

A CURRENT AWARENESS BIBLIOGRAPHY

for

IDRC-SUPPORTED FISHERIES PROJECTS



Volume 3, Number 3  
September 1979

Compiled by  
Deborah Turnbull

## TABLE OF CONTENTS

	<u>page</u>
Preparation of this Bibliography .....	i
Publications of Interest .....	iv
Bibliography .....	1
Taxonomic Index .....	15
Subject Index .....	16
Order Form .....	19

Preparation of this Bibliography

This indexed bibliography was compiled to assist leaders and staff of IDRC-supported projects in retrieving information relevant to their particular interests. The titles are listed in alphabetical order by authors' names. Taxonomic and subject indexes are provided to ease the retrieval process.

The articles included were obtained as a result of: manual searching of journals, books, and current awareness computer profiles; retrospective searches on specific subjects; and requests of researchers on particular topics.

This bibliography has also been sent to researchers who are associated with I.D.R.C. - supported Fisheries projects and to institutions and organizations which are either associated with the I.D.R.C.- supported projects or with whom I.D.R.C. has a reciprocal publication exchange.

### Préparation de Cette Bibliographie

Cette bibliographie classifiée a été établie dans le but d'aider les dirigeants et le personnel des projets subventionnés par le C.R.D.I. à retrouver de la documentation ayant rapport avec leurs intérêts particuliers. Les titres sont donnés dans l'ordre alphabétique du nom de l'auteur. Des tables taxonomiques et thématiques sont fournies pour faciliter le processus de recherche.

Les articles qui y figurent ont été obtenus par la suite de recherches manuelles de journaux, de livres, et de profiles d'ordinateur sur la conscience courante; et de demandes de chercheurs sur des thèmes particuliers.

Cette bibliographie a été envoyée également à des chercheurs qui sont associés aux projets des Pêcheries subventionnés par le C.R.D.I. et à des institutions et des organisations qui sont ou bien associés aux projets subventionnés par le C.R.D.I. ou bien qui maintiennent un échange réciproque de publications avec le C.R.D.I.

### Preparación de esta Bibliografía

Esta bibliografía clasificada fue compilada para ayudarles a los líderes y al personal de los proyectos apoyados por C.I.I.D. a recuperar información referente a sus intereses específicos. Se dan los títulos en orden alfabético por apellido del autor. Se proveen índices taxonómicos y de tema para facilitar el proceso de recuperación.

Los artículos incluidos fueron obtenidos como un resultado de: la búsqueda manual de revistas, libros y perfiles de computador de conocimiento actual; y las peticiones de investigadores sobre tópicos específicos.

Esta bibliografía también ha sido mandada a investigadores que son asociados con Proyectos de Pesquería apoyados por C.I.I.D. y a instituciones y organizaciones que son asociadas con los proyectos apoyados por C.I.I.D. o con los cuales C.I.I.D. tiene un cambio de publicaciones recíproco.

Publications of Interest\*

The IDRC Fisheries Library does not have all the publications listed in this bibliography. Therefore, please try to obtain relevant papers from local libraries and institutions. If this is not possible, use the form attached at the end of this list to order publications. Please request only those publications which are of immediate interest to your research. The Fisheries Information Science Specialist will be happy to send you the appropriate article(s) or advise you as to where they may be obtained.

Please return the publication order form before December 1, 1979 to:

Deborah Turnbull  
Fisheries Information Science Specialist  
International Development Research Centre,  
5990 Iona Drive, UBC,  
Vancouver, B.C. V6T 1L4  
Canada

Please send any relevant additions (including national reports, local journal articles, personal publications), questions, and comments to Deborah Turnbull at the address given above.

\*Only publication requests from leaders and staff of IDRC-supported fisheries projects will be filled.

Please note: If you are unable to obtain a relevant publication locally, you may be able to obtain it from the author. Their addresses (where available) have been included with each citation.

Publications d'intérêt

La Bibliothèque des Pêcheries du C.R.D.I. ne possède pas toutes les publications énumérées dans cette bibliographie. Veuillez essayer de procurer des documents pertinentes de bibliothèques et d'institutions locales. Si cela n'est pas possible, veuillez vous servir de la formule ci-jointe pour commander des publications. Vous êtes priés de ne commander que des publications qui aient un intérêt immédiat à vos recherches. Le spécialiste scientifique des Renseignements sur les Pêcheries sera content de vous envoyer l'(les) article(s) convenable(s) ou de vous informer de l'endroit où vous pourriez le trouver.

Veuillez rendre la formule de commande avant le 1 ~~décembre~~, 1979 à:

Deborah Turnbull  
Spécialiste scientifique des Renseignements  
sur les Pêcheries,  
C.R.D.I.,  
5990 Iona Drive, UBC,  
Vancouver, B.C. V6T 1L4  
Canada

Veuillez envoyer toute addition pertinente (rapports nationaux, articles de journaux locaux, publications personnelles y compris) ainsi que vos questions et commentaires à Deborah Turnbull, à l'adresse donnée ci-dessus.

Publicaciones de Interés

La Biblioteca de Pesqueria CIID no tiene todas las publicaciones dadas en esta bibliografia. Por eso, favor de tratar de obtener los articulos referentes de bibliotecas e instituciones locales. Si esto no es posible, usese el formulario adjuntado al fin de esta lista para solicitar publicaciones. Tenga la amabilidad de solicitar solamente esas publicaciones que sean de interés immediato para sus investigaciones. La Especialista de Ciencia de Informacion Pesqueria se alegrara de enviarle a usted los articulos apropiados.

Favor de remitir el orden de pedido de publicaciones antes del primero de diciembre de 1979 a:

Deborah Turnbull  
Fisheries Information Science Specialist,  
CIID,  
5990 Iona Drive, UBC,  
Vancouver, B.C. V6T 1L4  
Canada

Haga el favor de enviar toda adicion relacionada (incluso informes nacionales, articulos de revistas locales, publicaciones personales), preguntas y comentarios a Deborah Turnbull usando la susodicha direccion.

