

RESUME

Name VERONICA R. ALAVA
Birthplace Cagayan de Oro City, Misamis Oriental, Philippines
E-mail address alavavr@gmail.com, vralava@yahoo.com



ACADEMIC BACKGROUND

| Period | University | Qualification |
|-----------|--|--|
| 1991-1994 | Kagoshima University Kagoshima, Japan | PhD Fisheries major in Marine Resources Nutritional Chemistry |
| 1976-1979 | University of the Philippines Visayas, Iloilo, Philippines | MSc Fisheries major in Aquaculture |
| 1972-1976 | Xavier University, Cagayan de Oro City, Philippines | BSc Marine Biology |

EMPLOYMENT BACKGROUND / AFFILIATION

| Period | Organization | Position |
|--------------|--|--|
| 2017-present | Southeast Asian Fisheries Development Center (SEAFDEC) Aquaculture Department (AQD) | Visiting Scientist |
| 2016-present | Integrated Services for the Development of Aquaculture and Fisheries (ISDA) Inc. | Aquaculture Specialist |
| 2010-2015 | SEAFDEC AQD | Scientist / Section Head / Feed Mill Supervisor |
| 2008-2009 | SEAFDEC AQD | Visiting Scientist |
| 2004-2010 | Integrated Services for the Development of Aquaculture and Fisheries (ISDA) | Aquaculture Specialist |
| 1995-2004 | SEAFDEC AQD | Scientist |
| 1981-1995 | SEAFDEC AQD | Research Associate |
| 1978-1981 | SEAFDEC AQD | Research Assistant |

AQUACULTURE RESEARCH SPECIALIZATION

Nutrition and feed development
Breeding and culture of tropical aquaculture species including polychaetes

PUBLICATION

SCIENTIFIC JOURNAL

- Gapasin RSJ, **Alava VR**, Marte CL. 2011. Nursery net cage culture of grouper and seabass in brackishwater pond: Co-feeding of zooplankton with artificial diets containing graded levels of L-tryptophan. *J Applied Aquaculture* 24: 221-234.
- Primavera JH, Biñas JB, Samonte-Tan GPB, Lebata MJ, **Alava VR**, Walton M, LeVay L. 2010. Mud crab pen culture – Replacement of fish feed requirement and impacts on mangrove community structure. *Aquaculture Research* 41: 1211-1211.
- Alava VR**, Quintio ET, de Pedro JB, Orozco ZGA, Wille M. 2007. Reproductive performance, lipids and fatty acids of mud crab *Scylla serrata* (Forsskal) fed dietary lipid levels. *Aquaculture Research* 38: 1442-1451.
- Alava VR**, Quintio ET, de Pedro JB, Priolo FMP, Orozco ZGA, Wille M. 2007. Lipids and fatty acids in wild and pond-reared mud crab *Scylla serrata* (Forsskal) during ovarian maturation. *Aquaculture Research* 38: 1468-1477.
- Alava VR**. 1998. Effect of salinity, dietary lipid source and level on growth of milkfish (*Chanos chanos*) fry. *Aquaculture* 167:

229-236.

- Alava VR**, Kanazawa A. 1996. Effect of dietary fatty acids on growth of milkfish *Chanos chanos* fry in brackish water. *Aquaculture* 144: 363-369.
- Alava VR**, Kanazawa A, Teshima SI, Koshio S. 1993. Effect of dietary L-ascorbyl-2-phosphate Magnesium on gonadal maturation of *Penaeus japonicus*. *Nippon Suisan Gakkaishi* 59: 691- 696.
- Alava VR**, Kanazawa A, Teshima SI, Koshio S. 1993. Effects of dietary vitamins A, E, and C on the ovarian development of *Penaeus japonicus*. *Nippon Suisan Gakkaishi* 59: 1235-1241.
- Alava VR**, Kanazawa A, Teshima SI, Koshio S. 1993. Effect of dietary phospholipids and n-3 highly unsaturated fatty acids on ovarian development of kuruma prawn. *Nippon Suisan Gakkaishi* 59: 345-351.
- Alava VR**, Lim C. 1988. Artificial diets for milkfish, *Chanos chanos* (Forsskal), fry reared in sea water. *Aquaculture* 71: 339-346.
- Alava VR**, Pascual FP. 1987. Carbohydrate requirements of *Penaeus monodon* (Fabricius) juveniles. *Aquaculture* 61: 211-217.
- Alava VR**, Lim C. 1983. The quantitative dietary protein requirements of *Penaeus monodon* juveniles in a controlled environment. *Aquaculture* 30: 53-61.

