

A) *D. buzzatii* cluster + *D. mojavensis* Cluster

Linear Parsimony (LP)			Squared Change Parsimony Gradual (SCPG)			Squared Change Parsimony Punctuated (SCPP)			TEST FOR SERIAL INDEPENDENCY (TFSI)		
<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>
Female CV1	0.0012	0.01	Female CV5	0.0306	0.01	Female CV1	0.0026	0.01	Female CV1	0.0020	0.01
Female CV5	0.0040	0.02	Female CV1	0.0921	0.02	Female CV5	0.0223	0.02	Female CV2	0.0090	0.02
Female CV4	0.0931	0.03	Female CV3	0.1756	0.03	Female CV4	0.0683	0.03	Female CV5	0.0480	0.03
Female CV3	0.1287	0.04	Female CV4	0.3025	0.04	Female CV3	0.1976	0.04	Female CV4	0.2210	0.04
Female CV2	0.3317	0.05	Female CV2	0.7182	0.05	Female CV2	0.9553	0.05	Female CV3	0.2460	0.05
Male CV1	0.0004	0.01	Male CV1	0.0002	0.01	Male CV1	0.0004	0.01	Male CV1	0.0010	0.01
Male CV5	0.0080	0.02	Male CV3	0.2850	0.02	Male CV5	0.0699	0.02	Male CV2	0.0490	0.02
Male CV4	0.1142	0.03	Male CV4	0.4929	0.03	Male CV4	0.1340	0.03	Male CV5	0.1590	0.03
Male CV3	0.2032	0.04	Male CV2	0.6803	0.04	Male CV3	0.2689	0.04	Male CV3	0.2930	0.04
Male CV2	0.4783	0.05	Male CV5	0.8830	0.05	Male CV2	0.9652	0.05	Male CV4	0.3000	0.05

B) *D. buzzatii* cluster (No outgroup)

Linear Parsimony (LP)			Squared Change Parsimony Gradual (SCPG)			Squared Change Parsimony Punctuated (SCPP)			TEST FOR SERIAL INDEPENDENCY (TFSI)		
<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>
Female CV3	0.0070	0.01	Female CV4	0.0092	0.01	Female CV4	0.0055	0.01	Female CV4	0.0070	0.01
Female CV4	0.0598	0.02	Female CV5	0.0373	0.02	Female CV3	0.0357	0.02	Female CV3	0.0110	0.02
Female CV5	0.0669	0.03	Female CV3	0.0799	0.03	Female CV5	0.0615	0.03	Female CV5	0.0410	0.03
Female CV1	0.2400	0.04	Female CV1	0.2580	0.04	Female CV1	0.2059	0.04	Female CV2	0.0420	0.04
Female CV2	0.4242	0.05	Female CV2	0.4182	0.05	Female CV2	0.9481	0.05	Female CV1	0.2900	0.05
Male CV5	0.0132	0.01	Male CV4	0.0100	0.01	Male CV5	0.0159	0.01	Male CV4	0.0070	0.01
Male CV3	0.0862	0.02	Male CV5	0.0133	0.02	Male CV4	0.0509	0.02	Male CV5	0.0180	0.02
Male CV2	0.1819	0.03	Male CV3	0.1697	0.03	Male CV3	0.0873	0.03	Male CV2	0.0550	0.03
Male CV1	0.3807	0.04	Male CV2	0.4236	0.04	Male CV1	0.2216	0.04	Male CV3	0.0750	0.04
Male CV4	0.5008	0.05	Male CV1	0.5217	0.05	Male CV2	0.9400	0.05	Male CV1	0.2420	0.05

C) *D. buzzatii* cluster (No *D. serido* populations) + *D. mojavensis* Cluster

Linear Parsimony (LP)			Squared Change Parsimony Gradual (SCPG)			Squared Change Parsimony Punctuated (SCPP)			TEST FOR SERIAL INDEPENDENCY (TFSI)		
<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>	<i>Characters</i>	<i>P</i>	<i>Threshold</i>
Female CV1	0.0009	0.01	Female CV4	0.0006	0.01	Female CV4	0.0010	0.01	Female CV1	0.0010	0.01
Female CV4	0.0026	0.02	Female CV5	0.0121	0.02	Female CV1	0.0015	0.02	Female CV4	0.0020	0.02
Female CV5	0.0038	0.03	Female CV1	0.0171	0.03	Female CV5	0.0031	0.03	Female CV5	0.0030	0.03
Female CV3	0.0176	0.04	Female CV2	0.0255	0.04	Female CV2	0.0644	0.04	Female CV3	0.1630	0.04
Female CV2	0.1303	0.05	Female CV3	0.4892	0.05	Female CV3	0.0995	0.05	Female CV2	0.3220	0.05
Male CV4	0.0005	0.01	Male CV4	0.0173	0.01	Male CV4	0.0013	0.01	Male CV4	0.0030	0.01
Male CV5	0.0077	0.02	Male CV2	0.0513	0.02	Male CV1	0.0050	0.02	Male CV1	0.0120	0.02
Male CV1	0.0107	0.03	Male CV5	0.1555	0.03	Male CV5	0.0183	0.03	Male CV5	0.0200	0.03
Male CV3	0.0125	0.04	Male CV1	0.2484	0.04	Male CV3	0.3396	0.04	Male CV2	0.2800	0.04
Male CV2	0.3354	0.05	Male CV3	0.6794	0.05	Male CV2	0.5074	0.05	Male CV3	0.4000	0.05

For all 3 datasets:

Critical probability $\alpha = 0.05$

Number of tests (m) in each family = 5

$\alpha/m = 0.01$