

SUPPLEMENTARY MATERIAL

corresponding to:

**A polymorphism in oocyte pigmentation
in natural populations of the glass frog
Espadarana prosoblepon (Centrolenidae)**

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Table S1. Summary of collecting sites for *E. prosoblepon* samples from the Ecuadorian lowlands.

Locality	Province	Latitude	Longitude	Elevation (m)	Specimens code
Junín	Imbabura	0.279314	-78.666662	1342	QCAZ66722, QCAZ66723, QCAZ66724 & QCAZ66725
Los Cedros Ecological Reserve	Imbabura	0.3088	-78.77927	1386	QCAZ63221, QCAZ63222, QCAZ63223 & QCAZ63224
Lita – Balneario	Imbabura	0.86305	-78.45314	568	QCAZ51400 & LSUMNS12758
Reserva Ecológica Bosque Nublado Santa Lucía	Pichincha	0.10962	-78.60936	1657	QCAZ56718
Playa Rica	Pichincha	0.175312444	-78.62957061	1048	QCAZ41977
Manta Real	Cañar	-2.56681	-79.36687	339	QCAZ63364
Río Chillayacu	El Oro	-3.32834	-79.58102	415	QCAZ45306 & QCAZ45304
Jama Coaque	Manabí	-0.1194	-80.12085	424	QCAZ50991

Table S2. Sequences of Centrolenid species and outgroups used in analyses.

Species	Voucher	GenBank Accession No.		References
		16S	NDI	
<i>Allophryne ruthveni</i>	MAD 1512	AY843564	–	1
<i>Celsiella revocata</i>	MHNLS 17319	EU663019	–	2
<i>Centrolene altitudinale</i>	MHNLS 17194	EU662974	–	2
<i>Centrolene antioquiense</i>	NRPS 014	EU662977	–	2
<i>Centrolene bacatum</i>	QCAZ 22728	EU662978	–	2
<i>Centrolene buckleyi</i>	KU 178031	EU662979	–	2
<i>Centrolene daidaleum</i>	MHUA 3271	EU663007	–	2
<i>Centrolene geckoideum</i>	KU 178015	EU662982	–	2
<i>Centrolene hesperium</i>	MHNSM 25802	EU662986	–	2
<i>Centrolene notostictum</i>	MAR 510	EU662992	–	2
<i>Centrolene peristictum</i>	QCAZ 22312	EU662993	–	2
<i>Centrolene savagei</i>	MHUA 4094	EU663020	–	2
<i>Centrolene venezuelense</i>	MHNLS 16497	EU663001	–	2
<i>Chimerella mariaelenae</i>	QCAZ 31729	EU662991	–	2
<i>Cochranella euknemos</i>	CH 5109	EU663008	–	2
<i>Cochranella granulosa</i>	CH 5121	EU663010	–	2
<i>Cochranella litoralis</i>	QCAZ 27693	EU662990	–	2
<i>Cochranella mache</i>	QCAZ 27747	EU663013	–	2
<i>Espadarana andina</i>	JMG 366	EU662976	EU663072	2
<i>Espadarana callistomma</i>	QCAZ 28555	EU662981	–	2
<i>Espadarana prosoblepon</i> – Costa Rica	MV 149741	–	AY286061	3
<i>Espadarana prosoblepon</i> – Costa Rica	MVZ 203790	–	JX564857	3
<i>Espadarana prosoblepon</i> – Panama	AJC 1776	KR863253	–	4
<i>Espadarana prosoblepon</i> – Panama	CA 155	–	AY286058	3
<i>Espadarana prosoblepon</i> – Panama	FE 345	–	AY578735	3
<i>Espadarana prosoblepon</i> – Panama	MVZ232752	–	AY948756	5
<i>Espadarana prosoblepon</i> – EC Rio Chillayuco	QCAZ 45306	MT018468	MT025718	This study
<i>Espadarana prosoblepon</i> – EC Rio Chillayuco	QCAZ 45304	–	MT025719	This study
<i>Espadarana prosoblepon</i> – EC Manta Real	QCAZ63364	–	MT025720	This study
<i>Espadarana prosoblepon</i> – EC Jama Coaque	QCAZ50991	–	MT025721	This study
<i>Espadarana prosoblepon</i> – EC Lita	QCAZ 51400	MT018469	MT025732	This study

