

Morrone & Escalante (2002) Geodis output for nesting level 5

Differentiating population structure from history - Geodis 2.3 beta
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Input file: C:\Documents and Settings\Anthony
Deo\Desktop\geo_in_transfer\geodis_in_level5_final
Endemic Areas Mexico

Wed Mar 16 11:21:02 EST 2005

PERMUTATION ANALYSIS OF 5-1
BASED ON 1000 RESAMPLES

PART I. PERMUTATIONAL CONTINGENCY TEST:

OBSERVED CHI-SQUARE STATISTIC = 652.5938

THE PROBABILITY OF A RANDOM CHI-SQUARE BEING GREATER THAN
OR EQUAL TO THE OBSERVED CHI-SQUARE = 0.0000

PART II. GEOGRAPHIC DISTANCE ANALYSIS:

GEOGRAPHICAL CENTERS	LATITUDE	LONGITUDE
5-1	19.9753	98.7547
4-3	19.5272	98.0409
4-4	21.2363	100.7631

CLADE 4-3 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	356.4307	0.0020	0.9980
NESTED CLADE	369.8068	0.2450	0.7550

CLADE 4-4 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	349.5191	0.0060	0.9940
NESTED CLADE	386.3251	0.8640	0.1360

NO INTERIOR/TIP CLADES EXIST IN THIS GROUP

PERMUTATION ANALYSIS OF 5-2
BASED ON 1000 RESAMPLES

PART I. PERMUTATIONAL CONTINGENCY TEST:

OBSERVED CHI-SQUARE STATISTIC = 544.1818

THE PROBABILITY OF A RANDOM CHI-SQUARE BEING GREATER THAN
OR EQUAL TO THE OBSERVED CHI-SQUARE = 0.0000

PART II. GEOGRAPHIC DISTANCE ANALYSIS:

GEOGRAPHICAL CENTERS	LATITUDE	LONGITUDE
4-2	20.3114	100.1696
3-1	21.0887	101.6250
3-2	19.1930	98.0754

CLADE 3-1 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	366.2752	0.0030	0.9970
NESTED CLADE	386.9528	0.1490	0.8510

CLADE 3-2 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	388.2749	0.2790	0.7210
NESTED CLADE	434.9394	0.8670	0.1330

NO INTERIOR/TIP CLADES EXIST IN THIS GROUP

PERMUTATION ANALYSIS OF 5-3
BASED ON 1000 RESAMPLES

PART I. PERMUTATIONAL CONTINGENCY TEST:

OBSERVED CHI-SQUARE STATISTIC = 230.4911

THE PROBABILITY OF A RANDOM CHI-SQUARE BEING GREATER THAN
OR EQUAL TO THE OBSERVED CHI-SQUARE = 1.0000

PART II. GEOGRAPHIC DISTANCE ANALYSIS:

GEOGRAPHICAL CENTERS	LATITUDE	LONGITUDE
5-3	19.0420	93.3244
4-6	19.7009	93.2985
4-7	18.8726	93.3311

CLADE 4-6 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	371.5563	0.6460	0.3540
NESTED CLADE	367.4964	0.5730	0.4270

CLADE 4-7 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	364.2773	0.3420	0.6580

NESTED CLADE 366.4426 0.4300 0.5700

NO INTERIOR/TIP CLADES EXIST IN THIS GROUP

PERMUTATION ANALYSIS OF 5-4
 BASED ON 1000 RESAMPLES

PART I. PERMUTATIONAL CONTINGENCY TEST:

OBSERVED CHI-SQUARE STATISTIC = 2574.3277

THE PROBABILITY OF A RANDOM CHI-SQUARE BEING GREATER THAN
 OR EQUAL TO THE OBSERVED CHI-SQUARE = 0.0000

PART II. GEOGRAPHIC DISTANCE ANALYSIS:

GEOGRAPHICAL CENTERS	LATITUDE	LONGITUDE
5-4	26.9968	108.0814
4-10	27.1556	109.1045
4-11	28.5256	112.0794
4-12	25.8731	104.5311
4-14	26.1154	106.3995

CLADE 4-10 (Interior)			
TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	548.2021	0.3050	0.6950
NESTED CLADE	556.9574	0.3850	0.6150

CLADE 4-11 (Interior)			
TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	436.6454	0.0000	1.0000
NESTED CLADE	618.5396	0.9940	0.0060

CLADE 4-12 (Interior)			
TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	418.3194	0.0000	1.0000
NESTED CLADE	567.7830	0.6140	0.3860

CLADE 4-14 (Interior)			
TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	455.5611	0.0000	1.0000
NESTED CLADE	466.6524	0.0000	1.0000

NO INTERIOR/TIP CLADES EXIST IN THIS GROUP

PERMUTATION ANALYSIS OF 5-5

BASED ON 1000 RESAMPLES

PART I. PERMUTATIONAL CONTINGENCY TEST:

OBSERVED CHI-SQUARE STATISTIC = 293.2290

THE PROBABILITY OF A RANDOM CHI-SQUARE BEING GREATER THAN
OR EQUAL TO THE OBSERVED CHI-SQUARE = 0.9970

PART II. GEOGRAPHIC DISTANCE ANALYSIS:

GEOGRAPHICAL CENTERS	LATITUDE	LONGITUDE
5-5	23.8156	102.7502
4-13	24.4270	102.7258
4-15	23.0681	102.7801

CLADE 4-13 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	319.5181	0.0010	0.9990
NESTED CLADE	326.0418	0.0160	0.9840

CLADE 4-15 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	342.5666	0.7020	0.2980
NESTED CLADE	354.2419	0.9800	0.0200

NO INTERIOR/TIP CLADES EXIST IN THIS GROUP

PERMUTATION ANALYSIS OF 5-6
BASED ON 1000 RESAMPLES

PART I. PERMUTATIONAL CONTINGENCY TEST:

OBSERVED CHI-SQUARE STATISTIC = 1565.5872

THE PROBABILITY OF A RANDOM CHI-SQUARE BEING GREATER THAN
OR EQUAL TO THE OBSERVED CHI-SQUARE = 0.0000

PART II. GEOGRAPHIC DISTANCE ANALYSIS:

GEOGRAPHICAL CENTERS	LATITUDE	LONGITUDE
5-6	19.1617	94.8754
4-5	18.8205	93.7692
4-8	18.2975	93.7118
4-9	21.9732	99.2507

CLADE 4-5 (Interior)

TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	788.2969	0.9990	0.0010
NESTED CLADE	789.1209	1.0000	0.0000
CLADE 4-8 (Interior)			
TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	452.6667	0.0000	1.0000
NESTED CLADE	461.9336	0.0000	1.0000
CLADE 4-9 (Interior)			
TYPE OF DISTANCE	DISTANCE	PROB.<=	PROB.>=
WITHIN CLADE	355.8702	0.0000	1.0000
NESTED CLADE	598.3363	0.8930	0.1070

NO INTERIOR/TIP CLADES EXIST IN THIS GROUP

** ANALYSIS FINISHED **
 It took 721.6720 seconds.