Supplementary Materials:

Rapid and Repeated Divergence of Animal Chemical Signals in an Island Introduction Experiment

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Tables S1 to S7 and Figure S1

Chemical analyses. We analyzed the samples using an Agilent 7890A gas chromatograph (GC) (Agilent Technologies, Palo Alto, CA, USA) fitted with a poly (5% diphenyl/95% dimethylsiloxane) column (HP5-MS, 30 m length x 0.25 mm ID, 0.25 mm film thickness) coupled to an Agilent 5975C Triple Axis Detector mass spectrometer (MS) operated in electron impact ionization mode (EI, 70 eV of electron energy). The current of the filament was 150 µA. We performed splitless sample injections (1 µl of each sample dissolved in 100 µl n-hexane) with helium as the carrier gas at a constant flow rate of 30cm/s, and injector and detector temperatures at 250 °C and 280 °C, respectively. The oven temperature program started at 45 °C, was maintained isothermal for 10 min, then increased to 280 °C at a rate of 5 °C/min, and finally isothermal (280 °C) for 15 min. Mass spectral fragments below m/z = 46 were not recorded.

Initial identification of secretion components was done by comparing their mass spectra with those in the NIST/EPA/NIH (NIST 02) computerized mass spectral library. We confirmed identifications by comparing spectra and retention times with those of authentic standards (from Sigma-Aldrich Chemical Co.) when these were available. Impurities identified in the control vial samples were not considered. Because we were interested in examining differences between populations in the overall chemical profile, we determined the relative amount of each compound as the percent of the total ion current (TIC).

Table S1.

Lipophilic compounds found in femoral gland secretions of male *Podarcis erhardii* lizards from the source population (Alyko) and the five experiment islands (Agios Artemios, Galiatsos, Kambana, Mavronissi, and Petalida). The relative amount of each component was determined as the percent of the total ion current (TIC) and reported as the average (±SE). Characteristic ions (m/z) are reported for unidentified (“Unid.”) compounds. RT: Retention time. An asterisk after the compound name denotes that the identification of this compound was confirmed with standards, while the rest were tentative identifications based on mass spectra comparisons.

