

CURRICULUM VITAE

**1*.Name*:** FATIMAH BINTI MD. YUSOFF

**2. *Department/Faculty*:** Department of Aquaculture

Faculty of Agriculture

## Universiti Putra Malaysia (UPM)

## 43400 UPM, Serdang, Selangor

## Malaysia

## 

***Field of Specialization:*** Aquatic Ecology/Limnology/Aquaculture

**3*. Date of Birth/Age***: 26th February 1955

**4. *Education and Academic Qualification:***

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| **Institution** | **Degree/specialization** | **Date awarded** |
| Michigan State University  Michigan, USA. | Ph.D. (Limnology) | 1987 |
| Michigan State University  Michigan, USA. | M.S. (Limnology) | 1979 |
| Drew University, New Jersey, USA | B.A. (Zoology) | 1977 |
| Aquaculture Certification Council Inc (ACC), USA | Accredited Certifier  Certificate No. 10450 – 2004 | 2004 |

**5. *Previous Academic and Other Relevant Appointments:***

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| Appointments | Faculty/Institute | Date |
| Professor | Department of Biology,Faculty of Science/Institute of Bioscience (2000 – 2011)  Department of Aquaculture, Faculty of Agriculture, UPM (2012 - present) | Since March 2000 |
| Associate Professor | Department of Fish Biology & Aquaculture. Faculty of Fisheries & Marine Science (1991 -1996)  Faculty of Science and Environmenatl Studies, UPM (1996 – 2000) | Nov. 1991 – February 2000 |
| Lecturer | Department of Biology, Faculty of Science and Environmental Studies (1980)  Department of Fish Biology & Aquaculture. Faculty of Fisheries & Marine Science (1981 -1991) | Feb. 1980 – Oct. 1991 |

**6. *Administrative/Professsional Appointments***

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| **Appointments (University)** | Dates |
| Head, Laboratory of Marine Biotechnology, Institute of Bioscience | Sept. 2012 – Feb. 2015; 1 Sept 2015 – 31 Aug 2017 |
| Director, Institute of Bioscience | March 2006 – May 2011 |
| Deputy Director, Institute of Bioscience | May 2004 – Feb 2006 |
| Head, Laboratory of Marine Science, Institute of Bioscience | Dec 2003 – May 2004 |
| Deputy Director, Research Management Centre UPM | January 2002 –November 2003 |
| Chairperson, Committee for the Establishment of Aquaculture and Marine Science Institute | May 2014 – May 2015 |
| Many administrative positions in UPM and at National Level | 1980 – 2015 |
| **Appointments (International)** | Dates |
| Project Manager, SATREPS JICA-JST - COSMOS | 2016 - 2021 |
| Editorial Board Member, Asian Fisheries Science | 2012 – present |
| Scientific Advisor, International Foundation for Science (IFS), Sweden | 2001 – present |
| Member, Review Board, Aquatic Ecosystem Health and Management, Canada. | 2001 – present |
| National Coordinator (Malaysia), JSPS Asian CORE Program, Japan. | 2012 – present |
| Involvements with international societies & agencies such as various professional societies related to Limnology, Fisheries and Aquaculture | 1990- 2011 |

***7. Research Activities***

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| **Research Status** | **No. of projects** | **Total Amount (RM)** |
| **Total Projects/Value** | **54** | **31,978,751.00** |
| **As Project Leader** |  |  |
| Completed Projects | 19 |  |
|  | National (16 projects) | 3,109,080.00 |
|  | International (3 projects, JICA & IFS & JSPS) | 13,122,000.00 |
| On-going Projects | 10 |  |
|  | National (6 projects) | 4,669,691.00 |
|  | International (4 projects, JSPS, Soka University & IFS) | 208,000.00 |
| **Sub-total** | **29** | **21,122,771.00** |
|  |  |  |
| **As Co-researcher** |  |  |
| Completed Projects | 15 |  |
|  | National (14 projects) | 4,860,080.00 |
|  | International (1 project, EU) | 216,000.00 |
| On-going Projects | 10 |  |
|  | National (10 projects) | 5,779,900.00 |
|  | International – None | 0.00 |
| **Sub-total** | **25** | **10,855,980.00** |
| **Total** | **54** | **31,978,751.00** |
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***8. Supervision of Graduate Students***

