OPEN ACCESS Freely available online

ISSN: 2155-9546
Journal of Aquaculture Research & Development

Opinion Article

Evaluation of Aquaculture Environmental Interactions and Aquaculture Population Growth in Chile

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DESCRIPTION

Aquatic plant and animal culture for human consumption involves varying degrees of interaction between the organism being cultured and its physical and biological environment. This current literature review on aquaculture and the physical and biological environment is divided into two sections. The first is how aquaculture directly affects the environment through material output or consumption. The second is how aquaculture can have an indirect impact on the environment, particularly the biological community. In finfish, shellfish, and plant culture, both the positive and negative aspects of potential and real impacts are investigated. The interactions between aquaculture practise and the environment are highly specific to each production combination as well as the biological and physical makeup of the location. As in the case of fish tanks, ponds, or raceways, aquaculture can be practised in entirely artificial facilities that are erected on land (onshore aquaculture), where the living circumstances, such as water quality (oxygen), feed, and temperature, are under human control. As an alternative, they can be carried out in well-protected shallow waters close to a body of water (inshore aquaculture), where the cultivated species are exposed to a more naturalistic environment; or in fenced/enclosed areas of open water far from the shore (offshore aquaculture), where the species are either cultured in cages, racks, or bags and are exposed to more varied natural conditions like water currents (such as ocean currents) and temperature fluctuations.

The most typical type of aquaculture is fish farming. It entails breeding fish for sale in aquariums, ponds, or ocean cages, usually for human use. A fish hatchery is typically referred to as a location that releases young fish into the wild for recreational fishing or to increase the population of a species. Carp, salmon, tilapia, and catfish are the top four fish species raised for food around the world. Young bluefin tuna are caught in the Mediterranean by being netted at sea and being dragged slowly ashore. They are then developed further for the market in offshore pens, which are occasionally made of floating HDPE pipe. In 2009, Australian researchers succeeded in encouraging southern bluefin tuna to reproduce for the first time in tank-bound territory. In the southern Spencer Gulf of South Australia, southern bluefin tuna are also taken in the wild and fattened in grow-out sea cages. The salmon farming sector of this industry follows a similar procedure; young fish are harvested from hatcheries and given a range of maturation aids. For instance, a cage system can be used to grow salmon, one of the most significant fish species in the market. This is accomplished by housing the salmon in netted cages, ideally in open water with a strong current, and giving them a particular diet mixture that promotes growth. A different technique, occasionally referred to as "sea ranching," has also been applied within the sector. Fish are briefly raised in a hatchery before being released into marine waters to continue developing.

In China, aquaculture is a particularly significant economic sector. According to the Chinese Bureau of Fisheries, aquaculture harvests increased from 1.9 million tonnes to over 23 million tonnes between 1980 and 1997, growing at an average rate of 16.7% year. China was responsible for 70% of global manufacturing in 2005. Currently, one of the sectors of food production in the United States with the highest growth is aquaculture. The majority of shrimp consumed in the United States is farmed or imported. Salmon aquaculture has recently grown to be a significant export in southern Chile, particularly in Puerto Montt, the city with the greatest population growth in Chile. According to a May 2014 United Nations report titled The State of the World Fisheries and Aquaculture, fisheries and aquaculture support the livelihoods of approximately 60 million people in Asia and Africa. So according FAO, women accounted for nearly 14% of all people directly engaged in the primary sector of fisheries and aquaculture in 2016.

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Received: 01-Aug-2022, Manuscript No. JARD-22-18970; **Editor assigned:** 05-Aug-2022, PreQC No. JARD-22-18970 (PQ); **Reviewed:** 19-Aug-2022, QC No JARD-22-18970; **Revised:** 26- Aug -2022, Manuscript No. JARD-22-18970 (R); **Published:** 02-Sep-2022, DOI: 10.35248/2155-9546.22.13.698

Citation: Macbeth P (2022) Evaluation of Aquaculture Environmental Interactions and Aquaculture Population Growth in Chile. J Aquac Res Dev. 13:698.