RT	Compound	Source Population	Experimental Populations				
		Alyko	Agios Artemios	Galiatsos	Kambana	Mavronissi	Petalida
27.0	Tetradecanal *	0.09 ± 0.01	0.10 ± 0.01	0.12 ± 0.01	0.11 ± 0.01	0.09 ± 0.01	0.10 ± 0.01
28.8	Tetradecanol *	0.10 ± 0.02	0.07 ± 0.01	0.13 ± 0.01	0.13 ± 0.02	0.10 ± 0.01	0.09 ± 0.01
28.9	2-Pentadecanone *	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01
29.3	Pentadecanal *	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.02 ± 0.01
31.0	An tetradecenal	0.01 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.02 ± 0.01	0.05 ± 0.01	0.03 ± 0.01
31.4	Hexadecanal *	2.08 ± 0.26	1.69 ± 0.13	1.73 ± 0.16	1.67 ± 0.25	1.52 ± 0.06	1.56 ± 0.13
32.7	An hexadecenal	0.01 ± 0.01	0.02 ± 0.01	0.01 ± 0.01	0.02 ± 0.01	0.04 ± 0.01	0.01 ± 0.01
33.1	2-Heptadecanone *	0.17 ± 0.03	0.22 ± 0.03	0.27 ± 0.03	0.29 ± 0.03	0.28 ± 0.04	0.20 ± 0.02
33.5	Heptadecanal	0.03 ± 0.01	0.03 ± 0.01	0.04 ± 0.01	0.03 ± 0.01	0.04 ± 0.01	0.03 ± 0.01
33.6	Hexadecanoic acid. methyl ester *	0.09 ± 0.03	0.05 ± 0.03	0.03 ± 0.01	0.02 ± 0.01	0.09 ± 0.03	0.04 ± 0.01
34.3	Hexadecanoic acid *	0.09 ± 0.06	1.40 ± 0.40	0.20 ± 0.07	0.38 ± 0.29	1.11 ± 0.44	0.30 ± 0.10
35.0	Hexadecenol	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.05 ± 0.01	0.01 ± 0.01
35.4	Octadecanal *	0.54 ± 0.09	0.42 ± 0.04	0.39 ± 0.03	0.45 ± 0.04	0.49 ± 0.03	0.36 ± 0.04
37.0	2-Nonadecanone *	0.08 ± 0.02	0.09 ± 0.02	0.11 ± 0.02	0.11 ± 0.02	0.18 ± 0.03	0.10 ± 0.01
37.6	Octadecanol *	0.54 ± 0.12	0.73 ± 0.15	0.71 ± 0.18	0.37 ± 0.05	0.79 ± 0.19	0.62 ± 0.11
37.9	9-Octadecenoic acid (= Oleic acid)*	0.05 ± 0.02	0.11 ± 0.03	0.13 ± 0.03	0.14 ± 0.03	0.24 ± 0.08	0.14 ± 0.02
38.1	Octadecanoic acid *	0.02 ± 0.01	2.40 ± 0.67	1.57 ± 0.51	1.72 ± 0.24	1.52 ± 0.44	1.81 ± 0.54
38.8	Nonadecanol	0.10 ± 0.01	0.23 ± 0.05	0.12 ± 0.02	0.18 ± 0.04	0.18 ± 0.04	0.24 ± 0.14
39.1	An octadecenal	0.05 ± 0.01	0.05 ± 0.01	0.04 ± 0.01	0.07 ± 0.02	0.07 ± 0.01	0.04 ± 0.01
40.7	Dihydro-5-tetradecyl-2(3H)-furanone	0.13 ± 0.04	0.13 ± 0.02	0.16 ± 0.02	0.15 ± 0.02	0.17 ± 0.02	0.15 ± 0.02
41.1	Eicosanol *	0.31 ± 0.06	0.32 ± 0.07	0.32 ± 0.06	0.11 ± 0.02	0.32 ± 0.08	0.15 ± 0.06
42.2	Docosanol *	0.13 ± 0.03	0.17 ± 0.08	0.04 ± 0.01	0.03 ± 0.01	0.41 ± 0.24	0.07 ± 0.02
43.5	9-Octadecenamide *	0.07 ± 0.01	0.04 ± 0.01	0.06 ± 0.02	0.04 ± 0.01	0.02 ± 0.01	0.03 ± 0.01
44.1	Unidentified furanone	0.03 ± 0.01	0.04 ± 0.01	0.05 ± 0.01	0.05 ± 0.01	0.07 ± 0.01	0.05 ± 0.01
44.7	Tetracosanol *	0.10 ± 0.02	0.05 ± 0.02	0.05 ± 0.02	0.04 ± 0.01	0.10 ± 0.02	0.05 ± 0.02
47.5	Hexacosanol *	0.02 ± 0.01	0.05 ± 0.02	0.18 ± 0.07	0.10 ± 0.09	0.05 ± 0.01	0.04 ± 0.02
47.7	13-Docosenamide *	1.96 ± 0.46	1.77 ± 0.58	1.42 ± 0.72	1.05 ± 0.29	1.39 ± 0.39	0.77 ± 0.19
48.5	Squalene *	8.54 ± 3.02	1.74 ± 0.76	0.16 ± 0.05	0.55 ± 0.18	6.58 ± 1.87	0.76 ± 0.21