EDITED PROCEEDINGS

- Alava VR**, Biñas JB, Mandario MAE. 2017. Breeding and culture of polychaete *Marphysa mossambica*, as feed for *Scylla serrata* broodstock. *In*: Quintio ET, Estepa FDP, Coloso RM (eds.). Proceedings of the 1st National Mud Crab Congress. Philippines: In the forefront of the mud crab industry development. SEAFDEC/AQD - DOST/ PCAANRRD – UPV/CFOS. Aquaculture Department, SEAFDEC. p. 39-45.
- Alava VR**, Sumile JD, Parado-Estepa FD. 2017. Nursery culture of mud crab *Scylla serrata* using different feeding rates. *In*: Quintio ET, Estepa FDP, Coloso RM (eds.). Proceedings of the 1st National Mud Crab Congress. Philippines: In the forefront of the mud crab industry development. SEAFDEC/AQD - DOST/ PCAANRRD – UPV/CFOS. Aquaculture Department, SEAFDEC. p. 46-51.
- Alava VR**, Sumile JD, Parado-Estepa FD. 2017. Nursery culture of mud crab *Scylla serrata* using different ratios of natural food to formulated feed. *In*: Quintio ET, Estepa FDP, Coloso RM (eds.). Proceedings of the 1st National Mud Crab Congress. Philippines: In the forefront of the mud crab industry development. SEAFDEC/AQD - DOST/ PCAANRRD – UPV/CFOS. Aquaculture Department, SEAFDEC. p. 52-58.
- Alava VR**, Lucero MA, Sumile JD, Parado-Estepa FD. 2017. Nursery culture of mud crab *Scylla serrata* fed diets supplemented with tryptophan at two stocking densities. *In*: Quintio ET, Estepa FDP, Coloso RM (eds.). Proceedings of the 1st National Mud Crab Congress. Philippines: In the forefront of the mud crab industry development. SEAFDEC/AQD - DOST/ PCAANRRD – UPV/CFOS. Aquaculture Department, SEAFDEC. p. 147.
- Estepa FDP, **Alava VR**, Garibay E, Bejemino C, Sumile J, Silvestre J, Quintio ET. 2017. Recent developments and enhancing transfer of the nursery technology for the mud crab *Scylla serrata*. *In*: Quintio ET, Estepa FDP, Coloso RM (eds.). Proceedings of the 1st National Mud Crab Congress. Philippines: In the forefront of the mud crab industry development. SEAFDEC/AQD - DOST/ PCAANRRD – UPV/CFOS. Aquaculture Department, SEAFDEC, 13-21.
- Quintio ET, Parado-Estepa FD, **Alava VR**. 1999. Development of hatchery techniques for the mud crab *Scylla serrata* (Forsskal): Comparison of feeding schemes. *In*: Keenan CP, Blackshaw A (eds.) *Mud Crab Aquaculture and Biology*; Proceedings of the International Scientific Forum, Darwin, Australia, 21-24 April 1997; ACIAR Proceedings No. 78; Canberra: Australian Center for International Agricultural Research; pp. 125-130.
- Alava VR**. 1986. Combinations of dietary fat sources in dry diets for *Chanos chanos* fingerlings. *In*: Maclean JL, Dizon LB, Hosillos LV (eds.) *The First Asian Fisheries Forum: Proceedings of the First Asian Fisheries Forum*; 1986 May 26-31. Manila, Philippines. Manila, Philippines, Asian Fisheries Society; pp. 519-521.

EXTENSION MANUAL / MONOGRAPH / PROJECT OUTCOME

- Sugama K, Rimmer MA, Ismi S, Koesharyani I, Suwirya K, Giri NA, **Alava VR**. 2012. Hatchery management of tiger grouper (*Epinephelus fuscoguttatus*): a best-practice manual. ACIAR Monograph No. 149. Australian Center for International Agricultural Research, Canberra, Australia. 66 pp.
- Rimmer MA, Giri NA, Usman, Knuckey RM, Marte CL, **Alava VR**, Catacutan MR, Rumengan IFM, Williams KC, Phillips MJ, Sim SY, Wilkinson S, Luu LT. 2011. Improved hatchery and grow-out technology for marine finfish aquaculture in the Asia-Pacific Region. Project Outcomes – ACIAR Project FIS/2002/077 Improved hatchery and grow-out technology for

marine finfish aquaculture in the Asia-Pacific region. Australian Centre for International Agricultural Research, Canberra. 31 pp.

