1034	933	-1.2745	1
174	1034	947	-1.2745	1
175	1034	954	0.1544	1
176	1034	891	-1.2745	-1.2745
177	1034	953	1	1
178	1034	955	0	0
179	1034	956	0.1544	1
180	1034	923	0	0

Population structure in communal bird

181	1035	1056	0.3705	0.8616
182	1035	941	0.3203	0.8248
183	1035	942	0.2626	0.7156
184	1035	943	0.3002	0.9186
185	1035	1053	-0.4887	0.8262
186	1035	1054	0.6622	1
187	1035	931	0.4497	1
188	1035	1068	-2.0796	0.8001
189	1035	1070	-1.278	0.6541
190	1035	957	-0.888	0.8129
191	1035	933	-0.6063	0.8862
192	1035	947	-0.9708	0.6985
193	1035	954	-0.8561	0.7191
194	1035	891	-1.4607	0.0335
195	1035	953	-0.6293	0.5464
196	1035	955	-2.3974	1
197	1035	956	-0.5957	1
198	1035	923	-0.7253	1
199	1056	941	0.4133	1
200	1056	942	0.3975	0.846
201	1056	943	0.4552	1
202	1056	1053	-0.0353	0.7572
203	1056	1054	0.3337	0.8866
204	1056	931	0.3241	0.8033
205	1056	1068	-0.4283	0.6082
206	1056	1070	-0.9088	0.4684
207	1056	957	-1.0799	0.283

Population structure in communal bird

208	1056	933	-0.7819	0.3783
209	1056	947	-0.9906	0.6428
210	1056	954	-0.454	0.7791
211	1056	891	-0.8583	0.4727
212	1056	953	0.0819	0.5223
213	1056	955	0.1578	0.4341
214	1056	956	-0.5103	0.7635
215	1056	923	-2.2045	0.6206
216	941	942	0.3796	0.9088
217	941	943	0.4922	1
218	941	1053	-0.8494	0.4637
219	941	1054	0.2753	0.8479
220	941	931	0.244	0.7306
221	941	1068	-0.9413	0.4917
222	941	1070	-0.9478	0.2519
223	941	957	-0.5533	0.2937
224	941	933	-0.5511	0.4648
225	941	947	-1.0767	0.7696
226	941	954	0.0601	0.7202
227	941	891	-1.0575	0.2033
228	941	953	-0.6295	0.6103
229	941	955	0.252	1
230	941	956	-0.4985	0.4555
231	941	923	-1.6719	1
232	942	943	-0.3729	0.7982
233	942	1053	-0.3365	0.5601
234	942	1054	-0.2722	0.6067

235	942	931	-0.1181	0.7824
236	942	1068	-0.6103	0.4738
237	942	1070	-1.3669	0.0581
238	942	957	-0.823	0.5291
239	942	933	-0.6976	0.537
240	942	947	-1.0384	1
241	942	954	0.0037	0.602
242	942	891	-0.7625	0.5863
243	942	953	-0.3812	0.7933
244	942	955	-0.6837	1
245	942	956	-0.2317	0.8824
246	942	923	-1.0224	1
247	943	1053	-0.7644	0.3826
248	943	1054	0.3285	1
249	943	931	-0.6112	0.7825
250	943	1068	-0.9226	0.4678
251	943	1070	-1.7092	0.6154
252	943	957	-1.0035	0.1895
253	943	933	-0.7467	0.5626
254	943	947	-1.3641	0.8547
255	943	954	-1.0455	0.6631
256	943	891	-1.2745	0.2313
257	943	953	-0.4235	0.7489
258	943	955	-1.1569	0.4131
259	943	956	0.1996	1
260	943	923	1	1
261	1053	1054	-0.7351	0.4012

262	1053	931	-0.6622	0.5175
263	1053	1068	-0.9879	0.2887
264	1053	1070	-0.9456	0.3526
265	1053	957	-1.051	0.2452
266	1053	933	-0.8698	0.3468
267	1053	947	-1.2938	0.2463
268	1053	954	-0.481	0.4479
269	1053	891	-1.4612	0.031
270	1053	953	-0.5134	0.385
271	1053	955	-1.5611	-0.1194
272	1053	956	-0.8482	0.4223
273	1053	923	-1.1434	1
274	1054	931	0.7413	1
275	1054	1068	-0.7728	0.6358
276	1054	1070	-1.3836	0.3529
277	1054	957	-0.9636	1
278	1054	933	-0.9403	1
279	1054	947	-1.4651	0.5625
280	1054	954	-1.0375	1
281	1054	891	-2.2045	0.2568
282	1054	953	-0.1349	0.5427
283	1054	955	-3.1648	1
284	1054	956	0.1234	0.5595
285	1054	923	-2.2045	1
286	931	1068	-0.8213	0.3044
287	931	1070	-1.1212	0.0749
288	931	957	-1.1307	0.0564

Population structure in communal bird

289	931	933	-0.8066	0.1087
290	931	947	-1.1356	1
291	931	954	-0.6826	0.3337
292	931	891	-0.8404	0.5535
293	931	953	-0.7191	0.4805
294	931	955	-0.8228	0.9186
295	931	956	0.2724	0.7627
296	931	923	-2.2045	1
297	1068	1070	0.187	0.6044
298	1068	957	0.2172	0.7404
299	1068	933	-0.1613	0.7187
300	1068	947	-0.6708	0.8036
301	1068	954	-0.8921	0.6202
302	1068	891	-0.4109	0.7538
303	1068	953	-0.6759	0.5214
304	1068	955	0.3767	1
305	1068	956	-0.4215	0.7487
306	1068	923	-0.7385	0.3565
307	1070	957	-0.27	0.733
308	1070	933	-0.556	0.8075
309	1070	947	-0.8388	0.7824
310	1070	954	-1.4391	0.3835
311	1070	891	-0.9323	0.3804
312	1070	953	-1.1288	0.0809
313	1070	955	-0.6795	0.3564
314	1070	956	-0.4914	0.36
315	1070	923	-0.7253	1

316	957	933	0.3827	0.9249
317	957	947	-0.7696	0.9159
318	957	954	-0.9265	0.3601
319	957	891	-0.8776	0.3258
320	957	953	-0.743	0.1744
321	957	955	-0.9833	0.4539
322	957	956	-0.8536	0.387
323	957	923	-1.0765	0.2019
324	933	947	-0.6841	0.8801
325	933	954	-0.6155	0.5758
326	933	891	-0.529	0.4543
327	933	953	-0.9376	0.0689
328	933	955	-0.9202	0.3486
329	933	956	-0.5751	0.3375
330	933	923	-2.2045	0.0902
331	947	954	-1.405	0.6389
332	947	891	-1.5073	1
333	947	953	-0.8453	0.1925
334	947	955	-0.782	1
335	947	956	-0.8863	0.6376
336	947	923	-2.2045	0.6524
337	954	891	-0.7051	0.3016
338	954	953	0.2153	0.7307
339	954	955	-0.1294	0.7344
340	954	956	-0.7465	0.464
341	954	923	0.0569	0.6815
342	891	953	-0.6785	0.6731

Population structure in communal bird

343	891	955	0.0029	0.8679
344	891	956	-1.0026	0.764
345	891	923	0.3011	1
346	953	955	-0.9153	0.4275
347	953	956	-0.3487	0.6186
348	953	923	0.3731	1
349	955	956	0.3138	0.9164
350	955	923	-1.4669	1
351	956	923	-0.7253	1