<i>Espadarana prosoblepon</i> – EC Lita	LSUMNS12758	–	AY286068	6
<i>Espadarana prosoblepon</i> – EC Los Cedros	QCAZ63222	–	MT025722	This study
<i>Espadarana prosoblepon</i> – EC Los Cedros	QCAZ63223	–	MT025723	This study
<i>Espadarana prosoblepon</i> – EC Los Cedros	QCAZ63221	–	MT025729	This study
<i>Espadarana prosoblepon</i> – EC Los Cedros	QCAZ63224	–	MT025730	This study
<i>Espadarana prosoblepon</i> – EC Junin	QCAZ66724	–	MT025724	This study
<i>Espadarana prosoblepon</i> – EC Junin	QCAZ66722	–	MT025726	This study
<i>Espadarana prosoblepon</i> – EC Junin	QCAZ66723	–	MT025727	This study
<i>Espadarana prosoblepon</i> – EC Junin	QCAZ66725	–	MT025728	This study
<i>Espadarana prosoblepon</i> – EC Playa Rica	QCAZ41977	–	MT025725	This study
<i>Espadarana prosoblepon</i> – EC Santa Lucia	QCAZ56718	–	MT025731	This study
<i>Hyalinobatrachium aureoguttatum</i>	QCAZ 32105	EU663032	–	2
<i>Hyalinobatrachium bergeri</i>	MHNCP 5713	GQ142062	–	7
<i>Hyalinobatrachium cappellei</i>	MTD48146	JN870851	–	8
<i>Hyalinobatrachium carlesvilai</i>	ZMFK 75238	GQ142057	–	7
<i>Hyalinobatrachium chirripoi</i>	UCR 17424	EU663037	–	2
<i>Hyalinobatrachium colymbiphyllum</i>	UCR 17423	EU663039	–	2
<i>Hyalinobatrachium crurifasciatum</i> (synon. <i>cappellei</i> ; Castroviejo–Fisher <i>et al.</i> , 2011)	MHNLS 16475	EU663040	–	2
<i>Hyalinobatrachium duranti</i>	MHNLS 16493	EU663041	–	2
<i>Hyalinobatrachium eccentricum</i> (synon. <i>Cappellei</i> ; Castroviejo–Fisher <i>et al.</i> , 2011)	MHNLS 17335	EU663042	–	2
<i>Hyalinobatrachium fleischmanni</i>	QCAZ 22303	EU663044	–	2
<i>Hyalinobatrachium iaspidiense</i>	LSUMZ H 15460	JN870867	–	9
<i>Hyalinobatrachium ibama</i>	MAR 503	EU663048	–	2
<i>Hyalinobatrachium mondolfii</i>	SMNS 12255	JN870870	–	9
<i>Hyalinobatrachium pallidum</i>	MHNLS 17238	EU663052	–	2
<i>Hyalinobatrachium pellucidum</i>	MHNCP 4880	GQ142065	–	10
<i>Hyalinobatrachium talamancae</i>	CH 5330	EU663054	–	2
<i>Hyalinobatrachium tatayoi</i>	MHNLS 17174	EU663055	–	2

<i>Hyalinobatrachium taylori</i>	MHNLS 17141	EU663056	EU663151	8
<i>Hyalinobatrachium valerioi</i>	UCR 17418	EU663057	–	2
<i>Ikakogi tayrona</i>	MAR 546	EU662999	–	2
<i>Nymphargus grandisonae</i>	QCAZ 22310	EU662985		2
<i>Nymphargus grandisonae</i>	QCAZ 11683	–	AY819465	11
<i>Nymphargus griffiths</i>	QCAZ 29525	KF208516	–	12
<i>Nymphargus pluvialis</i>	KU 173224	EU663065	–	2
<i>Nymphargus siren</i>	KU 179171	EU663067	–	2
<i>Nymphargus wileyi</i>	QCAZ 27435	EU663068	–	2
<i>Rulyrana flavopunctata</i>	QCAZ 32265	EU663009	–	2
<i>Sachatamia albomaculata</i>	USNM 534151	EU663003	–	2
<i>Sachatamia ilex</i>	UCR 16861	EU662988	–	2
<i>Teratohyla midas</i>	KHJ	EU663014	–	2
<i>Teratohyla pulverata</i>	USNM 538588	EU663053	–	2
<i>Teratohyla spinosa</i>	USNM 538863	EU663023	–	2
<i>Vitreorana castroviejoi</i>	MHNLS 16446	EU663004	–	2
<i>Vitreorana gorzulae</i>	MHNLS 17325	EU266750	–	13
<i>Vitreorana helenae</i>	MHNLS 17139	EU663012	–	2
<i>Vitreorana oyampiensis (ritae)</i>	MB 165	EU266755	–	13
<i>Epipedobates machalilla</i>	QCAZ 53672	KY407889	–	14
<i>Dendrobates auratus</i>	AF124115	AF124115	–	15
<i>Engystomops coloradorum</i>	QCAZ 19418	DQ337222	–	16
<i>Engystomops guayaco</i>	QCAZ 23533	DQ337219	–	16
<i>Pleuroderma bufoninum</i>	MLP A 4747	JQ937176	–	17
<i>Pleuroderma cordobae</i>	MACN 42299	JQ937182	–	17
<i>Pleuroderma diplolister</i>	TG427	KU495455	–	18
<i>Rhinella marina</i>	QCAZ 50702	KR012644	–	19
<i>Atelopus spumarius</i>	BPN 754	DQ283260	–	20
<i>Agalychnis spurrelli</i>	CP13217	AY326043	–	21
<i>Dendropsophus carnifex</i>	QCAZA39333	KY406456	–	22

