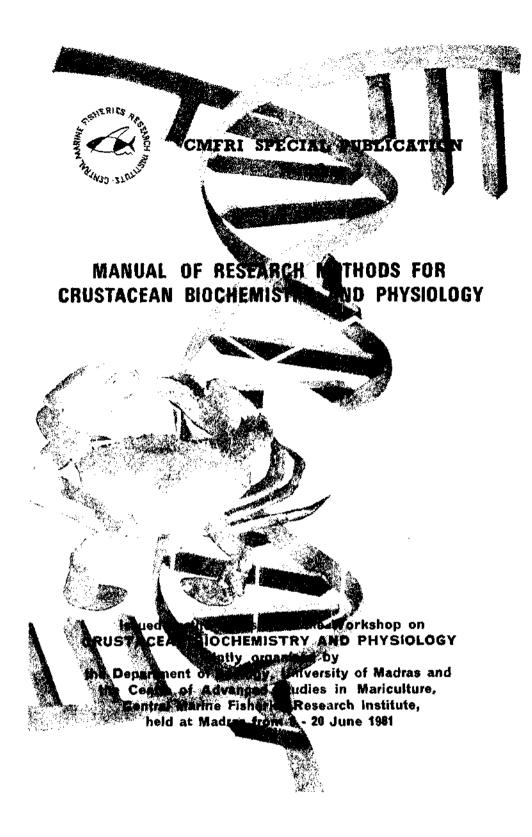


CMFRI SPECIAL PUBLICATION Number 7

## MANUAL OF RESEARCH METHODS FOR CRUSTACEAN BIOCHEMISTRY AND PHYSIOLOGY

Issued on the occasion of the Workshop on CRUSTACEAN BLOCHEMISTRY AND PHYSIOLOGY jointly organised by the Department of Zoology, University of Madras and the Centre of Advanced Studies in Marculture, Central Marine Fisheries Research Institute, held at Madras from 8 - 20 J me 1981



Manual of Research Methods for Crustacean Blochemistry and Physiology

EDITED BY

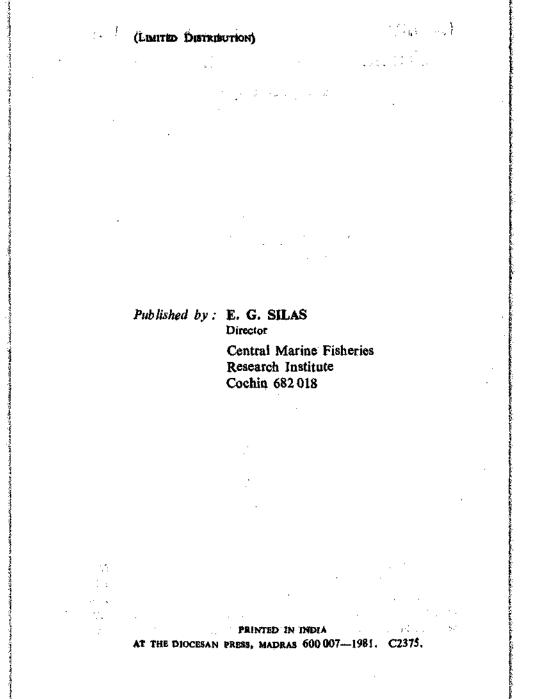
M. H. RAVINDRANATH School of Pathobiology, Department of Zaology, University of Madras, Madras 600 003



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ISSUED ON THE OCCASION OF THE WORKSHOP ON CRUSTACIAN BIOCHEMISTRY AND PHYSIOLOGY FORMER, ORGANIED BY THE DEPARTMENT OF ZOOLOGY, INTVERSITE OF ALGERS AND THE CENTRE OF ADVANCED STUDIES IN MARKETSICAL CRITERAL MARINE FISHERIES REMAINED INSTITUTE HELD AT MODIAS FROM B-30 FUNE, 1981



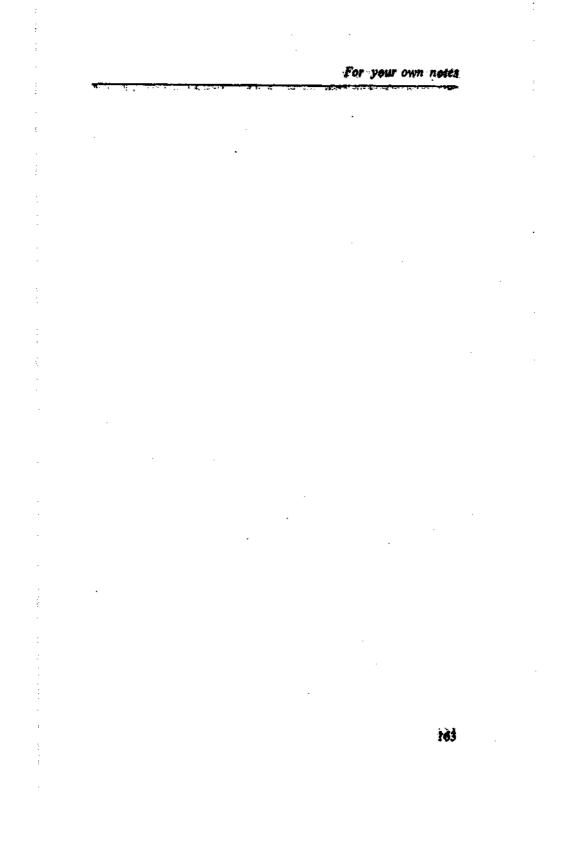
## **REGRESSION** (y=a+bx) \*

In regression, the relationship of one variable with another is estimated by expressing the one in terms of the linear function of the other. It is different from correlation (r) in that, in correlation the degree to which the two variables vary together is estimated. In both regression and correlation the values are continuous. The functional relationship in regression is a mathematical relationship which enables to predict the value of a variable y which corresponds to a given variable x. The relationship is determined by y=a+bx in which y is the function of x and is called the dependent variable, x the independent variable. By this formula when the independent variable (x) equals zero, the dependent variable equals 'a'. This point is the intersection of the function line with the y axis which is called as 'y-intercept', and 'b' refers to the slope or the gradient of the function y=a+bx. 'b' is called the regression coefficient and the formula is referred to as regression equation (Sokal & Rohlf, 1973).

$$b = \frac{\sum xy - \frac{(\sum x) (\sum y)}{n}}{\sum x^3 - \frac{(\sum x)^3}{n}}$$
$$a = \overline{y} - b\overline{x}$$
$$y = a + bx$$

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