



## Bibliography of Aquatic Sciences, Fisheries and Aquaculture in Ethiopia

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### KEYWORDS:

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### PREFACE

This Bibliography of Aquatic Sciences, Fisheries and Aquaculture is prepared with the intention of providing opportunity for different users to easily search for references that concentrate on Aquatic Sciences, Fisheries and Aquaculture (ASFA). It is a collection of both grey literatures and scientific articles published in scientific journals. The grey literatures include papers presented in conferences, symposia and workshops, PhD dissertations and MSc theses of various national and international universities submitted as academic requirement for graduation. It should be noted that there are many more monographs of these types that could be found mainly in different universities in Ethiopia and not included in this bibliography. Moreover, the scientific papers published in Journals and included in this bibliography should be checked for reputability. As the bibliography contains grey literatures and published papers it can serve as source of relevant information and data useful for meta analysis on key topics/issues of ASFA. It will also help the scientific community to enhance their teaching, research and extension activities. Moreover, the long list of references included in the bibliography shows the immense contribution of prominent researchers that promoted, not only their carrier, but also their profession in the aforementioned three specialized fields. Since the Bibliography is a collection of research reports taken from different sources, there may be lack of consistency while writing the references. For instance Ethiopian authors include full father name while writing most of the references, however, abbreviated father name is included whenever the original paper does not have full father name. Finally it should be noted that this bibliography on ASFA is brought out for the first time in Ethiopia, and we are confident that it will be updated in due course through contributions and feedback from users and researchers in the field.

### INTRODUCTION

As human population is steadily expanding and is expected to increase from the current 7+ billion to 14 billion by 2080, the demand for food will be concurrently increasing.

Agriculture is the main food production sector and more than 85% of the people from developing nations, like Ethiopia, depend on agriculture for livelihood. However, agriculture production alone cannot be reliable due to

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several factors and this warrants the search for additional food production sectors. It is in this context, fisheries and aquaculture have been identified as important additional food production sectors for enhancing the livelihood status of rural people and improve the local and national economy. Countries all over the world are designing and developing new strategies to increase food production through fisheries and aquaculture. The search for little known fishing grounds through modern fish finders, increased number of crafts, gears and manpower have played major role for the increased capture fisheries production, and unsustainable production has also been the factor responsible for stagnating fish production in wild waters. This in turn resulted in the emergence of aquaculture.

It is a known fact that aquaculture provides food, income and employment and livelihood for millions of rural people all over the world. In many countries, fish farming is a very important activity. In recent years aquaculture has made significant strides owing to the advancement of science and technology and as a result aquaculture production has increased many folds. Aquaculture production which was just one million tons in 1950 has increased to 60 million tons in 2010 and reached 81.1 million tons of aquatic animals 32.4 million tons of aquatic algae and 26000 tons of ornamental seashells and pearls in 2020 To expand aquaculture, efforts are now being made to apply diversified aquaculture technologies and system and species diversification. Several freshwater, brackish water and marine fish species have been successfully hatchery bred and grown under diversified aquaculture systems.

To successfully organize research and development in aquatic sciences, fisheries and aquaculture, it is necessary to have knowledge on the work so far carried out on the subject in questions which would pave way for developing and designing new areas of research that would ultimately improve the production potential to ensure food security both quality and quantity. Realizing this fact, several countries have published scientific bibliographies in the subject as a measure to provide information and to search gap areas for advanced research. From a review of literature it is seen that, most such bibliographies are confined to the works carried out in countries where fisheries and aquaculture has made significant progress. In Ethiopia, aquatic sciences, fisheries and aquaculture is developing rapidly taking advantage of the rich water resources in the form of large lakes, rivers, reservoirs and small water bodies. It is also an imperative need that research and development must progress further, so that the rich water resources available in the country can be better utilized to enhance local and national economy and to improve the livelihood status of the rural farmers. Furthermore, the ecological health and integrity of the Ethiopian water bodies should also be studied to ensure sustainability of the ecosystem services.

We sincerely hope that the present bibliography on aquatic sciences, fisheries and aquaculture will help students and researchers to identify and concentrate more on gap areas of research in these areas. The current effort seems to be the first bibliography on aquatic sciences, fisheries and aquaculture in the country. It includes more than 1250 papers published in scientific journals, book of abstracts, seminar/conference proceedings, technical bulletins and reports, M.Sc and PhD theses. The abbreviations of

journals have been listed according to the world list of scientific periodicals. The bibliography is not claimed to be complete and the scope of the bibliography has been limited to the works carried out in Ethiopia.

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