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| **Supervision (total # - graduated and ongoing) as of Dec 2012.** | **PhD** | **MSc** | **Total # of Students** |
| **As Major supervisor** | 14 | 23 | **37** |
| Completed | 10 | 9 |  |
| On-going | 4 | 14 |  |
| **As Co-Supervisor** | 18 | 27 | **45** |
| Completed | 10 | 24 |  |
| On-going | 8 | 3 |  |
| **Co-supervisor: International (The Netherlands & Australia)** | 02 | - | **02** |
| **Total** | **34** | **50** | **84** |

***9. Publications***

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| **Type** | **Number** |
| Papers in Journals, proceedings, books etc | >200 (check https: //scholar.google.com/citations?view\_op=search\_authors&mauthors=fatimah+md+yusoff&hl=en&oi=ao |
| H Index | 26 |
| i10-index | 62 |
| Citation | 2319 |

1. **Journal Publication in 2016 and 2017.**

**In Journals:**

1. Foo, Su Chern, Yusoff, Fatimah M., Ismail, Maznah, Basri, Mahiran, Yau, Sook Kun, Khong, Nicholas M.H., Chan, Kim Wei, Ebrahimi, Mahdi. 2017. Antioxidant capacities of fucoxanthin-producing algae as influenced by their carotenoid and phenolic contents. Journal of Biotechnology 241:175-183 http: //dx.doi.org/ 10.1016/j.jbiotec. 2016.11.026.
2. Foo, Su Chern, Yusoff, Fatimah Md., Ismail, Maznah, Basri, Mahiran, Yau, Sook Kun, Khong, Nicholas M.H., Chan, Kim Wei, Ebrahimi, Mahdi. 2017. HPLC fucoxanthin profiles of a microalga, a macroalga and a pure fucoxanthin standard. Data in Brief. 10: 583–586.
3. Dowrick, D.J., F. Md. Yusoff, R. Gough & C. Freeman. 2017. Determination of Poly-β-Hydroxyalkanoate in Peat. Communications in Soil Science and Plant Analysis. 48: 576-580.
4. Babatunde TA, Amin SMN, Yusoff FM, Arshad A, Esa YB, Ebrahimi MM. (2017) Influence of season and feeding intensity on the fatty acid composition of wild cobia (Rachycentron canadum, Linnaeus, 1766) in the Dungun coast, Malaysia. PeerJ Preprints 5:e2726v1 https://doi.org/10.7287/peerj.preprints.2726v1. PeerJ Inc. 2.183
5. Zulperi, Z., A. Christianus, F. M. Yusoff, S. A. Harmin, and M. Y. Ina-Salwany. 2017. Ovarian development and changes in the expression of pituitary gonadotropin subunits during the reproductive cycle of female Malaysian river catfish, Hemibagrus nemurus (Valenciennes, 1840), in captivity. Journal of Applied Ichthyology. DOI: 10.1111/jai.13267.
6. Allameh, S.K., E Ringø, FM Yusoff, HM Daud, A. Ideris. 2017. Dietary supplement of Enterococcus faecalis on digestive enzyme activities, short-chain fatty acid production, immune system response and disease resistance of Javanese carp (Puntius gonionotus, Bleeker 1850). Aquaculture Nutrition. 23 (2): 331–338
7. Sarifudin, M., M. A. Rahman, F. M. Yusoff, A. Arshad and S. G. Tan. 2017. Influence of salinity variations on the embryonic and early larval development of long-spined black sea urchin (Diadema setosum). The Journal of Animal & Plant Sciences, 27(1): 2017: 316-324.
8. Hazzeman Haris, H, L.J. Looi, A. Z. Aris, N.F. Mokhtar, N. A. A. Ayob, F. M. Yusoff, Abu Bakar Salleh and S. M. Praveena. 2017. Geo-accumulation index and contamination factors of heavy metals (Zn and Pb) in urban river sediment. Environmental Geochemistry and Health. pp 1–13. doi:10.1007/s10653-017-9971-0.
9. Lim, Keng Chin,Fatimah Md Yusoff, Mohamed Shariff, Mohd Salleh Kamarudin. 2017. Astaxanthin as feed supplement in aquatic animals. Reviews in Aquaculture. DOI: 10.1111/raq.12200.
10. Tuan Fauzan Tuan Omar, Ahmad Zaharin Arisa,Fatimah Md. Yusoff and , Shuhaimi Mustafa. 2017. An improved SPE-LC-MS/MS method for multiclass endocrine disrupting compound determination in tropical estuarine sediments. Talanta 173 (2017) 51–59.
11. Khong, N.M.H. F. M. Yusoff, Jamilah, B., Mahiran Basri, I. Maznah, Kim Wei Chan, J. Nishikawa. 2016. Nutritional composition and total collagen content of three commercially important edible jellyfish. Food Chemistry 196 (2016) 953–960.
