

## DAFTAR PUSTAKA

- Agatha, F. S., Mustahal, M., Syamsunarno, M. B., & Herjayanto, M. 2021. *Early Study on Embryogenesis O.woworae at Different Salinities*. *Jurnal Biologi Tropis*, 21(2), 343–352. <https://doi.org/10.29303/jbt.v21i2.2574>.
- Alfayeth. B. 2022. Embriogenesis Ikan *Oryzias woworae* sebagai Dasar Studi Ekotoksikologi. *Skripsi*. Universitas Hasanuddin, Makassar.
- Almond, K. M., & Trombetta, L. D. 2016. *The effects of copper pyrrithione, an antifouling agent, on developing zebrafish embryos*. *Ecotoxicology*, 25(2), 389–398. <https://doi.org/10.1007/s10646-015-1597-3>.
- Amaliah, R., Amrullah, & Suriati. 2018. Manajemen Pemberian Pakan Pada Pembesaran Ikan Nila (*Oreochromis niloticus*). *Prosiding Seminar Nasional Pertama Sinergitas Multidisiplin Ilmu Pengetahuan dan Teknologi*, 1(1), 252–257.
- Anshori, A., & Prasetyono, C. 2016. Pestisida Pada Budidaya Kedelai di Kabupaten Bantul D. I. Yogyakarta. *Caraka Tani: Journal of Sustainable Agriculture*, 31(1), 38. <https://doi.org/10.20961/carakatani.v31i1.11940>.
- Ardhadiansyah, Subhan, U., & Yustiati, A. 2017. Embriogenesis dan Karakteristik Larva Persilangan Ikan Patin Siam (*Pangasius Hypophthalmus*) Jantan dengan Ikan Baung (*Hemibagrus nemurus*) Betina. *Jurnal Perikanan Dan Kelautan*, 8(2), 17–27.
- Ardimas, Y. A. Y. 2012. *Pengaruh gradien suhu media pemeliharaan terhadap pertumbuhan dan kelangsungan hidup larva ikan betok (Anabas testudineus Bloch)*.
- Beckie, H. J. 2006. *Herbicide-Resistant Weeds: Management Tactics and Practices*. *Weed Technology*, 20(3), 793–814. <https://doi.org/10.1614/wt-05-084r1.1>
- Braunbeck, T., Bottcher, M., Hollert, H., Kosmehl, T., Lammer, E., Leist, E., Rudolf M., & Seitz, N. 2005. *Towards an alternative for the acute fish LC50 test in chemical assessment: the fish embryo toxicity test goes multi-species-an update*. *ALTEX-Alternatives to Animal Experimentation*, 22(2), 87-102.
- Chair, K., Bedoui, A., Bensalah, N., Fernandez, F., Saez, C., Canizares, P., & A. Rodrigo, M. 2016. *Combining bioadsorption and photoelectrochemical oxidation for the treatment of soil- 2 washing effluents polluted with herbicide 2,4-D 3*. 1–21.
- Chakraborty, C., Hsu, C., Wen, Z., Lin, C., & Agoramoorthy, G. 2009. *Zebrafish: A Complete Animal Model for in Vivo Drug Discovery and Development*. *Current Drug Metabolism*, 10(2), 116–124. <https://doi.org/10.2174/138920009787522197>.
- Cheng, S. H., Wai, A. W. K., So, C. H., & Wu, R. S. S. 2000. *Cellular and molecular basis of cadmium-induced deformities in zebrafish embryos*. *Environmental Toxicology and Chemistry*, 19(12), 3024–3031. <https://doi.org/10.1002/etc.5620191223>.
- Chiron, S., Fernandez-Alba, A., Rodriguez, A., & Garcia-Calvo, E. 2000. *Pesticide chemical oxidation: State-of-the-art*. *Water Research*, 34(2), 366–377. [https://doi.org/10.1016/S0043-1354\(99\)00173-6](https://doi.org/10.1016/S0043-1354(99)00173-6).

