

DAFTAR PUSTAKA

- Ali, M., Shaw, D.R., Saikaly, P.E. 2020. Application of An Enrichment Culture of The Marine Anammox Bacterium “ ca. *Scalindua* sp . Amx11 ” for Nitrogen Removal Under Moderate Salinity and in The Presence of Organic Carbon. Water Research. 170:115345.
- Afriza, D., Effendi. I., Siregar, Y. I. 2019. Isolasi, Identifikasi dan Uji Antagonisme Bakteri Heterotrofik pada Tumbuhan Mangrove terhadap Bakteri Patogen (*Vibrio alginolyticus*, *Aeromonas hydrophila*, dan *Pseudomonas* sp). Jurnal Perikanan dan Kelautan. 24(1):61-68.
- Anggoro, S. 1988. Analisis Tropik-Saprobiik (TROSAP) untuk Menilai Kelayakan Lokasi Budidaya Laut. Perguruan Tinggi se Jawa Tengah. LPWP. Universitas Diponegoro.
- Anggoro, A., Prijadi, S., Harisyah, D. S. 2013. Penilaian Pencemaran Perairan di Polder Tawang Semarang. Journal of Maquares. 2(3):109-118.
- APHA. 2017. Microbiological Examination, 23rd ed. Standard Methods for Examination of Water and Wasterwater. Washington.
- Apriliana, R., Rudiyanti, S., Purnomo, P.W., Program. 2014. Keanekaragaman Jenis Bakteri Perairan Dasar Berdasarkan Tipe Tutupan Permukaan Perairan di Rawa Pening. Journal of Maquares. 3(2):119–128.
- Austin, B., Austin, D.A. 2012. Fish Disease. Wild and Cultured. Switzerland: Elsevier.
- Austin, B., Austin, D.A. 2016. Bacterial Fish Pathogens: Disease of Farmed and Wild Fish. Switzerland: Elsevier.
- Azam, F., Malfatti, F. 2007. Microbial Structuring of Marine Ecosystems. Nature Reviews Microbiology. 5(10):782–791.

- Baluyut, E.A., 1989. Aquaculture Systems and Practices: A Selected Review. Food and Agriculture Organization Of The United Nations. Tersedia pada <http://www.fao.org/3/t8598e/t8598e05.htm#4.3>
- Bayu, R., Bambang, Y., Sudarno. 2016. Fluktuasi Kandungan Amonia dan Beban Cemaran Lingkungan Tambak Udang Vaname Intensif dengan Teknik Panen Parsial dan Panen Total. Jurnal Saintek Perikanan. 11(2):84–93.
- Bitton, G., Harvey, R.W. 1992. Transport of Pathogens Through Soils and Aquifers. Environmental Microbiology. 103–124.
- Boyd, C.E. 2020. Water Quality 3th. Switzerland: Springer.
- Boyd, C.E., Jory, D.E., Chamberlain, G.W. 2006. Survey Results and Recomandation : Operating Procedures For Shrimp Farming. Missouri. Global Aquaculture Alliance.
- Bapenas Kabupaten Serang. 2017. Laporan Akhir Rencana Aksi Daerah (RAD) Kelautan dan Perikanan Kabupaten Serang. Serang
- BPS Kabupaten Serang. 2017. Kecamatan Pontang Dalam Angka 2018. Serang.
- Chang, S., Wang, J., Vandamme, P., Hwang, J., Chang, P., Chen, W. 2004. *Chitinimonas taiwanensis* gen. nov., sp. nov., a Novel Chitinolytic Bacterium Isolated from a Freshwater Pond for Shrimp Cultur. System Application Microbioly. 27:43–49.
- Chistyulin, D.K., Kokoreva, I.Y., Portnyagina, O.Y., Naberezhnykh, G.A. 2017. The Prevalence of the Fish Pathogen *Yersinia ruckeri* among Representatives of the Marine Flora and Fauna of the Sea of Okhotsk. Russian Journal of Marine Biology. 43:190–195.
- Effendi, H. 2003. Telaah Kualitas Air Bagi Pengelolaan Sumber Daya dan Lingkungan Perairan. Jakarta: Kanisius.
- Eiler, A., Gonzalez-rey, C., Allen, S., Bertilsson, S. 2007. Growth response of *Vibrio cholerae* and other *Vibrio* spp. to cyanobacterial dissolved organic

