Supplementary Online Material

Table S1. All modern and archival sampled rabbits of this study. Sample ID, locality, year, latitude/longitude (Lat. N/Long. E), sample type, the name of the museum, and haplotype number (H) together with the GenBank accession codes were reported. The three archival specimens for which the amplification of the mtDNA Cyt-*b* gene has failed were marked with an asterisk in bold (*).

Sample ID	Locality	Year	Lat. N/Long. E	Sample type	Museum	Haplotype	GenBank
Modern samples (n = 42)							
Capraia							
CAP 1	Lo Stagnone	2021	43°02'24"N/9°48'36"E	Faeces	-	H5	PQ246085
CAP 2	Trail #402A	2021	43°02'03"N/9°48'27"E	Faeces	-	H5	PQ246085
CAP 3	Trail #404	2021	43°01'41"N/9°48'37"E	Faeces	-	H5	PQ246085
CAP 4	Ex Rifugio Militare	2021	43°01'29"N/9°48'25"E	Faeces	-	H5	PQ246085
CAP 5	Cimitero	2021	43°02'48"N/9°50'17"E	Faeces	-	H19	PQ246091
CAP 9	Trail #410	2021	43°02'26"N/9°50'34"E	Faeces	-	H19	PQ246091
CAP 10	Il Piano	2021	43°02'14"N/9°49'45"E	Faeces	-	H4	PQ246084
CAP 11	Trail #406	2021	43°02'18"N/9°50'01"E	Faeces	-	H19	PQ246091
CAP 14	Il Dattero	2023	43°03'47"N/9°49'15"E	Faeces	-	H19	PQ246091
CAP 17	Trail #415	2023	43°03'32"N/9°49'07"E	Faeces	-	H19	PQ246091
CAP 19	Mt. Castello	2023	43°02'59"N/9°48'52"E	Faeces	-	H19	PQ246091
CAP 20	Mt. Castello	2023	43°02'58"N/9°48'56"E	Faeces	-	H19	PQ246091
Gorgona							
GOR 1	Casa Colonica	2021	43°25'35"N/9°53'40"E	Faeces	-	H19	PQ246091
GOR 2	Gli Orti	2021	43°25'40"N/9°53'34"E	Faeces	-	H19	PQ246091
GOR 3	Torre Vecchia	2021	43°25'48"N/9°53'36"E	Faeces	-	H19	PQ246091
GOR 4	Road to Cala Scirocco	2021	43°25'26"N/9°53'52"E	Faeces	-	H8	PQ246086
GOR 6	Torre Vecchia	2022	43°25'48"N/9°53'35"E	Faeces	-	H19	PQ246091
GOR 9	Torre Vecchia	2022	43°25'48"N/9°53'35"E	Faeces	-	H19	PQ246091
GOR 10	Road to Cala Maestra	2022	43°26'11"N/9°54'11"E	Faeces	-	H19	PQ246091
GOR 11	Punta Gorgona	2022	43°25'43"N/9°53'35"E	Faeces	-	H19	PQ246091
GOR 12	Road to Cala Martina	2022	43°25'35"N/9°54'24"E	Faeces	-	H19	PQ246091
GOR 13	Punta Gorgona	2022	43°25'42"N/9°53'42"E	Faeces	-	H5	PQ246085
Giglio							
GIG 1	Lo Scopeto	2021	42°22'48"N/ 10°53'33"E	Faeces	-	H8	PQ246086
GIG 2	Trail #6, Poggio delle Serre	2021	42°23'13"N/ 10°52'57"E	Faeces	-	H8	PQ246086
GIG 3	Cornacchiaia	2021	42°21'07"N/ 10°53'39"E	Faeces	-	H8	PQ246086
GIG 4	Faro del Fenaio	2021	42°23'18"N/ 10°52'50"E	Faeces	-	H8	PQ246086
GIG 5	Trail #304, Poggio del Serrone	2021	42°19'49"N/ 10°54'34"E	Faeces	-	H8	PQ246086
GIG 6	Junction trails #303 and #304	2021	42°19'32"N/ 10°54'59"E	Faeces	-	H8	PQ246086
GIG 7	Faro di Capel Rosso	2021	42°19'19"N/ 10°55'06"E	Faeces	-	H8	PQ246086
GIG 8	Corvo	2021	42°20'44"N/10°53'55"E	Faeces	-	H8	PQ246086
GIG 10	Near Riserva del Franco	2021	42°21'38"N/10°52'31"E	Faeces	-	H8	PQ246086

