

consultative and advisory body, organized to study, formulate, and recommend measures for improving agriculture, animal husbandry, communications, transportation, fisheries, forestry, industry, labor marketing, production, trade and finance, public works, education, health, housing, and social welfare within the territory designated. Each of the participating governments is to appoint two commissioners, who will be required to hold at least two regular sessions per year.

One of the important instruments of the Commission is a research council, which is to be established as a standing body to advise the Commission. It is expected that a small number of qualified full-time workers to help in economic and social research will be appointed immediately. In these activities, provision is made for participation of the local inhabitants.

The Commission has no organic connection with the United Nations, but expects to cooperate as fully as possible from its temporary headquarters at Sydney, where preliminary arrangements for the establishment will be undertaken jointly by the Australian and New Zealand governments.

An initial budget of 40,000 pounds sterling has been provided, which, after ratification by the cooperating governments, will be increased, with Australia carrying almost one-third of the total budget.

## Make Plans for—

**New York State Geological Association**, 19th field meeting, May 9–10, New York City.

**Federation of American Societies for Experimental Biology**, May 18–22 Chicago, Illinois.

**Medical Library Association**, 46th annual meeting, May 27–29, Cleveland, Ohio.

**American Medical Association**, centennial session, June 9–13, Atlantic City, New Jersey.

**Pacific Division, AAAS**, 28th annual meeting, June 16–21, San Diego, California.

# COMMENTS

## by Readers

As the effectiveness of DDT residual house spraying against *Anopheles albimanus* is a problem of great practical importance for malaria control in the Caribbean area, the work of Stephens and Pratt in Puerto Rico (*Science*, January 10, p. 32) should be examined in the light of the experience with this species in Panamá (*Amer. J. trop. Med.*, 1946, 26, 383), particularly since Stephens and Pratt have overlooked certain basic considerations.

They report that no reduction of *A. albimanus* occurred, a conclusion based solely on bait and light trap catches. On the basis of the Panamá work, bait trap catches alone are not a valid index of the effectiveness of house spraying. Sharp reductions occur, but persist for only two to six weeks after spraying. This transient effect appears not only in the village but also for some distance around it. *A. albimanus* rests in houses during the night, and counts may be made then. Night catches in treated houses in Panamá show the following prolonged effects: (a) great reduction in numbers of anophelines; (b) reduction in the proportion of engorged anophelines; (c) low 24-hour survival rate for engorged anophelines.

These phenomena, of direct significance in terms of the malaria-transmission potential, occur in close association with the sprayed surfaces, namely, in the houses, and are best measured in houses.

Stephens and Pratt compare their bait and light trap catches of *A. albimanus* with house observations of *A. quadrimaculatus* in Arkansas, and *A. pseudopunctipennis* in Mexico, where marked reductions occurred. This is not a valid comparison. House catches of *A. albimanus* in Panamá show results comparable with those obtained with *A. quadrimaculatus* and *A. pseudopunctipennis*. While it is possible, or indeed quite likely, that the mosquitoes of the Puerto Rican houses were similarly affected, the recorded observations are inadequate to show what happened.

The lower malaria rate reported for the treated Puerto Rican village, after one year, may or may not be significant, but

in view of the well-known annual fluctuations of malaria, even in adjacent villages and independent of any control measures, judgment should be suspended. (HAROLD TRAPIDO, *Gorgas Memorial Laboratory, Panamá, Republic de Panamá*.)

Bluhm's suggestion that the excess of male births above the theoretical ratio of 50 per cent can be explained by the lighter mass of androsperms (bearing the Y chromosome) in comparison with gynosperms (bearing the X chromosomes) has been criticized recently by Leonard Walker (*Science*, March 7, p. 262). Without necessarily subscribing to Bluhm's theory, I should like to point out a rather obvious fallacy in Walker's argument.

The entire demonstration hinges on the

equation:  $\frac{v_y}{v_x} = \frac{106}{100}$ , in which Walker

assumes that the ratio of the velocities of the androsperms and gynosperms is equal to the sex ratio. He offers no evidence to support this assumption, and there is every reason to believe that the relationship is by no means so simple.

It seems obvious that the relative velocity of the two kinds of sperms is not the only factor influencing the sex ratio. Also involved are the distance the sperms have to travel, their starting points, and the numbers of each kind of sperm entering the contest, as well as many other factors. If only one sperm of each sort were involved, it is easy to see how the slower sperm might win out, if the faster one, like the hare, stopped on the way; or, in fact, most likely neither sperm would reach the destination. But with 200,000,000 of each kind of sperm in the race, and with only a single victor, any significant advantage for the androsperms would practically guarantee that the winner would be one of the androsperms. Thus, it seems obvious that the difference in velocities of the two sorts of sperms must be much smaller than assumed by the equation given above, because otherwise only males would be born. (ALEXANDER S. WIENER, 64 Rutland Road, Brooklyn, New York.)