- Dahrudin, H. 2012. Fauna Indonesia. *Fauna Indonesia*, 11(2), 23–27.
- Debenest, T., Silvestre, J., Coste, M., & Pinelli, E. 2010. *Effects of Pesticides on Freshwater Diatoms*. 87–103. <https://doi.org/10.1007/978-1-4419-1352-4>.
- Dong, W., Liu, J., Wei, L., Jingfeng, Y., Chernick, M., & Hinton, D. E. 2016. *Developmental toxicity from exposure to various forms of mercury compounds in medaka fish (Oryzias latipes) embryos*. *PeerJ*, 2016(8). <https://doi.org/10.7717/peerj.2282>.
- Duan, J., Hu, H., Zhang, Y., Feng, L., Shi, Y., Miller, M. R., & Sun, Z. 2017. *Multi-organ toxicity induced by fine particulate matter PM2.5 in zebrafish (Danio rerio) model*. *Chemosphere*, 180, 24–32. <https://doi.org/10.1016/j.chemosphere.2017.04.013>.
- Ecobichon, D. J. 2001. *Pesticide use in developing countries*. *Toxicology*, 160(1–3), 27–33. [https://doi.org/10.1016/S0300-483X\(00\)00452-2](https://doi.org/10.1016/S0300-483X(00)00452-2).
- Eman, A., Abdel-megeed, A., Suliman, A. A., Sadik, M. W., & Sholkamy, N. E. 2013. *Biodegradation of Glyphosate by fungal strains isolated from herbicides polluted-soils in Riyadh area*. *Int.J.Curr.Microbiol.App.Sci*, 2(8), 359–381.
- Erizal, Sudrajat, A., & Dewi, S. P. 2012. *Hidrogel Akrilamida-ko-Poli (VINIL) Pirilidon Hasil Iradiasi Sebagai Matriks Immobilisasi Herbisida DMA-6* (pp. 222–228).
- Fatimah, A. N., Sugiharto, S., & Setyaningrum, N. 2019. Aspek Reproduksi Ikan Betutu (*Oxyeleotris marmorata* Blkr) yang Tertangkap di Waduk Penjalin Brebes. *BioEksakta: Jurnal Ilmiah Biologi Unsoed*, 1(2), 71. <https://doi.org/10.20884/1.bioe.2019.1.2.1786>.
- Garabrant, D. H., & Philbert, M. A. 2002. *Review of 2,4-Dichlorophenoxyacetic Acid (2,4-D) Epidemiology and Toxicology*. *Metabolism Clinical And Experimental*, 32(4), 233–257.
- Goel, A., & Aggarwal, P. 2014. *Review Article Pesticide poisoning*. *The National Medical Journal of India*, 20(July 2007), 181–191.
- González-Doncel, M., Okihiro, M. S., Villalobos, S. A., Hinton, D. E., & Tarazona, J. V. 2005. *A quick reference guide to the normal development of Oryzias latipes (Teleostei, Adrianichthyidae)*. *Journal of Applied Ichthyology*, 21(1), 39–52. <https://doi.org/10.1111/j.1439-0426.2004.00615.x>.
- Gray, R. S., Wilm, T. P., Smith, J., Bagnat, M., Dale, R. M., Topczewski, J., Johnson, S. L., & Solnica-krezel, L. 2014. *Loss of col8a1a function during zebra fish embryogenesis results in congenital vertebral malformations*. *Developmental Biology*, 386, 72–85.
- Hasanah, N., Andy Omar, S. Bin, Tresnati, J., & Nurdin, M. S. 2019. Ukuran Pertama kali Matang Gonad Ikan Medaka Endemik Indonesia. *Jurnal Ilmiah Samudra Akuatika*, 3(2), 31–35.
- Herjayanto, M., Carman, O., & Soelistyowati, D. T. 2017. Embriogenesis, Perkembangan Larva dan Viabilitas Reproduksi Ikan Pelangi Iriatherina Werner Meinken, 1974 pada Kondisi Laboratorium. *Akuatika Indonesia*, 2(1), 1. <https://doi.org/10.24198/jaki.v2i1.23389>.
- Hilgers, L., & Schwarzer, J. 2019. *The untapped potential of medaka and its wild*

