

4. Data for females in crowded (A) versus uncrowded (B) population cages were tested for equality of means and variances. Combined data for females under both conditions were compared with the data from males for equality of means and variances.

Crowded females (A)	$N_A = 196$	$\bar{X}_A = 2.224$	$s^2_A = 1.146$
Uncrowded females (B)	$N_B = 266$	$\bar{X}_B = 2.320$	$s^2_B = 1.433$
Combined data for females	$N_C = 462$	$X_C = 2.279$	$s^2_C = 1.299$
Males	$N_M = 206$	$\bar{X}_M = 4.252$	$s^2_M = 5.315$

Hypothesis	Test	Degrees of Freedom	Value of Experimental Statistic	Value of Tabulated Statistic	Significance Level	Conclusion
$\sigma_A^2 = \sigma_B^2$	F-test	265,195	1.251	$1.28 < F_{.02} < 1.59$	.02	variances equal
$\mu_A = \mu_B$	t-test	460	.770	$2.33 < t_{.02} < 2.36$	.02	means equal
$\sigma_C^2 = \sigma_M^2$	F-test	205,461	4.091	$1.00 < F_{.02} < 1.48$	.02	variances unequal
$\mu_C = \mu_M$	t'	205,461	11.664	$2.33 < t'_{.02} < 2.35$	.02	means unequal
(Cockran and Cox)						

#### LEONARD STEVENS PHILLIPS (1908-1968)

Leonard Stevens Phillips was born December 4, 1908 at Le Claire, Iowa. He died suddenly in Chicago, Illinois, February 13, 1968. He was the son of Clyde and Winifred Phillips. His marriage to Merle Olive Garton took place May 26, 1937. She survives him; there were no children.

He attended the public schools of Le Claire and received his B.A. degree from the State University of Iowa in 1932. He did graduate work there and at the Iowa State University of Agriculture, and received his teacher's certificate from the Iowa State Teachers' College in 1938.

He engaged in private business from 1936 to 1946, then became a laboratory assistant in the Stritch School of Medicine, Loyola University, Chicago, a position which he held until 1950. Following a period as laboratory technician with Swift and Company in Chicago, he became Assistant Biologist at the Illinois Institute of Technology Research Institute. Here he was in charge of the animal room and worked on many projects involving the use of small animals in behavioral studies and biochemical research. In 1965 he joined the Loop City College of Chicago as a laboratory assistant, and in 1967 returned to private business, in which he was engaged at the time of his death.

Leonard was an active and enthusiastic collector of Lepidoptera. He collected personally in every state of the continental United States and

maintained an active correspondence and exchange with fellow lepidopterists throughout the world. He contributed several papers to the pages of this *Journal*; a bibliography is given below. His collection of some 5,600 specimens of worldwide Lepidoptera is being retained by his widow for the present, but will be presented to Buena Vista College, Storm Lake, Iowa.

Among his other interests were collections of pressed plants, minerals, and stamps; woodworking, and amateur art. He was active in Boy Scout, boys' club, and church work. He was a member of the Chicago Entomological Society, and had been a member of the Lepidopterists' Society since 1948.

Leonard's many friends and correspondents will miss his friendly, outgoing personality, his enthusiasm for his avocation, and his willingness to be of service to others.

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