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Downey, M. H. and Nice, C. C. 2011. Experimental evidence of host race formation in *Mitoura* butterflies (Lepidoptera: Lycaeniade). – Oikos 120: 1165-1174.

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Downey M.H., Nice C.C. 2010. Experimental evidence of host race formation in *Mitoura* butterflies (Lepidoptera: Lycaenidae). – Oikos

Appendix 1

Oviposition preference results (Quade test, *n* = number of females). Populations pooled within host plant association at top of table, followed by individual population results. If significant differences among treatments were found, a post-hoc analysis was conducted (indicated by superscript letters).

Host Association		*n*	$df_{(N,D)}$	T_3	*P* value	Mean % of eggs laid on: *J. ashei*	*J. pinchotii*	*J. virginiana*
J. ashei	All populations	61	2, 120	22.55	< 0.001	57.18[a]	33.10[b]	9.72[c]
J. pinchotii	All populations	17	2, 32	10.18	0.0003	43.78[a]	41.23[a]	14.99[b]
J. virginiana	All populations	20	2, 38	1.31	0.28	30.32	20.63	49.06
J. pinchotii	Big Spring	6	2,10	3.58	0.07	55.39	27.51	17.1
J. pinchotii	San Angelo	11	2, 20	5.72	0.01	37.45[a]	48.71[a]	13.84[b]
J. ashei-J. pinchotii	Ind. Creek	28	2,54	10.79	< 0.001	53.60[a]	43.29[a]	3.11[b]
J. ashei-J. pinchotii	Junction	25	2,48	19.83	< 0.001	72.04[a]	22.70[b]	5.26[c]
J. ashei	Guadalupe	20	2,38	13.70	< 0.001	65.54[a]	28.88[b]	5.59[c]
J. ashei	Pedernales Falls	12	2,22	6.79	0.005	61.12[a]	22.17[b]	16.71[b]
J. ashei	Freeman Ranch	29	2,56	9.03	< 0.001	49.79[a]	40.53[a]	9.69[b]
J. virginiana	Welsh	14	2,26	3.18	0.058	27.00	17.03	55.97
J. virginiana	Oak Thicket	6	2,10	0.30	0.74	38.05	29.02	32.93

Appendix 2

Mean percent survival of larvae reared on different hosts (ANOVA, *n* = number of rearing groups). Populations pooled within host plant association at top of table, followed by individual population results. Superscript letters indicate results of post-hoc test if significant differences were found.

Host Association	Population	*n*	$df_{(N,D)}$	F	*P* value	Mean % survival of larvae (±SE) reared on: *J. ashei*	*J. pinchotii*	*J. virginiana*
J. ashei	All populations	466	2, 463	27	<0.001	54.07 (2.26)[a]	47.74 (2.40)[a]	29.62 (2.51)[b]
J. pinchotii	All populations	180	2, 177	16.1	<0.001	66.08 (3.58)[a]	73.33 (3.61)[a]	44.77 (3.57)[b]
J. virginiana	All populations	167	2, 164	1.05	0.35	44.14 (4.15)	34.56 (4.40)	39.42 (4.55)
J. pinchotii	Big Spring	65	2, 62	8.7	<0.001	63.15 (5.95)[a]	70.15 (6.13)[a]	33.70 (5.95)[b]
J. pinchotii	San Angelo	115	2, 112	7.68	<0.001	67.82 (4.42)[a]	73.53 (4.41)[a]	51.30 (4.40)[b]
J. ashei-J. pinchotii	Ind. Creek	250	2, 247	11.2	<0.001	63.42 (3.38)[a]	56.11 (3.37)[a]	41.18 (3.49)[b]
J. ashei-J. pinchotii	Junction	198	2, 195	16.9	<0.001	76.53 (3.58)[a]	61.58 (3.56)[b]	47.39 (3.38)[c]
J. ashei	Guadalupe	198	2, 195	11.4	<0.001	61.83 (3.59)[a]	60.96 (3.72)[a]	39.32 (3.86)[b]
J. ashei	Pedernales Falls	94	2, 91	10.4	<0.001	55.78 (4.77)[a]	46.46 (4.80)[a]	23.45 (5.27)[b]
J. ashei	Freeman Ranch	173	2, 170	11.4	<0.001	45.82 (3.21)[a]	33.58 (3.60)[b]	21.96 (3.70)[b]
J. virginiana	Welsh	101	2, 99	1.39	0.25	42.72 (4.90)	29.49 (5.38)	39.39 (5.55)
J. virginiana	Oak Thicket	33	2, 30	0.63	0.54	49.52 (10.04)	55.73 (10.38)	40.17 (10.43)

Appendix 3

Mean time to pupation (d) of larvae reared on different hosts (ANOVA, *n* = number of rearing groups). Populations pooled within host plant association at top of table, followed by individual population results. Superscript letters indicate results of post-hoc test if significant differences were found.

