

**Phylogeographic Relationships Reveal the Origin of an Introduced Population of the Dalmatian *Algyroides* (Reptilia: Lacertidae) into Southern Italy**

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# Equal contribution

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**Table S1.** Sample codes, species, sampling locality and sequences' GenBank accession numbers used in the present study. Haplotypes for the 16S and ND4 gene fragments according to the present study. -: no haplotypes were retrieved.

CODE	Species	Country	Location	Latitude	Longitude	Lineage	Haplotypes		GenBank Accession No		Origin
							16S	ND4	16S	ND4	
1	<i>A. nigropunctatus</i>	Greece	Dikorfo, Ioannina	39.78345	20.79863	A	A1	A5		PP784216	
2	<i>A. nigropunctatus</i>	Greece	Frontzo, Ioannina	39.66628	20.84105	A	A1	A1			
3	<i>A. nigropunctatus</i>	Greece	Amfithea, Ioannina	39.67858	20.89772	A	A1	A1			
4	<i>A. nigropunctatus</i>	Greece	Dodoni, Ioannina	39.54655	20.78818	A	A1	A1			
5	<i>A. nigropunctatus</i>	Greece	Ligiades, Ioannina	39.70913	20.89695	A	A1	A1			
6	<i>A. nigropunctatus</i>	Greece	Prespa, Florina	40.82025	21.0565	A	A5	A10	PP776044	PP784217	Present study
7	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.6744	20.87793	A	A1	A1			

8	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67777	20.87765	A	A1	A1		
9	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67822	20.87547	A	A1	A1		
10	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67528	20.87822	A	A1	A1		
11	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.6746	20.87503	A	A1	A1		
12	<i>A. nigropunctatus</i>	Greece	Agios Nikolaos, Ioannina	39.8535	20.73292	A	A1	A8	PP784218	Present study
13	<i>A. nigropunctatus</i>	Greece	Aidonochori, Ioannina	40.03492	20.6063	A	A1	A1		
14	<i>A. nigropunctatus</i>	Greece	Mesovouni, Ioannina	39.93237	20.62612	A	A1	A16	PP784219	Present study
15	<i>A. nigropunctatus</i>	Greece	Chaliki, Ioannina	39.74525	21.17892	A	A1	A4	PP784220	Present study
16	<i>A. nigropunctatus</i>	Greece	Konitsa, Ioannina	40.049	20.76718	A	A1	A11	PP784221	Present study
17	<i>A. nigropunctatus</i>	Greece	Klimatia, Ioannina	39.69867	20.67842	A	A1	A1		Present study
18	<i>A. nigropunctatus</i>	Greece	Frontzo, Ioannina	39.66572	20.84082	A	A1	A12	PP784222	Present study
19	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67515	20.8737	A	A1	A1		
20	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67655	20.87843	A	A1	A1		
21	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67793	20.87657	A	A1	A1		
22	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67475	20.8784	A	A1	A1		
23	<i>A. nigropunctatus</i>	Greece	Pedeli, Ioannina	39.66033	20.83638	A	A1	A1		
24	<i>A. nigropunctatus</i>	Greece	Ligiades, Ioannina	39.70922	20.89523	A	A1	A1		
25	<i>A. nigropunctatus</i>	Greece	Aidonchori, Ioannina	40.03485	20.6031	A	A1	A1		
26	<i>A. nigropunctatus</i>	Greece	Logades, Ioannina	39.67463	20.9148	A	A1	A1		
27	<i>A. nigropunctatus</i>	Greece	Logades, Ioannina	39.67473	20.91488	A	A1	A1		