GIG 11	Near Riserva del Franco	2021	42°21'44"N/10°52'50"E	Faeces	-	H8	PQ246086
Bolgheri							
BOL 1	Beach	2021	43°13'21"N/10°31'51"E	Faeces	-	H4	PQ246084
BOL 2	Beach	2021	43°13'18"N/10°31'52"E	Faeces	-	H4	PQ246084
BOL 3	Beach	2021	43°13'24"N/ 10°31'50"E	Faeces	-	H4	PQ246084
BOL 4	Tombolo	2021	43°13'15"N/10°31'55"E	Faeces	-	H4	PQ246084
BOL 5	Tombolo	2021	43°13'15"N/10°31'55"E	Faeces	-	H4	PQ246084
BOL 6	Beach	2023	43°13'19"N/10°31'59"E	Faeces	-	H1	PQ246083
BOL 8	Beach/Tombolo	2023	43°13'08"N, 10°32'09"E	Faeces	-	H4	PQ246084
BOL 9	Beach	2023	43°12'55"N/10°31'56"E	Faeces	-	H4	PQ246084
BOL 12	Beach	2023	43°11'58"N/10°32'07"E	Faeces	-	H1	PQ246083
BOL 13	Beach	2023	43°11'39"N/10°32'09"E	Faeces	-	H1	PQ246083
Archival samples (n = 23)							
Capraia							
MSNG 1440	-	1877	-	Skin	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 1441	-	1886	-	Skin	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H17	PQ246089
MSNG 1442	-	1886	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 3716	-	1898	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 3717	-	1898	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 3718	-	1898	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 3721	-	1898	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H18	PQ246090
MSNG 10354	-	1886	-	Skin	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 10357	-	1898	-	Skin	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 19591 *	-	1925	-	Skin	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	-	-
MSNG 19592	-	1925	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MSNG 32163	-	1931	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H19	PQ246091
MZUF 11517 *	-	1901	-	Skull	Museo di Storia Naturale 'La Specola', Florence, Italy	-	-
MZUF 11600 *	-	1877	-	Skull	Museo di Storia Naturale 'La Specola', Florence, Italy	-	-
MZUF 11601	-	1877	-	Skin	Museo di Storia Naturale 'La Specola', Florence, Italy	H20	PQ246092
Giannutri							
MZUF 11298	-	1878	-	Skin	Museo di Storia Naturale 'La Specola', Florence, Italy	H15	PQ246087
MZUF 21650	-	2003	-	Skull	Museo di Storia Naturale 'La Specola', Florence, Italy	H15	PQ246087
MZUF 22546	Punta di San Francesco	2021	-	Skull	Museo di Storia Naturale 'La Specola', Florence, Italy	H16	PQ246088
MZUF 22547	Punta di San Francesco	2021	-	Skull	Museo di Storia Naturale 'La Specola', Florence, Italy	H16	PQ246088
Giannutri 1	-	2022	-	Jaws	Collection F. Barbanera (sample provided by P. Agnelli)	H15	PQ246087
Montecristo							
MSNG 46922	Near Cala Maestra	1976	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H5	PQ246085
MSNG 47355	Valle dei Lecci	1983	-	Bone	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H5	PQ246085
MSNG 47354	Colle dei Lecci	1983	-	Skull	Museo Civico di Storia Naturale 'G. Doria', Genoa, Italy	H5	PQ246085

Table S2. All the primers employed in the study were designed by the authors. FW531/REV988 and FW726/REV890 were used in the single-step PCRs for amplification and sequencing, respectively, of a 416 bp-long mtDNA Cyt-*b* gene fragment. In the semi-nested PCRs, we used primers FW531/REV809 for the amplification of a 278 bp-long fragment (FW610/REV686 for the sequencing) while we employed primers FW726/REV988 for the amplification of a 262 bp-long fragment (FW836/REV922 for the sequencing).