Table S3. Egg pigmentation and oviposition site documented in 56 species of the Centrolenidae family

Species	Egg color*	Oviposition site †	0 & E	0 & U	1 & E	1 & U	0 & B	1 & B	References
<i>Celsiella revocata</i>	0	B					1		23,24
<i>Centrolene altitudinale</i>	0	E	1						24
<i>Centrolene antioquiense</i>	0	U		1					25–27
<i>Centrolene bacatum</i>	0	E	1						28
<i>Centrolene buckleyi</i>	1	E			1				D.A.
<i>Centrolene daidaleum</i>	0	E	1						29,30
<i>Centrolene geckoideum</i>	1	E			1				31
<i>Centrolene hesperium</i>	0	E	1						32
<i>Centrolene notostictum</i>	0	U		1					33
<i>Centrolene peristictum</i>	0	B					1		34,35
<i>Centrolene savagei</i>	0	E	1						36
<i>Centrolene venezuelense</i>	0	E	1						24,37
<i>Chimerella mariaelenae</i>	0	B					1		38
<i>Cochranella euknemos</i>	1	E			1				39
<i>Cochranella granulosa</i>	1	E			1				34
<i>Cochranella litoralis</i>	0	E	1						40
<i>Cochranella mache</i>	0	E	1						41,42
<i>Cochranella vosmedianoi</i>	0	E	1						24
<i>Espadarana andina</i>	0	E	1						37
<i>Espadarana callistomma</i>	1	E			1				43
<i>Espadarana prosoblepon</i>	1	B			1				44–46
<i>Hyalinobatrachium aureoguttatum</i>	0	U		1					47
<i>Hyalinobatrachium bergeri</i>	0	U		1					48
<i>Hyalinobatrachium cappellei</i>	0	U		1					9,49
<i>Hyalinobatrachium carlesvilai</i>	0	B					1		7
<i>Hyalinobatrachium chirripoi</i>	0	U		1					50
<i>Hyalinobatrachium colymbiphyllum</i>	0	U		1					51,52
<i>Hyalinobatrachium crurifasciatum</i>	0	U		1					24,53
<i>Hyalinobatrachium duranti</i>	0	U		1					24
<i>Hyalinobatrachium eccentricum</i>	0	U		1					24
<i>Hyalinobatrachium fleischmanni</i>	0	B					1		54
<i>Hyalinobatrachium iaspidiense</i>	0	U		1					9,55
<i>Hyalinobatrachium ibama</i>	0	U		1					30

<i>Hyalinobatrachium mondolfii</i>	0	U	1		56			
<i>Hyalinobatrachium pallidum</i>	0	B		1	24,30			
<i>Hyalinobatrachium pellucidum</i>	0	U	1		57			
<i>Hyalinobatrachium talamancae</i>	0	U	1		58			
<i>Hyalinobatrachium tatayoi</i>	0	U	1		59			
<i>Hyalinobatrachium taylori</i>	0	B		1	24,60			
<i>Hyalinobatrachium valerioi</i>	0	U	1		61,62			
<i>Ikakogi tayrona</i>	0	B		1	54			
<i>Nymphargus grandisonae</i>	0	E	1		63			
<i>Nymphargus griffiths</i>	0	B		1	64			
<i>Nymphargus pluvialis</i>	0	E	1		65			
<i>Nymphargus siren</i>	0	E	1		66			
<i>Nymphargus wileyi</i>	0	E	1		53,67			
<i>Rulyrana flavopunctata</i>	1	B		1	68			
<i>Sachatamia albomaculata</i>	1	B		1	53,69,70			
<i>Sachatamia ilex</i>	1	E		1	71			
<i>Teratohyla midas</i>	0	E	1		72			
<i>Teratohyla pulverata</i>	0	E	1		34,73			
<i>Teratohyla spinosa</i>	0	B		1	53,74			
<i>Vitreorana castroviejoi</i>	0	E	1		24			
<i>Vitreorana gorzulae</i>	0	B	1		10			
<i>Vitreorana helenae</i>	0	E	1		24			
<i>Vitreorana oyampiensis</i>	0	B		1	75,76			
TOTAL			19	17	9	0	11	0

* 0= Pale, 1 =Dark–Brown

† E= Exposed, U= Underside of leaves, B= Both,

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