## BIBLIOGRAPHY

- 592 Aboussouan, A. (St. Mar. Endoume, Marseille, France) 1976. Descriptive anatomy and identification of fish larvae. Rev. Trav. Inst. Pefches Marit., Nantes 40(3-4): 481. ISTPM, Nantes, France.
- 593 Agrawal, N.K., J.A. June, and C.L. Mahajan. (Univ. Rajasthan, Dept. Zool., Man and Biosphere Project, Jaipur 302004, Rajasthan, India) 1978. Protective role of ascorbic acid in fishes exposed to organochlorine pollution. Toxicology 11(4): 369-375.
- 594 Ajana, A.M. (Nigerian Inst. Oceanog. and Marine Res., PMB 12729, Victoria Isl., Lagos, Nigeria) 1979. Preliminary investigation into some factors affecting the settlement of the larvae of the mangrove oyster, *Crassostrea gasar* (Asanson) in the Lagos Lagoon. Malacologia 18(1-2): 271-275.
- 595 Alagarswami, K. 1977. Larval transport and settlement of pearl oysters genus *Pinctada* in the Gulf of Mannar, India. In Proceedings of the Symposium on Warm Water Zooplankton. Dona Paula, Goa, India. October 14-19, 1976. National Institute of Oceanography, Dona Paula, Goa, India. pp. 678-686.
- 596 Albers, C., and R. Manz. (Univ. Regensburg, Inst. Physiol., D-8400 Regensburg, Fed. Rep. Ger.) 1979. Effect of temperature acclimation on blood gas transport in the carp (*Cyprinus carpio*). Pflugers Archiv European J. of Physiology 379(S): R 23.
- 597 Almazan, G., and C.E. Boyd. (Auburn Univ., Alabama, USA, Dept. of Fisheries and Allied Aquacultures) 1978. Plankton production and tilapia yield in ponds. Aquaculture 15(1): 75-77.
- 598 Anon. 1977. Milkfish breeding breakthrough in the Philippines. Fish Farming International 4(2): 26-28.
- 599 Anon. 1978. Copper cages cut maintenance costs on seawater sites. Fish Farmer 1(6): 21.
- 600 Anon. 1979. Fish raised to be helpful in sewage treatment. Water and Wastes Engineering 16(5): 44-45.
- 601 Arce, R.G. and C.R. Cruz. 1977. Design/layout considerations in a freshwater rice-fish culture farm in the Philippines. In Proceedings of the Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering. Tigbauan, Iloilo, Philippines. November 27 - December 3, 1977. pp. 335-346. FAO-FI-SCS/GEN/77/15. FAO Access. No. 40370.
- 602 Arroyo, P.T. (National Science Development Board, Taguig, Metro Manila, Philippines. 1978. The science of fish as food. In Milkfish (bangos) as food. Handling, freezing and process of Chanos chanos Forskal. pp. 1-25.

- 603 Arroyo, P.T. (as given in #602) 1978. Milkfish and its parts. *In Milkfish (bangos) as food. Handling, freezing and processing of Chanos chanos Forskal.* Metro Manila, Philippines pp. 26-39.
- 604 Aston, R.J. and D.J.A. Brown. (Freshwater Biol. Unit, Ratcliffe on Soar Power Stn., Nottingham, UK) 1978. Fish farming in heated effluents. *In Report of the Proceedings. Fishfarming and Wastes. An International Conference sponsored by the Institute of Fisheries Management and the Society of Chemical Industry, University college, London.* January 4-5, 1978. pp. 39-62.
- 605 Aviles, S., and A. Carreno. 1977. Histological study of gonadal cycle of *Aulacomya ater* Molina. *Gayana, Miscelanea, Chile* 5: 89.
- 606 Bahr, T.G., D.L. King, H.E. Johnson, and C.L. Kerns. 1977. Municipal waste water recycling production of algae and macrophytes for animal food and other uses. *In Developments in Industrial Microbiology.* (L.A. Underkofler (ed.)) American Institute of Biological Sciences, Washington, D.C., USA. pp. 121-134.
- 607 Bannar, R. 1979. Huge growth in catfish farming. *Food Engineering* 51(4): 105-108.
- 608 Barrett, P.R.F. (Agric. Res. Council Weed Res. Organization, Begbroke Hill, Yarnton, Oxford OX5 1PF, UK) 1978. Aquatic weed control: necessity and methods. *Fish. Manage.* 9(3): 93.
- 609 Barszcz, C., P.P. Yevich, L.R. Brown, J.D. Yarbrough, and C.D. Mine (Dept. Zool., Miss. State Univ., Mississippi State, Miss. 39762, USA) 1978. Chronic effects of 3 crude oils on oysters suspended in estuarine ponds. *J. Environ Pathol. Toxicol.* 1(1): 879-896.
- 610 Basak, P.K. and S.K. Konar. (Fish. Lab., Dept. Zool., Kalyani Univ., Kalyani 741235, W. Bengal, India) 1977. Estimation of safe concentrations of insecticides. A new method tested on DDT and BHC. *J. Inl. Fish. Soc. India* 9: 9-29.
- 611 Berger, V. Ja. (Acad Sci. Zool. Inst., Leningrad, USSR) 1978. Comparison of the adaptions of molluscs to extreme and moderate changes in salinity. *Malacol. Rev.* 11(1-2): 110-111.
- 612 Berns, S., E.H. Chave, and H.M. Peters. (Abt. Verhaltensphysiol., Inst. Biol. III, Univ., Beim Kupferhammer 8, D-7400 Tuebingen Rep. West Ger.) 1978. On the biology of *Tilapia squamipinni* from Lake Malawi Teleostei Cichlidae. *Arch. Hydrobiol.* 82(2): 218-246.
- 613 Bishai, R.M. (Fac. Sci., Mansoura Univ., Mansoura, Egypt) 1976. Age and growth of *Bagrus bayad* and *Clarias lazera* in Manzala Egypt fish farm. *Zool. Soc. Egypt Bull.* 28: 35-42.

- 3 -
- 614 Bourdillon, A. C. Castelbon, and C. Macquart-Moulin. (Lab. Hydrobiol., Route Leon-Lachamp, Cent. Univ. Luminy, 13009 Marseille Cedex 2, France) 1978. An opening-closing system for plankton nets towed horizontally or obliquely and connected in series. Ann. Inst. Oceanogr., Paris (Nouv. Ser.) 54(1): 75-84.
- 615 Bowen, S.H. (Dept. Biol. Sci., Michigan Technol. Univ., Houghton, MI 49931, USA) Benthic diatom distribution and grazing by *Sarotherodon mossambicus* in Lake Sibaya, South Africa. Freshwater Biol. 8(5): 449-453.
- 616 Brown, E.E. (Univ. Georgia, GA, USA) 1977. World fish farming: cultivation and economics. AVI Publishing Co., Westport, CT, USA. 397p.
- 617 Brusle, S., and J. Brusle. (Lab. Biol. Mar., Cent. Univ., Ave. de Perpignan 66025 Perpignan cedex, France) 1978. Early sex differentiation in *Mugil* (*Liza*) *auratus* Risso, 1810 (Teleost Mugilidae). An ultrastructural study. Ann. Biol. Anim. Biochim. Biophys. 18(4): 871-875.
- 618 Budd, J., and R.J. Roberts. (Unit Aquatic Pathobiol., Univ. Stirling, UK) 1978. Neoplasia of teleosts. In Fish Pathology. (R.J. Roberts (ed.)) Bailliere Tindall, London, UK. pp. 105-113.
- 619 Bullis, H.R. Jr. 1978. The biological and technological basis for further development of artisanal fisheries in the Caribbean area. Proc. Gulf Caribb. Fish. Inst. 30: 166-173.
- 620 Bullock, A.M. (Scottish Mar. Biol. Assoc., Dunstaffnage, Oban, Argyll, Scotland, UK) 1978. Laboratory methods. In Fish Pathology. (R.J. Roberts (ed.)) Bailliere Tindall, London, UK. pp. 235-267.
- 621 Capont, F. 1978. Toxins in mussel and other Mollusca. Rev. Agroquim. Tecnol. Aliment. 18(1): 47-63.
- 622 Carpenter, R.L. (Cleveland County Health Dept., Oklahoma, USA) 1978. Aquaculture as an alternative waste water treatment. In Report on the Proceedings. Fishfarming and Wastes. An International conference sponsored by the Inst. of Fish. Manage. and the Society of Chemical Industry. University College, London. January 4-5, 1978. Pastakia. pp. 110-118.
- 623 Chao, N-H, and I-C Liao. 1978. Cryogenic preservation of gray mullet *Mugil cephalus* sperm. Cryobiology 15(6): 686.
- 624 Chaudhuri, H., D.S. Murty, R.K. Dey, and P.V. Reddy. (Cent. Inl. Fish. Res. Substn., Cuttack, India) 1977. Studies on the effect of grass carp on paddy plantation. Sci. Cult. 43(7): 321-322.
- 625 Chaudhuri, H., J. Juario, R. Samson, and R. Mateo. 1977. Notes on the external sex characters of *Chanos chanos* Forskal spawners. Q. Res Rep. Aquaculture Dept. SEAFDEC 2: 17-20.

