

of his intelligence, can stabilize his population without undernutrition, starvation, and disease. Mechanisms are known or suspected by which populations of certain species are stabilized in ways other than limitation of nutrients or attrition by predators. Although such limitations may not be applicable to man, a knowledge of them permits biologists to view the human population explosion in better perspective.

Human Populations

It is not certain how soon or how successfully human beings of different races can adjust the birth rate to the food supply and other factors so as to avoid serious undernutrition or starvation. An increase in food supply in an undernourished population may result in an increase in the size of the population, perhaps to an undesirable extent. Unless more food eventually results in a higher level of well-being for the population as a whole, it will have served little useful purpose. A study of different human populations from this point of view, perhaps in collaboration with World Health Organization and the Subcommittee on Human Adaptability (IBP) would be useful. Factors to be considered in such a study include fecundity, fertility, fetal wastage, placental properties, age span of reproduction, intelligence, and cultural level.

Human well-being and behavior as well as quality and size of human populations depend not only on food supply but also on other environmental factors. Research on these factors is needed at physiological, psychological, and sociological levels

Factors Determining Population Equilibria and the Ecogeographic Differentiation of Populations

An understanding of the biological basis for the abundance and distribution of species and hence for productivity requires a fuller knowledge of the identity and history of organisms and the physiological basis of adaptation to habitat within species and of speciation. Other subcommittees are concerned with systematics, biogeography, and ecology, but we need to understand the relation between physiological parameters and mechanisms that separate species, and to understand the causative factors for ecogeographic differentiation of natural populations.

The adaptative characters which form the basis for isolating mechanisms between species may be quite unrelated to those used in systematic descriptions. Many of these char-