Alava VR, Priolo FMP, Toledo JD, Rodriguez JC, Quintio GF, Castor-Saan AC, de la Pena MR, Caturao RC. 2004. Lipid nutrition studies on grouper (*Epinephelus coioides*) larvae. *In*: Rimmer MA, McBride S, Williams KC (eds.) Advances in Grouper Aquaculture, Australian Center for International Agricultural Research, Canberra, Australia. ACIAR Monograph 110, 47-52.

Alava VR, Priolo FMP, Arnaiz M, Toledo JD. 2004. Amino and fatty acid profiles of wild-sourced grouper *Epinephelus coioides* broodstock and larvae. *In*: Rimmer MA, McBride S, Williams KC (eds.) Advances in Grouper Aquaculture, Australian Center for International Agricultural Research, Canberra, Australia. ACIAR Monograph 110, 53-54.

Kungvankij P, Chua TE, Tiro LB, Pudadera J, **Alava VR**, Potestas IO, Taleon GA, Borlongan E, Paw JN. 1986. Shrimp culture: pond design, operation and management. NACA/RLCP - SEAFDEC AQD Aquaculture Extension Manual No. 13, 68 pp.

BOOK CHAPTER

Alava VR. 2002. Chapter 7. Management of feeding aquaculture species. *In*: Millamena OM, Coloso RM, Pascual FP (Eds.) Nutrition in tropical aquaculture: essentials of fish nutrition, feeds and feeding of tropical aquatic species. Tigbauan, Iloilo, Philippines. SEAFDEC Aquaculture Department, pp. 169-208.

THESIS / DISSERTATION

Alava VR. 1994. The influence of lipids and vitamins on the gonadal development of *Penaeus japonicus*. Part of the requirements for PhD Fisheries (major in Marine Resources Nutritional Chemistry) degree, United Graduate School of Agricultural Sciences, Kagoshima University, Kagoshima, Japan. 164 pp.

Alava VR. 1979. The quantitative dietary protein requirements of *Penaeus monodon* juveniles in a controlled environment. Part of the requirements for MSc Fisheries (major in Aquaculture) degree, College of Fisheries, University of the Philippines in the Visayas, Iloilo, Philippines. 50 pp.

MAGAZINE

Gomes LAO, **Alava VR**. 1989. Breeding marine aquarium animals: the anemonefish. NAGA, The ICLARM Quarterly 12(3): 12-13.

TERMINAL REPORT

Alava VR. 2015. Development of techniques for sustainable production of marine annelids as feed for broodstock crab *Scylla serrata*. Program A. Project 1. Refinement of Mud Crab Hatchery Techniques. Department of Science and Technology (DOST) – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) - SEAFDEC/AQD. 94 pp.

Alava VR. 2015. Refinement of efficient diets for nursery culture of crab *Scylla serrata*. Program B. Project 1. Refinement of the Mud Crab Nursery Technology. Department of Science and Technology (DOST) – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) - SEAFDEC/AQD. 91 pp.

Aya FA, **Alava VR**, Amar EC. 2015. Growth and survival of milkfish (*Chanos chanos*) fed immunostimulant-containing feeds stocked at two densities in cages in ponds at Bulacan, Philippines. SEAFDEC AQD. 8 pp.

Amar EC, **Alava VR**. 2015. Effect of immunostimulant-containing diets on growth, survival, some non-specific immune parameters, and resistance to stress and infection in milkfish (*Chanos chanos*) grown in tanks. SEAFDEC AQD. 10 pp.

Eguia MRR, Salayo ND, Aya FA, **Alava VR**. 2015. Evaluation of practical and ecofriendly supplemental feeding schedules for Nile tilapia (*Oreochromis niloticus* L.) in cages in Laguna de Bay, Philippines. SEAFDEC AQD. 14 pp.

Eguia, MRR, Aya FA, **Alava VR**. 2015. Effect of immunostimulant-containing diets on growth, survival and immunity stimulating capacity of Nile Tilapia (*Oreochromis niloticus*) in low volume, high density (LVHD) cages in Taal Lake, Batangas. SEAFDEC AQD. 11 pp.