- 626 Chevassus, B., J.M. Blanc, and R. Guyomard. (INRA Lab. de Physiologie des Poissons. Domaine de Vilvert, 78350 Jouy-en-Josas, France) 1978. Research on genetics applied to aquaculture. 1. General Trends. 2. Present state of French research. Bull. Sci. Tech. Dep. Hydrobiol. Inst. Natl. Rech. Agron. (FR) #3. 24p.
- 627 Cho, C.H., and Y.S. Kim. 1977. Microenvironment in oyster farm area Part 1. The Eutrophication and raft density in Geoje Bay. Bull. Korean Fish. Soc. 10(4): 259-266.
- 628 Chodorowska, W. (Univ. Quebec Cent. Recherches en Sci. de l'Environnement Montreal HC3 3P8, Que., Canada) 1976. Rearing of phytophagous fishes in restocking fish culture ponds in France. Rev. Trav. Inst. Peches Marit., Nantes 40(3-4): 540.
- 629 Christensen, N.O. (Ambulatory Clinic and Central Clinical Lab., Lab. Aquat. Pathobiol., R. Vet. Agric. Univ., Copenhagen, Denmark) 1978. Wastes and fishculture, appropriate species. In Report on the proceedings. Fishfarming and Wastes. An international conference sponsored by the Institute of Fisheries Management and the Society of Chemical Industry. University College, London. January 4-5, 1978. pp. 10-21.
- 630 Cortes, P. (Universidad del Norte, Coquimbo, Chile) 1977. Culture of *Aulacomya ater* (Molina, 1782) (Mollusca, Bivalvia, Mytilidae) in La Herradura Bay, Coquimbo, Chile. Gayana. Miscelanea, Chile #5: 63.
- 631 Crossman, E.J. (Trent Univ., Peterborough Canada, Dept. of Biology) 1978. An apparatus for sampling gut contents of large living fishes. Environmental Biology of Fishes 3(3): 297-300.
- 632 Cunha, L.P.R. (Fundacao Universidade do Rio Grande, Brazil, Base Oceanografica Altantica FURG, Rio Grande, Brazil) 1978. Boxes for storage and transportation of fresh fish. Base Oceanografica Altantica FURG, Rio Grande, Brazil. 20p.
- 633 Dame, R. (Belle W. Baruch Mar. Field Lab., Georgetown, SC, USA) 1978. Systems analysis of an oyster community: an evolving mode. Proc. Natl. Shellfish. Assoc., Md. 66: 100.
- 634 Darrigo, V. (Univ. Modena, Inst. Econ. Aziendale, Docente Merceol. I-41, 100 Modena, Italy) 1979. Influence of the cooking method on mercury content in fish products. Industrie Alimentari 18(2): 127-129.
- 635 Dehadrai, P.V., and A. Ghosh. (Cent. Inl. Fish. Res. Inst., Barrackpore, India) 1977. Recycling of organic waste in aquaculture. In Lectures presented at the Fifthe FAO SIDA Workshop on Aquatic Pollution in Relation to Protection of Living Resources. Manila, Philippines. January 17 - February 27, 1977. FAO, Rome. FAO TF RAS 34 (SWE) Suppl. 1. pp. 101-102. ISBN 92-5-100601-6.

- 636 Denila, L. 1977. Improved methods of manual construction of brackishwater fishponds in the Philippines (South China Sea). Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27 - December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 233-259. FAO Access. No. 40363.
- 637 Djangmah, J.S., S.E. Shumway, and J. Davenport. (Dep. Zool. Univ. Cape Coast, Cape Coast, Ghana) 1979. Effects of fluctuating salinity on the behavior of the West African blood clam, *Anadara senilis* and on the osmotic pressure and ionic concentrations of the hemolymph. Mar. Biol. 50(3): 209-214.
- 638 Duncan, T.O. (US Fish Wildl. Serv., Multi-Outlet Reservoir Stud., Ouachita Baptist Univ., Arkadelphia, AR 71923, USA) 1978. Collection Bucket for use with two nets for larval fish. Prog. Fish-Cult. 40(3): 118-119.
- 639 Dunn, I.G., and C.M. Pastakia. (Aquat. Biol. Consultancy Serv. Ltd., Chelmsford, Essex, UK) 1978. Fermentation wastes in fishculture. In Report of the proceedings. Fishfarming and Wastes. An international conference sponsored by the Institute of Fisheries Management and the Society of Chemical Industry. University College, London. January 4-5, 1978. pp. 63-77.
- 640 Dunseth, D.R. and D.R. Bayne (Auburn Univ., Ala. USA) 1978. Recruitment control and production of *Tilapia aurea* (Steindachner) with the predator, *Cichlasoma managuense* (Guenther). Aquaculture 14(4): 383-390.
- 641 Edwards, P. 1977. Design of an experimental stabilization and fishpond aquaculture system. Technical report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan Iloilo, Philippines. November 27 - December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 307-323. FAO Access. No. 40368.
- 642 Ellis, A.E. (DAFS Mar. Lab., Aberdeen, Scotland, UK) 1978. The immunology of teleosts. In Fish Pathology. (R.J. Roberts ed.) Bailliere Tindall, London, UK. pp. 92-104. ISBN 0-7920-0674.
- 643 Ellis, A.E., R.J. Roberts, and P. Tytler. (DAFS Mar. Lab., Aberdeen, Scotland) 1978. The anatomy and physiology of teleosts. In Fish Pathology. (R.J. Roberts ed.) Bailliere Tindall, London, UK. pp. 13-54.
- 644 El-Sarnagawy, D., and A.S. Rizt. 1978. Estimation of organophosphorus pesticide malathion in fish tissue. Archiv fuer Lebensmittelhygiene (Germany, F.R.) 29(3): 104-106. ISSN 0003-925X.
- 645 Elston, R. (Cornell Univ., New York State Coll. Vet. Med., Dept. Avian and Aquat. Anim. Med., Ithaca, NY 14853, USA) 1979. Viruslike particles associated with lesions in larval Pacific oysters (*Crassostrea gigas*). J. of Invertebrate Pathology 33(1): 71-74.