28	<i>A. nigropunctatus</i>	Greece	Nidri, Lefkada	38.72617	20.68458	B	B3	B3		PP784224	Present study
29	<i>A. nigropunctatus</i>	Greece	Nidri, Lefkada	38.72325	20.68852	B	B4	B4	PP776045	PP784223	Present study
30	<i>A. nigropunctatus</i>	Greece	Vasiliki, Ioannina	39.63472	20.94568	A	A1	A1			
31	<i>A. nigropunctatus</i>	Greece	Ravenia, Ioannina	39.48457	20.921	A	A1	A1			
32	<i>A. nigropunctatus</i>	Greece	Avgo, Ioannina	39.52648	20.90887	A	A1	A1			
33	<i>A. nigropunctatus</i>	Greece	Elliniko, Ioannina	39.5478	20.93378	A	A1	A1			
34	<i>A. nigropunctatus</i>	Greece	Terovo, Ioannina	39.39937	20.83425	A	A1	A1			
35	<i>A. nigropunctatus</i>	Greece	Marmara, Ioannina	39.64125	20.79767	A	A1	A1			
36	<i>A. nigropunctatus</i>	Albania	Gjirokastra, Gjirokastra	40.07413	20.14127	E	E5	E3	PP776046	PP784225	Present study
37	<i>A. nigropunctatus</i>	Greece	Gliki, Thesprotia	39.32785	20.61803	E	E1	E7	PP776047	PP784248	Present study
38	<i>A. nigropunctatus</i>	Greece	Parga, Preveza	39.2858	20.39468	E	E3	E8		PP784226	Present study
39	<i>A. nigropunctatus</i>	Greece	Pamvotis Island, Ioannina	39.67745	20.87805	A	A1	A1			
40	<i>A. nigropunctatus</i>	Greece	Ligiades, Ioannina	39.70927	20.89645	A	A1	A1			
41	<i>A. nigropunctatus</i>	Albania	Shtepaje, Elbasan	40.24997	20.06627	E	E5	E2	PP776046	PP784231	Present study
42	<i>A. nigropunctatus</i>	Greece	Iamatika Loutra Trifou, Aetolia-Akarnania	38.84	21.04808	B	B1	B5	PP776048	PP784228	Present study
43	<i>A. nigropunctatus</i>	Greece	Iamatika Loutra Trifou, Aetolia-Akarnania	38.84242	21.04808	B	B1	B6	PP776048	PP784227	Present study
44	<i>A. nigropunctatus</i>	Greece	Panagia Eleousa,	40.80702	20.99979	A	A5	A10	PP776044	PP784217	Present study
45	<i>A. nigropunctatus</i>	Greece	Panagia Eleousa,	40.80702	20.99979	A	A5	A10	PP776044	PP784217	Present study
46	<i>A. nigropunctatus</i>	Greece	Pili	40.80702	20.99979	A	A5	A10	PP776044	PP784217	Present study
47	<i>A. nigropunctatus</i>	Greece	Agios Georgios, Phthiotis	39.00092	21.93322	B	B2	B2	PP776049	PP784229	Present study

48	<i>A. nigropunctatus</i>	Greece	Kefalonia	38.22847	20.61477	B	B5	B1		PP784230	Present study
49	<i>A. nigropunctatus</i>	Greece	Skripero, Corfu	39.70091	19.77114	E	E6	E2	PP776050	PP784231	Present study
50	<i>A. nigropunctatus</i>	Greece	Peroulades, Corfu	39.78433	19.69297	C	C1	C3	PP776051	PP784232	Present study
51	<i>A. nigropunctatus</i>	Greece	Doukades, Corfu	39.68182	19.74454	E	E7	E5	PP776052	PP784233	Present study
52	<i>A. nigropunctatus</i>	Greece	Kato Garouna, Corfu	39.5363	19.86378	E	E2	E1		PP784234	Present study
53	<i>A. nigropunctatus</i>	Greece	Moraitika, Corfu	39.49988	19.92531	E	E2	E1		PP784234	Present study
54	<i>A. nigropunctatus</i>	Greece	Vitsa, Ioannina	39.87352	20.75062	A	A1	A1			
55	<i>A. nigropunctatus</i>	Greece	Papingo, Ioannina	39.96891	20.72866	A	A1	A9		PP784235	Present study
56	<i>A. nigropunctatus</i>	Greece	Agios Minas, Ioannina	39.95732	20.67807	A	A1	A1			
57	<i>A. nigropunctatus</i>	Greece	Ziros Lake, Arta	39.24175	20.85517	A	A1	A1			
58	<i>A. nigropunctatus</i>	Greece	Desi, Trikala	39.56042	21.37186	A	A4	A6	PP776053	PP784236	Present study
59	<i>A. nigropunctatus</i>	Greece	Ziros Lake, Arta	39.24175	20.85517	A	A2	A1			
60	<i>A. nigropunctatus</i>	Greece	Desi, Trikala	39.56042	21.37186	A	A4	A6	PP776053	PP784236	Present study
61	<i>A. nigropunctatus</i>	Greece	Prosilio, Ioannina	39.57073	21.10198	A	A1	A14		PP784237	Present study
62	<i>A. nigropunctatus</i>	Greece	Erikousa Island	39.88745	19.58424	C	C1	C1	PP776051	PP784238	Present study
63	<i>A. nigropunctatus</i>	Greece	Erikousa Island	39.88745	19.58424	C	C1	C1	PP776051	PP784238	Present study
64	<i>A. nigropunctatus</i>	Greece	Erikousa Island	39.88745	19.58424	C	C1	C1	PP776051	PP784238	Present study
65	<i>A. nigropunctatus</i>	Italy	Otranto, Lecce	40.11662	18.50754	C	C1	C2	PP776051	PP784239	Present study
66	<i>A. nigropunctatus</i>	Italy	Otranto, Lecce	40.11302	18.51499	C	C1	C2	PP776051	PP784239	Present study
67	<i>A. nigropunctatus</i>	Bosnia		43.71605	18.2863	A	A2	A1			