Alava VR. 2015. Effect of varying levels of coconut meal to replace soybean meal in diets for mud crab *Scylla serrata*. SEAFDEC AQD. 10 pp.

Alava VR, Quintio GF, Priolo FMP, Castor AS. 2005. Effect of dietary lipid enrichment on reproductive performance, egg and larval quality of grouper *Epinephelus coioides*. SEAFDEC AQD. 12 pp.

- Alava VR.** 2005. Effect of various single dietary lipid sources on growth, fatty acid composition and liver histology of milkfish *Chanos chanos* fingerlings. SEAFDEC AQD. 9 pp.
- Alava VR.** 2005. Effect of dietary cod liver oil levels on growth, fatty acid composition and liver histology of milkfish *Chanos chanos* juveniles. SEAFDEC AQD. 10 pp.
- Alava VR.** 2005. Replacement of soybean meal, shrimp head meal and meat and bone meal to fishmeal in dry diets for sea bass *Lates calcarifer* juveniles. SEAFDEC AQD. 9 pp.

ONLINE TRAINING MODULE

- Alava VR.** 2002, 2003. Module 9. Management of Feeding Aquaculture Species. *In: Basic Principles of Aquaculture Nutrition*, SEAFDEC Aquaculture Department, Tigbauan, Iloilo - University of the Philippines Open University, Diliman, Quezon City, Philippines.
- Alava VR.** 2011, 2013. Module 9. Management of Feeding Aquaculture Species. *In: Basic Principles of Aquaculture Nutrition*, SEAFDEC Aquaculture Department, Tigbauan, Iloilo, Philippines.

OTHER RESEARCH PROJECTS

- Biñas JB, **Alava VR.** Survival and growth of juvenile sandworm *Perinereis quatrefagesi* (Grube, 1878) fed nutritionally variable feeds under different salinity levels (under review).
- Mandario MAE, **Alava VR**, Añasco NC. Changes in organically-enriched sediments after introduction of polychaetes, *Marphysa mossambica* (Peters, 1854) (under review).
- Gapasin RSJ, **Alava VR**, Marte CL. Mangrove red snapper, *Lutjanus argentimaculatus* (Forsskal 1775) nursery in brackishwater pond netcages: Effects of dietary L-tryptophan on growth and body composition. SEAFDEC AQD.
- Alava VR**, Mesa R. Response of white shrimp *Penaeus indicus* to artificial diet and stocking density levels in indoor tanks and earthen ponds. SEAFDEC AQD.
- Alava VR.** Proximate, amino acids and ascorbic acid contents of mud crab *Scylla serrata* during ovarian development. SEAFDEC AQD.
- Alava VR.** Lipids, ascorbic acid contents of mud crab *Scylla serrata* during embryonic development. SEAFDEC AQD.
- Alava VR.** Changes in proximate, lipids and free amino acid contents during the embryonic and pre-feeding larval stages of milkfish *Chanos chanos*. SEAFDEC AQD.
- Alava VR**, Priolo FMP. Changes in lipid class and fatty acid contents during the embryonic and pre-feeding larval stages of grouper *Epinephelus coioides*. SEAFDEC AQD.
- Alava VR**, Priolo FMP, Rodriguez JC, Toledo JD. Changes in lipid class and fatty acid contents of starved or fed hatchery-bred and wild-sourced grouper *Epinephelus coioides* larvae. ACIAR - SEAFDEC AQD.
- Alava VR**, Priolo FMP. Fatty acid profiles of phytoplankton, rotifers and *Artemia* enriched with various essential fatty acid boosters for larval rearing of grouper *Epinephelus coioides*. ACIAR - SEAFDEC AQD.
- Alava VR.** Effect of single and combined lipid sources on growth and fatty acid composition of milkfish *Chanos chanos* fingerlings. SEAFDEC AQD.
- Alava VR.** Protein requirements and replacement of some protein sources for fish meal in seabass *Lates calcarifer* diets. SEAFDEC AQD.
- Alava VR.** Effect of stocking density, feeding rate and feeding frequency on growth of milkfish *Chanos chanos* fry and tiger shrimp *Penaeus monodon* juveniles reared in tanks. SEAFDEC AQD.
- Alava VR.** Effect of artificial diets and salinity levels on growth, survival and body composition of *Oreochromis niloticus* reared in tanks. SEAFDEC AQD.
- Alava VR**, Kanazawa A. Effect of graded levels of lipids, lecithin, phosphatidyl choline, phosphatidyl inositol, and phosphatidyl ethanolamine on ovarian development and biochemical contents of kuruma shrimp *Penaeus japonicus*. Kagoshima University - SEAFDEC/AQD.
- Alava VR**, Kanazawa A. Effect of graded levels of DHA, EPA, vitamins A and E on ovarian development and biochemical contents of kuruma shrimp *Penaeus japonicus*. Kagoshima University - SEAFDEC/AQD.