12. Nobuyuki Kawasaki, M. R. M. Kushairi, Norio Nagao, Fatimah Yusoff, Akio Imai, and Ayato Kohzu. 2016. Release of nitrogen and phosphorus from aquaculture farms to Selangor river, Malaysia. International Journal of Environmental Science and Development 7 (2):113-116.
13. Norfarrah Mohamed Alipiah, Nur Hasli Syahidda Ramli, Chen-Fei Low, Mariana Nor Shamsudin, and Fatimah Md Yusoff. 2016. Protective effects of sea cucumber surface-associated bacteria against Vibrio harveyi in brown-marbled grouper fingerlings. Aquaculture Environment Interactions (Aquacult Environ Interact). Vol. 8: 147–155, 2016 (doi: 10.3354/aei00169).
14. Begum, H., Fatimah Md. Yusoff, Sanjoy Banerjee, Helena Khatoon & Mohamed Shariff (2016): Availability and utilization of pigments from microalgae, Critical Reviews in Food Science and Nutrition, 56:2209–2222. DOI: 10.1080/10408398.2013.764841.
15. Looi, L.J., A. Z. Aris, Hazzeman Haris, Fatimah Md Yusoff, and Zailina Hashim. 2016. The levels of mercury, methylmercury and selenium and the selenium health benefit value in grey-eel catfish (Plotosus canius) and giant mudskipper (Periophthalmodon schlosseri) from the Strait of Malacca. Chemosphere. 152: 265–27.
16. Samat, A., F. M. Yusoff, A. Arshad, M. A. Ghaffar, S. M. Nor., A. L. B. Magalhaes and S. K. Das. 2016. Reproductive biology of the introduced sailfin catfish Pterygoplichthys pardalis (Pisces: Loricariidae) in peninsular Malaysia. Indian J. Fish., 63(1):35-41.
17. Syed Zulfaqar, M. Aminur Rahman and F.M. Yusoff. 2016. Trends, prospects and utilizations of sea cucumber fisheries in Malaysia. Int'l Journal of Advances in Agricultural & Environmental Engg. (IJAAEE) 3 (1): 114-116.
18. Farahin, A.W. F.M. Yusoff, N. Nagao, M. Basri and M. Shariff. 2016. Phenolic content and antioxidant activity of Tetraselmis tetrathele (West) Butcher 1959 cultured in annular photobireactor. Journal of Environmental Biology. 37: 631-639.
19. Balqis, A.R.S. Yusoff, F.M., Arshad, A. and Nishikawa, J. 2016. Seasonal variations of zooplankton biomass and size-fractionated abundance in relation to environmental changes in a tropical mangrove estuary in the Straits of Malacca. Journal of Environmental Biology. 37: 685-695.
20. Sarifudin, M., M. Aminur Rahman, Fatimah Md. Yusoff , Aziz Arshad and S. G.Tan. 2016. Effects of temperature on the embryonic and early larval development in tropical species of black sea urchin, Diadema setosum (Leske, 1778). Journal of Environmental Biology. 37: 657-668.
21. Aminur Rahman, M., M.A., Fatimah Md. Yusoff, A. Arshad and R. Ara. 2016. Growth and survival of the tropical sea urchin, Salmacis sphaeroides, fed with different macroalgae in captive rearing condition. 2016. Journal of Environmental Biology. 37:855-862.
22. Srikanth Reddy Medipally, Fatimah Md. Yusoff, Norasamullah Sharifhuddin and M. Shariff. 2016. Sustainable aquaculture of Asian arowana – a review. Journal of Environmental Biology. Journal of Environmental Biology. 37:829-838.
23. Nurul Salma Adenan, Fatimah Md. Yusoff, Srikanth Reddy Medipally and M. Shariff 1 Enhancement of lipid production in two marine microalgae under different levels of nitrogen and phosphorus deficiency. Journal of Environmental Biology. 37: 669-676.
24. Arshad, A., A. A. Amani, S. M. Nurul Amin and F. M. Yusoff. 2016. Sex ratio, spawning season and size at maturity of Parapenaeopsis sculptilis (Heller 1862) in the Coastal waters of Perak, Peninsular Malaysia. Journal of Environmental Biology. 37: 709-713.
25. Aminur Rahman, M., Fatimah Md. Yusoff, A. Arshad and S.M.N. Amin. 2016. Impacts of gamete concentration, age and contact time on the fertilization success in the tropical species of white sea urchin, Salmaciella dussumieri. Journal of Environmental Biology. 37: 647-656.