Primer	Sequence (5′-3′)
FW531	ATTYTTCGCTTTTCACTTCATC
FW610	GGYTCCAACAACCCCACAGG
REV686	GTGTCTTTGATTGTRTAGTAGG
FW726	AGTCCTATTTTCACCAGAYC
REV809	GGTTTGATATGRGGAGGGG
FW836	CTATCCTACGCTCTATTCC
REV890	GATARRACTAGWGCTAGGAC
REV922	GRAGGAATGGGATGAAGGC
REV988	CGACGAGRAYTCAGAATAGG

Table S3. The *O. c. cuniculus* GenBank sequences used in this study are listed with their accession code, haplotype number (H), country of origin (with locality, when available), and the relative literature record. The Indonesian sequence was not deposited into the GenBank by the authors, and it was recovered directly from the online supplementary material of their study. Legend for the domestic breeds: *, Fauve de Bourgogne; **, Yimeng Wool; #, Chuanbai Rex; ##, Fujian Yellow; ###, Jiuyi Mountain; *#, New Zealand White.

Accession code	Haplotype	Country (locality)	Literature record
AF157467	H1	Italy (-)	Pierpaoli et al. (1999)
HG810779	H3	Italy (Sicily, Isola delle Femmine)	Lo Valvo et al. (2017)
HG810780	H5	Italy (Sicily, Catanissetta)	Lo Valvo et al. (2017)
HG810781	H1	Italy (Sicily, Cianciana)	Lo Valvo et al. (2017)
HG810788	H7	Italy (Sicily, Realmonte)	Lo Valvo et al. (2017)
HG810789	H5	Italy (Sicily, Isola di Vulcano)	Lo Valvo et al. (2017)
HG810790	H5	Italy (Sicily, Pizzo Inserra)	Lo Valvo et al. (2017)
HG810791	H5	Italy (Sicily, Oasi della Scala)	Lo Valvo et al. (2017)
AJ243197	H1	France *	Hardy et al. (1995)
AJ539438	H5	Spain (Badayoz)	Monnerot et al. (1994)
AJ539439	H5	France (Cerisay)	Monnerot et al. (1994)
AJ539440	H5	France (-)	Monnerot et al. (1994)
AJ539441	H5	France (-)	Monnerot et al. (1994)
AJ539444	H2	Spain (Tudela)	Monnerot et al. (1994)
AJ539446	H1	Spain (-)	Monnerot et al. (1994)
AJ539447	H21	Spain (-)	Monnerot et al. (1994)
AJ539448	H14	Spain (-)	Monnerot et al. (1994)
AJ539449	H12	Spain (-)	Monnerot et al. (1994)
AJ539450	H1	France (-)	Monnerot et al. (1994)
AJ539451	H9	France (-)	Monnerot et al. (1994)
AJ539452	H13	France (-)	Monnerot et al. (1994)
AJ539454	H10	France (-)	Monnerot et al. (1994)
AJ539455	H15	France (-)	Monnerot et al. (1994)
AJ539456	H8	France (-)	Monnerot et al. (1994)
AJ539457	H6	France (-)	Monnerot et al. (1994)
AJ563708	H1	France (Brittany)	Unpublished
MN098958	H5	Sweden (Gothenburg)	Mohammadi et al. (2020)
MN296708	H1	China**	Yao et al. (2019)
MN953621	H1	China #	Wang et al. (2021)
MN518689	H11	China ##	Unpublished
PP357264	H1	China ###	Unpublished
-	H1	Indonesia (local rabbit)	Setiaji et al. (2023)
U07566	H1	New Zealand *#	Irwin and Árnason (1994)
MH985853	H1	New Zealand *#	Unpublished
NC001913	H1	New Zealand *#	Gissi et al. (1998)

Table S4. Posterior probability (*p*) of membership of all investigated rabbit populations to each of the three genetic clusters (X, Y, and Z) as inferred with BAPS (cf., Fig. 3).

	Cluster X	**Cluster Y**	**Cluster Z**
Ancient Capraia	0	0	1
Capraia	0.42	0	0.58
Gorgona	0.20	0	0.80
Montecristo	1	0	0
Giglio	1	0	0
Bolgheri	0.70	0.30	0
Italy	0.63	0.37	0
France	0.50	0.50	0
Spain	0.17	0.83	0
Sweden	1	0	0
Giannutri	0	1	0
Ancient Giannutri	0	1	0
China	0	1	0
Indonesia	0	1	0
New Zealand	0	1	0