TRAINING , INFORMATION / EXTENSION AND OTHER PROFESSIONAL ACTIVITIES

Head, Technology Verification Section, SEAFDEC AQD

2012 – 2013. Reviewed project proposals and budget, monitored progress, and evaluated profitability.

Head, Demonstration and Packaging Section, SEAFDEC AQD

2014 - 2015. Reviewed project proposals and budget, monitored progress, and evaluated profitability.

Coordinator, Agree-Build-Operate-Transfer (ABOT) AquaNegosyo Program, SEAFDEC AQD

2014 - 2015. The ABOT AquaNegosyo Program provided technical advice that are basic inputs to businesses in hatchery, nursery and grow-out of various economically important aquatic species.

Supervisor, Feed Mill, SEAFDEC AQD

2010 – 2015. Feed Mill catered to the in-house feed requirements for research, verification and demonstration studies and served as a training facility for the processing, milling, storage and management of sinking, semi-sinking and floating aquafeeds. Feed Mill was expanded and facilities were upgraded. Quality of ingredients and efficiency of operations were regularly monitored for the production of experimental and maintenance diets of milkfish, tilapia, grouper, seabass, snapper, pompano, siganid, catfish, white shrimp, tiger shrimp, mud crab, and abalone.

Aquaculture Specialist / Consultant

2006 – 2010. Improved hatchery and grow-out technology for marine finfish aquaculture in the Asia-Pacific region. 1.1 Improved hatchery production technology and larval nutrition for high-value marine finfish. ACIAR Project No. FIS/2002/077. Australian Center for International Agricultural Research / Research Institute for Mariculture, Gondol, Bali, Indonesia. Integrated Services for the Development of Aquaculture and Fisheries, Philippines.

2005. Aquaculture feed manufacturing plan of RD Fishing Industry Inc. – Agribusiness Division, General Santos, Philippines.

Masteral Thesis Adviser / Committee Member / External Examiner

2018. SEAFDEC AQD Adviser / UPV Committee Member. Caballero PA. Growth and survival of mangrove polychaete *Marphysa mossambica* at different stocking densities and culture period in brackishwater pond. MSc Fisheries (major in Aquaculture) thesis, University of the Philippines Visayas, College of Fisheries and Ocean Sciences – Institute of Marine Fisheries and Ocean Sciences, Miagao, Iloilo, Philippines.

2015. SEAFDEC AQD Adviser / UPV Committee Member. Mandario MAE. Evaluation of the bioremediation capacity of polychaete, *Marphysa mossambica* (Peters, 1854) in organically enriched sediments. MSc Fisheries (major in Fisheries Biology) thesis, University of the Philippines Visayas, College of Fisheries and Ocean Sciences – Institute of Marine Fisheries and Oceanology, Miagao, Iloilo, Philippines. 69 pp.

2013. SEAFDEC AQD Adviser / UPV Committee Member. Binas JB. Growth, survival, nutritional value and metabolism of the sandworm *Perinereis quatrefagesi* (Grube, 1878) reared in different salinity levels and feed types. MSc Biology thesis, University of the Philippines Visayas, College of Arts and Sciences – Faculty of the Division of Biological Sciences, Miagao, Iloilo, Philippines. 71 pp.

2012. UPV External Examiner. Gonzales MMG. Effect of varying dietary and energy levels on the growth, protein efficiency, and nutrient deposition of juvenile topshell (*Trochus niloticus*). 55 pp.

2010. SEAFDEC AQD Adviser / UPV Committee Member. Maceren MD. Parameters influencing maturation of female marine polychaete *Perinereis* sp. (Savigny, 18181) in Southern Iloilo. MSc Fisheries (major in Fisheries Biology) thesis, University of the Philippines in the Visayas, College of Fisheries and Oceanology – Institute of Fisheries, Miag-ao, Iloilo, Philippines. 60 pp.