49.0	Cholesta-3.5-diene *	0.11 ± 0.02	0.05 ± 0.01	0.08 ± 0.02	0.07 ± 0.01	0.06 ± 0.01	0.06 ± 0.01
49.2	Cholesta-4.6-dien-3-ol *	0.10 ± 0.03	0.03 ± 0.01	0.08 ± 0.01	0.06 ± 0.01	0.06 ± 0.01	0.06 ± 0.01
49.3	Unid. steroid (141.156.209.349.364)	0.07 ± 0.01	0.08 ± 0.02	0.06 ± 0.01	0.05 ± 0.01	0.07 ± 0.01	0.07 ± 0.01
49.4	Cholesta-3.5-diene,unid. derivative?	0.31 ± 0.05	0.17 ± 0.04	0.15 ± 0.02	0.16 ± 0.02	0.19 ± 0.03	0.13 ± 0.02
49.8	Unid. steroid (155.197.251.349.364)	0.22 ± 0.03	0.17 ± 0.03	0.30 ± 0.05	0.21 ± 0.06	0.24 ± 0.03	0.28 ± 0.05
50.0	Cholesta-5.7.9(11)-trien-3-ol	0.03 ± 0.01	0.14 ± 0.03	0.10 ± 0.02	0.09 ± 0.03	0.16 ± 0.04	0.12 ± 0.02
50.3	Unid. steroid (143.156.351.366)	0.15 ± 0.03	0.23 ± 0.06	0.17 ± 0.03	0.11 ± 0.03	0.19 ± 0.02	0.11 ± 0.02
50.3	Unid. steroid (327. 379. 392)	0.13 ± 0.03	0.17 ± 0.10	0.20 ± 0.03	0.10 ± 0.04	0.16 ± 0.04	0.14 ± 0.04
50.4	Unid. steroid (251.341.376.400.430)	0.01 ± 0.01	0.01 ± 0.01	0.01 ± 0.01	0.04 ± 0.02	0.02 ± 0.01	0.04 ± 0.02
50.7	Unid. steroid (141.156.341.363.378)	0.29 ± 0.08	0.39 ± 0.08	0.24 ± 0.02	0.24 ± 0.03	0.24 ± 0.03	0.25 ± 0.03
51.0	Unid. steroid (199.253.331.357.379)	0.21 ± 0.05	0.05 ± 0.01	0.07 ± 0.02	0.06 ± 0.03	0.04 ± 0.01	0.08 ± 0.01
51.1	Unid. steroid (197.199.251.361.376)	0.11 ± 0.02	0.06 ± 0.01	0.09 ± 0.02	0.12 ± 0.02	0.03 ± 0.01	0.03 ± 0.01
51.2	Unid. steroid (197.251.363.378)	0.24 ± 0.02	0.44 ± 0.05	0.86 ± 0.12	0.66 ± 0.08	0.26 ± 0.02	0.74 ± 0.06
51.5	Unid. steroid (195.209.363.378)	0.14 ± 0.03	0.18 ± 0.02	0.18 ± 0.02	0.15 ± 0.01	0.08 ± 0.01	0.19 ± 0.01
51.6	Unid. steroid (195.251.363.378)	0.07 ± 0.02	0.10 ± 0.01	0.14 ± 0.02	0.12 ± 0.02	0.07 ± 0.02	0.10 ± 0.01
51.7	Unid. steroid (143.158.183.195.253.364.380)	0.29 ± 0.10	0.21 ± 0.02	0.36 ± 0.04	0.25 ± 0.02	0.11 ± 0.01	0.29 ± 0.03
51.8	Unid. steroid (141.156.209.382.392)	0.21 ± 0.03	0.33 ± 0.05	0.26 ± 0.03	0.17 ± 0.02	0.22 ± 0.04	0.23 ± 0.02
52.0	Tetradecyl 9-octadecenoate *	2.63 ± 0.89	0.32 ± 0.10	0.51 ± 0.16	0.33 ± 0.09	0.31 ± 0.09	0.19 ± 0.06
52.4	Unid. steroid (197.251.377.392)	0.14 ± 0.04	0.38 ± 0.09	0.82 ± 0.15	0.35 ± 0.09	0.63 ± 0.11	0.52 ± 0.08
52.5	Cholesterol *	32.90 ± 1.78	34.19 ± 2.92	36.42 ± 2.18	45.46 ± 2.00	35.31 ± 3.27	42.38 ± 2.29
52.5	α-Tocopherol *	0.01 ± 0.01	4.10 ± 0.97	2.89 ± 1.04	0.32 ± 0.21	3.63 ± 0.41	5.72 ± 0.49
52.9	Unid. steroid (183.195.378.394)	0.88 ± 0.51	0.64 ± 0.14	0.83 ± 0.31	0.39 ± 0.09	0.65 ± 0.15	0.22 ± 0.05
54.0	Campesterol *	2.33 ± 0.43	6.12 ± 0.75	6.58 ± 0.60	9.96 ± 1.55	4.02 ± 0.36	4.73 ± 0.51
54.1	Cholest-4-en-3-one *	2.08 ± 0.33	9.28 ± 2.70	9.47 ± 1.95	8.54 ± 2.03	6.50 ± 3.64	9.60 ± 1.78
54.7	Ergost-7-en-3-ol. *	0.84 ± 0.37	0.63 ± 0.20	0.63 ± 0.24	0.24 ± 0.10	0.55 ± 0.09	0.56 ± 0.14
55.0	Lanosta-8.24-dien-3-one	0.01 ± 0.01	0.45 ± 0.15	0.66 ± 0.25	1.06 ± 0.45	0.94 ± 0.68	0.42 ± 0.18
55.0	Ergosta-5.8-dien-3-ol *	0.09 ± 0.02	0.18 ± 0.10	0.58 ± 0.33	0.06 ± 0.03	0.53 ± 0.28	0.20 ± 0.10
55.2	Unid. steroid (339.365.398)	0.13 ± 0.08	0.07 ± 0.03	0.09 ± 0.02	0.05 ± 0.01	0.09 ± 0.04	0.14 ± 0.03
55.4	Unid. steroid (267.365.380.396.414)	0.66 ± 0.10	0.39 ± 0.12	0.60 ± 0.13	0.58 ± 0.09	0.70 ± 0.10	0.50 ± 0.12
55.6	Hexadeceyl hexadecanoate *	1.52 ± 0.41	0.76 ± 0.21	0.48 ± 0.18	0.06 ± 0.06	1.03 ± 0.47	0.26 ± 0.13

