

Winner of the NAGA Award 2002-03



Dr K.V. Jayachandran is the winner of the NAGA Award 2002-2003 with the winning entry titled **Palaemonid Prawns: Biodiversity, Taxonomy, Biology and Management**.

Congratulations!

We wish to thank all the nominators and nominees who participated in the 2002-2003 NAGA Award Competition.

Jayachandran, K.V. 2001. Palaemonid prawns: biodiversity, taxonomy, biology and management. Science Publishers, Inc., Enfield, NH, USA.



This book is a monumental work on the subject. It is an excellent compilation of information on the systemic, biology and culture aspects of a number of species of palaemonid prawns. The book will be of great value to scientists, aquaculturists and students.

WorldFish Center announces 2004 change at the helm

Dr Stephen Hall has been named the incoming Director General of the WorldFish Center. He will succeed Dr Meryl Williams when she completes her 10-year appointment in early 2004.

Dr Hall, educated in Wales and Scotland, is an eminent fisheries scientist and research leader. His recent positions include Professor of Marine Biology at Flinders University and Director of the Australian Institute of Marine Science (AIMS). His many achievements and publications include a recent major work on the effects of fishing on marine ecosystems that has already become an essential text in this field.

Professor Robert Kearney, Chair of the Board of Trustees of WorldFish, noted that "the quality and breadth of experience of science leaders interested in the position of Director General of the WorldFish Center was outstanding, confirming the international recognition of the Center and its work. The Board is delighted to announce that Dr Hall will take up the position in February 2004. He will continue the Center's focus on fisheries research of the highest quality directed to the eradication of poverty, improvement of people's nutrition in developing countries and reduction of pressure on the environment."

Dr Hall stated "I am delighted to be given the opportunity to take up such a key position in world fisheries as Director General of the WorldFish Center. I look forward with great enthusiasm to leading the WorldFish Center in delivering fisheries benefits to developing countries."

The WorldFish Center is headquartered in Penang, Malaysia, and operates from 11 sites and works in 25 countries in Asia, Africa, the Pacific and Caribbean. It has generated acclaim throughout the world for its work on capture fisheries and aquaculture in developing countries.

WorldFish is the only fisheries and aquaculture Center in the Consultative Group on International Agricultural Research (CGIAR), a System of 62 donor member countries, multilateral agencies and foundations that support 16 research Centers. The other Centers focus on crops, livestock, trees, water, and policy research.

FishBase 2004 Published!

The 2004 Edition of FishBase, the world's premier global information system on fishes, has been published by the WorldFish Center in DVD format, and the CD-ROM Version will be published soon. FishBase 2004 represents significant new information compared to FishBase 2000:

Coverage	FishBase 2000	FishBase 2004
Species	25 100	28 500
Synonyms	71 000	79 600
Fish common names	107 900	188 300
Images	26 200	36 100
References	20 800	33 100
Geo-referenced records	630 000	1 803 000
Collaborators	561	1 080

FishBase 2004 has been published by the WorldFish Center for the FishBase Consortium (WorldFish Center, Food and Agriculture Organization of the United Nations, Leibniz Institute of Marine Sciences at Kiel University IFM-GEOMAR, University of British Columbia - Fisheries Centre, Muséum National d'Histoire Naturelle, Swedish Museum of Natural History, Musée Royal de l'Afrique Centrale). FishBase is also available and updated monthly on the web as a global public good at <http://www.fishbase.org>. Inquiries and orders can be directed to the FishBase Project at the WorldFish Center Philippine Office, MCPO Box 2631, 0718 Makati City, Philippines, or Email: fishbase@cgiar.org

Catalogue of Life 2004 Now Available on CD-ROM!