2010. SEAFDEC AQD Adviser / UPV Committee Member. Monteros JC. Some aspects on the reproductive biology of a mangrove polychaete *Marphysa* sp. MSc Fisheries (major in Fisheries Biology) thesis, University of the Philippines in the Visayas, College of Fisheries and Oceanology – Institute of Fisheries, Miagao, Iloilo, Philippines. 66 pp.

On-the-Job-Training Supervisor / Adviser

1988 – 2017. SEAFDEC AQD Supervisor. On-the-job-training of college students (BSc Marine Biology / BSc Biology / BSc Fisheries) from various schools of the Philippines on Aquaculture Nutrition and Feed Development.

2010 – 2015. SEAFDEC AQD Adviser. Thesis of BSc and High School students related to Aquaculture Nutrition and Feed Development.

Lecturer / Resource Person in Training and Extension Services

1979 – 2017. SEAFDEC AQD. Local and international training courses. Lecture Topics: Feed formulation, processing of feed ingredients and feed preparation; Feed milling process and equipment; Ingredients for feed manufacture;

Feeds and feeding of broodstock; and Feeds and feeding mud crab / shrimp / milkfish and other marine fishes.
Laboratory: Feed milling; feeding experiment.

2012 - 2015. DOST – PCCAARRD – SEAFDEC AQD. Polychaete culture and Mud crab nursery culture.

2012, 2011, 2003, 2002. SEAFDEC AQD. Distance Learning Course: Basic Principles of Aquaculture Nutrition (AquaNutrition Online). Module 9. Management of Feeds and Feeding Aquaculture Species.

2010. Government of Japan – Myanmar Dept. of Fisheries - SEAFDEC AQD. Role of feeds in tropical aquaculture, evaluation of feeds, and feeds and feeding management. Yangon, Myanmar.

1988 - 1989. Panay ExpoCaravan, Regional Agricultural and Fishery Council Western Visayas - Department of Agriculture Region VI, Philippines.

1982 - 1987. Training Course for Senior Aquaculturists in Asia and the Pacific Region. Network of Aquaculture Centres in Asia (NACA) - Food and Agriculture Organization (FAO) - Regional Lead Centre Philippines (RLCP) SEAFDEC AQD.
Laboratory: Feed formulation and preparation; feeding experiment.

1979 - 1985: *In situ* seminars on Shrimp culture and hatchery Management (i.e. TLRC Manila, Davao, Bataan, Cebu, Cagayan de Oro, Pangasinan).

Reviewer of Journal Manuscript and Project Proposal

1983 – present. Peer-review of scientific manuscripts submitted to local and international journals (Aquaculture, Aquaculture Research, Aquaculture International, Journal of Agricultural and Marine Sciences, UPV Journal of Natural Sciences).

2014 – present. Project Proposal submitted to UPV Office of Vice-Chancellor for funding.

2010. Project Proposal submitted to Center for Tropical and Subtropical Aquaculture (Oceanic Institute, Hawaii) for USDA funding.

1998 – 2000. Project Proposal submitted to Philippines Bureau of Agriculture Research (BAR) for funding.

Research Grant / License / Scholarship Grant

2012 – 2015. Research Grant to SEAFDEC AQD by Department of Science & Technology (DOST) - Philippine Council for Agriculture, Aquatic & Natural Resources Research & Development (PCAARRD) on Development of techniques for mass production of marine annelids as feed for mud crab broodstock.

2012 - 2014. Research Grant to SEAFDEC AQD by DOST - PCAARRD on Refinement on efficient diets for nursery culture of *Scylla serrata*.

2006 - present. Licensed Fisheries Technologist. Registration No. 0000615. Philippines Professional Regulation Commission, Manila.

2004. Certificate of Distinction. Outstanding Book Award (Nutrition in tropical aquaculture: essentials of fish nutrition, feeds and feeding of tropical aquatic species) from the National Academy of Science and Technology of the Philippines. Contribution: Chapter 7. Management of feeding aquaculture species, 169-208.

2002-2004. Research Grant to SEAFDEC AQD by European Union's INCO-DEV project on Culture and Management of the crab *Scylla* spp. Topic: Lipid nutrition studies on mud crab *Scylla serrata*.

2000-2002. Research Grant to SEAFDEC AQD by Australian Center for International Agricultural Research (ACIAR). Topic: Lipid nutrition studies on grouper *Epinephelus coioides*.