- matter and temperature in brackish water. *FEMS Microbioly Ecology.* 60:411–418.
- Fahrudin, dan Abdullah, A., 2018. Analisis Populasi Bakteri Pada Air Asam Tambang dengan Perlakuan Sedimen Mangrove. *Jurnal Ilmu Alam dan Lingkungan.* 9(17):70–77.
- FAO. 2013. Report of the FAO/MARD Technical Workshop on Early Mortality Syndrome (EMS) or Acute Hepatopancreatic Necrosis Syndrome (AHPNS) of Cultured Shrimp. Hanoi. 25–27 Juni 2013.
- FAO. 2019. Report of Preventing And Managing Aquatic Animal Disease Risks In Aquaculture Through A Progressive Management Pathway. Trondheim. 23–27 Agustus 2019
- Farkan, M., Djokosetyianto, D., Widjaja, R.S., Kholil, Widiatmaka. 2017. Kesesuaian Lahan Tambak Budidaya Tambak Dengan Faktor Pembatas Kualitas Air, Tanah dan Infrastruktur Pada Teluk Banten. *Jurnal Segara.* 13(1):1–8.
- Feliatra, F., Hamdani, R., Lukystyowati, I., Nurachmi, I. 2019. Sensitivity of Heterotrophic Bacteria in the Low-Salinity Water Areas and Estuary in Siak District toward Pathogenic Bacteria in Fish 2019. *International Journal of Microbiology.*
- Flegel, T.W. 2012. Historic Emergence, Impact and Current Status of Shrimp Pathogens in Asia. *Journal of Invertebrate Pathology.* 110(2):166–173.
- Follett, R., Hatfield, J. 2001. Nitrogen in the Environment: Sources, Problems, and Management. *Optimizing Nitrogen Management in Food and Energy Production and Environmental Protection: Proceedings of the 2nd International Nitrogen Conference on Science and Policy.* The Scientific world. 920–926.
- Fretes, C.E. de, Sutiknowati, L.I., Falahudin, D. 2019. Isolasi dan Identifikasi Bakteri Toleran Logam Berat dari Sedimen Mangrove di Pengudang dan

- Tanjung Uban, Pulau Bintan, Indonesia. Oseanologi dan Limnologi. di Indones. 4(2):71–77.
- Garno, Y.S. 2004. Pengembangan Budidaya Udang dan Potensi Pencemarannya pada Perairan Pesisir. Jurnal Teknik Lingkungan. 5(3):187–192.
- Gholizadeh, M.H., Melesse, A.M., Reddi, L. 2016. A Comprehensive Review on Water Quality Parameters Estimation Using Remote Sensing Techniques. Sensor. 16(8):1298.
- Gunarto. 2006. Bakteri Sulfur. Media Akuakultur. 1: 91–96.
- Hargreaves, J.A. 1998. Nitrogen Biogeochemistry of Aquaculture Ponds. Aquaculture. 166:181–212.
- Hastuti, Y.P. 2011. Nitrifikasi dan denitrifikasi di tambak Nitrification and denitrification in pond. Jurnal Akuakultur Indonesia. 10(1):89–98.
- Hidayah, S.N., Widyorini, N., Purnomo, P.W. 2016. Analisis Kesuburan Perairan Waduk Jatibarang Berdasarkan Distribusi dan Kelimpahan Bakteri Heterotrofik. Journal of Maquares. 5(4):443–452.
- Holt, J. G., N. R. Krieg, Peter, H. A. S., James, T. S., Stanley, T. W. 1994. Bergey's manual of determinative bacteriology. Marryland: Williams & Wilkins.
- Hutabarat, S., Evans, S.M., 2005. Pengantar Oseanografi. Jakarta: UI-Press.
- Iswantari, A., Wardiatno, Y., Pratiwi, N.T.M., Rusmana, I. 2014. Fluks Bentik dan Potensi Aktivitas Bakteri Terkait Siklus Nitrogen di Sedimen Perairan Mangrove Pulau Dua, Banten. Jurnal Biologi Indonesia. 10(1):109–117.
- Kharisma, A., Manan, A. 2012. Kelimpahan Bakteri *Vibrio* Sp. Pada Air Pembesaran Udang Vannamei (*Litopenaeus vannamei*) Sebagai Deteksi Dini Serangan Penyakit Vibriosis. Jurnal Ilmiah Perikanan dan Kelautan. 4(2):129–134.
- KKP. 2018a. Kelautan dan Perikanan dalam Angka 2018. Jakarta.