The WorldFish Center has produced the fourth release of the Catalogue of Life: Year 2004 Annual Checklist: Indexing the World's Known Species in CD-ROM format. The checklist acts as a stable taxonomic reference and contains a searchable database with information on animals, plants, fungi and microorganisms from 23 contributing taxonomic databases. The 2004 edition features two new databases: Orthoptera Species File and Computer-Aided Identification of Phlebotomine Sandflies (CIPA). Additional common names have also been included from Catalogue of Life. The Year 2004 Annual Checklist covers significantly more new information compared to the Year 2003 Annual Checklist:

Coverage	Year 2003 annual checklist	Year 2004 annual checklist
Species	272 101	323 680
Infraspecies	32 609	37 669
Synonyms	181 774	222 120
Common names	217 589	242 381
Hierarchies	5 411	6 024
Distribution	92 517	129 258
References	87 409	119 433
Contributing databases	20	23
Collaborators	204	232

The Catalogue of Life program is a partnership of Species 2000 and Integrated Taxonomic Information System (ITIS). It will be a baseline species

list for use in inventorying projects and as a comprehensive worldwide catalogue for checking the status, classification and names of species. This is a work in progress and does not yet cover all of the world's species. The 2004 Annual Checklist is also available online at <http://www.fishbase.org/ph/sp2004/search.php>. The WorldFish Center, as a partnership activity with the Species 2000 Secretariat, ITIS and other contributors, compiles and produces the checklist on an annual basis. Inquiries about the CD-ROM, its databases or Species 2000 should be directed to the Species 2000 Secretariat, School of Plant Sciences, The University of Reading, Reading RG6 6AS, UK, or email: sp2000@sp2000.org.

ReefBase: International Workshop on Coral Reef Monitoring Data

Coral reef monitoring programs around the world generate volumes of important data on coral reef parameters, but standardized and easily accessible information from these programs is often lacking. Linking information from reef-monitoring programs in a coordinated framework will collectively generate key indicators and statistics for national, regional and global assessments of the status of coral reefs. Such collaboration will provide a quantitative basis for future coral reef status reports as well as the much needed, tools for promoting informed management of coral reef resources.

This objective is becoming a reality - an International Workshop on Coral Reef Monitoring Data was held on December 2-4 2003, at WorldFish Center's headquarters in Penang, Malaysia. The Workshop was organized by Japan's Ministry of Environment, the Global Coral Reef Monitoring Network (GCRMN), the International Coral Reef Action Network (ICRAN) and the WorldFish Center,

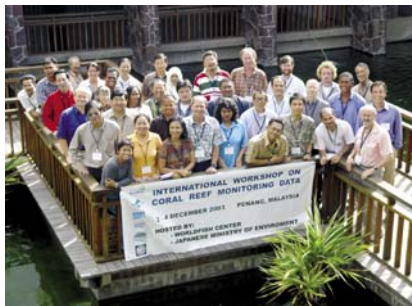
with subsequent funding from the World Bank. The Workshop brought together some 40 representatives from major reef monitoring programs around the world, with emphasis on the Southeast Asian region. The goal of the Workshop was to explore ways for improved collaboration between monitoring programs.

The Workshop focused on how the output from the various reef monitoring programs could be used to: (1) support the Global Coral Reef Monitoring Network (GCRMN) and its central database ReefBase, to generate essential statistics, indicators, and status reports at the national, regional, and global levels; and (2) create a public knowledge-base on the status of coral reefs globally to support sustainable management and conservation of coral reefs.

The specific objectives of the Workshop were to generate:

- Greater awareness of existing monitoring programs and their databases.

- Ideas on how to develop common summary databases and data presentations for reporting on the status of coral reefs.
- Ideas on how to share data more effectively and the tools needed to do this.
- Agreement on the need to collaborate (formally and/or informally) in developing database systems and tools.
- A network of database systems (i.e., a Reef Monitoring Data Consortium).
- A comprehensive list of all major coral reef database systems and input/analysis tools.
- An outline for a standard format for national reef status reports.
- A draft list of common variables and measurement units for summary reporting and comparisons (including core and optional elements).
- A draft list of common data structures (tables, fields) to hold this summary data.
- A list of user needs for countries and organizations wishing to



Participants of the International Workshop on Coral Reef Monitoring Data.

develop better capacity for managing monitoring data, and the possible providers of such expertise.

