

Gordon H S. The economic theory of a common-property resource: the fishery.
J. Polit. Econ. 62:124-42, 1954.
[Carleton College, Ottawa, Ontario, Canada]

The economic theory of common-property resources is developed showing that in cases like the fishery a behavioral equilibrium occurs which dissipates the net output value of the industry through misallocation of production factors. [The *Social Sciences Citation Index® (SSCI®)* indicates that this paper has been cited in over 225 publications since 1966. There have been 20 additional cites in *SCI®*.]

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"After I became a faculty member at Carleton College (now University) in Ottawa in 1948, I began to do occasional work for the Canadian Department of Fisheries. (Though my academic interests were in economic theory, this work on fisheries economics was extremely practical and empirical.) Fisheries economists and biologists had frequently noted that though ocean resources are very rich, fishermen seldom earn more than a meager income. Biologists usually attributed this to depletion of fish stocks through 'overfishing,' but no satisfactory theory existed to explain why this should occur in the fishery but not other renewable natural resource industries like agriculture. One day, in casual conversation with two fisheries economists, I suggested that the essential problem was a discrepancy between the *equilibrium* use of fishing location and its *optimum* use. Challenged to justify this, I constructed a model of fisheries exploitation in which this discrepancy results from the lack of private property rights in

marine resources, unlike land ownership in agriculture. I then looked at other natural resource industries with similar 'common-property' characteristics, and the few marine industries with private property arrangements. The experience in these was consistent with my model. The cited paper presented a general economic theory of common-property resources with main reference to the fishery.

"For several years the paper was cited occasionally, but I had no reason to think that it was regarded as especially significant. In the 1960s, notice of it accelerated, partly, I think, due to realization by economists that property-ownership arrangements play a central role in economic phenomena that had not hitherto been effectively delineated and partly because of increased interest in the economic theory of natural resource exploitation. Since then, the 'fisheries model' has been applied to a wide variety of cases, and has been elaborated upon a great deal (see, for example, reference 1).

"I learned from a recent journal that I was not the first to understand the source of the fisheries problem. A Danish economist, Jens Warming, captured the essentials of my model in a nonrigorous form in a paper written in 1911.^{2,3} No matter, being correct is better than being original, in science at least.

"Though my model is very simple, I had considerable difficulty formulating it. At one point, in frustration, I put it aside altogether for three months and, when I returned to it, the parts fell into place in a few minutes. Since then, I have had a number of similar experiences, and am a great believer in allowing a problem to simmer for a while on the back burner of the mind—not for too long though!"

1. Mirman L J & Spulber D F, eds. *Essays in the economics of renewable resources*. Amsterdam: North-Holland, 1982. 287 p.

2. Warming J. Om grundrente af fiskegrunde. *Nat. Tidskr.* 49:499-505, 1911.

3. Andersen P. 'On rent of fishing grounds': a translation of Jens Warming's 1911 article, with an introduction. *Hist. Polit. Econ.* 15:391-6, 1983.