- 646 Erdahl, D.A., and E.F. Graham. (Dept. Anim. Sci., Univ. Minnesota, St. Paul, MN 55108, USA) Cryopreservation of salmonid spermatozoa. Cryobiology 15(3): 362-364.
- 647 Esguerra, R.S. 1977. The layout, construction and management of brackishwater fishponds in the Philippines (South China Sea). Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27 - December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 197 - 206. FAO Access. No. 40361.
- 648 Ferguson Wood, E.J., and R.E. Johannes (eds.) 1975. Tropical Marine Pollution. Elsevier, Amsterdam. 192p.
- 649 Gatus, A.R., and E.S. Martinez. 1977. Engineering considerations in the release of mangrove swamps development into fishponds in the Philippines. Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27 - December 3, 1977. FAO-FI-SCS/GEN/ pp. 85-95. FAO Access. No. 40349.
- 650 Gerba, C.P., and S.M. Goya. (Dept. Virol. and Epidemiol., Baylor Coll. Med., Houston, TX 77030, USA) 1978. Detection and occurrence of enteric viruses in shellfish: a review. Food Prot. 41(9): 743-754.
- 651 Golikov, A. N. (Acad. Sci., Zool. Inst., Leningrad, USSR) 1978. On some regularities of the growth and production of marine molluscs in different topographical/geographical zones. Malacol. Rev. 11(1-2): 102-103.
- 652 Gonzalez, J. (Universidad Catolica de Chile, Talcahuano) 1977. Comparison of the condition factor between mussels Aulacomya a (molina 1782) in raft and from bottom in the Mejillones bay (Chile). Gayana, Miscelanea (Chile) #5: 64.
- 653 Grobelaar, Ju. (Univ. Orange Free State, Inst. Environm. Sci. Bloemfontein 9300, South Africa) 1979 Observation on the mass cult. algae as a potential source of food. South African J. of Sci. 133-135.
- 654 Grover, J.H. R.D. Recometa, and V.A. Dureza. (Freshwater Aqua. Ctr. Cent. Luzon State Univ., Munoz, Nueva Ecija 2320, Philippines) 1976. Production and growth of milkfish, common carp, and catfish in fertilized freshwater ponds. Kalikasan, Philipp. J. Biol. 5: 193-206.
- 655 Hellebust, J.A., and J.S. Craigie (eds.) 1979. Handbook of Phycological Methods: physiological and biochemical methods. Cambridge University Press, Bentley House, 200 Euston Rd., London NW1 2DB, UK 11. 512p. ISBN 0521 20029 0.
- 656 Hodgkiss, I.J., and H.S. Man. (Hong Kong Univ., Bot. Dept., Hong Kong) 1978. Reproductive biology of Sarotherodon mossambicus (Chichlidae) in Plover Cove Reservoir, Hong Kong. Environ. Biol. Fish. 3(3): 287-292.

- 657 Horst, G. van der (Dept. Zool., Univ. Port Elizabeth, Port Elizabeth, South Africa) 1978. The structure of the testis of the mullet, *Liza dumerili* (Teleostei: Mugilidae) with special reference to spermatogenesis. Zool. Afr. 13(2): 233-243.
- 658 Horst, G. van der., and R.H. Cross. 1978. The structure of the spermatozoon of *Liza dumerili* (Teleostei) with notes on spermiogenesis. Zool. Afr. 13(2): 245-258.
- 659 Horst, G. van der., and T. Erasmus. 1978. The breeding cycle of male *Liza dumerili* (Teleostei: Mugilidae) in the mouth of the Swartkips Estuary. Zool. Afr. 13(2): 259-273.
- 660 Hulata, G., and S. Rothbard. (Agric. Res. Organ. Fish. and Aquaculture Res. Stn., Dor, Israel) 1978. 'Siamese-twins in *Sarotherodon mossambicus*. J. Fish. Biol. 13(1): 45.
- 661 Hye, M.A. (Fish. Training Centre Mar., Bangladesh Fish. Dev. Corp. Fish Harbour, Chittagong, Bangladesh) 1977. General preservation of fish with emphasis on drying and salting. In Proceedings of the Seminar on Quality Control and Marketing of Fish at Chittagong Fish Harbour. October 17-19, 1977. pp. 4-11.
- 662 Idyll, C.P. 1978. Progress and prospects in farming invertebrates. In Food Science and Technology. (A.M. Altschul and H.L. Wilcke eds.) Academic Press, Inc., New York. pp. 293-331. ISBN 0-12-054803-8.
- 663 Itazawa, Y., and T. Takeda. (Dept. Fish., Fac. Agric., Kyushu Univ., 46-04 Hakozaki, Higashi ku, Fukuoka 812, Japan) 1978. Gas exchange in the carp gills in normoxic and hypoxic conditions. Respir. Physiol. 35(3): 263-269.
- 664 Jamandre, E.V. 1977. Integrated piggery and milkfish culture - some problems and constraints. Technical Paper. Joint FAO-UNDP/SCSP/SEAFDEC workshop on aquaculture engineering, Tigbauan, Iloilo, Philippines. November 27-December 3, 1977. FAO-FI-SCS/GEN/77/15.
- 665 Jeng, S.S. (Taiwan Prov. Kaohsiung Junior Coll. Mar. Technol., Kaohsiung, Taiwan, Rep. of China) 1977. Minced fish products. Joint Commission on Rural Reconstruction, Taipei, China Serial #25B: 39-42. (Fisheries).
- 666 Kamara, A.B., and K.B. McNeill. 1976. Preliminary oyster culture experiments in Sierra Leone. Occas. Pap. Fish. Div. (Sierra Leone) #1. 50p.
- 667 Kastoro, W. (Lembaga Oseanologi Nasional, LIPI, Jakarta, Indonesia) 1978. Reproduction of the cockle, *Anadara antiquata* (Linnaeus) family: Arcidae. Oseanol. Indones. 9: 51-59.
- 668 Kathman, D. (Biol. Dept., Tennessee Technol. Univ., Cookeville TN 38501, USA) 1978. Artificial substrate sampler for benthic invertebrates in ponds, small lakes, and reservoirs. Prog. Fish-Cult. 40(3): 114-115.