26. Lee Hin Lee, Fredolin Tangang, Fatimah Md Yusoff, Zelina Z.Ibrahim, Mohd Fadhil Kasim and Mohd Afzaihelmi. 2016. A baseline study of tropical phytoplankton abundance and its relationships to the environmental variables in the Terengganu river estuary, Malaysia. Malaysian Journal of Civil Engineering 28(1):35-49.
27. Nkem, B.M.Normala Halimoon, Fatimah Md Yusoff, Wan Lufti Wan Johari, Mohamad Pauzi Zakaria, Srikanth Reddy Medipally, Narayanan Kannan. 2016. Isolation, identification and diesel-oil biodegradation capacities of indigenous hydrocarbon-degrading strains of Cellulosimicrobium cellulans and Acinetobacter baumannii from tarball at Terengganu beach, Malaysia. Marine Pollution Bulletin. 107 (1): 261-268.
28. Artem Y Sinev, Artem, Y and Fatimah M Yusoff. 2016. A new species of genus Ephemeroporus Frey, 1982 (Cladocera: Anomopoda: Chydoridae) from Peninsular Malaysia. Zootaxa. 4117 (3): 399-410.
29. Sadeq Abullah Abdo Alkhadher, Mohamad Pauzi Zakaria, Fatimah Md Yusoff, Narayanan Kannan, Suhaimi Suratman, Sami Muhsen Magam, Najat Masood, Mehrzad Keshavarzifard, Vahab Vaezzadeh, Muhamad Shirwan Abdullah Sani. 2016. Distribution and sources of linear alkyl benzenes (LABs) in surface sediments from Johor Bahru Coast and the Kim Kim River, Malaysia. Environmental Forensics. 17 (1): 36-47.
30. Nobuyuki Kawasaki, N., M.R.M. Kushairi, Norio Nagao, Fatimah M. Yusoff, Akio Imai and Ayato Kohzu. 2016. Seasonal changes of nutrient distributions along Selangor River, Malaysia. Int’l Journal of Advances in Chemical Engg., Biological Sciences (IJACEBS): 3 (1) (2016). 113-116.
31. Alekseev, Victor. R., Fatimah M. Yusoff and Elena B. Fefilova. 2016. Continental copepod biodiversity in North-Eastern Borneo, Malaysia. Arthropoda Selecta 25(2): 183–197.
32. Parvez, Md. Shamim, M. Aminur Rahman and Fatimah Md. Yusoff. 2016. Status, Prospects and Potentials of Echinoid Sea Urchins in Malaysia. International Journal of Chemical, Environmental & Biological Sciences (IJCEBS) 4 (1) 93-97.
33. Tuan Fauzan Tuan Omar, Azrilawani Ahmad, Ahmad Zaharin Aris, Fatimah Md Yusof. 2016. Endocrine disrupting compounds (EDCs) in environmental and biota matrices: review of analytical strategies for pharmaceuticals, estrogenic hormones and alkylphenol compounds. TrAC Trends in Analytical Chemistry, http://dx.doi.org/doi: 10.1016/j.trac.2016.08.004.
34. Mary Mar Noblezada, Hiroomi Miyamoto, Wilfredo L. Campos, Fatimah Md. Yusoff and Shuhei Nishida. Phylogeography of the planktonic shrimp Lucifer hanseni Nobili 1905 in the Indo-Malayan Archipelago. Journal of the Marine Biological Association of the UK -1:1-12. DOI: http://dx.doi.org/10.1017/S0025315416000163. Published online: 24 February 2016, pp. 1-12.
35. Imaizumi, Y., Norio Nagao, Fatimah Md Yusoff, Norio Kurosaw , Nobuyuki Kawasaki and Tatsuki Toda. 2016. Lumostatic operation controlled by the optimum light intensity per dry weight for the effective production of Chlorella zofingiensis in the high cell density continuous culture. Algal Research. 20: 110-117.
36. Yau, S. K., Yusoff, F. M. Khong, N. M. H., Foo, S. C and Lai, J. I. 2016. Improved pre-treatment protocol for scanning electron microscopy coupled with energy dispersive x-ray spectroscopy analysis of selected tropical microalgae. Pertanika J. Trop. Agric. Sci. 39 (3): 321 – 342.
37. Low, C.F., Mariana, N.S., Maha, A., Chee, H.-Y., Fatimah, M.Y. 2016. Identification of immune response-related genes and signalling pathways in spleen of Vibrio parahaemolyticus-infected Epinephelus fuscoguttatus (Forskal) by next-generation sequencing. Journal of Fish Diseases. 39 (3): 389-394. IF2.053. John Wiley & Sons Ltd. Online ISSN: 1365-2761.
38. ***Consultancy Work***