68	<i>A. nigropunctatus</i>	Slovenia	Vanganel, Vanganelsko jezero	45.5104	13.7792	A	A2	A13		PP784240	Present study
69	<i>A. nigropunctatus</i>	Slovenia	Vanganel, Vanganelsko jezero	45.5104	13.7792	A	A3	A1	PP776054		Present study
70	<i>A. nigropunctatus</i>	Slovenia	Vanganel, Vanganelsko jezero	45.5104	13.7792	A	A3	A1	PP776054		Present study
71	<i>A. nigropunctatus</i>	Slovenia	Vanganel, Vanganelsko jezero	45.5104	13.7792	A	A2	A13		PP784240	Present study
72	<i>A. nigropunctatus</i>	Slovenia	Vanganel, Vanganelsko jezero	45.5104	13.7792	A	A2	A13		PP784240	Present study
73	<i>A. nigropunctatus</i>	Slovenia	Hrastovlje, Koper	45.50992	13.9016	A	A2	A1			
74	<i>A. nigropunctatus</i>	Slovenia	Hrastovlje, Koper	45.50992	13.9016	A	A2	A3		PP784241	Present study
75	<i>A. nigropunctatus</i>	Slovenia	Hrastovlje, Koper	45.50992	13.9016	A	A2	A3		PP784241	Present study
76	<i>A. nigropunctatus</i>	Montenegro	Skadar Lake	42.16475	19.23147	A	A1	A7		PP784242	Present study
77	<i>A. nigropunctatus</i>	Montenegro	Skadar Lake	42.16475	19.23147	A	A1	A7		PP784242	Present study
78	<i>A. nigropunctatus</i>	Greece	Delvinaki, Ioannina	39.98368	20.41616	A	A1	A15		PP784243	Present study
79	<i>A. nigropunctatus</i>	Albania	Dhermi	40.14493	19.63083	C	C1	-	PP776051	-	Present study
80	<i>A. nigropunctatus</i>	Albania	Divjaka	40.99181	19.55419	D	D2	D1	PP776057	PP784244	Present study
81	<i>A. nigropunctatus</i>	Albania	Divjaka	40.99181	19.55419	D	D2	D2	PP776057	PP784245	Present study
82	<i>A. nigropunctatus</i>	Greece	Lista, Thesprotia	39.73156	20.48148	A	A1	-		-	Present study
83	<i>A. nigropunctatus</i>	Greece	Kalodiki, Thesprotia	39.31898	20.44969	E	E3	E9		PP784246	Present study
84	<i>A. nigropunctatus</i>	Greece	Gliki, Thesprotia	39.32667	20.62278	E	E1	E6	PP776047	PP784247	Present study
85	<i>A. nigropunctatus</i>	Greece	Lista, Thesprotia	39.73156	20.48148	A	A1	-		-	Present study
86	<i>A. nigropunctatus</i>	Greece	Gliki, Thesprotia	39.32667	20.62278	E	E4	-	PP776058	-	Present study
87	<i>A. nigropunctatus</i>	Albania	Blue Eye Nature Monument	39.92399	20.19245	E	E8	E4	PP776059	PP784249	Present study

