

## A CONSIDERATION OF SOME INFLUENCES AFFECTING ENTOMOLOGY<sup>1</sup>

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Let us give some consideration to influences occurring inside and outside the field of entomology. There is a cause for every event that happens and that influences entomology as a result. Let us think of the significance of events rather than listing them.

Entomology is a minor part of present day human endeavor but it is subject to influences by all other pursuits. It is essential for those in each endeavor to contact those in other fields and each is, in turn, influenced by others. Outside influences should be looked for and invited as sources of possible advances in the field. Although workers in the various disciplines will not be able to control directly the influences contacting them they are responsible for their reactions to the events. For instance, influences outside of entomology from about 1942 to 1945 (World War II) prevented the importation of much-needed pyrethrum and rotenone. Entomologists were asked for and gave, recommendations to control insects in spite of these shortages.

Public trust is placed on those people working in entomology as in other professions. There are definite and unavoidable responsibilities which must be accepted; there are definite and far-reaching degrees of accountability and the public must have recompense for its trust. I believe entomological projects, for example, must render equivalent or greater service to man than they receive in order that they may endure.

Early entomological workers were amateurs who received their food, clothing and shelter from employment outside their interests in insects. Many of these were clergymen, lawyers, physicians and other professional workers. Also, occasionally some of the "leisure class" collected and observed insects as hobbies. A very small portion of mankind always has been sufficiently intrigued by insects, their form and coloration to study them without expectation or desire for remuneration. Many in this group are classified as "collectors" by students of psychology. Entomological histories are replete with accounts of these early workers. Undoubtedly the philosophies, methods

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and procedures of present day entomologists were at least influenced, if they were not made possible, by the avocational efforts of these pioneers. Search for details and scientific exactness, for example, may have been an influence contributed by physicians. Theologians and teachers through their studies of insects influenced early entomologists, and hence all entomologists.

An event that was of much significance in early entomology was the manufacture of the microscope. From its invention until today, the microscope has been an essential tool of the entomologist. It enables a determination to be made of the species with which one is dealing. What progress, in fact might have been made without it? Yet entomology is not known to have influenced its invention!

Chemistry has undoubtedly affected entomology as much or more than it has any other human endeavor. It is impossible to estimate the extent to which chemical discoveries have influenced all phases of entomology. We must look to chemistry to provide future insecticides and other materials for use by economic entomologists. Chemistry, however, has also been influenced by entomology. Silk, honey, beeswax and shellac are widely used in various ways and have provided chemists with products which they have used in many ways.

People become interested in insects for various reasons. Some become so intrigued with insects and insect life that they become life workers from interest. Others choose entomology after having looked over many fields of study. Some are in the occupation because of opportunities for life work, some because they would have to exert themselves greater in other lines of work. Influences from within and without entomology, therefore, induce people to become entomologists. Amateur entomologists are needed since there is much about insects and insect life in Florida and elsewhere that may be discovered by them.

An important item influencing entomologists is gain or compensation of some form such as money, personal satisfaction or approval of work by friends. Except for personal satisfaction all other forms of compensation are dependent on pleasing others.

Public support is sufficient in Florida and the states of the Union to care for hundreds, if not thousands, of entomologists. The number supported may be taken as a measure of satisfaction to the public. Based on the 1950 population census figures and current membership in the Cotton States Branch of the Ento-

mological Society of America there is one entomologist per 17,213 population in Florida. This compares with one entomologist per 70,869 population in the other States of the Cotton States Branch of the Society. This figures to over four-fold more entomologists per capita in Florida than in adjoining or nearby states.

Acts of Congresses of the United States have produced significant influences over the entomological profession. More entomologists are supported by federal funds than by those of any other organization in the world. Sources of influence for provision of these funds have stemmed from insect outbreaks or threatened invasions.

Support for colleges and universities must come from the general public or from private sources in some manner. This support depends for the most part on the economic status of the people. Insect pests having economic importance are usually and basically responsible for many projects on which the entomologist works. Activities by influential leaders secure funds for control efforts to alleviate losses from insect pests. An entomologist is expected to help solve economic problems although, it is usually possible by dint of hard work for an entomologist to do his required tasks and to engage in projects of his choice, which may include taxonomic studies in some group.

Political pressure is a factor with which the entomological and other professions must reckon. It appears to be a requisite or a result of our form of government. It is not necessary, however, for entomologists to "play politics". Political activity is, moreover, usually forbidden by those administrators responsible for the activities of entomologists.

Within the last decade increasingly greater numbers of entomologists have been employed in industrial capacities. These entomologists have influenced their co-workers in industry and management and they have also been influenced. These influences have been mutually beneficial to all concerned. Except perhaps for a few opportunists "out to make a fast buck", industrial entomologists in Florida are maintaining high ethical standards. Relationships between entomologists employed by industry and by governmental agencies, in fact, are most wholesome. May they always remain so!

We should occasionally look for and inquire about any sinister influence that is menacing entomology today. In doing so, let us remember that past happenings are reacting to give

present-day occurrences, and that today's events are shaping tomorrow's future. In looking for danger signs we may see that man's selfishness is undoubtedly the greatest menace to future happiness of entomologists and also all others. Selfishness exists between individuals and between groups in all professions and human activities. Suspicion, greed, hatred and half-truths exist in governments and between governments. Peaceful relationships will exist where there is no oppression of man and where the majority rules. Violent destruction may engulf society unless greater understanding and cooperation produce friendly relationships. Such destruction may reduce human life to sparse populations in unorganized groups living by day-to-day existence.

An objective of all entomologists should be "service to others". This should be true whether one considers himself an "economic", "industrial", "systematic" or other kind of entomologist. It should be true whatever influence may originate from any human endeavor.

Our profession today is held in high esteem by the general public. Our services are sought; our recommendations are accepted. These results are influenced, in part, by our pioneer entomologists. Let us remember, with a great deal of humility, how they struggled that we might have a more complete knowledge of insects. If we strive to uphold their objectives, we may rest assured that the entomological profession will remain active, vigorous and productive throughout the future.

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#### NOTES

NEW DRAGONFLY RECORD FOR THE UNITED STATES.—Recently while examining a few undetermined Odonata in the collection of Dr. C. Francis Byers at the University of Florida, I found a male of *Idiataphe cubensis* (Scudder) collected by Dr. Lewis Berner in Miami, Florida, July 28, 1937. As far as known this represents the first record of this genus from the United States. Since the wings are in perfect condition it seems likely that this specimen emerged in Florida, and that the species was established in the Miami area. *Idiataphe* (formerly *Ephidatia* Kirby) is a small tropical American genus of two species; Ris (1913)<sup>1</sup> recognized only one species with two subspecies. *I. cubensis* has been recorded from Tamaulipas in Mexico, Cuba, Jamaica, Puerto Rico, Bahamas, and south to Colombia and Peru. *I. longipes* is Brazilian.

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<sup>1</sup> Ris, F., 1913. Collections Zoologiques du Baron Edm. de Selys Longchamps. Catalogue Systématique et Descriptif. Fasc. XVI. Libellulinen 8. pp. 965-1042.