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| Project/Assignment | **Place** | **Date** |
| Project Director. Putrajaya Lake and Wetlands Water Quality and Biological Monitoring Programme | ASMA Sdn Bhd, Shah Alam | July 2017 to June 2020 |
| Technical Advisor to Alam Sekitar Malaysia Sdn Bhd. | ASMA Sdn Bhd. Shah Alam. | July 2013 to June 2017 |
| Alam Sekitar Malaysia Sdn Bhd  Consultant (Phytoplankton & Zooplankton Assessment) for Project: Putrajaya Lake and Wetlands Water Quality and Biological Monitoring Programme | Putrajaya Lake and Wetlands | 1 January 2011- 31 December 2013   1. 1st extension March 2014 – 2017 2. **2nd extension July 2017- June 2020** |
| Pahang-Selangor Raw Water Transfer Project – Environmental Management Plan and Monitoring | Rivers in Pahang and Selangor | July 2009 to **July 2014** |
| Alam Sekitar Malaysia Sdn Bhd  Pengawasan Kualiti Air dan Biologi Tasik Wetland | Putrajaya | 1 January 2009 - 31 December 2010 |
| Fish biodiversity and water quality survey prior to the implementation of aquaculture projects in the Bakun Dam Reservoir (Fish Cage Complex, Hatchery Complex, Processing Plant, Office and Workers Housing), Wargana Consortium Sdn Bhd and UPM Consultancy & Services Sdn Bhd. | Bakun Dam Reservoir, Bintulu, Sarawak | 31 December 2009 |
| G&P Professional Sdn Bhd  Study of the impact of land development activities on water resources of Sg. Kelantan and the development of a conservation plan - Aquatic Health Specialist | Kelantan | 30 October 2008 – 30 April 2010 |
| SMHB Environmental Sdn Bhd  Specialist Consultant on the Aquatic Biological aspects for Pahang-Selangor Raw Water Transfer Project environmental management plan and environmental monitoring | Pahang-Selangor | 2009-2014 |
| Effects of industrial water on microalgae, zooplankton and fish – Bioassay. Fanli Marine Sdn Bhd | Institute of Bioscience, UPM | May 2006 |
| Consultant for Biological Aspects (Zooplankton and Phytoplankton) The Putrajaya Lake and Wetland Monitoring Programme: Biological Assessments of the Putrajaya Lake and Wetlands. Alam Sekitar Malaysia Sdn Bhd. | Putrajaya | Oct. 2006 – Oct. 2008. |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No22 and 23. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur. | Kuantan, Pahang. | June and December 2006 – present |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No20 and 21. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur | Kuantan, Pahang. | June and December 2005 |
| Environmental Impact Assessment for the Proposed Kg. Tekek Beach Rehabilitation Project. Phytoplankton and Zooplankton Studies. For Attech Management Sdn. Bhd. | Tioman Island | September 2005. |
| National Integrated Coastal Zone Management | All States in Malaysia | 15 Feb 2004- July 2004 |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No. 12. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur | Kuantan, Pahang. | May 2002, November 2002, May 2003, November 2003. |
| Consultant to Alam Sekitar Malaysia (ASMA) Sdn Bhd: Island Marine Water Quality Monitoring Programme | 40 islands in Malaysia | March – December 2001 |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No. 12. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur | Kuantan, Pahang. | May 2001 |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No. 10&11. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur | Kuantan, Pahang. | April & Nov. 2000 |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No. 8 & 9. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur. | Kuantan, Pahang. | July – August 1999 |
| Fisheries Sector Development Study in Malaysia. For Malaysian Institute of Economic Research (MIER). | All States in Malaysia | Oct. 1998 – June 1999 |
| Environmental Impact Assessment Study on Proposed Development of Sungai Selangor Dam, Hulu Selangor. For Gamuda Sdn Bhd. Kuala Lumpur. | Selangor River Basin, Selangor. | Sept. – Dec. 1998 |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No. 7. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur. | Kuantan, Pahang. | Sept. – Oct. 1998 |
| Plankton Populations of Sungai Balok and Sungai Tunggak, Pahang. Monitoring No. 6. For Det Norske Veritas Industry Sdn Bhd. Kuala Lumpur. | Kuantan, Pahang . | April – May 1998 |
