

Comprehensive Incentives for Reducing Chinook Salmon Bycatch in the Bering Sea Pollock Fleet: Individual Tradable Encounter Credits

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Abstract Concern about recent bycatches of Chinook salmon (*Oncorhynchus tshawytscha*) in the Eastern Bering Sea pollock (*Theragra chalcogramma*) fishery has led to the imposition of a bycatch cap effective 2011—if the cap is exceeded, the fishery will be closed. The hard limit on Chinook salmon bycatch threatens to ignite a race-for-fish in what is currently a highly profitable share-based fishery. A hard cap also has perverse consequences for Chinook salmon by being most restrictive when salmon are relatively abundant and least restrictive when salmon are less abundant and in greatest need of protection. Here we show that a comprehensive incentive plan involving the allocation and trading of a particular form of individual bycatch quota, the Individual Tradable Encounter Credit (ITEC), aligns economic incentives to protect Chinook salmon even when the hard cap is not binding, while concurrently minimizing the cost to industry of avoiding Chinook salmon. Under this plan, incentives for bycatch avoidance are strongest when salmon encounters are least frequent, and reflect the true cost of salmon bycatch.

Keywords: Salmon bycatch, Pollock fishery, Market-based incentives, Individual Tradable Encounter Credits

JEL Classification Codes: Q22, H23, Q28