- 669 Kawamura, G., A. Kabayama, and T. Yonemori. (Lab. Fish. Technol. Fac. Fish., Kagoshima Univ., Kagoshima, Japan) 1978. Horizon compensatory eye movements in crucian carp *Carassius auratus langsdorfi* Swimming at relatively high speed. Bull Jap. Soc. Fish. 44(6): 567-570.
- 670 Kim, I.B. and J.Y. Jo. (Natl. Fish. Univ. Busan, Busan, S. Korea) Rearing experiment of common carp in small aquarium. Bull. Korean Fish. Soc. 10(4): 275-280.
- 671 Kohler, C.F. (Virginia Polytechnic Inst. and State Univ., Blacksburg USA) 1978. Evaluations of rum distillation wastes, pharmaceutical wastes and chicken feed for rearing *Tilapia aurea* in Puerto Rico. Aquaculture 14(4): 339-347.
- 672 Konar, S.K. (Fish. Lab. Dept. Zool., Kalyani Univ., Kalyani, West Bengal) 1977. Pesticides and aquatic ecosystems. Indian J. Fish. 22: 80-95.
- 673 Kouassi, N., and J. Ville. (Lab. Zool. Fac. Sci., B.P. 4322 Abidjan, Ivory Coast) 1975. Preliminary note on the growth of *Clarias lazera* as a function of the diet of the fry (Pisces, Claridae). Ann. Univ. Abidjan, Ser. E 8(1): 133-137.
- 674 Krasnov, E.V. (Acad. Sci., Inst. Biol. of the Sea, Vladivostok, USSR) 1978. Physical and chemical methods for studying growth of marine molluscs. Malacol. Rev. 11(1-2): 153-154.
- 675 Kudo, S. (Dept. Anat., Gunma Univ. Sch. Med., Maebashi 371, Japan) 1978. Enzymo-cytochemical observations on the cortical change in the eggs of *Cyprinus carpio* and *Carassius auratus*. Dev. Growth Differ. 20(2): 133-142.
- 676 Krantz, G.E., and J.V. Chamberlin. (Univ. Maryland, Ctr. Environm. and Estuarine Studies, Horn Point Environm. Lab., Cambridge, MD 21613, USA) 1978. Blue crab predation on cultchless oyster spat. Proc. Natl. Shellfish. Ass. 68: 38-41
- 677 Lavina, E.M. 1977. The biology and control of *Caligus* sp., an ectoparasite of the adult milkfish, *Chanos chanos* Forskal. Q. Res. Rep. Aquacult. Dept. SEAFDEC #2: 12-13.
- 678 Lazareva, L.P., M.O. Omarov, and A.N. Lezina. (Dagestan Dept. Caspian Fish. Res. Inst., Makhachkala, USSR) 1977. Feeding and growth of the bighead, *Aristichthys nobilis*, in the waters of Dagestan. J. Ichthyol. 17(1): 65-71.
- 679 Leentvaar, P. (Res. Inst. Nature Management, Leersum, Netherlands) 1978. Aquatic weed control related to nature management. In Proceedings of the 5th International Symposium on Aquatic Weed European Weed Research Soc., P.O. Box 14, Wageningen, Neth. ISBN 0-19-502436-2.
- 680 Le Roux, S. (Univ. Bretagne Occidentale, 29283 Brest, France) 1978. The toxicity of pure hydrocarbons to mussel larvae. Rapp. P.V. Reun. Cons. Explor. Mer. 171: 189-190.

- 681 Liversidge, J., and A.L. Munro. (DAFS Mar. Lab., Aberdeen, Scotland, UK) 1978. The virology of teleosts. In Fish Pathology. (R.J. Roberts ed.) Balliere Tindall, London, UK. pp. 114-143. ISBN 0-7020-0674-2.
- 682 Livingston, R.J. (Dep. Biol. Sci., Florida State Univ., Tallahassee, FL 32306, USA) 1977. Review of current literature concerning the acute and chronic effects of pesticides on aquatic organisms. CRC Crit. Rev. Environ. Control 7(4): 325-351.
- 683 Lorda, E., and J.W. Zahradnik. (UMASS Aquacultural Eng. Lab., Wareham, MA, USA) 1976. Operating characteristics of a heated raw seawater oyster finishing pilot plant. Proc. Natl. Shellfish. Assoc., Md. 66: 102-103.
- 684 Low, S.J., and H. Othman. 1977. Layout and construction of freshwater fishponds in Malaysia. Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27-December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 167-176. FAO Access. No.40358.
- 685 Lozada, E. (Universidad de Chile, Santiago) 1977. Fauna associated with the mussel *Aulacomya ater* (Molina) in Punta Palima (Chile). Gayana. Miscelanea (Chile) 5:67.
- 686 Lykkeboe, G., and R.E. Weber. (Dept. Zoophysiol., Univ. Aarhus, ADK 8000 Aarhus C. Denmark) 1978. Changes in the respiratory properties of the blood in the carp, *Cyprinus carpio*, induced by diurnal variation in ambient oxygen tension. J. Comp. Physiol. 128B(2): 117-125.
- 687 Marfin, J.P. (Inst. Peches Marit, 44000 Nantes, France) 1978. Biology and fishery of the spiny lobster, *Panulirus guttatus* in Martinique. Sci. Peche 278: 1-10.
- 688 Mai, J., J. Shimp, J. Weihrauch, and J.E. Kinsella. (Dept. Food Sci., Cornell University, Ithaca, NY 14853, USA) 1978. Lipids of fish fillets: changes following cooking by different methods. J. Food. Sci. 43(6): 1669-1674.
- 689 Mane, U.H, M.S. Kachole, and S.S. Pawar. (Marathwada Univ., Dept. Zool. Auran Gabad 431002, Maharashtra, India) 1979. Effect of pesticides and narcotants on bivalve mollusks. Malacologia 18(1-2): 347-360.
- 690 Marais, J.F.K. 1978. Routine oxygen consumption of *Mugil cephalus*, *Liza dumerili* and *L. richardsoni* at different temperatures and salinities. Mar. Biol. 50(1): 9-16.
- 691 Martinez, M.R., P.L. Lopez, G.L. Talatala, and J.B. Pantastico. 1978. Growth of *Chlorella* in animal manure. Kalikasan 7(1): 97.
- 692 Matondkar, S.G. 1978. Some aspects of culture of mullet (*Mugil cephalus*) and pearl spot (*Etroplus suratensis*) in Siridaon Fish Farm, Goa. Ind. J. of Mar. Sci. 7(3): 199-201.