55.7	β-Sitosterol *	1.44 ± 0.23	1.50 ± 0.30	2.42 ± 0.28	2.88 ± 0.67	2.42 ± 0.98	0.86 ± 0.10
55.8	Cholest-5-en-3-one *	0.01 ± 0.01	1.85 ± 0.52	1.27 ± 0.42	1.33 ± 0.33	0.30 ± 0.30	1.93 ± 0.48
56.3	4.4-Dimethyl-cholesta-8.14-dien-3-ol *	0.24 ± 0.07	0.53 ± 0.10	0.52 ± 0.08	0.44 ± 0.09	1.24 ± 0.54	0.63 ± 0.14
56.3	Unid. steroid (267.379.394)	0.33 ± 0.07	0.14 ± 0.05	0.07 ± 0.05	0.14 ± 0.09	0.06 ± 0.06	0.03 ± 0.02
56.4	4.4-Dimethyl-cholesta-5.7-dien-3-ol *	0.49 ± 0.16	1.20 ± 0.17	0.62 ± 0.11	0.52 ± 0.11	0.13 ± 0.07	0.91 ± 0.15
56.6	Cholestane-3.6-dione *	0.31 ± 0.15	1.23 ± 0.62	1.18 ± 0.29	0.85 ± 0.20	2.44 ± 0.80	1.97 ± 0.43
57.0	Unid. steroid (283.311.393.453)	2.91 ± 0.85	1.02 ± 0.27	0.74 ± 0.19	0.82 ± 0.11	0.92 ± 0.23	0.67 ± 0.12
57.1	Unid. steroid (267.377.392)	0.10 ± 0.07	0.06 ± 0.04	0.11 ± 0.04	0.15 ± 0.07	0.01 ± 0.01	0.02 ± 0.02
57.3	Unid. steroid (214.267.379.394)	1.07 ± 0.21	1.19 ± 0.15	1.87 ± 0.32	1.39 ± 0.15	0.75 ± 0.05	1.71 ± 0.24
57.4	Stigmast-4-en-3-one *	0.45 ± 0.16	0.73 ± 0.29	0.44 ± 0.15	0.26 ± 0.08	0.26 ± 0.21	0.42 ± 0.13
58.1	Stigmasta-3.5-dien-7-one *	0.91 ± 0.11	2.29 ± 0.37	0.73 ± 0.09	0.50 ± 0.07	0.61 ± 0.08	0.73 ± 0.09
59.1	Unid. steroid (214.267.393.408)	2.81 ± 0.45	2.34 ± 0.18	2.86 ± 0.23	1.57 ± 0.19	2.83 ± 0.15	2.39 ± 0.15
59.4	Octadecyl hexadecanoate *	3.32 ± 0.77	1.83 ± 0.32	1.67 ± 0.39	0.63 ± 0.16	1.48 ± 0.32	1.05 ± 0.36
59.6	Unid. steroid (356.471.486)	0.01 ± 0.01	0.12 ± 0.04	0.17 ± 0.05	0.23 ± 0.04	0.20 ± 0.05	0.10 ± 0.04
60.3	Unid. waxy ester (211.239.267)	0.27 ± 0.05	0.25 ± 0.03	0.20 ± 0.03	0.14 ± 0.03	0.34 ± 0.06	0.15 ± 0.02
60.7	Unid. steroid (191.209.291.318)	0.73 ± 0.07	0.34 ± 0.07	0.19 ± 0.07	0.13 ± 0.02	0.23 ± 0.02	0.20 ± 0.03
61.2	Unid. waxy ester (255.283)	3.35 ± 0.81	1.10 ± 0.10	1.09 ± 0.13	1.47 ± 0.33	0.98 ± 0.13	1.18 ± 0.25
61.8	Unid. waxy ester (243.257.523)	0.45 ± 0.11	0.16 ± 0.03	0.17 ± 0.02	0.08 ± 0.02	0.15 ± 0.02	0.10 ± 0.03
63.6	Octadecyl 9-octadecenoate *	1.95 ± 0.38	0.32 ± 0.11	0.34 ± 0.09	0.16 ± 0.04	0.80 ± 0.22	0.24 ± 0.10
64.2	Eicosyl 9-octadecenoate	4.04 ± 0.85	2.10 ± 0.45	1.55 ± 0.41	0.53 ± 0.18	2.89 ± 0.79	1.81 ± 0.73
64.8	Eicosyl hexadecanoate	5.07 ± 1.45	1.85 ± 0.14	2.36 ± 0.47	1.35 ± 0.19	1.92 ± 0.23	1.50 ± 0.28
66.8	Octadecanoic acid. ethenyl ester	0.41 ± 0.09	0.07 ± 0.02	0.37 ± 0.26	0.19 ± 0.08	0.19 ± 0.06	0.09 ± 0.02
67.4	Hexadecanoic acid. 1.2-ethanediyl ester	7.12 ± 0.78	5.46 ± 0.47	7.10 ± 0.70	6.31 ± 0.61	5.78 ± 0.43	5.17 ± 0.47