- KKP. 2018b. Laporan Hasil Pengujian: Stasiun Karantina Ikan, Pengendalian Mutu dan Keamanan Hasil Perikanan. Cilegon.
- KKP. 2019. Pemantauan Hama dan Penyakit Ikan Karantina: Stasiun Karantina Ikan, Pengendalian Mutu dan Keamanan Hasil Perikanan 2019. Cilegon.
- Kristantim, M. Imran, Z. 2006. Daya Dukung Lingkungan Perairan Teluk Ekas untuk Pengembangan Kegiatan Budidaya Kerapu dalam Keramba Jaring Apung. Jurnal II Pertanian Indonesia. 11(2):15-20.
- Kumar, V., Wille, M., Lourenço, T. M., Bossier, P. 2020. Biofloc-Based Enhanced Survival of *Litopenaeus vannamei* Upon AHPND-Causing *Vibrio parahaemolyticus* Challenge is Partially Mediated by Reduced Expression of Its Virulence Genes. Frontiers in Microbiology. 11:1270.
- Kurniawan, K., Tompo, A., K.Kadriah, I.A. 2014. Uji Patogenitas dan Gambaran Histologi Hepatopankreas Infeksi *Vibrio* Patogen Secara Penyuntikan. Seminar Nasional Tahun XI Hasil Penelitian Perikanan dan Kelautan Universitas Gadjah Mada. Poster Penyakit Ikan dan Kesehatan Lingkungan. 417–424.
- Lestantun, A., Anggoro, S., Yulianto, B., 2020. A Review on Pathogenic Bacteria that Potentially Threaten The Environment of Aquaculture: Controlling and Aquaculture Sustainability in Pontang, Serang. The 5th International Conference on Energy, Environmental and Information System. E3S Web Conference. 202.
- Leta, S., Gumaelius, L., Assefa, F., Dalhammar, G. 2004. Identification of Efficient Denitrifying Bacteria from Tannery Wastewaters in Ethiopia and A Study of The Effects of Chromium III and Sulphide on Their Denitrification Rate. World Journal of Microbiology and Biotechnology. 20:405–411.
- Liu, L., Xiao, J., Zhang, M., Zhu, W., Xia, X., Dai, X. 2018. A *Vibrio owensii* Strain As The Causative Agent of AHPND in Cultured Shrimp, *Litopenaeus vannamei*. Journal of Invertebrate Pathology. 153:156–164.

- Lyla, P.S., Khan, S., 2006. Marine microbial diversity and ecology: importance and future perspectives. *Current Science*. 90:1325-1335.
- Mahasri, G., Putri, D. W. S., Nafis, P. L. C., Siti, H. 2019. Infestasi dan Intensitas Ektoparasit pada Udang Vaname (*Litopenaeus vannamei*) dengan Ukuran Berbeda pada Tambak dengan Dasar Beton. *Saintek Perikanan*. 15(2):134-138.
- Mahrus, I.H., Widyorini, N., Taufani, W.T. 2019. Analisa Kelimpahan Bakteri di Perairan Bermangrove dan Tidak Bermangrove di Perairan Pantai Ujung Piring, Jepara. *Journal of Maquares*. 8:265–274.
- Mayo, A., Noike, T. 1996. Effects of Temperature and pH On The Growth of Heterotrophic Bacteria in Waste Stabilization Ponds. *Water Research*. 30:447– 455.
- Sani, M. D, Maharani, A. Y., Riandy, M. I., Susilo, R. J. K., Wiradana, P. A., Agoes Soegianto, A. 2020. Monitoring of Population Density of *Vibrio* sp. and Health Condition of Hepatopancreas Pacific White Shrimp (*Litopenaeus vannamei*) Cultivated with Intensive Systems in Bulukumba Regency, South Sulawesi, Indonesia. *Eco. Env. & Cons.* 26 (3):1271-1275.
- Mongkol, P., Bunphimpapha, P., Rungrassamee, W., Arayamethakorn, S., Klinbunga, S., Chaiyapechara, S. 2017. Bacterial Community Composition and Distribution in Different Segments Of The Gastrointestinal Tract Of Wild-Caught Adult *Penaeus monodon*. *Aquaqulture Research*. 49(1):378-392.
- Mulyadi, M. 2011. Penelitian Kuantitatif dan Kualitatif Serta Pemikiran Dasar Menggabungkannya. *Jurnal Studi Komunikasi dan Media*. 15:128.
- Muthukrishnana, S., Defoirdt, T., Ina-Salwanya, M.Y., Yusoffa, F.M., Shariffb, M., Ismailc, S.I., Natrah, I. 2019. *Vibrio parahaemolyticus* and *Vibrio harveyi* Causing Acute Hepatopancreatic Necrosis Disease (AHPND) in

