

**Table A.** Showing the locations, source, number of sample amplified for mitochondrial Dloop ( $n^{mt}$ ), with microsatellites ( $n^n$ ), and grid reference (Latitude, Longitude) of all new samples used in this study.

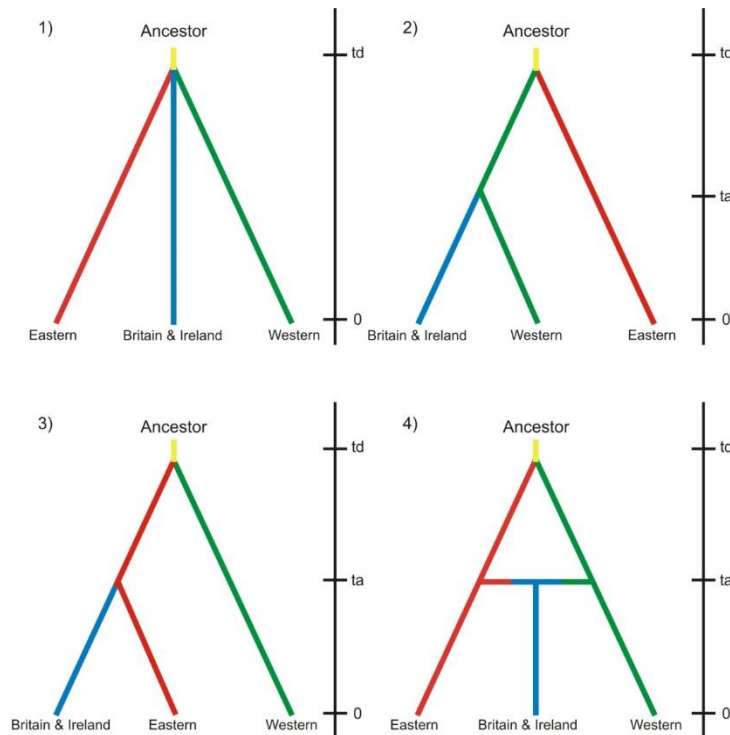
<b>Map ID</b>	<b>Location</b>	<b>Source</b>	<b><math>n^{mt}</math></b>	<b><math>n^n</math></b>	<b>Grid Ref.</b>	
IRL	Belfast, Northern Ireland	Wing punch	11	8	54.579089	5.916139
	Tollymore, Northern Ireland	Wing punch	5	17	54.221081	5.924617
	Dungannon, Northern Ireland	Wing punch	5	4	54.498611	6.755636
	Coalisland, Northern Ireland	Wing punch	1	1	54.536694	6.703625
	Jordanstown, Northern Ireland	Wing punch	5	13	54.688333	5.898439
	Downpatrick, Northern Ireland	Wing punch	5	8	54.367744	5.580544
	Kesh, Northern Ireland	Wing punch	5	9	54.521247	7.724792
	Crom Estate, Northern Ireland	Wing punch	5	16	54.186394	7.562217
	Askeaton, Ireland	Wing punch	3		52.601031	8.977186
	Oughtergard, Ireland	Wing punch	5	18	53.431653	9.319042
	Baldwinstown, Ireland	Wing punch	5	17	52.238356	6.579333
	Timoleague, Ireland	Wing punch	7	15	51.643436	8.567794
	Crosshaven, Ireland	Wing punch	5	14	51.803319	8.298853
	Ardpatrick, Ireland	Wing punch	8		52.340297	8.522353
IOM	Union Mills, Isle of Man	Faecal sample	7		54.168656	4.522597
GBR	Bristol, England	Wing punch	10		51.455314	2.591903
	Essex, England	Faecal sample	3		51.685033	0.433931
	London, England	Faecal sample	4		51.581664	0.145525
	Notts, England	Faecal sample	1		53.224717	1.076947
	Newton Stewart, Scotland	Faecal sample	1		55.064372	4.580525
	Nairn, Scotland	Faecal sample	2		57.583522	3.875178
FRA	Precy-sous-Thil, France	Wing punch	9	126	47.386567	4.309678
	Saint-Brisson, France	Wing punch	4	19	47.272544	4.088256
	Saint-Romans, France	Wing punch	2		45.118117	5.325744
	Sidiailles, France	Wing punch	4		46.507869	2.318269
	Bourges, France	Wing punch	1		47.080992	2.398778
	Troncias, France	Wing punch	1		46.640508	2.719722
	Orleans, France	Wing punch	1		47.174108	2.379514
	Champniers, France	Wing punch	2		45.714889	0.205214
	Guénin, France	Wing punch	1		47.514692	2.399394
	Saint Genis les Ollières, France	Wing punch	1		45.757283	4.726022
Fontenay, France	Wing punch	1		48.845594	2.480367	
PRT	Tondela, Portugal	Wing punch	8		40.516544	8.080647
CHE	Burgistein, Switzerland	Wing punch	1		46.78635	7.499681
	Interlaken, Switzerland	Wing punch	1		46.685989	7.867303
DEU	Wiebelsdorf, Germany	Wing punch	2		50.715267	11.950478
HUN	Felsötorkany, Hungary	DNA	2		47.962008	20.432575
GRC	Kaepension, Greece	DNA	2		38.917244	21.794369
	Prusos, Greece	DNA	1		38.742497	21.653433
	Agia Anastasia, Greece	DNA	1		39.561781	20.736408



