A UNIFYING FRAMEWORK FOR MOSQUITO CONTROL

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Probably one of the most startling discoveries we all make once we have been in mosquito control for a while is the tremendous breadth of the field. One moment we need to be an engineer, the next minute an administrator, public relations man, or entomologist. It makes for interesting work, but it does create at least one problem: we must depend upon a diversity of disciplines to provide us with guidelines for our activities. The pitfall is that a discipline, be it engineering, biology, chemistry, or management science, has facts, theories, approaches and languages that are specifically applicable to its own particular field. It can be very frustrating to attempt to develop a cohesive mosquito control program while borrowing from these specialized disciplines.

The "systems" approach appears to have some promise in overcoming the above problems. Frank Stead introduced the subject to mosquito control in 1966 at one of our California Mosquito Control Association Conferences. It offers hope of providing a common perspective, and an interdisciplinary language, with which we can approach our mosquito control activities. A selected bibliography follows which I hope may be of some value to those wishing to further pursue the subject:

Bibliography

- Bertalanfly, L. V. 1972. General System Theory. George Braziller, New York.
- Buckley, W. 1968. Modern Systems Research for the Behavioral Scientist. Aldine Publishing Company, Chicago.
- Churchman, C. W. 1968. The Systems Approach. Dell Publishing Company, New York.
- Clark, L. R. 1970. "Analysis of Pest Situation Through the Life Systems Approach". Concepts of Pest Management. Edited by R. L. Rabb and F. E. Guthrie. North Carolina State University, Raleigh.
- Clark, L. R., P. W. Geier, R. D. Hughes, and R. F. Morris. 1970. The Ecology of Insect Populations. Methyen and Co., London.
- Margalef, R. 1969. Perspectives in Ecological Theory. The University of Chicago Press, Chicago.
- Patten, B. C. 1971. Systems Analysis and Simulation in Ecology.

 Academic Press, New York and London.
- Reiner, J. M. 1968. The Organism as an Adaptive Control System. Prentice-Hall, Inc., Englewood Cliffs, N. J.
- Richmond, S. B. 1968. Operation Research for Management Decisions. The Ronald Press Company, New York.
- Stead, F. M. 1966. Changing Program Perspective in Environmetal Quality Management. Proceedings of the California Mosquito Control Association. 34:9-14.