- Penaeus vannamei* (Boone, 1931) Isolated from Malaysian Shrimp Ponds. Aquaculture. 511:734227.
- Muwarni, S. 2015. Dasar Dasar Mikrobiologi Veteriner. Malang: University of Brawijaya Press.
- Ning, M., Hao, W., Cao, C., Xie, X., Fan, W., Huang, H., Yue, Y., Tang, M., Wang, W., Gu, W., Meng, Q. 2020. Toxicity of Deltamethrin to Eriocheir Sinensis and The Isolation of A Deltamethrin-Degrading Bacterium, *Paracoccus* sp. P-2. *Chemosphere*. 257:127162.
- OIE. 2019a. Manual of Diagnostic Tests for Aquatic Animals 2019. Tersedia pada <https://www.oie.int/en/what-we-do/standards/codes-and-manuals/aquatic-manual-online-access/>.
- OIE. 2019b. Aquatic Animal Health Code 2019. Tersedia pada <https://www.oie.int/en/what-we-do/standards/codes-and-manuals/aquatic-code-online-access/>.
- Palimirmo, S.F., Damar, A., Effendi, H. 2016. Dinamika Sebaran Bakteri Heterotrofik di Teluk Jakarta. Jurnal Ilmu Pertanian Indonesia. 21:26–34.
- Pelczar, M.J., Chan, E.S., Pelczar, M.F. 1981. Element of microbiology. London: McGraw-Hill International Book Company.
- Pemerintah Indonesia. 2003. Keputusan Menteri Lingkungan Hidup Nomor 115 Tahun 2003: Pedoman Penentuan Status Mutu Air. Kementerian Lingkungan Hidup. Jakarta.
- Pemerintah Indonesia. 2004. Keputusan Menteri Lingkungan Hidup Nomor 51 Tahun 2004: Baku Mutu Air Laut. Kementerian Lingkungan Hidup. Jakarta.
- Pemerintah Indonesia. Peraturan Menteri Kelautan dan Perikanan Nomor 91 Tahun 2018: Penetapan Jenis-Jenis Penyakit Ikan Karantina, Golongan, dan Media Pembawa. Kementerian Kelautan dan Perikanan. Jakarta.

- Pena, L. dl., Somga, J. 2018. FAO. 2018. Biosecurity in Aquaculture (Philippines). FAO/MSU/WB Stakeholder Consultation on Progressive Management Pathway (PMP) to Improve Aquaculture Biosecurity. Washington. 10-12 April 2018.
- Persoone, G dan N.De Pauw. 1978. System of Biological indicators for water Quality Assesman. Dalam Commision of european community. 1979. Biological Aspects of Freshwater Polution. New York: Pergamon Press. 39-75.
- Poernomo, A. 1992. Pemilihan Lokasi Tambak Udang Berwawasan Lingkungan. Seri Pengembangan Hasil Penelitian. Badan Penelitian dan Pengembangan Pertanian, Pusat Penelitian dan Pengembangan Perikanan bekerja sama dengan USAID/FRDP, Jakarta.
- Priadie, B. 2012. Teknis Bioremediasi Sebagai Alternatif Upaya Pengendalian Pemcemaran Air. J. Ilmu Lingkung. 10:38–48.
- Pringgenies, D., Widiyadmi, R., Ariyanto, D., Idris, R., Djunaedi, A. 2018. Bakteri Konsorsium dari Serasah Mangrove untuk Produksi Kompos. Jurnal Pengelolaan Perairam. 1(2):19-26.
- Priyatno, D. 2010. Paham Analisis Statistik Data dengan SPSS. Jakarta: Media Kom.
- Purushothaman, Jayalakshmi, 2006. Biodiversity in Mangrove Ecosystems Floral diversity: Bacteria and Fungi. Chidambaram: Annamalai University
- Puspitasari, I., Mulyasari, C. D., IGP Gede Rumayasa Yudayana, I. G. P. G. R. 2020. Korelasi Populasi *Vibrio* Terhadap Faktor Lingkungan pada Kolam Pemeliharaan Larva Udang Vannamei (*Litopenaeus vannamei*) di Situbondo, Indonesia. Jurnal Chanos chanos. 18(2):73-81.
- Putri, C.R., Djunaedi, A., Subagyo. 2019. Ekologi Fitoplankton: Ditinjau dari Aspek Komposisi, Kelimpahan, Distribusi, Struktur Komunitas dan Indeks