- 693 Mazid, M.A., Y. Tanaka, T. Katayama, K.L. Simpson., and C.O. Chichester. (Dept. Fish. Technol., Bangladesh Agric. Univ. Mymensingh, Bangladesh) 1978. Metabolism of amino acids in aquatic animals. 3. Indispensable amino acids for *Tilapia zillii*. Bull. Jap. Soc. Sci. Fish. 44(7): 739-742.
- 694 Menon, A.G. (Zool. Surv. India, Madras, Insia) 1977. Fish and malaria control. Sci. Cult. 43(3): 110-114.
- 695 Meyer, F.H. (FAO Fish Mark, Adviser, Via delle Terme di Caracalla, 00100 Rome, Italy) 1977. Water for fish processing plants. In Proceedings of the Seminar on Quality Control and Marketing Fish at Chittagong Fish Harbour. October 17-19, 1977. pp. 20-30.
- 696 Moll, E.J., and M.J. Werger. 1978. Mangrove communities. In Biogeography and ecology of southern Africa. Part 2. Dr. W. Junk, The Hague, Netherlands. pp. 1231-1238.
- 697 Motoh, H. 1977. Use of fermented kitchen waste in rearing *Penaeus monodon* larvae. Res. Rep. Aquacult. Dept. SEAFDEC 2:
- 698 Nammabvar, P. (ICAR. Reg. Cent. Cent. Mar. Fish. Res. Inst., Mar. Fish. Post, Mandapam Camp, Tamil Nadu, India) 1977. Influence of temperature and salinity on oxygen consumption of *Tilapia mossambica* (Peters) in Porto-Novo waters. Sci. Cult. 43(5): 226-228.
- 699 Needham, T. and R. Wootten, (Unilever Res. Lab., Aberdeen, Scotland UK) 1978. The parasitology of teleosts. In Fish Pathology. Bailliere Tindall, London. pp. 144-182. ISBN 0-7020-0674-2.
- 700 Oetomo, K.S. 1977. Layout construction modification of rice fields used for fish culture in Indonesia (carps, other freshwater fish). Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27-December 3, 1977. FAO-FI-SCS/GEN/77, pp. 325-344. FAO Access. No. 40369.
- 701 Osborn, P.E. 1977. Design of a freshwater fish hatchery for small fish farmers. Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27-December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 103-110. FAO Access. No. 40351.
- 702 Paerl, H.W. (Freshwater Sect., Ecol. Div., DSIR, P.O. Box 415, Taupo, New Zealand) 1978. Effectiveness of various counting methods in detecting viable phytoplankton. N.Z.J. Mar. Freshwater Res., 12(1): 67-72.
- 703 Pal, J., B.C. Pal, and R. Bannerjee. (Tata Meml. Cent., Cancer Res. Inst. Parel, Bombay, Maharashtra, India) 1978. Epithelial carcinoma in *Anabas testudineus*. J. Fish. Biol. 13(6): 693-694.

- 704 Pariser, E.R., C.J. Corkery, M.B. Wallerstein, and N.L. Brown. 1978. Fish protein concentrate: panacea for protein malnutrition? Int. Nutr. Policy Ser. MIT Press, Cambridge, MA USA. 296p. ISBN 0-262-16069-2.
- 705 Payne, A.I. (Dept. Biol. Sci., Lanchester Polytech., Coventry, Warwicks, England, UK) 1978. Gut pH and digestive strategies in estuarine gray mullet Mugilidae and Tilapia Cichlidae. J. Fish. Biol. 13(5): 627-630.
- 706 Pfeil-Putzien, C. 1978. Experimental transmission of spring viraemia of carp through carp lice (*Argulus foliaceus*). Zentralbl. Veterinarmed B 25(4): 319-323.
- 707 Pfeil-Putzien, C., and C. Baath. 1978. Isolation of the *Rhabdovirus carpio* from carp and carp lice (*Argulus foliaceus*). Berl. Munch. Tierarztl. Wochenschr. 91(22): 445-447.
- 708 Poupart, C.J. 1978. Therapy of fish diseases. In Fish Pathology. (R.J. Roberts ed.) Bailliere Tindall, London. pp. 268-275. ISBN 0-7020-0674-2.
- 709 Purnomo, A., and A. Hanafi. 1977. Agricultural pesticides in brackishwater environment and suggestions for protecting aquaculture resources in Indonesia. In First ASEAN Meeting of Experts on Aquaculture, Semarang, Indonesia. January 31-February 6, 1977. Technical report. ASEAN-77/FA.EgA/Rpt.2. pp. 163-173. FAO Acess. No. 39700.
- 710 Richards, R.H., and R.J. Roberts. 1978. The bacteriology of teleosts. In Fish Pathology. (R.J. Roberts ed.) Bailliere Tindall, London. pp. 183-204.
- 711 Richards, R.H. 1978. The mycology of teleosts. In Fish Pathology. (R.J. Roberts ed.) Bailliere Tindall, London. pp. 205-215.
- 712 Riemens, R.G. 1978. Grasscarp, *Ctenopharyngodon idella* Val, as a tool in fishery management. In 5th International Symposium on Aquatic Weeds, European Weed Research Soc., P.O. Box 14, Wageningen, Neth. pp. 351-358. ISBN 0-19-502436-2.
- 713 Roberts, R.J. (ed.) 1978. Fish Pathology. Bailliere Tindall, London, UK. 318p. ISBN 0-7020-0674-2.
- 714 Sampedro, G., P. Gonzalez, and M. Lopez-Benito. (Inst. de Invest. Pesqueras, Barcelona, Spain) 1978. Use of polyphosphates in frozen fish products. Inf. Tec. Inst. Invest. Pesq., Barc. 59. 12p.
- 715 Sanchez, P.C., E.I. Dizon, W. Tanimura, and M. Kozaki. (Dept. Food Sci. and Techno., Coll. Agric. Univ. Philippines at Los Banos, College, Laguna 3720, Philippines) 1978. Surface distribution of microbes in Laguna de Bay, Philippines. Kalikasan 7(1): 63-76.

- 716 Saralaya, K.V., and M.H. Bhandary. (Univ. Agr. Sci., Coll. Fish. Mangalore, India) 1978. Studies on canning of fish sausages. 1. Heat penetration pattern and thermal process requirements. Mysore J. of Agric. Sci. 12(3): 479-484.
- 717 Sasekumar, A. (Dept. Zool., Univ. Malaya, Kuala Lumpur, Malaysia) 1978. The value of the mangrove ecosystem and its pollution problems. In Lectures presented at the fifth FAO/SIDA Workshop on Aquatic Pollution in Relation to Protection of Living Resources Manila, Philippines. January 17-February 27, 1977. FAO, Rome pp. 332-342. ISBN 92-5-1000601-6.
- 718 Sato, M., R. Yoshinaka, and S. Ikeda. (Dept. Fish., Fac. Agric., Kyoto Univ., Kyoto, Jpn.) 1978. Nonessentiality of ascorbic acid in diet of carp. Bull. Jpn. Soc. Sci. Fish. 44(10): 1151-1156.
- 719 Schulzweihenbrauck, H. (Univ. Kiel, Inst. Meereskunde, D-2300 Kiel 1, Fed. Rep. Ger.) 1979. Some observations on a heart rate test with Tilapia and carp fry, using solutes from densely stocked water. Archiv. Fur. Fischereiwissenschaft 29(3): 119-127.
- 720 Serfling, S., and D. Mendola. 1978. Aquaculture using controlled environment ecosystems. Commer. Fish Farmer Aquacult. News 4(6): 15-18.
- 721 Shamsul Huda, A.K. 1977. Quality control in fishery products. In Proceedings of the Seminar on Quality Control and Marketing of Fish at Chittagong Fish Harbour. October 17-19, 1977. Chittagong, Bangladesh. pp. 36-39.
- 722 Smirnova, N.F. (Acad. Sci., Inst. Biol. Internal Waters, Borok, USSR) 1978. Application of the main components method for the analysis of morphometric indices of growth and for the establishment of age in molluscs. Malacol. Rev. 11(1-2): 103-104.
- 723 Smith, A.C. 1978. Pathology and biochemical genetic variation in the milkfish, *Chanos chanos*. J. Fish Biol. 13(2): 173-177.
- 724 Sokolowska, M., W. Popek, and K. Bieniarz. (Inst. Appl. Zool., Acad. Agric, 30059 Krakow, Poland) 1978. Synthetic releasing hormones LH/FSH-RH and LH-RH: effect of intracerebral and intramuscular injections on female carp (*Cyprinus carpio* L) maturation. Ann. Biol. Anim. Biochim. Biophys. 18(4): 963-967
- 725 Srivastava, G.C., and R.C. Srivastava. (Dept. Bot., St. Andrew's Coll., Gorakhpur, India) 1978. A note on the potential applicability of malachite green ovalate in combating fish mycoses. Mycopathologia 64(3): 169-171.
- 726 Stein, H., and H. Bayrle. 1978. Cryopreservation of the sperm of fresh water teleosts. Ann. Biol. Anim. Biochim. Biophys. 18(4): 1073-1076.

