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(54) Title: AUTONOMOUS REAL-TIME FEED OPTIMIZATION AND BIOMASS ESTIMATION IN AQUACULTURE SYSTEMS

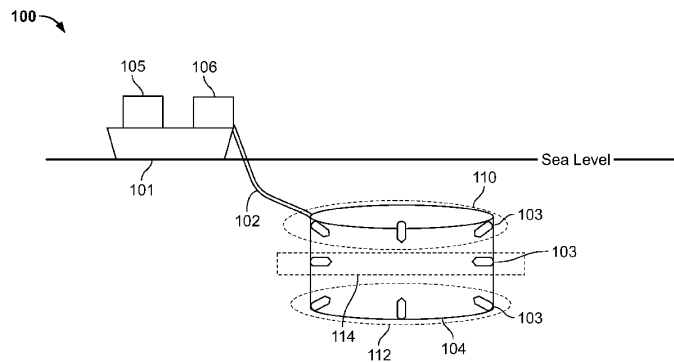


FIG. 1

(57) Abstract: The subject matter of this disclosure relates to a system and a method for biomass detection and feed control in an aquaculture environment. An example computer-implemented method includes: providing a feed supply for an aquaculture cage (104, 306) containing a plurality of fish; obtaining data derived from one or more sensors (103, 303, 402) disposed on or within the aquaculture cage (104, 306); using one or more machine learning models that receive the data as input and provide as output a determination of at least one of a fish biomass, a fish biomass distribution, or a fish satiation level for the aquaculture cage (104, 306); and based on the determination from the one or more machine learning models, controlling an amount of feed delivered to the aquaculture cage (104, 306) from the feed supply.

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