lamina area and upper lamina area/upper lamina dry weight ($r_3 = -0{\cdot}51$, $P \doteqdot 0{\cdot}09$). From the value of r_1 it is evident that there was little association between the areas of the lower and upper laminæ. On the other hand, r_2 and r_3, although of doubtful significance, suggested that the dry weight of the upper laminæ was to some extent dependent on the area of the lower laminæ and that the area per unit weight of the upper laminæ was greater in plants with small lower lamina area. Moreover, it is thought possible that closer correlations might have been obtained if both area and weight had been measured on the same plants rather than estimated separately from the two halves of a plot.

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MICROBIOLOGY

Isolation of Diploid Strains of *Dictyostelium discoideum* from Haploid Populations

Ploidal composition is a clonally inherited property in *D. discoideum*[1]. Three types of strains exist: stable haploid, stable diploid, and metastable. In the last, each clone contains appreciable proportions of haploid and diploid cells indicating a rate of interconversion substantially higher than in the first two types. Each of these ploidal varieties can be isolated from the others[2].

Two stable diploid stocks, heterozygotic for two pigment markers, have been isolated from mixed cultures of the respective mutant (metastable) strains, and these in turn have yielded, at very low frequency (10^{-3}–10^{-2}), stable haploid progeny which fell into the four expected segregant classes[2]. Several unmarked diploid stocks have also been isolated from cultures of the haploid wild-type. However, these represent rare events and the conditions for their isolation have not been clearly understood. The present communication describes a method by which diploid clones can be isolated from stable haploid cultures at relatively high frequency. The results indicate that the individuals capable of yielding these diploid clones are to be found, after the cessation of growth, among the amoebae which fail to enter the cell aggregates and, thus, the fruiting bodies formed by the predominantly haploid population.

A stable haploid white mutant of *D. discoideum*, *Wh*–1, was used in work recorded here. This ensured that the diploid strains derived from such cultures could not have been contaminants from diploid strains already at hand since all the latter form fruiting bodies possessing the wild-type (yellow) pigment. The stock was grown on *SM* agar[3] in association with *Aerobacter aerogenes*. The mature fruiting bodies that appeared were removed and the unaggregated amoebae that remained were used as the inoculum for the next passage. Two serial passages were accomplished in this manner. After each passage, unaggregated amoebae were isolated with a micromanipulator, placed on fresh agar, grown with *A. aerogenes* and the ploidal compositions of the resultant clones were determined[1,2]. Table 1 is a summary of the data. The normal incidence of cells capable of yielding diploid clones in stable haploid stocks cultivated from a spore inoculum (passage 1) has been estimated as $< 10^{-4}$ (ref. 2). In contrast, two serial passages using unaggregated amoebae as the inocula resulted in a frequency, among the unaggregated cells, of 18 per cent stable diploid and metastable strains. In the absence of selective markers for the isolation of heterozygotes, the method described here may be of value.

Table 1

Passage	Inoculum	No. of clones derived from unaggregated cells	Ploidal composition of the clones: Stable haploid	Stable diploid	Metastable
I	Spores	62	62	0	0
II	Unaggregated cells	74	73	1	0
III	Unaggregated cells	76	62	9	5

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ANTHROPOLOGY

Haptoglobin Types in Inhabitants of Easter Island

Since the discovery by Smithies[1] of the polymorphic character of haptoglobins a widespread interest has arisen in the distribution of haptoglobin, types among various ethnic groups. In this connexion Easter Island natives, who represent a maritime isolate in Eastern Polynesia, 2,000 miles from the coast of South America, are of particular interest.

The first contact of these inhabitants with the occidental world occurred in the eighteenth century when the total population of Easter Island is estimated to have been approximately 3,000. During the decade 1860–70, the population underwent a steady decrease as the result of Peruvian slave raids, smallpox epidemics and migration to Tahiti and Mangareva. Only about 200 or 300 natives remained in 1871. After 1871, a steady population increase has been observed, with the immigration of Euro-

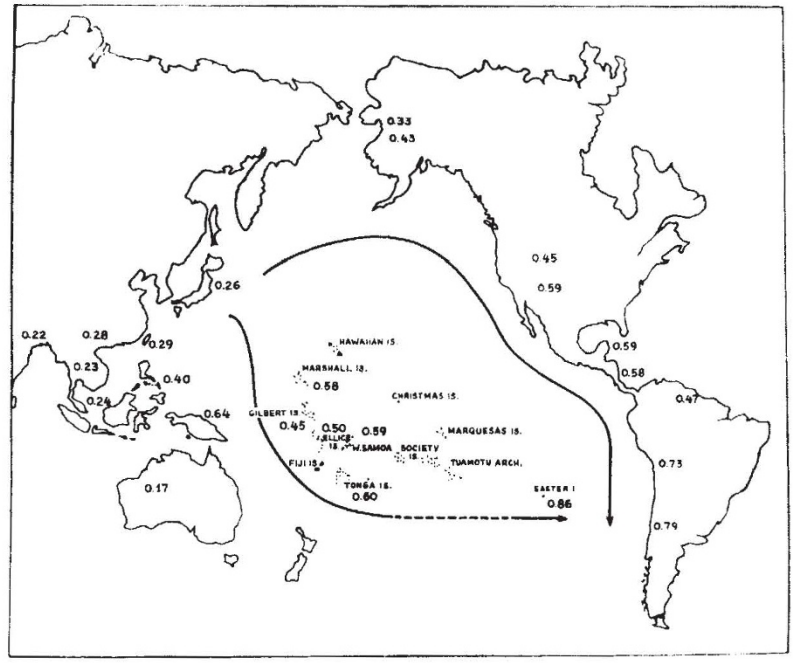

Fig. 1. Hp[1] gene frequency distribution in Pacific populations modified from E. Giblett (ref. 4)