- A list of potential collaborative projects that could be developed for submission to funding bodies.
- A timetable for producing outputs for the 10th International Coral Reef Symposium in Japan (July 2004).

The first day of the Workshop was spent on 19 presentations from participating monitoring programs and related organizations. During days two and three, the participants used breakout groups to discuss Reef Monitoring Data Reporting Formats and Standards and Reef Monitoring Data Coordination and Collaboration.

Workshop Conclusions and Recommendations

- A number of excellent databases on coral reef monitoring were demonstrated at the Workshop. It was recognized that these should form the basis for the development of a standardized data entry and analysis package that could be disseminated for national, regional and global use to countries and regions that lack adequate data management systems. This data entry and analysis package should be designed to link directly to ReefBase, the global database on the location, status, threats, and management of coral reefs.
- Representatives recommended that ReefBase initiate the process to

develop a data entry and analysis system that could be offered to all countries and regions to assist in data management and report writing. Representatives of institutions from Australia, France, Japan and USA (NOAA), as well as ReefBase and the GCRMN, offered to assist in the development of the system through the provision of support and/or funds. Specific steps recommended were:

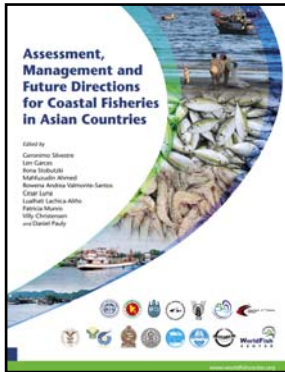
- Data managers who participated in the Workshop review the existing packages (e.g., CoReMo from Southwest Indian Ocean) to determine their suitability and limitations for use as a country and regional data management system.
- A Workshop to be held in early 2004, possibly at the WorldFish Center, to scope the process of developing a data entry and analysis package that could be offered to countries and regions of the GCRMN.
- The Workshop should include representatives from Australia, USA and Japan, ReefBase, the Southwest Indian Ocean GCRMN Node (France), and other organizations with a direct interest and capability in assisting in this process.
- The Workshop should develop a timetable to produce a data entry and analysis package and determine the content and component priorities. This will include requirements for software, hardware and specific roles of participants in the production of the package.
- The meeting recommended the production of English, French, Japanese, Spanish and Bahasa versions of the data entry and analysis package. The core component of the database (data entry and analysis) should be provided as soon as possible, with more refined versions (e.g., GIS capacity, report writing facility) added as incremental improvements.

- Key supporting organizations and donor countries were requested to assist in production of the package to assist coral reef countries to manage monitoring data in an efficient and effective manner and to produce improved reports on the status of coral reefs. Funds will be needed for: travel and Workshops; employment of an expert programmer; training national and regional database managers in the use of the database; and distribution and publicity of the package.
- The Workshop participants agreed that implementation of these recommendations could result in an unprecedented knowledge base that will make a major contribution to the informed management of coral reef resources around the world.

Workshop Report and CD-ROM

The Workshop Final Report presents the initial outcomes and recommendations from the workshop, and calls for the establishment of a formal Reef Monitoring Data Consortium. This Consortium will provide guidance and coordination for coral reef monitoring programs and partners, and initiate the development of standardized database templates, data analysis tools, and reporting formats that could: (a) benefit participating monitoring programs; (b) provide a better translation of reef monitoring results into information relevant to natural resource managers; (c) substantially improve and simplify the compilation of GCRMN Coral Reef Status Reports; and (d) allow for sharing of reef monitoring data at various geographic levels.