88	<i>A. nigropunctatus</i>	Greece	Kori, Trikala	39.55069	21.57217	A	A4	A6	PP776053	PP784236	Present study
89	<i>A. nigropunctatus</i>	Greece	Kori, Trikala	39.55069	21.57217	A	A4	-	PP776053	-	Present study
90	<i>A. nigropunctatus</i>	Albania	Blue Eye Nature Monument	39.92399	20.19245	A	A7	-	PP776060	-	Present study
91	<i>A. nigropunctatus</i>	Albania	Blue Eye Nature Monument	39.92399	20.19245	A	A1	-		-	Present study
92	<i>A. nigropunctatus</i>	Montenegro	Skadar Lake	42.16475	19.23147	A	A6	-	PP776055	-	Present study
93	<i>A. nigropunctatus</i>	Albania	Llogara National Park	40.21331	19.57924	D	D1	-	PP776056	-	Present study
94	<i>A. nigropunctatus</i>	Greece	Sagiada, Thesprotia	39.63715	20.20187	E	E5	-	PP776046	-	Present study
95	<i>A. nigropunctatus</i>	Greece	Seriziana, Ioannina	39.28797	20.68072	E	E1	-	PP776047	-	Present study
96	<i>A. nigropunctatus</i>					A	A2	A2	NC 059780	NC 059780	Kirchhof et al., 2021
97	<i>A. nigropunctatus</i>	Greece	Lefkada Island			B	B3		AY942797		Podnar and Mayer, 2006
98	<i>A. nigropunctatus</i>	Greece	Anthochori			A	A1		AY942796		Podnar and Mayer, 2006
99	<i>A. nigropunctatus</i>					A	A2	A2	MW496122	MW496122	Kirchhof et al., 2021
100	<i>A. nigropunctatus</i>	Greece	Vitsa, Ioannina			A	A1	A1	MZ219854	MZ219969	Rato et al., 2021
101	<i>A. nigropunctatus</i>	Greece	Papingo, Ioannina			A	A1	A1	MZ219855	MZ219970	Rato et al., 2021
102	<i>A. nigropunctatus</i>	Greece	Voidomatis River, Ioannina			A	A1	A1	MZ219856	MZ219971	Rato et al., 2021
103	<i>A. nigropunctatus</i>	Greece	Corfu Island			E	E2		AY942790		Podnar and Mayer, 2006
104	<i>A. nigropunctatus</i>	Croatia	Zezevica			A	A2		AY942791		Podnar and Mayer, 2006
105	<i>A. nigropunctatus</i>	Greece	Kefalonia Island			B	B5		AY942792		Podnar and Mayer, 2006
106	<i>A. nigropunctatus</i>	Croatia	Istra, Dvigrad near Kanfanar			A	A2		AY942793		Podnar and Mayer, 2006
107	<i>A. nigropunctatus</i>	Croatia	Cres			A	A2		AY942794		Podnar and Mayer, 2006

<b>108</b>	<i>A. nigropunctatus</i>	Greece	Parga, Thesprotia			E	E3	AY942795		Podnar and Mayer, 2006
<b>109</b>	<i>A. moreoticus</i>	Greece	Kambos, Messinia	36.95	22.18975			PP947930	PP955415	Present study
<b>110</b>	<i>A. fitzingeri</i>	Italy	Lula (Nuoro), Sardinia					HQ605789		Greenbaum, E. et al., 2011
<b>111</b>	<i>A. fitzingeri</i>	Italy	Sardinia					GQ142104		Pavlicev, M. and Mayer, W. 2009
<b>112</b>	<i>A. fitzingeri</i>	Italy	Sardinia						FR821082	Salvi, D. et al., 2011
<b>113</b>	<i>A. fitzingeri</i>	Italy	Sardinia						FR821083	Salvi, D. et al., 2011

