

Dave Woodside (Div. Fish and Game); Max F. Landgraf (State Forester); Karl Korte (Maui District Forester); Ralph Dahler (Kauai District Forester); Leibert Landgraf (Hawaii District Forester); Robert T. Chuck (Water and Land Development); W. W. Goodale Moir (Hawaii Botanical Garden Foundation, Inc.); Paul Ekern (Water Resources Research Center, U. of Hawaii); Leslie D. Swindale (Agronomy and Soil Science, U. of Hawaii); Norman K. Carlson (Bishop Estate); Oswald Stender (Campbell Estate); Fred Carter (Damon Estate). As observers and recorders for most of the meetings, Miss Brenda Bishop and Mr. Edwin H. Bryan were present. Detailed minutes were kept of the meetings, and participants were asked to fill out questionnaires on certain aspects of the project for our records.

The following authorities were visited by members of the Planning Committee: Rear Admiral Henry S. Persons, Col. Burr E. Adams (Deputy for Major General Roy Lassiter, Jr., U.S. Army), Col. Head (Deputy for Colonel Philip A. Sykes, U.S. Air Force), Mr. Herbert K. Keppeler (B. P. Bishop Estate), Hon. John A. Burns (Governor of Hawaii), Hon. John J. Hulten (President of the Senate), Hon. Elmer F. Cravalho (Speaker of the House), Mr. Edward J. Morgan (Board of Water Supply), and Dr. Thomas Hamilton (President, U. of Hawaii). The project was warmly received by all these officials, and specific persons were designated as contacts for arranging access to lands controlled by the state, the U.S. government, and the Armed Forces. Several members of the Planning Committee also attended the brief dedication ceremonies of the new research facilities of the H. L. Lyon Arboretum of the University of Hawaii, where W. H. Wagner, Jr. made a brief address describing the International Biological Program and the Hawaii Project.

PRINCIPAL RESULTS OF THE CONFERENCE

In addition to a large amount of background information which was received during the course of the meetings, as well as a number of important contacts with authorities for the purpose of informing them of the nature of the work contemplated in this project, the Planning Committee made a number of definite decisions regarding the further development of the Hawaii Project. The following outline will summarize these decisions.

1. *Title and Scope of the Project.*—For several reasons it was concluded that the project should be limited to the biology of the land areas, including the leeward islands, and that the "cut-off point" should be the shoreline. The principal basis for this decision was simply that it is the terrestrial biota that is most severely threatened and most likely soon to be destroyed. Furthermore, work on the marine biology of Hawaii is already reasonably well supported. Accordingly, we propose that the title of the project be "The Hawaiian Terrestrial Biology Project."

2. *Criteria for the Selection of High Priority Projects.*—It was concluded that the following considerations should be weighed together in estimating the relative priorities of different studies to be made:

- a. To what extent is destruction in the near future likely? This may be judged in terms of such considerations as (1) rarity or narrow geographical extent; (b) narrowness of ecological specialization.

- b. To what extent does the group of organisms, the community, or the ecosystem have special biological interest and significance? Is the taxon, community or ecosystem unusually distinctive and different from those most nearly related? Has the taxon undergone unusually vigorous evolution in which important biological principles may be involved? Does the taxon, community or ecosystem show unusual biological adaptation or specialization?

3. *Plant and Animal Groups most Urgently in Need of Study.*—Considerable discussion was directed toward this problem, and specific suggestions were made not only by the members of the Planning Committee but by the local biologists and land managers as well. The following examples illustrate studies which should receive high priority. Among the insects, the longhorned beetles (Cerambycidae) of Hawaii call for detailed investigation. They constitute an outstanding example of evolutionary development in insular isolation, including 110 or more species in six endemic genera, all of which apparently evolved from a single immigrant. Very little is known of their biology, ecology, or immature stages, and a concentrated study would produce results of great interest. Among the mollusks, the Hawaiian members of the genus *Achatinella* have long been cited as classic examples of evolution. In recent times the American Institute of Biological Sciences has requested color slides of *Achatinella* for teaching purposes,