Title: **Incentive Systems for Reducing Bycatch In the Alaska Pollock/Salmon Fishery**

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Abstract: The bycatch problem has remained troubling and persistent, even in fisheries that have rationalized their target fisheries. The Alaskan Pollock fishery is an example of a fishery struggling to contain the bycatch of salmon in spite of a transformation of incentives associated with a harvester coop system in the target fishery. Recently the Council asked Alaska industry participants to devise their own incentive systems for reducing salmon bycatch, and the industry responded with two very imaginative schemes. One scheme proposes setting up a tournament that reward fishermen with low ex post relative bycatch rates. The other scheme is a tradable bycatch system with a quota and with carryover from year to year. Both schemes are ingenious, but complicated, and their ultimate impacts are difficult to forecast a priori. This paper develops simple models of each alternative in order to forecast and compare bycatch and other performance measures of outcomes. We explore how different design alternatives influence bycatch rates and efficiency under various abundance scenarios for bycatch. We speculate on how various restrictions imposed by the Council on the design influence the attainment of bycatch reduction objectives.