

Contribution to Zoology

Morphological and genetic diversification of Old-World marbled newts, with the description of a new and ‘not-at-all-cryptic’ subspecies from the Iberian Peninsula (*Triturus*, Salamandridae)

Jan W. Arntzen | ORCID: 0000-0003-3229-5993

Institute of Biology, Leiden University, 2333 BE Leiden, The Netherlands

Naturalis Biodiversity Center, 2333 CR Leiden, The Netherlands

pim.arntzen@gmail.com

Supplementary material

TABLE S1 Details on Nlink counts in material from Doñana National Park kept in the 'Museo Nacional de Ciencias Naturales', Madrid, Spain.

Specimen number	Locality	Life stage and sex	Number of links			Note
			Left	Right	Total	
9568	Coto de Doñana	Female	2	5	7	
9569		Male	4	4	8	
11737	El Rocío	Juvenile	2	3	5	
11738		Juvenile	2	2	4	
11739		Juvenile	1	3	4	
11740		Juvenile	1	1	2	
12059	El Rocío	Juvenile	2	5	7	Label missing
12060		Juvenile	1	2	3	
12061		Juvenile	0	2	2	
12062		Juvenile	2	3	5	
12063		Juvenile	3	4	7	
12064		Juvenile	0	0	0	
12065		Juvenile	2	1	3	
12066		Juvenile	4	2	6	
12067		Male	2	4	6	Only just mature

12068	Juvenile	2	3	5
12069	Juvenile	2	1	3
12070	Juvenile	3	3	6

TABLE S2 Reconstruction of a geographical cline in *Triturus pygmaeus* across Doñana National Park from published microsatellite results (Albert & García-Navas, 2022: Figure 4). Top panel – Structure Q-scores and associated data. The reference point for distance in this analysis is the northern bank of the Guadalquivir River with the coordinates 36.7956 N and 6.3700 W. Bottom panel – parameters for the best fitting geographical cline determined with HZAR software (Derryberry et al., 2014), following a protocol used earlier (Arntzen et al., 2017).

Locality	Distance (km)	Structure Q	Sample size
1	54.268	0.143	47
2	41.718	0.189	43
3	35.998	0.112	22
4	40.535	0.166	107
5	31.312	0.232	65
6	32.053	0.114	83
7	29.687	0.19	57
8	29.438	0.211	27
9	30.435	0.2	83
10	30.059	0.186	89
11	27.540	0.166	38
12	27.713	0.259	44
13	27.344	0.154	94
14	28.087	0.178	63
15	26.212	0.181	64

16	26.727	0.174	68
17	25.603	0.122	64
18	26.714	0.207	62
19	24.939	0.164	63
20	23.867	0.218	71
22	22.713	0.246	75
23	22.647	0.194	10
25	24.389	0.154	66
26	23.313	0.216	76
27	22.771	0.188	23
28	22.771	0.216	5
29	21.330	0.169	43
30	21.588	0.257	52
31	19.416	0.187	78
32	16.024	0.803	71
33	15.060	0.901	23
34	14.479	0.919	23
35	13.493	0.938	20
37	12.518	0.907	21
39	11.077	0.904	25
40	10.872	0.939	84
41	9.741	0.947	20
42	7.374	0.949	73
43	7.229	0.95	7
44	6.646	0.98	7

45	6.629	0.952	114
46	6.610	0.947	88
47	5.624	0.929	57
48	5.294	0.961	34
49	5.236	0.952	14
50	4.769	0.962	5
51	4.699	0.949	10
54	3.797	0.949	7
55	3.766	0.951	32
57	1.470	0.956	68
58	1.072	0.987	8

Model selected – optN, with estimated parameter values as follows.

Position of cline centre – 16.93 km; 95% credibility interval 16.03–17.67 km.

Cline width – 2.52; 95% credibility interval 0.015–4.43 km.

Values at either side of the transect – $Q = 0.055$ and $Q = 0.834$.

References

- Albert, E. M., García-Navas, V. (2022). Population structure and genetic diversity of the threatened pygmy newt *Triturus pygmaeus* in a network of natural and artificial ponds. *Conservation Genetics* 23(0): 575–588. <https://doi.org/10.1007/s10592-022-01437-7>
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