the crabs that are sought by the Virginia dredgers in what is called the winter dredging season. About 85% of the crabs so caught are adult females that have been impregnated.

Members of the General Assembly of Maryland long have believed that the heavy catch of pregnant female crabs while in a dormant or semi-dormant stage in Virginia waters inevitably has reduced the supply of adult crabs in Chesapeake Bay waters during the two following years.

This cause and effect relationship is not yet proved, but it also is not yet disproved. To the State of Maryland, the Virginia practice of dredging egg-bearing female crabs during the winter months seems an obvious reason for a decreased supply of adult crabs.

In a recent hearing, the Director of the Maryland Department of Chesapeake Bay Affairs made these statements about the possible effects of the Virginia winter dredging season:

> "Statistics of the winter dredge fishery provide some interesting comparisons. Comparing the 1960's with the preceding 30-year period, the following statistics are notable: (1) the number of vessels engaged in the winter dredge fishery has almost doubled; (2) the harvest of crabs in the winter dredge fishery has increased by 128 percent; (3) approximately one-quarter of all the crabs caught in Virginia during the 1960's have been taken in the winter dredge fishery, 41 percent more than previously, and in 1963 more than one-third of the total Virginia catch was taken in the winter dredge fishery; (4) the percentage of the total Chesapeake Bay catch of crabs taken in the winter dredge fishery has increased by 65 percent.
>
> "It is noteworthy also that 3 successive years of drastically reduced winter dredge catches in 1957, 1958, and 1959, when the annual harvest from the source was less than 50 percent of the average for the preceding years of the decade, were followed by an immediate and dramatic increase in abundance of crabs that persisted for a period of 8 years, during which bay-wide production increased 38 percent over the annual average of the preceding 10-year period.
>
> "These statistics, of course, prove nothing, but if taken together with the very significant and unprecedented increase in harvest of crabs during the current decade, I believe they do raise a serious question as to whether Maryland and Virginia may not be overexploiting our common crab resource, and whether Virginia may not be overexploiting it at a time when it is not only particularly vulnerable to overfishing, but when the species is at a crucial stage of its life history. Admittedly, there is no experimental evidence that the number of spawning female crabs in a given year is directly related to the number of progeny that reach maturity in subsequent years. Unless, however, it can be shown that the mortality rate of the larval and juvenile crabs is a density-dependent factor, the contention that the number of spawning females has no relationship to the number of surviving progeny is insupportable, and the possibility that the winter dredge fishery of Virginia has a significant effect on the crab population of Chesapeake Bay cannot be lightly dismissed on the basis of statistical evidence. . . .