A TEXT BOOK OF **PISCICULTURE** A.V. PATHAN M.N. KOLPUKE S.S. KORDE

A TEXT BOOK OF PISCICULTURE

Dr. AMJADKHAN V. PATHAN M.Sc., M.A., M.Phil., Ph.D. Head, Department of Zoology Azad college, Ausa

Dr. MADHAV N. KOLPUKE
M.Sc., Ph.D.
Head, Department of Zoology
Maharashtra Mahavidyalaya, Nilanga

Dr. SEEMA S KORDE

M.Sc., Ph.D.

Head, Department of Fishery science
Azad college, Ausa

Copyright, 2019, Authors

All rights reserved. No part of this publication may be reproduced or All rights reserved. No part of part o photocopy recording, or any information storage or retrieval system, without

permission in writing from the publisher.

The opinions/ contents expressed in this book are solely of the author and do not represent the opinions/ standings/ thoughts of Publications Name. No responsibility or liability is assumed by the publisher for any injury damage or financial loss sustained to persons or property form the use of the information. personal or otherwise, either directly or indirectly. While every effort has been made to ensure reliability and accuracy of the information within, all liability negligence or otherwise, form any use, misuses or abuse of the operation of any methods, strategies, instructions or ideas contained in the material herein is the sole responsibility of the reader. Any copyrights not held by publisher are owned by their respective authors. All information is generalized, presented informational purposes only and presented "as is" without warranty or guarantee of any kind.

All trademarks and brands referred to in this book are for illustrative purposes only, are the property of their respective owners and not affiliated with this publication in any way. Any trademarks are being used without permission and the publication of the trademark is not authorized by associated with or

sponsored by the trade mark owner.

ISBN:978-93-88732-04-8 Price: 250.00 Publishing Year 2019 Published and Printed by:

Shaurya Publication Latur Office Address: Old MIDC,

Latur, Maharashtra - 413512

Phones: +91 814966899/9175103399 Email: hitechresearch11@gmail.com

Website: www.shauryapublications.com

Print in India

PREFACE TO THE FIRST EDITION

The The present book "A Text Book of Pisciculture" is written according to the syllabus prescribed by Swami Ramanand Teerth Marathwada University, Nanded for the students of B.Sc. Third Year, offering this Course as per CBCS pattern of the parent university. However, it will be useful to the students of other universities also. An attempt has been made to present the text matter in a simple lucid language which is presented with simple, well labeled diagrams.

Since long ago, human beings have always been looking towards other living animals, to use them as food, shelter and for other agricultural purpose. All animals have their natural importance in the ecosystem by providing food or economical sources like Pisciculture, Aquaculture, etc. So they have very good status in small scale industries, which supports in raising socioeconomic conditions of the nation. They also help by encouraging the young population to take up small scale industry as a career in this field. In preparation of this book we are supported by the useful literature for making the book informative and exhaustive for which we are greatly indebted to a numerous authors and research scholars.

We express our deep sense of gratitude towards Hon. Dr. Shivajirao Patil Nilangekar, Former Chief Minister, Maharashtra and Founder President, Maharashtra Shikshan Samiti, Nilanga, Shri. Vijaykumar Patil Nilangekar Vice-President, MSS, Nilanga, Hon. Late N.B. Shaikh, Founder Secretary, Hindustani Education Society, Ausa and Shri. Dr. Afsar Shaikh, President municipal council, Ausa for their constant encouragement and inspiration. We are also thankful to Dr. V. L. Yerande, Principal, M. M. Nilanga., Dr. Jahagirdar T.A. Principal, Azad Mahavidyalaya, Ausa for their cooperation.

CONTENT

Sr. no.	Chapter	Page no.
1	Chapter 1. Fish Farm Engineering	7
2	Chapter 2. Fish seed resources	55
3	Chapter 3. Capture Fishery	94
4	Chapter 4. Fishing Methods	116
5	Chapter 5. Fish Diseases	126
6	Chapter 6. Fish Preservation and Processing	137
7	Chapter 7. Economic importance of fish	144
8	References	151

CHAPTER 1

Fish Farm Engineering

A 'Fish Farm' is the site where different types of fish ponds are constructed for rearing and maintenance of different stages of the selected fish species. The aquaculture activities start with the construction of ponds till the harvest of table-sized fish. Specific types of ponds are required for the culture of selected species. For the culture purposes in a fish farm usually different types of ponds are required which are the hatching ponds, nursery ponds, rearing ponds and stocking ponds.

An obvious prerequisite for fish culture is the availability of different types of ponds for rearing various stages of fish. The primary consideration in constructing a fish farm is the choice of a site which would provide good quality, water-retentive soil base and pond sides, having an assured adequate water supply to fill in ponds at any time of the year. The topography of the site should preferably be such that self-drainage of ponds is possible.

Success in fish farming and economy of the construction of a fish farm would depend largely on the selection of a suitable site for the fish farm.

The main considerations are:

- 1. Topography
- 2. Soil Type
- 3. Water Supply
- 4. Layout of fish farm

1. Topography:

Topography means the surface features of the land area and is important both from the point of view of construction and future

ABOUT AUTHORS



Dr. Amjadkhan V. Pathan

Email kharamjed777@gmail.com

Dr. Amjadkhan V. Pathan is working as Assistant Professor (Zoology) in Azad Mahavidyalaya, Ausa Since 2001. He is working as a zoology's Head of Department. He has presented and published more than twenty research papers in national and international conferences and journals. He has obtained doctorate in 2017. This is his first book and working on other books for B.Sc. students.

Dr. Madhav N. Kolpuke

Dr. Madhav N. Kolpuke is working as Associate Professor Since 1987. Currently discharging his duty as Vice Principal, and Head, Dept. of Zoology, Maharashtra Mahavidyalaya, Nilanga. He has presented and published more than twenty research papers in national and international conferences and journals. He has published four Text Books in Zoology.





Dr. Seema S. Korde

Dr. Seema S. Korde is working as Assistant Professor (Fishery science) in Azad Mahavidyalaya, Ausa since 2001. She is working as Head Department of Fishery science. She has presented and published more than fifteen research papers in national and international conferences and journals. She has obtained doctorate in 2009.



Shaurya Publication, Kapil Naar, Khadgaon Road, Latur- 413512



978-93-88732-04-1

ISBN: 978-93-88732-04-8

Rs. 250/-