- 727 Szlauer, L. 1978. Utilization of sewage effluent released by a mineral fertiliser producing plant for zooplankton and carp fry rearing. In Report of the proceedings. Fishfarming and Wastes. An international conference sponsored by the Institute of Fisheries Management and the Society of Chemical Industry, University College, London. January 4-5, 1978. pp. 137-140.
- 728 Tamiyavanich, S. 1977. Water pumps and their uses for aquaculture in Thailand. Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27 - December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 423-425. FAO Access. No. 40377.
- 729 Tarifeno, E. (Inst. of Evol. and Environ. Biol., Los Angeles, CA, USA) 1977. The *Mesodesma donacium* (Lamarck 1818) and its culture possibilities (Chile). Gayana. Miscelanea Chile. #5: 62.
- 730 Tayamen, M.M., W.L. Shelton, (Auburn Univ., Ala, USA) 1978. Inducement of sex reversal in *Sarotherodon niloticus* (Linnaeus). Aquaculture 14(4): 349-354.
- 731 Terdatin Shimony, A., Z. Yaron. (Sept. Zool., George S. Wise Cent. for Life Sci., Tel-Aviv Univ., Tel Aviv, Israel) 1978. Estrogens and estrogenic effects in *Tilapia aurea* (Cichlidae, Teleostei). Ann. Biol. Anim. Biochim. Biophys. 18(4): 1007-1012.
- 732 Therezien, Y. (Cent. Rech. Agron. Antilles et de la Guyane, Domaine 'Duclos', 97170 Petit-Bourg, Guadeloupe) 1977. Catalogue of references on *Chanos chanos* Forsskaal. Cent. Rech. Agron. Antilles et de la Guyane, Domaine 'Duclos', 97170 Petit-Bourg, Guadeloupe. 44p.
- 733 Tiensongrusmee, B. 1977. Layout, construction and environmental problems of freshwater fishponds in Thailand. Technical Report. Joint SCSP/SEAFDEC Workshop on Aquaculture Engineering, Tigbauan, Iloilo, Philippines. November 27-December 3, 1977. FAO-FI-SCS/GEN/77/15. pp. 159-166. FAO Acess. No. 40357.
- 734 Timmermans, J.A. 1978. The grass eating Chines carp (*Ctenopharyngodon idella*) first experiences in Belgium. Pecheur Belge 8: 20-23.
- 735 Tokoragi, L (Freezer Establishment, Avatoru, Rangiroa Atoll, Tuamotu Atoll, French Polynesia) 1978. Milkfish culture in French Polynesia. Appropr. Technol. 4(4): 23-25.
- 736 Ultsch, G.R., M. Gillespie, and N. Heisler. 1978. On the cause of death in fish exposed to low pH. Physiologist 21(4): 122.
- 737 Vasal, S., and B.I. Sundararaj. (Delhi Univ., Zool. Dep., Delhi 110007, India) 1978. Thermal tolerance and preference of the catfish, *Heteropneustes fossilis*. Environ. Biol. Fish. 3(3): 309-315.

- 738 Venkatesh, B., and H.P. Shetty. (Univ. Agr. Sci., Coll. Fisheries Mangalore 575002, India) 1978. Nutritive value of 2 aquatic weeds and a terrestrial grass as feed for the grass carp, *Ctenopharyngodon idella* (Valenciennes). Mysore J. of Agric. Sci. 12(4): 597-604.
- 739 Venkatesh, B., and H.P. Shetty. 1978. Influence of the grass carp *Ctenopharyngodon idella* (Valenciennes) on the physicochemical and biological qualities of the fish pond. Mysore J. of Agric. Sci. 12(4): 605-617.
- 740 Venkatesh, B., and H.P. Shetty. 1978. Studies on the growth rate of the grass carp, *Ctenopharyngodon idella*. Mysore J. of Agric. Sci. 12(4): 622-628.
- 741 Walne, P.R., and P.F. Millican. 1978. The condition index and organic content of small oyster spat. J. du Conseil 38(2): 23
- 742 Wasilewska, B.E. 1978. Bottom fauna in ponds with intense fish rearing. Ekologia Polska - Polish Journal of Ecology 26(4): 5
- 743 Whitfield, A.K., and S.J. Blaber. 1978. Resource segregation among iophagous fish in Lake St. Lucia, Aululand. Environ. Biol. 3(3): 293-296.
- 744 Wohlfarth, G. 1978. Utilisation of manure in fishfarming. In Report of the proceedings. Fishfarming and Wastes. An international conference sponsored by the Institute of Fisher Management and the Society of Chemical Industry. University College, London. January 4-5, 1978. pp. 78-95.
- 745 Yancey, D.R. 1976. Manual of warmwater fish culture. Mennonite Central Committee, Akron, PA, USA. 56p.

Taxonomic Index

- Anabas testudineus* (catfish)  
703
- Anadara antiquata* (cockle)  
667
- Anadara senilis* (blood clam)  
637
- Argulus foliaceus* (carp lice)  
706, 707
- Artstichthys nobilis* (big head carp)  
678
- Aulacomya ater* (mussel)  
605, 630, 651, 685
- Caligus* sp. (ectoparasite-milkfish)  
677
- Carassius auratus* (crucian carp)  
669, 675
- Chanos chanos* (milkfish)  
598, 602, 603, 625, 654, 664,  
677, 723, 732, 735, 743
- Chlorella* (green alga)  
691
- Clarias lazera* (catfish)  
613, 673
- Crassostrea gasar* (mangrove oyster)  
549
- Crassostrea gigas* (Pacific oyster)  
645
- Ctenopharyngodon idella* (grass carp)  
624, 628, 712, 734, 738, 739,  
740
- Cyprinus carpio* (common carp)  
596, 663, 670, 675, 686,  
724, 726
- Etroplus suratensis* (pearl spot)  
692
- Heteropneustes fossilis* (catfish)  
672, 737
- Labeo rohia* (carp)  
672
- Liza dumerili* (mullet)  
657, 658, 659, 690, 705
- Liza richardsoni* (mullet)  
690
- Mesodesma donacium* (clam)  
729
- Mugil* (*Liza*) *auratus* (mullet)  
617
- Mugil cephalus* (gray mullet)  
623, 690, 692, 705
- Panulirus guttatus* (spiny lobster)  
687
- Pinctada* sp. (pearl oyster)  
595
- Rhabdovirus carpio* (carp virus)  
706, 707
- Sarotherodon* (*Tilapia*) *mossambicus*  
615, 656, 660, 698, 720, 743
- Sarotherodon* (*Tilapia*) *niloticus*  
730
- Tilapia aurea*  
640, 671, 731
- Tilapia squamipinnis*  
612
- Tilapia zillii*  
693

