

Letters

Oil Pollution: Unsolved Problems

Abelson's editorial (26 May, p. 1037) focuses attention in a commendable way on the problem of oil pollution and its drastic effects on fish and wildlife and on water-related recreation resources. A 90-day study of the problem is now underway and changes have been recommended in the enforcement and clean-up provisions of the 1924 Oil Pollution Act.

The problem of oil pollution from ocean-going tankers is a particularly severe one, as the *Torrey Canyon* disaster and many other oil tanker spills on our Atlantic and Pacific coasts have taught us. First of all, great amounts of pollutants are concentrated in one place. The *Torrey Canyon* carried about 118,000 tons, but 500,000 ton tankers are in the planning stage. There are in the neighborhood of 1 billion tons of crude and oil products moving on the seas this year, with an annual increase of about 4½ percent. Each year 5000 tanker loads enter New York harbor alone. Once spilled, the oil spreads over large areas and may affect the estuaries, including the bays, sounds, marshes, rivers, and coastal waters which are all critically important for plant life, shellfish, sport and commercial fish, waterfowl, and shore birds. Over 60 percent of our annual commercial fish harvest consists of species which spend some portion of their life cycle in estuarine environments. This harvest of estuary and fishery resources comes to over 3 billion pounds annually with a value of nearly \$400 million to the fishermen. These resources include shrimp, salmon, oysters, clams, and about 70 other commercial and sport species.

It is clear that improved legislation alone is not sufficient to cope with the problem. We do not have many of the scientific and technical answers. Specifically we would like to encourage advanced technical ideas on the detection of oil spillage as soon as it occurs, both day and night, perhaps by

aerial or satellite detection. Once oil has been spilled, we need to establish its immediate source, perhaps by analytical techniques described in the editorial. We need scientific help also in other areas: above all, techniques for removal or neutralization of oil; the degradation of oil through microbial action; establishing a better basis for gauging the ecological effects of estuarine pollution, as well as the detrimental effects of detergents used to fight oil pollution.

It is becoming clear that interference with the environment by human activities has now reached a level which requires us to obtain the best scientific and technical thinking to neutralize the threat which environmental pollution presents to our well-being on this planet.

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Phenylalanyl tRNA Available

Approximately 1 gram of purified phenylalanyl transfer ribonucleic acid (tRNA^{phe}) from *Escherichia coli* B is available for distribution free to qualified investigators. The product is approximately 65-percent pure, as judged by the ratio of phenylalanine acceptor activity to adenosine end groups. This material, prepared at the Biology and Chemical Technology Divisions of the Oak Ridge National Laboratories, is a result of a collaborative program between the NIH and the AEC, supported by the National Institute of General Medical Sciences, on the research and development of methods and technology for the large-scale separation of biologically important macromolecules.

Requests, in letter form, for portions of this material should include the specific amounts needed, a technical exposition of the intended research use, and sufficient material on the back-

ground and qualifications of the applicant to assess his capacity to carry out the proposed research. These requests should be sent to Associate Chief, Research Grants Branch, National Institute of General Medical Sciences, National Institutes of Health, Bethesda, Maryland 20014.

The requests will be considered by a consultant scientific review group, and awards of material will be made on the basis of the merit of the proposal.

Those to whom material is sent will be expected to make available the information obtained through its use, either by publication in the scientific literature or by communication to the National Institute of General Medical Sciences.

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Squaring the Record

Marshall and Suggs' letter (26 May, p. 1033) impugns the nature of my report to the Fellows of the American Anthropological Association, attributes statements to me I did not make, and badly misrepresents the events at the November 1966 meeting of the AAA and the subsequent referendum. It further ties together the report and the *Statement on Anthropological Research Problems and Ethics* with the so-called Vietnam Resolution, when in fact they had quite distinct origins and were handled quite differently.

The reports made by me and the executive board at the November 1966 meeting were in response to a resolution passed at the previous annual meeting. In October 1966, I submitted to the executive board my 43-page summary of information and opinions along with suggested possible actions.

On 17 November 1966, at the request of the board, I presented an oral statement at a public meeting sponsored by the Association in Pittsburgh. This report contained no recommendations for action. This is the "Beals Report" referred to by Marshall and Suggs.

At the annual meeting of the Council of Fellows 19 November 1966, the executive board presented a *Statement on Anthropological Research Problems and Ethics*. I had no significant part in the writing of this statement although it drew upon materials I submitted to the board. It was this *Statement* that the Fellows were asked to accept, and at no time were they asked to approve