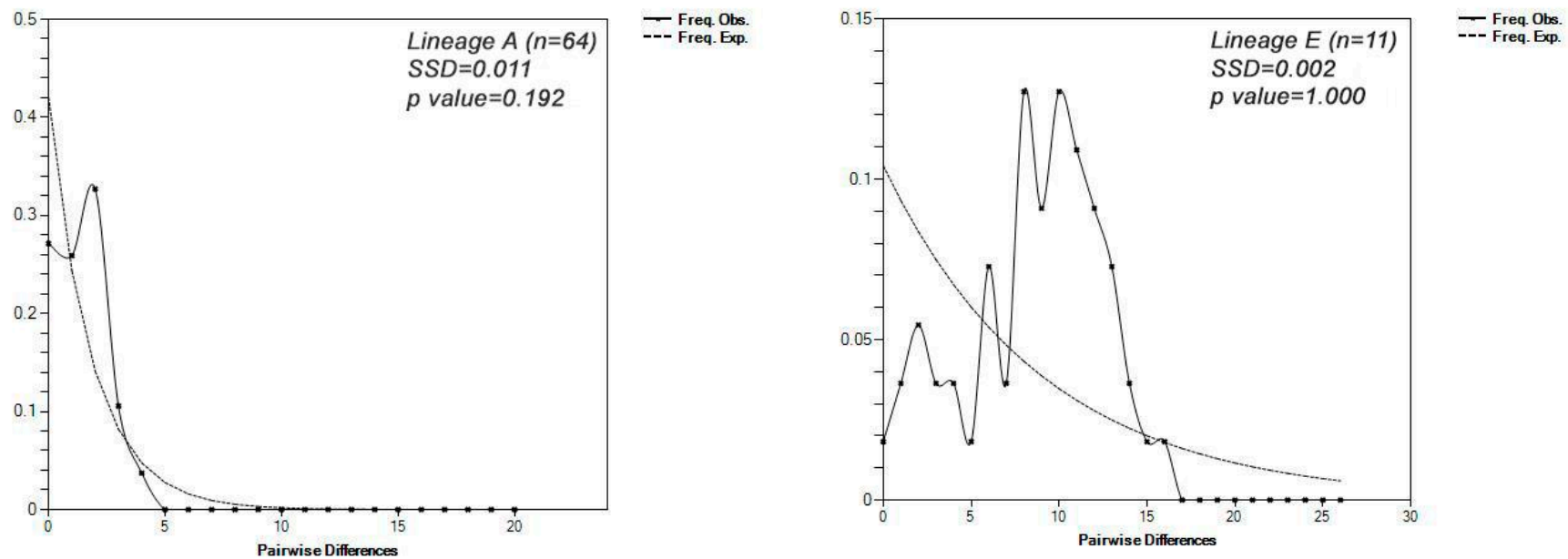
**Table S2.** Sequence-based diversity calculations ( $\Phi_{st}$ ) between the main lineages for ND4 (above diagonal) and 16S (below diagonal).

	Lineage A	Lineage B	Lineage C	Lineage D	Lineage E
Lineage A	-	0.909	0.942	0.964	0.906
Lineage B	0.829	-	0.807	0.793	0.680
Lineage C	0.917	0.826	-	0.898	0.737
Lineage D	0.919	0.816	0.963	-	0.698
Lineage E	0.893	0.709	0.812	0.777	-



**Table S3.** Mismatch distribution analysis and neutrality tests based on the concatenated datasets for lineages with over 10 individuals. Statistically significant results are shown in bold.

	<b>Lineage</b>	
	<b>A</b> <b>(N=64)</b>	<b>E</b> <b>(N=11)</b>
$\tau$	1.755	10.515
$\theta_0$	0.010	0.003
$\theta_1$	6.315	40.845
SSD	0.011	0.002
p value	0.192	1.000
Tajima's D	<b>-2.071</b>	-0.463
Tajima's D p-value	<b>p&lt;0.05</b>	p>0.10
Fu's Fs	<b>-16.097</b>	-2.661
Fu's Fs p-value	<b>p&lt;0.01</b>	p>0.10



**Figure S1.** Mismatch distribution analysis showing unimodal and multimodal distribution (non-significant) for lineages A and E, respectively, based on the concatenated dataset.