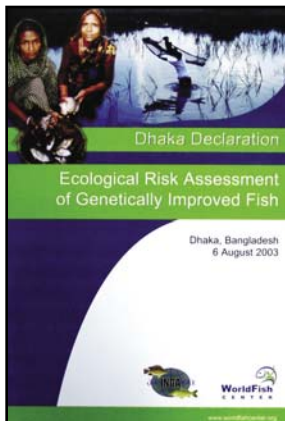
A CD-ROM of the Workshop is currently in print, containing the Workshop Final Report, all relevant materials related to the Workshop, and extensive information on coral reef monitoring activities around the world. For further information, please visit the ReefBase website (<http://www.reefbase.org>).



Assessment, Management and Future Directions for Coastal Fisheries in Asian Countries

The fisheries sector in Asia is important for food security, livelihoods and foreign exchange earnings. However, as in many other parts of the world, there are signs that capture fisheries are fully exploited or over fished. Management of fisheries in the region is often hampered by the lack of information on the status of fisheries

in terms of biological, social, economic, policy and governance aspects. This regional project documents an alarming decline of coastal fishery resources, based on historical research surveys in South and Southeast Asia. Socioeconomic analyses and policy reviews highlight the importance of the fisheries sector as well as the challenges facing it. Potential interventions to improve fisheries management are outlined and defined in terms of environmental, socioeconomic and institutional objectives.



Dhaka Declaration: Ecological Risk Assessment of Genetically Improved Fish

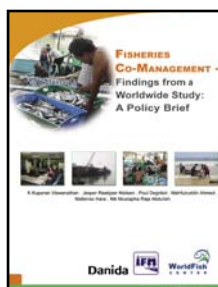
Fish is the major source of animal protein and contributes to livelihoods and food security of millions in most developing countries. Fish production from natural resources has been declining and nations are looking to aquaculture to bridge the gap between supply and

demand for fish. Studies undertaken in recent years on genetic improvement of commercially important cultured fish species by selective breeding and other non-transgenic mechanisms have started to yield results and improved strains are now being disseminated.

The improved strains of fish have generated significant economic and social benefits. However, if not properly managed, their escape into the natural environment could pose risks for aquatic ecological integrity and biodiversity. Hence, prior to disseminating improved strains of fish, it is imperative that protocols and policies governing dissemination are reviewed, methods to assess the possible ecological risks formulated, and ways and means of averting any possible impacts identified, including measures to contain escapes.

Fifty-four participants held an Expert Consultation on Ecological Risk Assessment of Genetically Improved

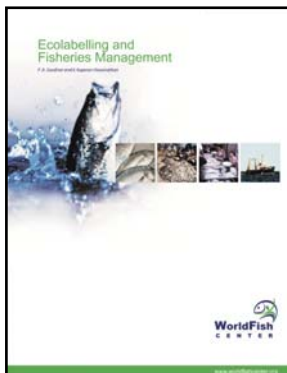
Fish during 4-6 August 2003 in Dhaka, Bangladesh, under the auspices of the International Network on Genetics in Aquaculture (INGA). The participants included aquaculturists, geneticists, ecologists, biodiversity specialists, researchers, administrators and development workers from 20 countries representing national/research institutions in Africa, Asia and the Pacific, non-government organizations and regional/international organizations (e.g., Food and Agriculture Organization – FAO, The World Conservation Union – IUCN, Southeast Asian Fisheries Development Center – SEAFDEC, Secretariat for the Pacific Community – SPC, Network of Aquaculture Centers in Asia-Pacific – NACA, Asian Institute of Technology – AIT, and the WorldFish Center). They discussed the benefits and potential risks of improved fish strains, and initiated development of guidelines for the environmentally safe dissemination of improved fish strains and a framework for risk assessment.



Fisheries Co-Management Policy Brief: Findings from a Worldwide Study

Fisheries in developing countries are under intense pressure from increasing human populations, overexploitation of dwindling and degraded aquatic resources,

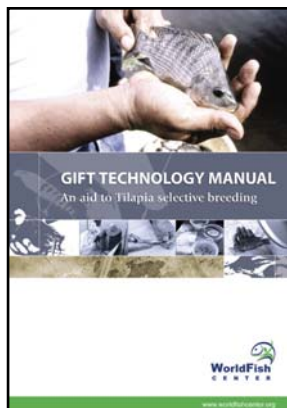
and conflicts over access to them. A new governance approach is required to address the challenges facing rural fishing communities. One promising approach explained in this policy brief is co-management – sharing responsibility among the government, fishing communities and other stakeholders.