**Table B.** continuation

Haplotypes / samples	IRL	IOM	GBR	FRA	PRT	ESP	CHE	DEU	HUN	GRC	TUR	CZE	MNE	MAR	Mad Is.	Can Is.	Az Is.	Total
Ge1								1										1
Ge2								1										1
Gr1										1								1
Gr2										1								1
Gr3										1								1
Gr4										1								1
Hu1									1									1
Mad															2			2
Mar1														2				2
Mar2														1				1
Mn													1					1
Can																1		1
A1																	9	9
A2																	4	4
A3																	3	3
A4																	25	25
A5																	14	14
A6																	4	4
A7	7	3	6														54	70
A8																	12	12
A9																	6	6
A10																	22	22
A11																	2	2
A12																	1	1
A13																	1	1
A14																	1	1
A15																	1	1
A16																	6	6
<b>Grand Total</b>	<b>75</b>	<b>7</b>	<b>21</b>	<b>27</b>	<b>35</b>	<b>1</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>165</b>	<b>359</b>

**Fig. A.** Postglacial colonisation scenarios for the *N. leisleri* tested using the ABC phylogeographical approach as implemented in DIYABC. Times of lineage origins are indicated back in time by  $td$  and  $ta$ , while 0 represent contemporary samples. Four colonization scenarios were considered. For scenario 1, the samples representing the western, the eastern groups and those in Britain & Ireland were considered to have diverged from a common ancestor at time  $td$ . For scenario 2, the western and the eastern lineages were considered to have initially diverged from the common ancestor at time  $td$ , while the group in Britain & Ireland diverged more recently (time  $ta$ ) from the western lineage. Scenario 3 is similar to scenario 2, with the difference that the group in Britain & Ireland would have diverged more recently from the eastern lineage. For scenario 4, the western and the eastern lineages were considered to have initially diverged from the common ancestor at time  $td$ . At time  $ta$ , there has been an admixture event between these two lineages giving origin to the group in Britain & Ireland. For microsatellites, given that no equivalent data was available for the Azores, simulations were run with the caveat that terminal sampling was carried out only for the eastern group and Britain & Ireland. Prior distributions of demographic parameters were as follows: Uniform [10; 10000] for effective population sizes (similar for all lineages), Uniform [1; 10000] for  $td$ , Uniform [1; 10000] for  $ta$  (with  $ta < td$ ), and Uniform [0.001; 0.999] for  $ra$  (admixture rate). The time parameter was considered as the number of generations (2 years for *N. leisleri*). The mtDNA sequences were considered to follow the two parameter model of Kimura (1980) with a fraction of constant sites fixed to 10% and the shape parameter of the Gamma distribution of mutations among sites equal to 2. The priors for mutation rate (per site per generation) followed a uniform distribution ranging from 6.7% to 25.2% with an average of 20% Myr<sup>-1</sup>. For each one of the four tested competing scenarios, 500 data sets were simulated. For model comparison, the posterior probabilities for each scenario were estimated using logistic regression (Cornuet *et al.* 2008). The posterior probabilities were used to estimate type I and II errors in the choice of each scenario (Excoffier *et al.* 2005).



Additional References:

Excoffier L., Estoup A., Cornuet JM. 2005. Bayesian analysis of an admixture model with mutations and arbitrarily linked markers. *Genetics* **169**, 1727–1738.