- relatives. *ELife*, 8, 1–14. <https://doi.org/10.7554/eLife.46994>.
- Ishigaki, M., Yasui, Y., Puangchit, P., Kawasaki, S., & Ozaki, Y. 2016. *In vivo monitoring of the growth of fertilized eggs of medaka fish (Oryzias latipes) by near-infrared spectroscopy and near-infrared imaging—a marked change in the relative content of weakly hydrogen-bonded water in egg yolk just before hatching*. *Molecules*, 21(8). <https://doi.org/10.3390/molecules21081003>.
- Islam, F., Wang, J., Farooq, M. A., Khan, M. S. S., Xu, L., Zhu, J., Zhao, M., Muños, S., Li, Q. X., & Zhou, W. 2018. *Potential impact of the herbicide 2,4-dichlorophenoxyacetic acid on human and ecosystems*. *Environment International*, September, 332–351. <https://doi.org/10.1016/j.envint.2017.10.020>.
- Istianah, & Yuniastuti, A. 2017. Hubungan masa kerja, lama menyemprot, jenis pestisida, penggunaan APD dan pengelolaan pestisida dengan kejadian keracunan pada petani di brebes. *Public Health Perspective Journal*, 2(2), 117–123.
- Iwamatsu, T. 2004. *Stages of normal development in the medaka Oryzias latipes. Mechanisms of Development*, 121(7–8), 605–618. <https://doi.org/10.1016/j.mod.2004.03.012>.
- Iwamatsu, T. 2011. *Developmental Stages in the Wild Medaka , Oryzias latipes. Bulletin of Aichi Univ. of Education*, 60, 71–81.
- Iwamatsu, T., Kobayashi, H., Sato, M., & Yamashita, M. 2008. *Reproductive role of attaching filaments on the egg envelope in Xenopoecilus sarasinorum (Adrianichthidae, Teleostei)*. *Journal of Morphology*, 269(6), 745–750. <https://doi.org/10.1002/jmor.10620>.
- Johnson, A., Carew, E., & Sloman, K. A. 2007. *The effects of copper on the morphological and functional development of zebrafish embryos*. *Aquatic Toxicology*, 84(4), 431–438. <https://doi.org/10.1016/j.aquatox.2007.07.003>.
- Kalasekar, S. M., Zacharia, E., Kessler, N., Ducharme, N. A., Gustafsson, J. Å., Kakadiaris, I. A., & Bondesson, M. 2015. *Identification of environmental chemicals that induce yolk malabsorption in zebrafish using automated image segmentation*. *Reproductive Toxicology*, 55, 20–29. <https://doi.org/10.1016/j.reprotox.2014.10.022>.
- Kampa, M., & Castanas, E. 2008. *Human health effects of air pollution*. *Environmental Pollution*, 151(2), 362–367. <https://doi.org/10.1016/j.envpol.2007.06.012>.
- Khodadoust, D., Ismail, A., Zulkifli, S. Z., & Hoseini Tayefeh, F. 2013. *Short time effect of cadmium on juveniles and adults of Java medaka (Oryzias javanicus) fish as a bioindicator for ecotoxicological studies*. *Life Science Journal*, 10(1), 1857–1861.
- Kinoshita, M., Murata, K., Naruse, K., & Tanaka, M. 2009. *Medaka Biology, Management, and Experimental Protocols*.
- Kirchmaier, S., Naruse, K., Wittbrodt, J., & Loosli, F. 2015. *The genomic and genetic toolbox of the teleost medaka (Oryzias latipes)*. *Genetics*, 199(4), 905–918. <https://doi.org/10.1534/genetics.114.173849>.
- Kowan, K. A., Airlangga, H., & Aini, N. 2015. *Uji Nilai LC 50 Dekokta Centella asiatica*

Terhadap Frekuensi Denyut Jantung Embrio Ikan Zebra (*Danio rerio*). *Jurnal Kedokteran Komunitas*, 3(1), 149–155.

