

or lures, a little bait to it, I do not think this resolution is really going to be effective or helpful.

Mr. DADDARIO. We talk about something now in the order of \$50 million, which is, as we understand it, of course, an estimate on your part. What is the danger to us and to civilization generally if we do not look into these areas? You have used words such as "vital" and "urgent," and not to wait until the war is on before becoming involved. You set our sights looking to the future certainly with a purpose. What are we in for if we do not do something about this?

Dr. RIPLEY. It is difficult to talk about this problem without using well-worn words which perhaps sound exaggerated, like "vital." I happen to feel it is.

I spend a great deal of my time, and have spent, traveling in tropical parts of the world. And the process of destroying the tropical environments is going on at a continually accelerated rate. I believe that under this program there will be certain brakes put on this process. We may even be able to improve some environments in the process.

Potentially, or actually, the conservation section, for example, of the International Biological Program calls for a very sophisticated attempt to document what are known as biotopes, that is, particular types of environment, and to set aside sample areas throughout the world, either in the polar regions or in the Tropics, for future study. This is of—sorry—"vital" importance, because by the time we really get to it, if we do not hurry up, many of these areas will have ceased to exist. There will therefore, as a followup to that, be no opportunity for us to study relatively undisturbed conditions in the world environment which still remain and to tabulate and document the contents of those environments and to derive certain kinds of formulas which may well have to do with applied problems for human kind, ranging from health to various sorts of environmental conditions which tend to provoke stress and so on.

I think this is true. I feel this way, and I feel convinced that this is true. This is perhaps a really significant and important part of the program.

There are other aspects to the program which are of equal interest, and these involve environmental relationships. We in the Smithsonian, as well as others, are particularly concerned about studying environments such as the marine environments on either side of the Isthmus of Panama.

If the proposed sea-level canal is dug by one way or another, there will be a change in the components of the maritime environments on either side of the canal which has not existed for 25 million years. All of a sudden, the Caribbean side of the canal will be invaded by perhaps more aggressive, more active organisms adapted to a rougher and more competitive environment on the Pacific side. This is a phenomenon which we know to exist. This invasion will perhaps change rather dramatically the composition of parts of the Caribbean fauna and flora and may have long-term effects on the whole economy of middle America which we can only guess. But we should at least attempt to study this and find out something about it in advance.