1990-1994. Scholarship Grant from Ministry of Education, Culture and Sports (MECS), Japan. Japanese Language, Research and Instrumentation, and PhD Fisheries degree.

1981 - 1983. Research Grant to SEAFDEC AQD from International Development Research Center (IDRC) Canada. Topic: Lipid nutrition studies on milkfish *Chanos chanos*.

1976 - 1978. Scholarship Grant from Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD). MSc Fisheries (major in Aquaculture), University of the Philippines in the Visayas, Iloilo.

Membership in Professional Organization

2000 - present Philippine Aquaculture Society (PAS)

1995 - present PCAARRD Scholars Association, Inc. (PSAI)

1995 - present Philippine Association of the Japanese Ministry of Education Scholars (PhilaJames) Visayas Chapter.

President (2011-2012); Member of the Board (2013-present).

Paper Presented in Conference

- Alava VR.** Biñas JB, Mandario MAE. 2015 Nov 16-18. Breeding and culture of polychaete *Marphysa mossambica* as feed for *Scylla serrata* broodstock. 1st National Mud Crab Congress. Diversion 21 Hotel, Iloilo City. 2015 Nov 26-27. 11th National Biotechnology Week. National Fisheries Biotechnology Symposium. Department of Agriculture, Philippines. RCC-De La Salle University.
- Alava VR,** Sumile JD, Parado-Estepa FD. 2015 Nov 16-18. Nursery culture of mud crab *Scylla serrata* using different ratios of natural food to formulated feed and feeding rates. 1st National Mud Crab Congress. Diversion 21 Hotel, Iloilo City.
- Alava VR,** Lucero MA, Sumile JD, Parado-Estepa FD. 2015 Nov 16-18. Nursery culture of mud crab *Scylla serrata* fed diets supplemented with tryptophan at two stocking densities. 1st National Mud Crab Congress. Diversion 21 Hotel, Iloilo City.
- Parado-Estepa FD, **Alava VR,** ET Qunitio. 2015 Nov 16-18. Updates on mud crab nursery. 1st National Mud Crab Congress. Diversion 21 Hotel, Iloilo City.
- Biñas JB, **Alava VR,** Campos WL. 2015 Nov 16-18. Growth, survival, proximate and fatty acid composition of sandworm *Perinereis quatrefagesi* (GRUBE, 1878) fed nutritionally variable feed types. 1st National Mud Crab Congress. Diversion 21 Hotel, Iloilo City.
- Mandario MAE, **Alava VR,** Anasco NC. 2015 Nov 16-18. Evaluation of the bioremediation capacity of the polychaete, *Marphysa mossambica* (Peters, 1854) in pond sediments. 1st National Mud Crab Congress. Diversion 21 Hotel, Iloilo City.
- Alava VR,** Qunitio ET, Tillo JP, Willie M. 2013 Apr 10-12. Lipids, fatty acids and protein in developing eggs and zoea of king crab *Scylla serrata*. International Symposium Mud Crab Aquaculture and Fisheries (ISMAF). Tamil Nadu, India.
- Monteros JC, **Alava VR,** Qunitio GF. 2012 Apr 13-14. Length-weight, fecundity, oocyte diameter and maturation stages of mangrove polychaete *Marphysa mossambica* (Peters 1885). 4th Outstanding Young Scientists Inc., Regional Symposium and Workshop. Optimizing Coastal Resources for Equitable & Sustainable Development. SEAFDEC AQD, Tigbauan, Iloilo, Philippines.
- Alava VR.** 2010 Feb 17-19. Improved larval nutrition of groupers. Improved hatchery and grow-out technology for marine finfish aquaculture in the Asia-Pacific region. ACIAR Project FIS2002/077 Final Project Meeting. Gondol, Bali, Indonesia.
- Alava VR.** 2008 July 21-26. Improved larval nutrition of groupers. Improved hatchery and grow-out technology for marine finfish aquaculture in the Asia-Pacific region. ACIAR Project FIS2002/077 Annual Project Meeting. Makassar, Sulawesi Selatan, Indonesia.
- Alava VR.** 2007 June 26-28. Improved larval nutrition of groupers. Improved hatchery and grow-out technology for marine finfish aquaculture in the Asia-Pacific region. ACIAR Project FIS2002/077 Annual Project Meeting. Batam, Sumatra, Indonesia.
- Alava VR.** 2005 Jan 20-22. Tissue lipid class and fatty acid contents of wild and pond-reared mud crab *Scylla serrata* during ovarian development and spawning. International Workshop on Culture, Fisheries & Stock Enhancement of Portunid Crabs. European Union's INCO-DEV project on Culture and Management of crab *Scylla* spp. Hotel del Rio, Iloilo City, Philippines.
- Alava VR.** 2005 January 20-22. Reproductive performance, lipids and fatty acids of mud crab *Scylla serrata* (Forsskal) fed dietary lipid levels. International Workshop on Culture, Fisheries & Stock Enhancement of Portunid Crabs, Hotel del Rio, Iloilo City, Philippines. European Union's INCO-DEV project on Culture and Management of crab *Scylla* spp.
- Alava VR.** 2004 Jan 10-15. Biochemical profiles of *Scylla serrata* broodstock during ovarian development and spawning. Meeting of European Union's INCO-DEV project on Culture and Management of crab *Scylla* spp. Can Tho University, Vietnam.
- Alava VR.** 2004 Jan 10-15. Lipid nutrition of mud crab *Scylla serrata* broodstock and larvae. Meeting of European Union's INCO-DEV project on Culture and Management of the crab *Scylla* spp. Can Tho University, Vietnam.
- Alava VR.** 2002 Sept 30 - Oct 4. Lipid nutrition studies on grouper *Epinephelus coioides* larvae. ACIAR. Regional Workshop on Sustainable Marine Finfish Aquaculture for the Asia Pacific. Ha Long, Vietnam.
- Alava VR.** 2002 Sept 30 - Oct 04. Effect of lipid enrichment on reproductive performance, egg and larval quality of grouper *Epinephelus coioides*. ACIAR. Regional Workshop on Sustainable Marine Finfish Aquaculture for the Asia Pacific. Ha Long, Vietnam.