Ecolabelling and Fisheries Management

Many industrial and small-scale fisheries around the world are declining because of over-fishing and environmentally damaging fishing practices. Despite evidence of the decline, finding incentives to induce better fisheries management is proving problematic. One reason for this is that fish and seafood products remain highly profitable commodities, extensively traded in international markets. It has been suggested that

ecolabelling fish and seafood products that have been harvested appropriately will increase consumer awareness of the issues and provide market incentives for better fisheries management. This study examines the pros and cons for those developing countries considering the introduction of ecolabelling. The appropriate balance between ecolabelling and other systems aimed at increasing the sustainability of fisheries management (such as co-management, property rights and ecosystem approaches) is also discussed.

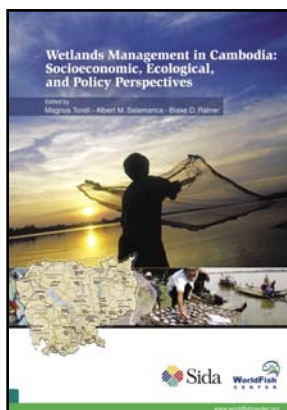


GIFT Technology Manual: An aid to Tilapia selective breeding

This Manual is intended to be an aid in the transfer of the selective breeding technology developed by the WorldFish Center and its partners. It is based on the experience and material accumulated during the Genetic Improvement of Farmed Tilapia (GIFT) project (1988 to 1997). In its development, particular attention has been paid to the description of key husbandry operations in a

sequential manner, using illustrations and photographs. However, there will be instances in which some adjustment of the GIFT technology are required to suit local conditions.

The manual constitutes an integral part of the UNDP/Technical Cooperation among Developing Countries (TCDC) financed project titled Transfer of Selective Breeding (GIFT) Technology for Aquaculture Improvement from the Philippines to Sub-Saharan Africa and Egypt.



Wetlands Management in Cambodia: Socioeconomic, Ecological, and Policy Perspectives

Wetlands in Cambodia are a lifeline of the rural economy – essential to the livelihoods of millions of Cambodians, the food security for the most vulnerable members of society, and the prospects for national development. Making progress towards the sustainable

management of wetlands demands a systemic, holistic perspective, precisely because wetlands defy boundaries. By presenting in one volume the perspectives on a number of key facets of the overall challenge of wetlands management in Cambodia, this collection of papers aims to broaden the platform for dialogue and debate about the importance of wetlands, trends affecting their health and productivity, and priority actions in response.

Guidelines for Authors

The purpose of these guidelines is to assist NAGA contributors in the preparation of articles for submission to NAGA, *WorldFish Center Quarterly*. The presentation of your manuscript is the first stage in the successful publication of your article and the instructions below will assist you in ensuring that your article is reviewed and published as efficiently as possible.

If you can prepare your article on a computer it will enable us to work more quickly and easily. However, if you do not have access to a computer, hard copies of your manuscript should be submitted to: The Editor, NAGA, Communications Unit, WorldFish Center, PO Box 500 GPO, 10670 Penang, Malaysia.
E-mail: naga@cgiar.org

Manuscript

Please ensure that the manuscript is clear enough to work on, and adheres to the following:

- Paper size: A4
- Font size: 12 points
- Your text should be double-spaced with a 2.5 cm margin all around.
- Your manuscript must be paginated.
- Articles submitted should be between 1 500-2 000 words.
- Include an abstract of approximately 50 words, stating what was done, found and concluded.
- Submit one hard copy; and one soft copy and keep one copy for reference
- The **electronic/soft copy** should be in Microsoft Word for Windows. The soft copy must be an exact printout of the hard copy. The soft copy should be sent by e-mail to: naga@cgiar.org. If you do not have access to e-mail, send the soft copy in a 3 ½ inch disk to the WorldFish Center.
- The **hard copy** should only be printed on one side and sent to WorldFish.