Table S2.

Results of the post-hoc analyses showing the multiple comparisons of means (Tukey contrasts) of the generalized linear model to assess difference in chemical signal richness among populations. Bold indicates probabilities lower than 0.05.

		Experimental Populations				
		Agios Artemios	Galiatsos	Kambana	Mavronissi	Petalida
Source Population	Alyko	**0.16**	**0.18**	**0.18**	**0.19**	**0.20**
Experimental Populations	Agios Artemios		0.03	0.02	0.03	0.04
	Galiatsos			-0.01	0.01	0.02
	Kambana				0.01	0.02
	Mavronissi					0.01

Table S3.

Results of post-hoc analyses showing the mean difference in the scores of PC1 and PC4 between populations. Bold indicates probabilities lower than 0.05.

		Experimental Populations				
	(PC1/PC4)	Agios Artemios	Galiatsos	Kambana	Mavronissi	Petalida
Source Population	Alyko	**0.25** / -0.12	**0.28** / -0.07	**0.28** / **-0.16**	0.14 / **-0.19**	**0.30** / -0.12
Experimental Population	Agios Artemios		0.02 / 0.05	0.03 / -0.04	-0.11 / -0.06	0.05 / 0.01
	Galiatsos			0.01 / -0.09	-0.14 / -0.12	0.02 / -0.05
	Kambana				-0.14 / -0.03	0.02 / 0.05
	Mavronissi					0.07 / 0.07

Table S4.
Loadings of the principal component analysis (PCA) on the chemical profile of the glandular secretions of *P. erhardii*. The loadings of the five chemical compounds that explained most of the variation (i.e. highest absolute loading value) are shown for the first four axes (PC_1-PC_4) of the PCA.

