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**Supplementary Figure S1.** STRUCTURE exploratory analysis using different combinations of ancestry and allele frequency models (5 simulations, 100000 iterations, 25000 burn-in): A – admixture and independent; B – no admixture and correlated; C – no admixture and independent; x – axis: K number (2–9), y – axis – Delta K. All exploratory analysis suggested five clusters as it did the final analysis (see text for details).



**Supplementary Figure S2.** Factorial Correspondence Analysis (FCA) ordination along the first three axes of 67 individuals of *Sala-mandra atra* from the Dinarides based on six microsatellite loci. Each label corresponds to a sampling site (from north to south): Gorski Kotar (yellow – Vihoraški put, orange – Samarske stijene), Prenj (light green – Zakantar, dark green – Podotiš, green – Kopilice), Prokletije (pink – Bogićevica, violet – Gozdarevac), Čvrsnica – red. No clear clustering of sampling sites within the same sampling area is inferred. The individuals from Čvrsnica are included for a proper partitioning of variation among the Dinaric population. Axis 2 separates well Gorski Kotar (Northern Dinarides) from the other sampling areas (Central and Southern Dinarides).

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**Supplementary Table S1.** Accession numbers (Acc. No) of the sequences (*cob* and *D-loop*) from public repositories (GenBank) used in this study (courtesy of Crestanello). Hap – Inferred haplotypes (as in Fig. 2 and Table 1). Codes of sampling locations are as in Fig. 1 and Table 1. Collapsed haplotypes from BONATO et al. (2018) are in bold. In the last column, if different, the reference for *cob* is separated from the reference of *D-loop* by a comma:  $\alpha$  – BONATO et al. (2018),  $\beta$  – VENCES et al. (2014),  $\gamma$  – STEINFARTZ et al. (2000),  $\delta$  – this study.

Нар	Code	Acc. No: cob	Acc. No: <i>D-loop</i>	Reference	Нар	Code	Acc. No: <i>cob</i>	Acc. No: <i>D-loop</i>	Reference
H1	18	MN255339	MN255326	δ	H16	16	MN255349	MN255336	δ
H2	18	MN255340	MN255327	δ	H17	16	MN255350	MN255337	δ
H3	18	MN255341	MN255328	δ	H18	1	MG968419	MG968401	α
H4	19	MN255342	MN255329	δ	H19	1, 2	MG968411	MG968401	α
H5	19	MN255343	MN255330	δ	H20	1, 2	MG968418	MG968401	α
H6	23	MN255345	MN255332	δ	H20	1	MG968411	MG968390	α
H7	26, 27	MN255351	MN255338	δ	H21	10, 11, 12, 13	MG968410	AY628440.1	α, γ
H8	20	MN255344	MN255331	δ	H22	12	MG968410	MG968399	α
H9	22	MG968412	MG968391	α	H23	10	KF645910	KT335870	β, γ
H10	22	MG968413	MG968391	α	H24	14, 15	MG968403	KF645583.1	α, β
H11	24	MN255346	MN255333	δ	H25	3	MG968402	MG968400	α
H11	21, 25	MG968412	MG968392	α	H26	8	MG968405	MG968397	α
H12	20, 23, 22	MN255347	MN255334	δ	H27	8, 7, 6	MG968406	MG968397	α
H12	21, 25	MG968415	MG968392	α	H28	6	MG968404	MG968397	α
H12	17	MG968415	MG968393	α	H29	4	MG968409	MG968396	α
H13	24, 22	MN255348	MN255335	δ	H30	5	MG968408	MG968395	α
H13	21, 22, 25	MG968414	MG968394	α	H31	5	MG968407	MG968397	α
H14	9	MG968416	AY628442.1	α, γ	H32	6	MG968407	MG968398	α
H15	9	MG968417	AY628442.1	α, γ					

Supplementary Table S2. PCR conditions and characteristics of the microsatellite loci.

Locus/Forward primer label	PCR option	Allelic range	Number of alleles	Primer conc. (µM)	PCR thermal profile
SalE6/HEX		252-300	9	0.20	94°C (120 s)
SalE8/HEX	MIX1	135-157	7	0.10	[94°C (40 s) – 60 °C (30 s) – 65°C (40 s) × 35]
SalE12/TAMRA		160-194	12	0.10	65°C (300 s)
SalE7/HEX		188-220	10	0.08	94°C (120 s)
SalE23/HEX	MIX2	257-323	7	0.20	$[94^{\circ}C (40 s) - 56^{\circ}C (30 s) - 65^{\circ}C (40 s) \times 35]$ 65°C (300 s)
SalE14/TAMRA	Single	219-265	7	0.08	94°C (120 s) [94°C (40 s) – 64°C (30 s) – 65°C (40 s) × 35] 65°C (300 s)