For example, consider the chain of events that might occur if biological control of mosquitoes is thoroughly investigated. The natural enemies already present must be studied and their importance assessed. Other regions of the world must be scrutinized for worthwhile predators that might be introduced. The ecology, habits, and biotic potential of both predators and prey must be carefully studied. All these processes will require identification of insect material, and one step in particular—i.e., the world-wide search for useful enemies of mosquitoes—is likely to be guided from the very beginning by information assembled by taxonomists.

Or assume that, as a means of control, a change in the ecology of mosquito-breeding areas is contemplated. Again extensive surveys and studies requiring taxonomic assistance will be necessary.

Two comparatively recent developments may have a profound effect on future mosquito control methods. These are the resistance of insects to insecticides, and the insecticide-residue problem. If chemicals become ineffective, or hazardous to humans, domestic animals, or wildlife, the tendency to seek other methods of control will be accelerated. We hope that taxonomic entomology can keep pace with the demands for information that will be imposed upon it by these new approaches, whatever they may be. If budgets become even less adequate in proportion to the mosquito-control problems at hand, even further refinements of the species sanitation approach appear inevitable. Ventures into little-known regions of the world will necessitate working with relatively unknown faunas, for even a group of insects as well studied as the mosquitoes is still poorly known in some regions. In the solution of all these problems taxonomists will play an important part.

Finally I should like to refer to that most important contribution that taxonomy makes to applied entomology—namely, the supplying of a means of organizing and communicating knowledge about insects. A. B. Gahan (Proc. Ent. Soc. Wash. 25(3):73) stated the situation concisely in 1923. I quote, "Objects without names cannot well be talked of or written about; without descriptions they cannot be identified, and such knowledge as may have accumulated regarding them is sealed; unclassified, their relationships are unknown and the possibilities of deduction are destroyed. In short, without the fundamental work of the taxonomist the great mine of entomological literature would not exist, and the accumulation of knowledge would be largely limited to what one could personally observe and remember."

REPORT OF MOSQUITO CONTROL IN VIRGINIA

R. E. DORER

Prior to 1933 the only mosquito control work in Virginia was that conducted in limited areas for the control of malaria. With the introduction of the various relief agencies through the 30's many communities in the Tidewater section of the State carried on locally sponsored, federally financed projects. During World War II the Malaria in War Areas program carried on numerous projects around war establishments. When federal funds came to a halt, a real effort was made in Virginia for local communities to take over.

A state law was passed in 1940 providing for the establishment of mosquito control districts. As the federal assistance was reduced, local mosquito control districts were created to continue and expand the
control work. Mosquito control in Virginia is based on the concept that the local people receive the benefit and therefore, they should pay the cost. However, the Virginia law does allow for a state contribution of 25 percent of the funds collected locally, not to exceed $10,000.00 to any district in one year. This state aid is a great help to the smaller districts but is not the controlling factor in the creation of new districts.

The first mosquito control district was created in 1940 at Virginia Beach. No doubt there would have been more created at that time except for the war. At the end of the war a drive was made to establish more districts in areas where mosquito control was economically sound. To date there are 15 operating districts giving protection to about 1,000,000 permanent residents. There still remain many areas in Virginia where the mosquitoes are bad and where no mosquito control is carried on. However, these are sparsely settled areas where the cost of mosquito control cannot be economically justified. As land develops in the future, and the population increases, there naturally will be an expansion of the mosquito control activities.

In 1947 it was felt that an association was needed to unite the efforts being made in the state, and the Virginia Mosquito Control Association was born. The late Perry W. Ruth was the first president. Since that time the Association has grown and to a great extent has fulfilled its purpose for being. The official organ of the Association, “The Skeeter,” is mailed regularly to over 400 persons.

Ten annual meetings have been held. The Association has assisted in securing additional state funds. Through the Association, cooperative projects with the various mosquito districts have resulted in the saving of thousands of tax payers’ dollars. The Virginia Mosquito Control Association is a healthy organization because it is a “do” Association. In looking back over the years it would be hard to pick out the most significant event. But, perhaps the most far reaching decision was the one made by the Virginia State Health Commissioner in 1936; when he ruled that all pestiferous mosquitoes were a health problem regardless of whether they were proved carriers of disease. Today this concept is generally accepted.

In Virginia we think that it is better to eliminate mosquito breeding waters than to treat with an insecticide. Nevertheless, resistance is our most serious problem. We have used DDT with effective results since the war; but in some areas we now strongly suspect that we have resistant mosquitoes.

In the more heavily populated areas, where mosquito control is so necessary, there are strong factors at work which, if properly promoted, can result in greatly reducing mosquito-producing areas. Perhaps the worst breeding areas in eastern Virginia are the salt marshes. With the increasing population and a demand for more home sites, with the increased value of waterfront sites and with the recent growth of small boat activities, these marshes now appear as potentially valuable. One cannot justify reclaiming marsh land in the name of mosquito control but if the land is reclaimed for other purposes the mosquito problem is permanently solved. In Virginia, limited success has been obtained by this indirect approach.

The Virginia program is a control program. The people pay their taxes to reduce the mosquito annoyance and none of the funds are earmarked for research. Therefore, Virginia has contributed little to the knowledge of mosquito control. We are dependent on the information we get from other areas at these mosquito meetings and through Mosquito News. We are grateful to all who have shared their knowledge with us.