	PC1		PC2		PC3		PC4	
1	Cholest-4-en-3-one	-0.615	Cholesterol	-0.513	α-Tocopherol	+0.734	Octadecanoic acid	+0.434
2	Cholest-5-en-3-one	-0.344	Squalene	-0.483	Squalene	-0.242	Squalene	+0.411
3	Squalene	+0.311	α-Tocopherol	+0.398	Eicosyl 9-octadecenoate	+0.183	Hexadecanoic acid	+0.314
4	Eicosyl 9-octadecenoate	+0.282	Campesterol	-0.341	Cholesterol	+0.182	Eicosyl hexadecanoate	-0.292
5	Cholestane-3.6-dione	-0.244	Cholestane-3.6-dione	+0.162	Hexadecanoic acid. 1.2-ethanediyl ester	-0.168	Tetradecyl 9-octadecenoate	-0.201

Table S5.

Results of post-hoc analyses showing the mean difference in the proportions of oleic acid (OL), octadecanoic acid ("OC"), and α-tocopherol ("α-T") between populations. Bold indicates probabilities lower than 0.05.

		Experimental Populations														
		Agios Artemios			Galiatsos			Kambana			Mavronissi			Petalida		
		OL	OC	α-T	OL	OC	α-T	OL	OC	α-T	OL	OC	α-T	OL	OC	α-T
Source Population	Alyko	-0.015	**-0.123**	-0.095	**-0.025**	**-0.095**	0.037	**-0.024**	**-0.120**	0.065	**-0.032**	**-0.107**	0.099	**0.023**	**0.105**	**0.148**
Experimental Populations	Agios Artemios				-0.007	0.028	0.058	-0.008	0.003	**0.160**	-0.017	0.016	-0.004	-0.008	0.018	-0.053
	Galiatsos							-0.001	-0.025	0.103	-0.009	-0.012	-0.061	-0.005	-0.010	-0.111
	Kambana										-0.009	0.013	**-0.164**	0.001	0.015	**0.214**
	Mavronissi													0.009	0.002	-0.059

Table S6.

Climate data of the study sites. Data were downloaded from the WordClim database (http://www.worldclim.org; version 2.0; Fick & Hijmans 2017). We extracted data on 19 bioclimatic variables based upon the geographical coordinates of the study localities. The bioclimatic variables represent measures for both precipitation (in mm) and temperature (°C) at a 1-km^2 resolution. In addition, we retrieved variables on wind speed (m s^{-1}) and solar radiation (kJ m^{-2} day^{-1}) for the months of April, May, and June. Due to the small surface area of the islets, climate data could not be retrieved for the exact coordinates of Agios Artemios (latitude, longitude; 37.1314, 25.2274), Galiatsos (37.1307, 25.2459), Mavronissi (37.1325, 25.2543), and Petalida (36.9530, 25.0755), consequently, data was retrieved from raster coordinates closest to the islets.

	Source Population	**Experimental Populations**				
Population	Alyko	Agios Artemios	Galiatsos	Kambana	Mavronissi	Petalida
Latitude, longitude	36.97866, 25.38874	37.1370, 25.22118	37.12343, 25.23904	36.99598, 25.0956	25.22118, 37.1370	36.95621, 25.07281
Bio1: Annual Mean Temperature	18.00	18.89	18.87	18.43	18.89	18.47
Bio2: Mean Diurnal Range	6.00	5.78	5.77	5.43	5.78	5.76
Bio3: Isothermality	31.09	27.80	28.13	28.59	27.80	29.53
Bio4: Temperature Seasonality	504.98	568.67	561.85	514.40	568.67	519.84
Bio5: Max. Temperature Warmest Month	27.7	29.1	28.9	27.8	29.1	28.0
Bio6: Min. Temperature Coldest Month	8.4	8.3	8.4	8.8	8.3	8.5
Bio7: Temperature Annual Range	19.3	20.8	20.5	19.0	20.8	19.5
Bio8: Mean Temperature Wettest Quarter	12.28	12.46	12.51	12.60	12.46	12.60
Bio9: Mean Temperature Driest Quarter	24.27	26.15	26.03	24.97	26.15	25.13
Bio10: Mean Temperature Warmest Quarter	24.27	26.15	26.03	24.97	26.15	25.13
Bio11: Mean Temperature Coldest Quarter	12.15	12.46	12.51	12.56	12.46	12.58
Bio12: Annual Precipitation	405	395	394	390	395	396
Bio13: Precipitation Wettest Month	73	70	70	69	70	69
Bio14: Precipitation Driest Month	1	1	1	1	1	1
Bio15: Precipitation Seasonality	84.83	83.87	84.07	84.78	83.87	84.25
Bio16: Precipitation Wettest Quarter	208	201	201	199	201	200
Bio17: Precipitation Driest Quarter	6	7	7	6	7	6

