

Table 1.- Variance components analysis depicting the percentage of morphological variation attributed by Locality, Sex, Age, Interactions, and Residual Error for each of the 23 characters used in this study.

Character	Variables				
	Locality	Sex	Age	Interaction	Error
Total length	10.51	0.00	0.00	35.39	54.10
Length of tail	28.64	0.05	0.21	30.19	40.91
Length of body	0.00	0.00	0.00	52.78	47.22
Length of hind foot	9.59	0.00	0.00	16.21	74.20
Length of ear	13.22	0.00	0.00	28.36	58.41
Greatest length of skull	5.45	0.00	2.71	27.82	63.93
Length of rostrum	1.27	0.00	0.00	38.90	59.83
Length of nasal bones	12.58	1.48	2.40	16.82	66.72
Postpalatal length	4.02	0.00	0.51	37.00	58.47
Zygomatic breadth	13.81	0.00	15.10	14.01	57.08
Breadth of braincase	6.25	0.00	0.00	22.28	71.47
Mastoid breadth	14.20	0.00	0.00	18.24	67.56
Least interorbital width	12.14	0.00	0.00	13.40	74.46
Length of molar toothrow	10.94	5.08	1.48	14.29	68.21
Length of incisive foramen	4.63	0.00	0.00	28.12	67.25
Length of auditory bullae	0.00	3.20	0.00	27.02	69.78
Depth of braincase	6.06	0.00	0.00	24.51	69.43
Length of mesopterygoid fossa	0.00	0.00	0.52	24.05	75.34
Length of bony palate	5.50	0.00	6.79	1.52	86.19
Breadth of rostrum	11.32	3.44	6.73	10.21	68.30
Greatest breadth across molars	16.55	0.00	10.30	10.27	62.88
Postdental palatal breadth	22.22	0.69	2.99	1.55	72.55
Width of mesopterygoid fossa	0.00	0.00	0.00	29.12	70.88

There were few differences in the arrangement of samples using the three multivariate analyses. In the cluster analysis (Fig. 3), sample 12 of *P. simulus* grouped with the sample of *P. boylii rowleyi*, although the average taxonomic distance between these two samples was greater than that between any two samples of *simulus*. The minimum spanning tree arrangement corresponded to the groupings derived from the PCA with two exceptions: sample 7 was connected with the group containing sample 8 instead of with the group containing samples 2, 4 and 12; and samples 6 and 11 connected to samples 10 and 8, respectively, rather than to each other.

The overall pattern of geographic variation, considering the results of both the univariate and multivariate analyses, revealed that mice from the northern and more inland samples of *P. simulus* were typically smaller in external and cranial measurements