- Kundu, S., Pal, A., & Dikshit, A. K. 2005. *UV induced degradation of herbicide 2,4-D: Kinetics, mechanism and effect of various conditions on the degradation. Separation and Purification Technology*, 44(2), 121–129. <https://doi.org/10.1016/j.seppur.2004.12.008>.
- Liu, K., Song, J., Chi, W., Liu, H., Ge, S., & Yu, D. 2021. *Developmental toxicity in marine medaka (*Oryzias melastigma*) embryos and larvae exposed to nickel. Comparative Biochemistry and Physiology Part-C: Toxicology and Pharmacology*, 248(7), 109082. <https://doi.org/10.1016/j.cbpc.2021.109082>.
- Ma, J., Long, S., & Wang, Z. 2020. *Complete mitogenome and phylogenetic analysis of *Oryzias celebensis* (Teleostei: Beloniformes). Mitochondrial DNA Part B: Resources*, 5(1), 27–28. <https://doi.org/10.1080/23802359.2019.1695550>.
- Mandrell, D., Truong, L., Jephson, C., Sarker, M. R., Moore, A., Lang, C., Simonich, M. T., & Tanguay, R. L. 2012. *Automated zebrafish chorion removal and single embryo placement: Optimizing Throughput of zebrafish developmental toxicity screens. Journal of Laboratory Automation*, 17(1), 66–74. <https://doi.org/10.1177/2211068211432197>.
- Matsumoto, Y., Oda, S., Mitani, H., & Kawamura, S. 2020. *Orthologous Divergence and Paralogous Anticonvergence in Molecular Evolution of Triplicated Green Opsin Genes in Medaka Fish, Genus *Oryzias*. Genome Biology and Evolution*, 12(6), 911–923. <https://doi.org/10.1093/GBE/EVAA111>.
- Mawaddah, R. A. El., Sugiarto., & Kurniawati, E. 2022. Faktor yang Berhubungan dengan Tekanan Darah pada Petani di Wilayah Kerja Puskesmas Paal Merah II Kota Jambi Tahun 2021. *Jurnal Inovasi Penelitian*, 2(10), 3297-3302.
- Naruse, K., Fukamachi, S., Mitani, H., Kondo, M., Matsuoka, T., Kondo, S., Hanamura, N., Morita, Y., Hasegawa, K., Nishigaki, R., Shimada, A., Wada, H., Kusakabe, T., Suzuki, N., Kinoshita, M., Kanamori, A., Terado, T., Kimura, H., Nonaka, M., & Shima, A. 2000. *A detailed linkage map of Medaka, *Oryzias latipes*: Comparative genomics and genome evolution. Genetics*, 154(4), 1773–1784. <https://doi.org/10.1093/genetics/154.4.1773>.
- Neto, S. A., & Andrade, A. R. D. 2011. *Electrochemical Oxidation of Herbicides. Intech, 32(tourism)*, 137–144. <https://www.intechopen.com/books/advanced-biometric-technologies/liveness-detection-in-biometrics>.
- Nofyan, E. 2009. Terhadap Kelangsungan Hidup Benih Ikan Mas. *Prosiding Seminar Nasional Ikan*, 6, 201–209.
- Oxendine, S. L., Cowden, J., Hinton, D. E., & Padilla, S. 2006. Adapting the medaka embryo assay to a high-throughput approach for developmental toxicity testing. *Neuro Toxicology*, 27(5), 840-845.
- Padilla, S. L., Cowden, J., Hinton, D. E., Yuen, B., Law, S., Kullman, S. W., Johnson, R., Hardman, R. C., Flynn, K., & Au, D. W. T. 2009. *Use of medaka in toxicity testing. Current Protocols in Toxicology*.
- Palar H. 2008. Pencemaran dan Toksikologi Logam Berat. Jakarta (ID: PT. Rineka

Cipta).

- Pratiwi, G. A. 2017. Uji Toksisitas 2, 4-D Dimetil Amina Terhadap Kelainan Morfologi dan Fisiologi Organ Embrio Zebrafish (*Brachydanio Rerio*). *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- Prayoga, M. F. 2019. Pengaruh Suhu Kejut dan Umur Embrio Terhadap Perkembangan Embrio dan Keberhasilan Triploidisasi Pada Ikan Wader Cakul *Puntius binotatus the*.
- Prescilla, P., Florane, L. B., Paco, B., Karyn, L. M., Helene, B., Jerome, C., & Xavier, C. 2014. *Influence of sediment composition on PAH toxicity using zebrafish (Danio rerio) and Japanese medaka (Oryzias latipes) embryo-larval assays. Environmental Science and Pollution Research*, 21(24), 13703–13719. <https://doi.org/10.1007/s11356-014-3502-7>.
- Qian, H., Chen, W., Sun, L., Jin, Y., Liu, W., & Fu, Z. 2009. *Inhibitory effects of paraquat on photosynthesis and the response to oxidative stress in Chlorella vulgaris. Ecotoxicology*, 18(5), 537–543. <https://doi.org/10.1007/s10646-009-0311-8>.
- Raldúa, D., André, M., & Babin, P. J. 2008. *Clofibrate and gemfibrozil induce an embryonic malabsorption syndrome in zebrafish. Toxicology and Applied Pharmacology*, 228(3), 301–314. <https://doi.org/10.1016/j.taap.2007.11.016>.
- Risnawati, Umar, M. R., & Andriani, I. 2015. Distribusi Populasi dan Ekologi Ikan Medaka *Oryzias* spp. di Perairan Sungai Maros, Kabupaten Maros Sulawesi Selatan. *Universitas Hasanuddin*, 1–9.
- Said, D. S., & Hidayat. 2015. 101 Ikan Hias Air Tawar. In *Journal of Chemical Information and Modeling*.
- Santoriello, C., & Zon, L. I. 2012. *Hooked! modeling human disease in zebrafish. Journal of Clinical Investigation*, 122(7), 2337–2343. <https://doi.org/10.1172/JCI60434>.
- Saputra, R. S. 2022. Toksisitas Stirena pada Embrio Ikan Medaka *Oryzias celebensis* (Weber, 1894). *Skripsi*. Universitas Hasanuddin, Makassar.
- Sari, D. K., Andriani, I., & Yaqin, K. 2018. *Micromorphological Observation of the Anterior Gut of Sulawesi Medaka Fish (Oryzias celebensis). International Journal of Current Microbiology and Applied Sciences*, 7(2), 2942–2946. <https://doi.org/10.20546/ijcmas.2018.702.357>.
- Sarikaya, R., & Yilmaz, M. 2003. *Investigasi toksisitas akut dan efek dari ikan mas (Cyprinus carpio L., 1758; Pisces, Cyprinidae). Chemosphere*, 52, 195–201.
- Schafer, B. R., Brink, P. J. van den, & Matthias Liess. 2011. *Impacts of Pesticides on Freshwater Ecosystems. Ecological Impacts of Toxic Chemicals (Open Access)*, 111–137. <https://doi.org/10.2174/978160805121211101010111>.
- Song, Y. 2014. *Insight into the mode of action of 2,4-dichlorophenoxyacetic acid (2,4-D) as an herbicide. Journal of Integrative Plant Biology*, 56(2), 106–113. <https://doi.org/10.1111/jipb.12131>.
- Sulistiawan, R. S. N., & Rukoyah. 2014. Pengaruh Pemberian Lama Waktu Kejutan