- Alava VR.** 2000 May 2-6. Changes in lipid class and free amino acid contents during embryonic development and pre-feeding larval stages of milkfish *Chanos chanos*. AQUA 2000. World Aquaculture Society – European Aquaculture Society. Nice, France.
- Alava VR.** 1998 Nov 11-14. Replacement of some protein sources for fishmeal in sea bass *Lates calcarifer* diets. 5th Asian Fisheries Forum. Chiang Mai, Thailand.
- Alava VR.** 1995 Apr 22-24. The effect of nutrition on Crustacean gonadal development and reproduction. 5th International Working Group on Crustacean Nutrition Symposium, World Aquaculture Society - International Working Group on Crustacean Nutrition. Kagoshima University, Japan.
- Alava VR.** 1994 Apr 3-5. Influence of lipids and vitamins on the gonadal development of kuruma shrimp *Penaeus japonicus*, Japanese Society of Fisheries Science Congress. Tokyo University of Fisheries, Tokyo, Japan.
- Alava VR.** 1992 Oct 26-30. Influence of vitamins A, E and C in semi-purified diets on maturation of ablated kuruma shrimp *Penaeus japonicus*. 3rd Asian Fisheries Forum, Asian Fisheries Society, Singapore.
- Alava VR.** 1992 Oct 26-30. Effect of dietary fatty acids on growth and survival of milkfish (*Chanos chanos*) fry. 3rd Asian Fisheries Forum, Asian Fisheries Society. Singapore.
- Alava VR.** 1986 May 26-31. Combinations of dietary fat sources in dry diets for milkfish *Chanos chanos* fingerlings. 1st Asian Fisheries Forum. Manila, Philippines.
- Alava VR.** 1985 Feb 5-8. Single dietary lipid sources in dry diets for milkfish *Chanos chanos* fingerlings. 2nd International Conference on Warm Water Aquaculture Finfish. Laie, Hawaii.
- Alava VR.** 1984 Dec 4-7. Carbohydrate requirements of tiger shrimp *Penaeus monodon* juveniles. 1st International Conference on the Culture of Penaeid Prawns/Shrimps. Iloilo City, Philippines.
- Alava VR.** 1983 Oct 4-8. Effect of lipid level on growth, body composition and liver histology of milkfish *Chanos chanos* fingerlings. 2nd International Milkfish Aquaculture Conference. Iloilo City, Philippines.
- Alava VR.** 1983 Oct 4-8. Artificial diets for milkfish *Chanos chanos* fry. 2nd International Milkfish Aquaculture Conference. Iloilo City, Philippines.