## Subject Index

### Algae

- Biochemistry  
655
- Culture  
653
- Growth (in manure)  
691
- Physiology  
655

### Aquaculture

- General  
616, 641, 700, 720, 745
- Economics  
616
- Genetics  
626
- Invertebrates  
662
- Mosquitocidal fish culture  
694
- Rice-fish  
601, 700

### Aquatic weeds

- Control  
608, 679

### Artisanal fisheries

- 619

### Benthic invertebrates

- Sampler  
668

### Carp

- Culture  
700
- Diet  
718
- Eye movements  
669
- Growth  
678
- Heart-rate - fry  
719
- Hormones  
724

### Carp (continued)

- Lice  
706, 707
- Pesticides  
672
- Rearing  
628, 670, 727
- Reproduction  
596, 663, 686
- Respiration  
596, 663, 686
- Sperm preservation  
726
- Viruses  
706, 707

### Catfish

- Culture  
607, 654
- Growth  
613, 673
- Pesticides  
672
- Skin tumours  
703
- Temperature tolerance  
737

### Clams

- Culture  
662, 729

### Cockles

- Reproduction  
667

### Fish

- Anatomy  
643
- Cages (construction materials)  
599
- Diseases  
708, 710, 711, 713
- Fungi  
725
- Hatchery design  
701
- Immunology  
642

Fish (continued)

<u>Larval collection buckets</u>	
638	
<u>Larval identification</u>	
592	
<u>Mosquitocidal fish culture</u>	
694	
<u>Parasites</u>	
699	
<u>Pathology</u>	
620	
<u>Physiology</u>	
643	
<u>Ponds</u>	
<u>    Construction</u>	
636, 647, 649, 684,	
733	
<u>    Fauna (bottom)</u>	
742	
<u>Preservation</u>	
<u>    Drying</u>	
601	
<u>    Salting</u>	
601	
<u>Processing</u>	
695	
<u>Products</u>	
714	
<u>    Fillets</u>	
688	
<u>    Mercury content</u>	
634	
<u>    Minced fish</u>	
665	
<u>    Protein concentrate</u>	
704	
<u>    Quality control</u>	
721	
<u>    Sausages</u>	
716	

<u>Sperm preservation</u>	
646	
<u>Stomach contents - sampling method</u>	
631	
<u>Storage</u>	
632	
<u>Transportation</u>	
632	
<u>Tumours</u>	
618	
<u>Viruses</u>	
681	

Laguna de Bay, Philippines

<u>surface microbes</u>	
715	
<u>Lobster</u>	
687	
<u>Mangrove communities</u>	
696, 717	
<u>Milkfish</u>	
602, 603	
<u>Bibliography</u>	
732	
<u>Breeding</u>	
598	
<u>Culture</u>	
654, 664, 735	
<u>Ectoparasites</u>	
677	
<u>External sex characteristics</u>	
625	
<u>Feeding</u>	
743	
<u>Genetics</u>	
723	
<u>Pathology</u>	
723	
<u>Molluscs</u>	
<u>Growth</u>	
657, 674, 722	
<u>Narcotants (effects)</u>	
689	
<u>Pesticides-(effects)</u>	
689	
<u>Salinity (adoptions)</u>	
611	
<u>Toxins</u>	
621	
<u>Mullet</u>	
<u>Culture</u>	
692	
<u>Diet</u>	
703, 705, 743	
<u>Oxygen consumption</u>	
690	
<u>Reproduction</u>	
657, 658, 659	
<u>Sex differentiation</u>	
617	
<u>Sperm preservation</u>	
623	

Mussels

Associated fauna  
685  
Culture  
630, 651, 662  
Gonadal cycle  
605  
Hydrocarbon toxicity  
680  
Toxins  
621  
Viruses  
650

Oysters

Crude oil - chronic effects  
609  
Culture  
662, 666  
Growth  
627, 683  
Larval transport  
595  
Lesions  
645  
Settlement  
549, 595  
Spat  
676, 741  
Viruses  
650

Parasites

677, 699

Pesticides

672, 682, 709  
Fish  
593, 610, 644  
Molluscs  
689

Plankton

Counting methods  
702  
Nets  
614  
Pond production  
592

Pollution

Marine  
648

Shellfish

Viruses  
650  
Sperm preservation  
623, 646, 726

Tilapia

Biology  
612  
Culture  
597, 720  
Diet  
615, 705, 743  
Heart rate - fry  
719  
Metabolism  
693  
Oxygen consumption  
698  
Rearing  
671  
Reproduction  
656, 660, 731  
Sex reversal  
730

Wastewater Aquaculture  
600, 604, 606, 622, 629,  
639, 671, 691, 697, 727,

Water pumps

728

PUBLICATIONS ORDER FORM

September 1979

Current Awareness Bibliography Volume 3, Number 3

LIST IN ASCENDING ORDER:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Additional subjects you would like to have included in subsequent current awareness bibliographies:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

CUT HERE

Return Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

MAIL REQUEST TO: Deborah Turnbull  
Fisheries Information Science Specialist  
IDRC  
5990 Iona Drive, UBC,  
Vancouver, B.C. V6T 1L4  
Canada

Please return before December 1, 1979

LA FORMULE DE COMMANDE

septembre 1979

Current Awareness Bibliography Volume 3, Number 3

Enumérer dans l'ord ascendant

---

---

---

---

---

---

---

---

Subjets supplémentaires que vous aimerez voir inclus dans de prochaines bibliographies de la conscience courante:

---

---

---

Adresse de l'expéditeur:

---

---

---

---

Rendre à: Deborah Turnbull  
C.R.D.I.,  
5990 Iona Drive,  
UBC,  
Vancouver, B.C. V6T 1L4  
Canada

Veuillez rendre cette formule avant le 1<sup>er</sup> décembre, 1979

ORDEN DE PEDIDO DE PUBLICACIONES

septiembre 1979

Bibliografía de Conocimiento Actual tomo 3, número 3

LISTA EN ORDEN ASCENDENTE:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Temas adicionales que le gustaría a usted ver en subsiguientes  
bibliografías de conocimiento actual:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Remite: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Máñadense las solicitudes a: Deborah Turnbull  
Fisheries Information Science Specialist  
I.D.R.C.,  
5990 Iona Drive, UBC,  
Vancouver, B.C. V6T 1L4  
Canada

Favor de devolverlo antes del primero de diciembre de 1979.