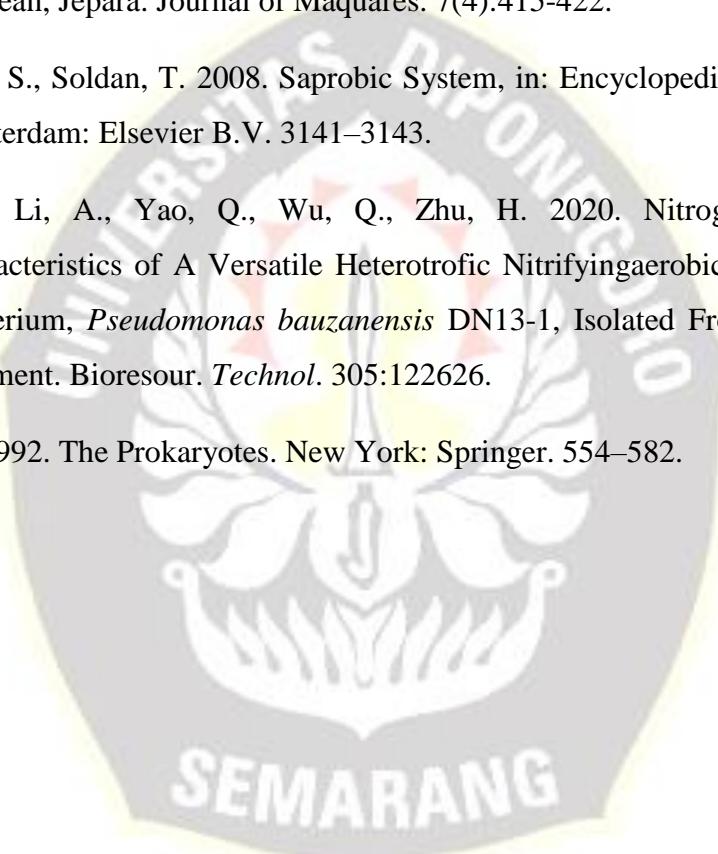
- Saprobitas di Perairan Morosari, Demak. Journal of Marine Research. 8(2):197–203.
- Qiao, L., Chang, Z., Li, J., Chen, Z. 2020. Phytoplankton Community Succession In Relation to Water Quality Changes in The Indoor Industrial Aquaculture System for *Litopenaeus vannamei*. Aquaculture. 527:735441.
- Salmin, 2005. Oksigen Terlarut (DO) dan Kebutuhan Oksigen Biologi (BOD) Sebagai Salah Satu Indikator untuk Menentukan Kualitas Perairan. Oseana 30(3):21-26.
- Santi, D.I., Afiati, N., Purnomo, P.W. 2017. Sebaran Bakteri Heterotrof, Bahan Organik Total, Nitrat dan Klorofil-A Air Muara Sungai Cipasauran, Serang. Journal of Maquares. 6:222–229.
- Santosa, M.B., Wiharyanto, D. 2013. Studi Kualitas Air di Lingkungan Perairan Tambak Adopsi Better Management Practices (BMP) pada Siklus Budidaya Ikan, Kelurahan Karang Anyar Pantai Kota Tarakan Propinsi Kalimantan Utara. Jurna. Harpodon Borneo. 6:49–55.
- Sarjito, Apriliani, M., Afriani, D., Haditomo, A.H.C. 2015. Agensi Penyebab *Vibriosis* Pada Udang Vaname (*Litopenaus vanammei*) yang Dibudidayakan Secara Intensif di Kendal. Jurnal Kelaut Tropis. 18:189–196.
- Sarjito, Prayitno, S.B., Haditomo, A.H.C. 2013. Buku Pengantar Parasit dan Penyakit Ikan. Semarang: Undip Press.
- Saut, R., Harianja, M., Anita, S. 2018. Analisis Beban Pencemaran Tambak Udang di Sekitar Sungai Kembung Kecamatan Bantan Bengkalis. Dinamika Lingkungan. 5(1):12–19.
- Setyastuti, T. A., Puspitasari, I., Sukamto., Asmarany, A. 2020. Kelimpahan Bakteri Heterotrof pada Tambak dengan Jenis Mangrove yang Berbeda di Pulokerto Pasuruan. Jurnal Chanos Chanos. 18(1):7-17.