| MNI Pulp and Paper Mill: Ecological Study Near the Proposed Discharge Point at Sungai Pahang, Temerloh. For Canamal EVS Corporation (M) Sdn Bhd. Selangor | Temerloh, Pahang. | Nov. 1997 – May 1998 |
| Environmental Impact Asessment for the Greater Kuantan Water Supply Scheme Phase 2. For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | Kuantan, Pahang | July - September 1997. |
| Feasibility of Flood Bypass – Environmental Impact Asessment: Aquatic Life in Pengkalan Datu/ Rajagali Riverine System, Kelantan. For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | Kelantan. | July - March 1997 |
| Fourth Environmental Monitoring of Proposed AMOCO (Chemical) Industry, Kuantan Pahang: Sectorial Consultancy on Aquatic Productivity. For Det Norske Veritas (DNV) Industry Sdn Bhd., Kuala Lumpur. | Kuantan, Pahang | May-June. 1997. |
| Fifth Environmental Monitoring of Proposed AMOCO (Chemical) Industry, Kuantan Pahang: Sectorial Consultancy on Aquatic Productivity for Det Norske Veritas (DNV) Industry Sdn Bhd., Kuala Lumpur. | Kuantan, Pahang | Sept. – Oct. 1997. |
| Aquarium Water Quality Management. National Science Centre. Ministry of Science, Technology and the Environment. | Kuala Lumpur | Nov. 1994 - April 1997. |
| Water Quality and Plankton Monitoring of Lake Kenyir, Malaysia. For Ecotone Management Sdn Bhd. Selangor | Lake Kenyir, Terengganu | Oct. 1995- May 1996. |
| Environmental Impact Assessment: Aquatic Living Resources. Kelantan River Basin Flood Mitigation Project. For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | Kelantan | 1995 |
| Total Suspended Solids, Chlorophyll *a* and Plankton Populations of the PM3, South China Sea. PM3 Baseline Survey Programme. For Det Norske Veritas (DNV) Industry Sdn Bhd., Kuala Lumpur. | South China Sea | Aug. – Sept. 1995. |
| Water Quality in Canals `Sepang Orchard Resort'. For Sepang Orchard Resort Sdn. Bhd. Selangor. | Selangor | Sept. 1Sept. 1995. |
| Environmental Impact Assessment for a Shrimp Culture Project, Malacca. For Fisheries Development Authority Malaysia. | Malacca | 1995 |
| Plankton Abundance of Sungai Dinding, Perak. For Pakar Management Technology Sdn. Bhd. Selangor. | Perak | October 1994. |
| Environmental Monitoring of Proposed AMOCO (Chemical) Industry, Kuantan Pahang: Sectorial Consultancy on Aquatic Productivity. For Det Norske Veritas (DNV) Industry Sdn Bhd., Kuala Lumpur. | Kuantan, Pahang | Sept. 1994. |
| Environmental Impact Assessment for a Shrimp Culture Project, Perlis Malaysia: Phytoplankton and Zooplankton Studies. For Fisheries Development Authority Malaysia. | Perlis | 1994 |
| Environmental Impact Assessment of Ulu Melaka Reservoir Project, Langkawi Malaysia. For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | Langkawi | 1994 |
| Environmental Impact Assessment of the Sand Mining Project off the East Johore coast. For Universiti Kebangsaan Malaysia. Selangor. | Johore | 1993 |
| Seligi Environmental Monitoring Programme (Phase 3). For Syed Muhammad, Hooi and Binnie Sdn Bhd. (for Esso Production Malaysia). | South China Sea | 1993 |
| Seligi Environmental Monitoring Programme (Phase 2). For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | South China Sea | 1992. 1992 |
| Environmental Study of Badak and Sintok River Basins, Kedah. For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | Kedah | 1992 |
| Jerneh Pipeline Hydrotest Discharge Environmental Monitoring: For Syed Muhammad, Hooi and Binnie Sdn Bhd. Kuala Lumpur. | South China Sea | 1991 |
| Assessment of Macrophyte Infestation at Congok Dam, Mersing – For Syed Muhammad, Hooi and Binnie Sdn. Bhd. Kuala Lumpur. | Johore | 1988. 1988 |
| Feasibility study of a Mangrove Swamp in the Sungai Telaga-Kg. Iloi Complex Pitas District, Sabah for Marine Prawn Culture. For Jaya Aquaculture Farm Sdn Bhd. Kuala Lumpur. | Sabah | 1984 |
| Environmental Sensitive Index map of Cukai-Dungun Coastline. For PETRONAS, Kuala Lumpur | Terengganu | 1983 |
| Feasibility Studies of Potential Aquacultural Sites in Negri Sembilan, Malacca and Johore. For Fisheries Development Authority Malaysia. | Negri Sembilan, Malacca and Johore | 1982 |

