Letters

Scientists for Nixon

Boffey's interesting article, "Scientists in politics: Humphrey group outshines Nixon's" (11 Oct., p. 244), quotes Jerome Wiesner's description of scientists supporting Nixon as "the troglodyte, or dinosaur wing of the scientific community" plus a personal smear for me. Permit me the use of your pages to say that, as far as I am concerned, the members of Wiesner's committee are all of them distinguished scientists, good Americans, and above epithets. The organizers of support for Nixon did not foresee that the size of their committee would be a part of a numbers game and announced only the initial group. Yet it should be stated that the Nixon committee was and continues to be scrupulous in announcing none but the names of men willing to serve, while the Humphrey list includes not only individuals who had specifically declined the use of their names, but even a man long deceased (p. 245).

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I have no reason to believe that the list of 141 founding members of Scientists and Engineers for Humphrey-Muskie, released on 7 October, contains the names of any persons who are not truly supporting Humphrey. However, a newspaper advertisement on 4 August listing "Professors for Humphrey" did indeed contain the names of at least two men who had declined to join the Humphrey group as well as the name of a dead man. I am confident that the listing of these names was the result of clerical error and was not intentional.—P.M.B.

Boycott Chicago!

Bacteriophage workers attending the annual meeting at Cold Spring Harbor, New York, on 2 September were deeply disturbed by the suppression of nonviolent demonstrators during the Democratic National Convention. To most of us, the behavior of Chicago police was an intolerable violation of the rights of free speech and assembly, an affront to decency which painfully reminded us of the Soviet occupation of Czechoslovakia.

By nearly unanimous agreement, a resolution was adopted condemning the action of the Chicago police and recommending that all American scientific associations boycott Chicago as a meeting site for 10 years. Use of the economic power represented by the choice of a convention site was felt to be an appropriate means by which the scientific community could express its support for basic American principles of free expression.

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Panama's Sea-Level Canal

Prior to the appearance of Rubinoff's article ("Central American sea-level canal: Possible biological effects," 30 Aug., p. 857), the only facet of the sea-level Panama Canal plan that had attracted the attention of many biologists was the possibility that radiation damage would be caused by the nuclear devices that would presumably be used for the excavation. It was gratifying that someone finally pointed out there would be other important biological effects.

Although Rubinoff's article is thoughtful and informative, it assumes that a sea-level canal will be constructed and looks upon its advent as an opportunity to conduct the greatest biological experiment in man's history. This approach is unfortunate for it tends to divert attention from a vital conservation problem. What will actually happen if a sea-level canal is excavated? If one takes into consideration the zoogeographic relationships of the two areas concerned, it is possible to make a prediction or at least a rough approximation.

The American tropics is a very rich environment with many more species than are found in temperate latitudes. Along the mainland coast of the Western Caribbean there are probably more than 8000 species of shallow-water, marine animals (including the fishes, the macro-invertebrates, and the smaller meiofauna). Along the Pacific coast of Central America, the fauna is less diverse but the total number of species probably exceeds 6000. Since the fishes are relatively mobile and about 80 to 85 percent of the benthic invertebrate species possess planktotrophic pelagic larvae, it seems that the majority of the above species would be capable of eventually migrating through a saltwater canal.

Also, only a very small proportion of the species in the major groups of marine animals are found on both sides of the Isthmus of Panama. The great majority of the related populations on each side are morphologically distinct from one another and have been regarded as separate species. Since, as Rubinoff noted, the levels of morphological divergence and isolating mechanisms are usually correlated, it appears that a mingling of these allopatric populations would not result in successful interbreeding to the extent that a large number of geminate species would become completely fused.

If only a few of the thousands of related species brought into contact by a saltwater canal were able to completely interbreed, what would be the fate of the great majority? Rubinoff observed that theoretically two such related forms may either coexist without interbreeding or that competition may result in the elimination of one species by the other. There is no reason to suspect that each of the areas in question is not supporting its optimum number of species. Studies of terrestrial biotas have indicated that most continental habitats are ecologically saturated and that islands demonstrate an orderly relationship between area and species diversity. Assuming the niches of the two marine areas are filled, invasion by additional species could alter the faunal composition but should not