- Suhu Terhadap Tingkat Keberhasilan Ginogenesis Ikan Koi (*Cyprinus carpio*). *Analisis Standar Pelayanan Minimal Pada Instalasi Rawat Jalan Di RSUD Kota Semarang*, 3, 103–111.
- Supriono, E., Lisnawati, L., & Djokosetiyanto, D. 2005. Pengaruh Linear *Alkylbenzene Sulfonate* Terhadap Mortalitas, Daya Tetas Telur dan Abnormalitas Larva Ikan Patin (*Pangasius hypophthalmus Sauvage*). *Jurnal Akuakultur Indonesia*, 7(1), 95–107.
- Taufik, I. 2011. Pencemaran Pestisida Pada Perairan Perikanan di Sukabumi-Jawa Barat. *Media Akuakultur*, 6(1), 69. <https://doi.org/10.15578/ma.6.1.2011.69-75>.
- Termvidchakorn, A., & Magtoon, W. 2008. *Development and identification of the ricefish Oryzias in Thailand*. *Science Asia*, 34(4), 416–423. <https://doi.org/10.2306/scienceasia1513-1874.2008.34.416>.
- Untung, K. 2004. Dampak Pengendalian Hama Terpadu Terhadap Pendaftaran dan penggunaan Pestisida di Indonesia. *In Jurnal Perlindungan Tanaman Indonesia* (Vol. 10, Issue 1, pp. 1–7). <https://media.neliti.com/media/publications/163654-ID-dampak-pengendalian-hama-terpadu-terhada.pdf>.
- Wang, R. F., Zhu, L. M., Zhang, J., An, X. P., Yang, Y. P., Song, M., & Zhang, L. 2020. *Developmental toxicity of copper in marine medaka (Oryzias melastigma) embryos and larvae*. *Chemosphere*, 247, 125923. <https://doi.org/10.1016/j.chemosphere.2020.125923>.
- Washington, D. C. 2014. *Comments to EPA on EPA's Proposed Registration of Enlist Duo Herbicide Containing 2,4- D and Glyphosate for New Uses on Herbicide-Tolerant Corn and Soybean*. Center for Food Safety.
- Wittbrodt, J., Shima, A., & Scharl, M. 2002. *Medaka - A model organism from the Far East*. *Nature Reviews Genetics*, 3(1), 53–64. <https://doi.org/10.1038/nrg704>
- Zhu, T., Gui, L., Zhu, Y., Li, Y., & Li, M. 2018. *Dnd is required for primordial germ cell specification in Oryzias celebensis*. *Gene*, 679(July), 36–43. <https://doi.org/10.1016/j.gene.2018.08.068>