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***11. Patents and Trademarks***

**Patent Filed**

1. Patent Pending: Patent No. P120063949 Filing Date 16th August 2006. – Periphyton based apparatus for improving aquaculture production and methods of preparing thereof.
2. Patent Filed: Patent No. 20097001 Filing Date 8th June 2009. – Agent and system for improving water quality.
3. Patent Filed: Application No/PI: 2010700040, Title: Agent for the treatment of wastewater, method of preparation thereof and method of treatment of wastewater.
4. Patent Filed: Application No/PI: 2011005221, Date 28th October 2011. Title: Extracts from microalgae for use in cancer treatment.
5. Patent Filed: A method for extracting collagen and aquatic animals, collagen and products containing it – PI 2013701277 –filed on 22nd July 2013
6. Patent Filed: Method of obtaining gelatin from aquatic animals – PI 2013701147, filed on 28 Jun 2013.
7. Patent Filed: Use of *Sargassum polycystum* as a probiotic agent,P – 12013702168, filed on 14th Nov. 2013.
8. Patent Filed: An anticoagulant. Malaysia Patent Application PI 2013702580, filed 30 December2013. Patent Pending. Inventors Maha, Abdullah; Chong, Chou Min; Mariana, Nor Shamsudin; Yusoff, Fatimah Md; Than, Leslie Thian Lung. 2013.
9. Microalgae for antioxidant and nutritional value. CR/IP No: UI2014700185. December 2013
10. Patent Filed: Closed Bioreactor for Production of Algae. Application NO: PI 2015702776. Filing Date: 21/08/2015

**Patent Granted**

**Singapore:**

Title: Starter Kit For the Production of Pure and High Quality Microalgae

Application No: 200802690-8

Date of Filing: 17 October 2006

Date of Grant: 29 May 2009

**China:**

Title: Starter Kit For the Production of Pure and High Quality Microalgae

Application No: 200680038448.6

Application Date: 17 October 2006

Date of Grant: 10 Aug 2011

Patent Registration No.: CN1012920238

**Hong Kong:**

Title: Starter Kit For the Production of Pure and High Quality Microalgae

Application No: 09102081.7

Registration Date: 17 October 2006

Grant Date: 23 Disember 2011

Patent Registration No.: HK1122064

**Philippines :**

Title: Starter Kit For the Production of Pure and High Quality Microalgae

International Filing Date: 17 Oct. 2006

International Publication Date: 26 Apr. 2007

International Application No: PCT/MY2006/000019

Issue Date: 29 November 2013

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**Trade Mark**

1. MASgrowTM
2. KoramitusTM

**Commercialization**

Koragen (M) Sdn Bhd.