						Mean time (d) ± SE when reared on:		
Host Association	Population	*n*	$df_{(N,D)}$	F	*P* value	*J. ashei*	*J. pinchotii*	*J. virginiana*
J. ashei	All populations	338	2,335	4.09	<0.001	31.40 (0.44)^{a}	33.97 (0.47)^{b}	33.76 (0.62)^{b}
J. pinchotii	All populations	160	2,157	8.20	<0.001	30.24 (0.52)^{a}	29.58 (0.52)^{a}	33.11 (0.59)^{b}
J. virginiana	All populations	91	2,88	5.11	<0.001	34.07 (1.23)^{ab}	38.11 (1.16)^{a}	31.04 (1.28)^{b}
J. pinchotii	Big Spring	54	2,51	10.20	<0.001	27.75 (1.16)^{a}	30.80 (1.16)^{ab}	34.30 (0.90)^{b}
J. pinchotii	San Angelo	106	2,103	4.90	0.009	32.40 (0.64)^{a}	29.60 (0.72)^{b}	32.05 (0.62)^{a}
J. ashei-J. pinchotii	Ind Creek	197	2,194	15.77	<0.001	30.71 (0.54)^{a}	32.31 (0.57)^{a}	35.25 (0.61)^{b}
J. ashei-J. pinchotii	Junction	64	2,61	58.84	<0.001	27.49 (0.68)^{a}	34.26 (0.61)^{b}	37.64 (0.68)^{c}
J. ashei	Guadalupe	156	2,153	18.21	<0.001	29.96 (0.51)^{a}	33.29 (0.46)^{b}	34.22 (0.59)^{b}
J. ashei	Pedernales Falls	32	2,61	0.38	0.680	33.01 (1.03)	33.82 (1.07)	34.46 (1.35)
J. ashei	Freeman Ranch	118	2,115	2.87	0.060	31.96 (0.97)	35.15 (1.00)	32.60 (1.06)
J. virginiana	Welsh	68	2,65	8.32	<0.001	33.16 (1.37)^{a}	39.68 (1.33)^{b}	32.22 (1.68)^{a}
J. virginiana	Oak Thicket	23	2,20	11.32	<0.001	35.57 (1.56)^{a}	35.06 (1.25)^{a}	27.20 (1.39)^{b}

Appendix 4

Mean developmental efficiency (DE) of larvae reared on different hosts (ANOVA, *n* = number of rearing groups). Populations pooled within host plant association at top of table, followed by individual population results. Superscript letters indicate results of post-hoc test if significant differences were found.

						Mean DE (±)SE when reared on:		
Host Association	Population	*n*	$df_{(N,D)}$	F	*P* value	*J. ashei*	*J. pinchotii*	*J. virginiana*
J. ashei	All populations	338	2,335	35.14	<0.001	3.06 (0.05)^{a}	2.72 (0.05)^{b}	2.37 (0.07)^{c}
J. pinchotii	All populations	160	2,157	15.96	<0.001	3.24 (0.06)^{a}	3.05 (0.06)^{a}	2.68 (0.08)^{b}
J. virginiana	All populations	91	2,88	50.62	<0.001	2.12 (0.07)^{a}	1.87 (0.09)^{a}	3.02 (0.08)^{b}
J. pinchotii	Big Spring	54	2,51	17.13	<0.001	3.46 (0.10)^{a}	2.85 (0.10)^{b}	2.45 (0.15)^{b}
J. pinchotii	San Angelo	106	2,103	7.08	0.001	3.13 (0.07)^{a}	3.16 (0.07)^{a}	2.77 (0.09)^{b}
J. ashei-J. pinchotii	Ind. Creek	197	2,194	26.16	<0.001	3.05 (0.07)^{a}	2.85 (0.07)^{a}	2.27 (0.09)^{b}
J. ashei-J. pinchotii	Junction	64	2,61	46.85	<0.001	4.03 (0.10)^{a}	2.99 (0.13)^{b}	2.41 (0.15)^{c}
J. ashei	Guadalupe	156	2,153	39.04	<0.001	3.26 (0.06)^{a}	2.87 (0.06)^{b}	2.40 (0.08)^{c}
J. ashei	Pedernales Falls	32	2,61	4.54	0.015	3.04 (0.12)^{a}	2.66 (0.14)^{b}	2.40 (0.21)^{b}
J. ashei	Freeman Ranch	118	2,115	6.68	0.002	2.79 (0.08)^{a}	2.44 (0.11)^{b}	2.26 (0.14)^{b}
J. virginiana	Welsh	68	2,65	33.09	<0.001	2.10 (0.08)^{b}	1.86 (0.11)^{b}	2.94 (0.09)^{a}
J. virginiana	Oak Thicket	23	2,20	22.30	<0.001	2.16 (0.15)^{b}	1.89 (0.15)^{b}	3.41 (0.18)^{a}

Appendix 5.

Results of ANOVAs for each performance response variable, conducted using single-host-associated populations.

Response Variable: Percent Survival			
Source of Variation	df	F ratio	P value
Natal host association	2	23.13	<0.001
Population (within natal host association)	4	12.32	<0.001
Treatment	2	18.62	<0.001
Natal * Treatment	4	3.31	<0.001
Population (within natal) * Treatment	8	1.00	0.433

Response Variable: Weight at Pupation			
Source of Variation	df	F ratio	P value
Natal host association	2	21.29	<0.001
Population (within natal host association)	4	9.41	<0.001
Treatment	2	5.55	0.0041
Natal * Treatment	4	17.41	<0.001
Population (within natal) * Treatment	8	0.74	0.65

Response Variable: Time to Pupation			
Source of Variation	df	F ratio	P value
Natal host association	2	13.92	<0.001
Population (within natal host association)	4	1.75	0.1366
Treatment	2	6.25	0.0021
Natal * Treatment	4	8.08	<0.001
Population (within natal) * Treatment	8	1.99	0.0454

Response Variable: Developmental Efficiency			
Source of Variation	df	F ratio	P value
Natal host association	2	28.39	<0.001
Population (within natal host association)	4	5.36	0.0003
Treatment	2	11.30	<0.001
Natal * Treatment	4	19.88	<0.001
Population (within natal) * Treatment	8	2.88	0.0038