- Silva, K.R. 2013. Nitrogen and Phosphorus Dynamics in the Biofloc Production of the Pacific White Shrimp, *Litopenaeus vannamei*. Journal Of The World Aquaculture Society. 44(1):30–41.
- Sitorus, H., Widigdo, B., Lay, B.W., 2005. Estimation of Coastal Zone Carrying Capacity for Brackish Water Culture Development Based on the Biodegradation Rate of Shrimp Culture Effluent in Coastal Waters of Serang Regency [Thesis]. Institut Pertanian Bogor.
- Sokolova, I. V, Kolotova, O. V, Vodovsky, N.B. 2019. Dynamics of Microbiological Water Quality Indicators in the North Caspian Sea Dynamics of Microbiological Water Quality Indicators in the Sea. International science and technology conference "Earth science IIOP Conference Series Earth Environtal Scient. 272:022009.
- Suharto, Septiyawati, F., SB, D.Y. 2019. Struktur Komunitas Dan Kelimpahan Fitoplankton di Pulau Kapoposang Kabupaten Pangkajene dan Kepulauan, Provinsi Sulawesi Selatan. Jurnal Pengelolaan Perairan. 2:1–14.
- Suhenda, E., 2008. Teknik Pengambilan, Identifikasi, dan Penghitungan Kelimpahan Plankton di Perairan Teluk Jakarta. BTL. 7(2):51-55.
- Sumini, S., Kusdarwati, R. 2020. The Discovery of *Vibrio harveyi* on *Litopenaeus vannamei* Infected White Feces Disease in Situbondo, East Java. Jurnal Perikanan. 22(1):9-18.
- Sung, H., Li, H., Tsai, F., Ting, Y., Chao, L. 1999. Changes in The Composition of *Vibrio* Communities in Pond Water During Tiger Shrimp (*Penaeus monodon*) cultivation and in The Hepatopancreas Of Healthy And Diseased Shrimp. Journal of Experimental Marine Biology and Ecology. 236(2):261–271.
- Supono, W., Harpeni, E., Khotimah, A. H. and Ningtyas, A. 2019. Identification of *Vibrio* sp. as Cause of White Feces Diseases in

- White Shrimp *Penaeus Vannamei* and Handling with Herbal Ingredients in East Lampung Regency. Indonesia. Bioflux. 12(2).
- Susanti, E., Harpeni, E., Setyawan, A. 2014. Penapisan Bakteri Pendegradasi Total Ammonia Nitrogen dari Sedimen Tambak Tradisional Udang Windu (*Penaeus monodon*). Aquasains. 2:145–148.
- Lies Indah Sutiknowati. 2018. Keragaman Bakteri pada Perairan Sabang, Provinsi Aceh. Majalah Ilmiah Biologi Biosfera. 35(2):54-62.
- Suwandan, A.F., Purnomo, P.W., Rudiyantri, S. 2018. Analisis Perbandingan Fitoplankton dan Zooplankton Serta TSI (Trophicsaprobic Index) pada Perairan Tambak di Kampung Tambak Lorok Semarang. Journal of Maquares. 7(2):237–245.
- Tompo, A. 2016. Kajian Populasi Bakteri *Vibrio* sp. Pada Tambak Budidaya Udang Vannamei (*Lithopenaeus vannamei*) Sistem Semi Intensif dengan Presentase Pemberian Pakan yang Berbeda. Octopus Jurnal Ilmu Perikanan. 5:470–475.
- Triani, W., Pangastuti, A., Astirin, O.P. 2005. Populasi Bakteri Pengoksidasi Sulfur Anorganik dan Kadar H₂S di Tambak Udang Putih (*Penaeus vannamei Boone*) Sistem Intensif. Biosmart. 7(1):23–26.
- Tsuji, S., Ushio, M., Sakurai, S., Minamoto, T., Yamanaka, H. 2017. Water temperature-dependent degradation of environmental DNA and its relation to bacterial abundance. Plos One.
- Tsai, C.K. 1989. Pengelolaan Mutu Air (Shrimp Pond Water Quality Management). Lokakarya Pengelolaan Budidaya Udang. Surabaya: Balitbang Pertanian, Puslitbang Perikanan.
- Ulfah, A., Purwiyanto, A. I. S., Diansyah, G. 2017. Penentuan Tingkat Pencemaran Organik Berdasarkan Konsentrasi BOD (*Biological Oxygen Demand*), COD (*Chemical Oxygen Demand*) dan TOM (*Total Organic Matter*) di Muara Sungai Lumpur Ogan Komering Ilir. Jurnal Maspuri. 9(2):105-110.