Bio18: Precipitation Warmest Quarter	6	7	7	6	7	6
Bio19: Precipitation Coldest Quarter	192	201	201	182	201	183
Wind speed (April)	4.6	4.5	4.5	4.7	4.6	4.7
Wind speed (May)	4.2	4.2	4.3	4.3	4.2	4.3
Wind speed (June)	4.5	4.3	4.5	4.4	4.3	4.6
Solar radiation (April)	18788	18642	18645	18686	18642	18640
Solar radiation (May)	22669	22712	22751	22742	22712	22683
Solar radiation (June)	25347	25273	25379	25329	25273	25506

In order to examine the diet of the experimental populations of *P. erhardii* lizards, we collected lizard stomach contents in May of 2017. Lizards were stomach-flushed directly after capture using a syringe with a ball-tipped steel needle attached (following Donihue 2016). Stomach contents were placed in individual vials with 70% ethanol and labelled. In total, we stomach-flushed 127 individuals: 20 on Galiatsos, 23 on Alyko, 38 on Kambana, 14 on Petalida, 20 on Artemios, and 12 on Mavronissi. Later, in the lab, animal stomach contents were sorted into the lowest convenient taxonomic group and weighed. The categories used were Aranea, Coleoptera Diptera, Formicidae, Gastropoda, Heteroptera, Homoptera, Hymneoptera, and plant material. The mass of each diet category was determined using an electronic balance (precision, 0.01 mg). Following Baeckens et al. 2017, we estimated the diet breadth of each lizard by the Shannon diversity index (Shannon 1948). To test whether (and which) populations differed in diet composition, we performed a Tukey multiple comparisons of means (with 'population' as factor). The result of this test showed no significant interpopulation differences in lizard dietary composition (Table S7, Fig. S1).

Baeckens, S., García-Roa, R., Martín, J., & Van Damme, R. (2017). The Role of Diet in Shaping the Chemical Signal Design of Lacertid Lizards. *Journal of Chemical Ecology*, *43*(9), 902–910.

Donihue, C.M. (2016) Aegean wall lizards switch foraging modes, diet, and morphology in a human-built environment. *Ecol. Evol., 6: 7433-7442.*

Shannon CE (1948) A mathematical theory of communication. *Bell. Syst. Tech. J.* 27:379–423.

Table S7 — Statistical output of the Tukey multiple comparisons of means (95% family-wise confidence level) comparing diet diversity between sets of populations.

Island comparison	diff	lwr	upr	p adj
Art-Aly	0.2641	-0.1236	0.6519	0.3642
Gal-Aly	0.3013	-0.0865	0.6891	0.2230
Kam-Aly	-0.0103	-0.3453	0.3248	1.0000
Mav-Aly	0.1148	-0.3369	0.5664	0.9771
Pet-Aly	-0.0649	-0.4948	0.3651	0.9979
Gal-Art	0.0372	-0.3639	0.4383	0.9998
Kam-Art	-0.2744	-0.6248	0.0760	0.2154
Mav-Art	-0.1494	-0.6125	0.3138	0.9370
Pet-Art	-0.3290	-0.7709	0.1130	0.2664
Kam-Gal	-0.3116	-0.6619	0.0388	0.1114
Mav-Gal	-0.1865	-0.6497	0.2766	0.8519
Pet-Gal	-0.3662	-0.8081	0.0758	0.1648
Mav-Kam	0.1250	-0.2949	0.5450	0.9547
Pet-Kam	-0.0546	-0.4511	0.3419	0.9987
Pet-Mav	-0.1796	-0.6786	0.3193	0.9025

Fig. S1 — Intra- and interpopulation variation in diet diversity of *P. erhardii*. The black lines in the boxplots depict the median diet richness per population, with boxes and whiskers indicating the quartiles. Pair-wise tests showed no significant differences between populations.