House style

- **Spelling** should conform to the new edition of the Concise Oxford English Dictionary. Alternatives will be accepted provided they are consistent.
- Use **italics** for scientific names, and words/phrases in foreign languages.
- To check all **fish species names**, refer to FishBase at www.fishbase.org.
- **Justification** of text – the text

should be left justified. Do not use hyphenation except for hyphenated words.

- **Headings** – where there are several levels of heading, each one should be differentiated from the other as below:
 - Title of article – (Upper and Lower Case, Bold, 14 pts, Centered)**
 - Heading – Level One (Upper and Lower Case, Bold, 12 pts, Centered)**
 - Heading – Level Two (Upper and Lower Case, Bold, 11 pts, Flush Left)**
 - Heading – Level Three (Upper and Lower Case, Bold, 10 pts, Flush Left)**
 - Heading – Level Four (Upper and Lower Case, Italics, 10 pts, Flush Left)**
- **Space after punctuation marks** – use single (and not double) space after full stops, commas, colons, semicolons, etc.
- **Quotation marks** – use double quotation marks for dialogue and quoted material. Single quotation marks are used only for quote within quotes.
- **Units of measure** – The International System of Units (SI) for measurements and weights is recommended.
- **Numerals** – spell out numerals smaller than 10, e.g. eight fish. However, numerals smaller than 10 should not be spelled out when accompanied by a standard unit of measure, e.g. 3 kg.
- **Dates** – should be written as "day month year", e.g. 8 May 2001.
- **Abbreviations** – Any word or words to be abbreviated should be written in full when first mentioned followed by the abbreviation in parenthesis.
- **Illustrations**
 - Illustrations can be photographs, line drawing, maps or graphs. Bear in mind that the quality of printed illustrations is dictated by the quality of the originals you supply;
 - Line drawings submitted should be originals, drawn in black ink on white paper. These should be mailed to the WorldFish Center flat or rolled, never folded;
 - If drawings are digitally produced, they must be of high quality;
 - One color (black) line drawing should

be produced at 500-800 dpi and saved as a bitmap tiff file;

- Tone illustrations or illustrations in color should be produced at 250-300 dpi and saved in grayscale as tiff files.
- Maps should include indicators of latitude and longitude.
- Check to ensure that figures are numbered correctly as they are cited in the text. Position figure numbers and headings at the bottom of the illustrations.
- **Tables**
 - Key in your tables using the Table Menu in Word.
 - Ensure that your tables are numbered correctly and that they tally with the numbering cited in your text.
 - Position table numbers and headings above the table. The headings should be clear, complete and informative.
 - Place sources and notes immediately below the table.

References (examples)

Book:

- Gupta, M.V. and B.O. Acosta (eds.) 2001. Fish genetics research in member countries and institutions of the International Network on Genetics in Aquaculture. ICLARM Conf. Proc. 64, 170 p.
- Longhurst, A. and D. Pauly. 1987. Ecology of tropical oceans. Academic Press, San Diego.

Chapter or part of a book or published conference proceedings:

- Christensen, V. and D. Pauly. 1993. On steady-state modeling of ecosystems, p. 14-19. In V. Christensen and D. Pauly (eds.) Trophic models of aquatic ecosystems. ICLARM Conf. Proc. 26, 390 p.

Journal article:

- Hillman, S. 1994. Environment on trial. NAGA, ICLARM Q. 17(1):8-10.
- **Notes on authors** should be included at the end of the article: A. Shaleesha and V.A. Stanley are scientists at the J.R.D. Tata Ecotechnology Center, M.S. Swaminathan Research Foundation, Chennai – 600 113, India.