- Wiji Utami, Sarjito, Desrina. 2016. Pengaruh Salinitas Terhadap Efek Infeksi *Vibrio Harveyi* pada Udang Vaname (*Litopenaeus vannamei*). Journal of Maquares. 5(1):82-90.
- Wisha, U. J., Ondara, K., Ilham. 2018. The Influence of Nutrient (N and P) Enrichment and Ratios on Phytoplankton Abundance in Keunekai Waters, Weh Island, Indonesia. Makara Journal of Science. 2018:187-197
- Valente, C. S., Alex H.L. Wan, A. H. L. 2021. *Vibrio* and Major Commercially Important *Vibriosis* Diseases in Decapod Crustaceans. Journal of Invertebrate Pathology. 181.
- W Alva, S. G., Anggoro, S, Widyorini, N. 2017. Kelimpahan Bakteri Heterotrof dan *Water Quality Index* pada Kerapatan Mangrove yang Berbeda di Desa Bedono, Sayung, Demak. Journal of Maquares. 6(3):215-221.
- Wan, W., He, D., Xue, Z. 2017. Removal of Nitrogen and Phosphorus By Heterotrophic Nitrification-Aerobic Denitrification of A Denitrifying Phosphorus-Accumulating Bacterium *Enterobacter Cloacae* HW-15. Ecological Engineering. 99:199–208.
- Widiyanto, T., Rusmana, I., Febrianti, D., Shohihah, H., Triana, A., Mardiati, Y. 2020. Profiles of *Vibrio* and Heterotrophic Bacteria in The Intensive Vanamae Shrimp Culture Using Bioremediation Technique in Karawang. International Conference on Tropical Limnology 2019. Earth and Environmental Science .535.
- Widjaya, S. Kadarusman. 2019. Buku Besar Maritim Indonesia: Sumber Daya Hayati Maritim. Seri 2. Jakarta: Amafrad Press.
- Wangman, P., Longyant, S., Taengchaiyaphum, S., Senapin, S. 2018. PirA & B Toxins Discovered in Archived Shrimp Pathogenic *Vibrio Campbellii* Isolated Long Before EMS / AHPND Outbreaks. Aquaculture. 497:494–502.

- Xu, W., Xu, Y., Su, H., Hu, X., Yang, K., Wen, G., Cao, Y. 2020. Characteristics of Ammonia Removal and Nitrifying Microbial Communities in a Hybrid Biofloc-RAS for Intensive *Litopenaeus vannamei* Culture: A Pilot-Scale Study. Water. 12:3000.
- Yunita, I. D., Widyorini, N., Supriharyono. 2018. Pengaruh Kerapatan Lamun *Thalassia hemprichii* terhadap Kelimpahan Bakteri Heterotrof di Pantai Prawean, Jepara. Journal of Maquares. 7(4):415-422.
- Zahradkova, S., Soldan, T. 2008. Saprobiic System, in: Encyclopedia of Ecology. Amsterdam: Elsevier B.V. 3141–3143.
- Zhang, M., Li, A., Yao, Q., Wu, Q., Zhu, H. 2020. Nitrogen Removal Characteristics of A Versatile Heterotrophic Nitrifyingaerobic Denitrifying Bacterium, *Pseudomonas bauzanensis* DN13-1, Isolated From Deep-Sea Sediment. Bioresour. Technol. 305:122626.
- Zumft, W. 1992. The Prokaryotes. New York: Springer. 554–582.



Sekolah Pascasarjana