

DAFTAR PUSTAKA

- Amano, M. 2010. Reproductive Biology of Salmoniform and Pleuronectiform Fishes with Special Reference to Gonadotropin-Releasing Hormone (GnRH). *Aqua-BioScience Monographs*. **3 (2)** : 39–72.
- Beyger, L. A. 2009. Growth, Survivability, and Reproductive Effects of Pulse-Dosed Endosulfan on *Jordanella floridae* (Florida flagfish) Over One Complete Life-cycle. *Thesis*. The Faculty of Science, University of Ontario Institute of Technology. Oshawa.
- Carolsfeld, J., Powell, J. F. F., Park, M. 2000. Primary Structure and Function of Three Gonadotropin-Releasing Hormones, Including a Novel Form, from an Ancient Teleost, Herring. *Endocrinology*. **141 (2)** : 505-512.
- Chiba, H., Amano, M., Yamada, H., Fujimoto, Y., Ojima, D., Okuzawa, K., Yamanome, T., Yamamori, K., Iwata, M. 2004. Involvement of Gonadotropin-Releasing Hormone in Thyroxine Release in Three Different Forms of Teleost Fish: Barfin Founder, Masu Salmon and Goldfish. *Fish Physiology and Biochemistry*. **30** : 267–273.
- Chow, M. M., Kight, K. E., Gothilf, Y., Alok, D., Stubblefield, J., Zohar, Y. 1998. Multiple GnRHs Present in A Teleost Species Are Encoded by Separate Genes: Analysis of The Sbgnrh and cGnRH-II Genes from The Striped Bass, *Morone saxatilis*. *Journal of Molecular Endocrinology*. **21** : 277–289.
- Clarke, I. J., Polompo, S. 2005. Synthesis and Secretion of GnRH. *Animal Reproduction Science*. **88** : 29–55.
- Claver, A., Ormad, P., Rodríguez, L., Ovelleiro, J. L. 2006. Study of The Presence of Pesticides in Surface Waters in the Ebro River Basin (Spain). *Chemosphere*. **64** : 1437–1443.
- Da Cuña, R. H., Pandolfi, M., Genovese, G., Piazza, Y., Ansaldo, M., Lo Nstro, F. L. 2013. Endocrine Disruptive Potential of Endosulfan on The Reproductive Axis of *Cichlasoma dimerus* (Perciformes, Cichlidae). *Aquatic Toxicology*. **126** : 299–305.
- Da Cuña, R. H., Vázquez, G. R., Piol, M. N., Guerrero, N. V., Maggese, M. C., Lo Nstro, F. L. 2011. Assessment of the Acute Toxicity of the Organochlorine Pesticide Endosulfan in *Cichlasoma dimerus* (Teleostei, Perciformes). *Ecotoxicology and Environmental Safety*. **74** : 1065–1073.
- Dedden, I. 2011. *The Effect of Gonadotropin Releasing Hormone on Opsin Gene Expression and Spectral Sensitivity in Zebra Cichlid Fish (Metriaclima zebra)*. Thesis. The Degree of Master of Science, Department of Biology, Queen's University. Canada.
- El-Gawad, E. A. A., Abbass, A. A., Shaheen, A. A. 2012. Risks Induced by Pesticides on Fish Reproduction. *The Global Journal of Fisheries and Aquaculture*. **5** : 329–338.

- Elakkai, P., Francis, T., Ahilan, B., Jawahar, P., Padmavathy, P., Jayakumar, N., Sabburaj, N. 2015. Role of GnRH, HCG and Kisspeptin on Reproduction of Fishes. *Indian Journal of Science and Technology.* **8 (17)** : 1-10.
- Fitriadi, B. R., Putri, A. C. 2016. Metode-Metode Pengurangan Residu Pestisida pada Hasil Pertanian. *Jurnal Rekayasa Kimia dan Lingkungan.* **11 (2)** : 61-71.
- Forlenza, M., T. Kaiser, H. F. J. Savelkoul, and G. F. Wiegertjes. 2012. The Use of Real-Time Quantitative PCR for the Analysis of Cytokine mRNA Levels. *Cytokine Protocols, Methods in Molecular Biology.* vol. **820**.
- Fowler, V. C. 2011. The Impacts of Chemical Discharges on The Reproductive Biology of The Bullhead *Cottus gobio* and The Dipper *Cinclus cinclus* in The Tamar Catchment. *Thesis.* University of Exeter.
- Gallardo, K. C., Verbel, J. O., Freeman, J. L. 2016. Review Article : Toxicogenomics to Evaluate Endocrine Disrupting Effects of Environmental Chemicals Using the Zebrafish Model. *Current Genomics.* **17 (6)** : 515-527.
- Gore, A. C. 2008. Neuroendocrine Systems as Targets for Environmental Endocrine Disrupting Chemicals. *Fertil Steril.* **89 (2)** : 101-102.
- Gore, A. C., Crews, D. 2009. *Environmental Endocrine Disruption of Brain and Behavior.* Elsevier Inc. Austin.
- Han, Z., Jiao, S., Kong, D., Shan, Z., Zhang, X. 2011. Effects of B-Endosulfan on The Growth And Reproduction of Zebrafish (*Danio rerio*). *Environmental Toxicology And Chemistry.* **30 (11)** : 2525–2531.
- Hewajuli, D. A., Dharmayanti, N. L. P. I. 2014. Perkembangan Teknologi *Reverse Transcriptase-Polymerase Chain Reaction* dalam Mengidentifikasi Genom Avian Influenza dan Newcastle Diseases. *WARTAZOA.* **24 (1)** : 17-29.
- Jena, N. R. 2012. DNA Damage by Reactive Species: Mechanisms, Mutation and Repair. *Journal of Biosciences.* **37 (3)** : 503-517.
- Kim, H. H. M. D. 2007. Regulation of Gonadotropin-Releasing Hormone Gene Expression. *Seminars in Reproductive Medicine.* **25 (5)** : 313-325.
- Kim, D. J., Suzuki, Y., Aida, K. 2011. The Control Mechanism of Gonadotropin-Releasing Hormone and Dopamine on Gonadotropin Release from Cultured Pituitary Cells of Rainbow Trout *Oncorhynchus mykiss* at Different Reproductive Stages. *Fisheries and Aquatic Sciences.* **14 (4)** : 379-388.
- Kumar, M., Philip, L. 2006. Bioremediation of Endosulfan Contaminated Soil And Water - Optimization of Operating Conditions in Laboratory Scale Reactors. *Journal of Hazardous Materials.* **B136** : 354–364.
- Larkin, P., Knoebl, I., Denslow, N. D. 2003. Differential Gene Expression Analysis in Fish Exposed to Endocrine Disrupting Compounds. *Comparative Biochemistry and Physiology Part B.* **136** : 149–161.

- Livak, K. J., Schmittgen, T. D. 2001. Analysis of Relative Gene Expression Data Using Real-Time Quantitative PCR and The $2^{-\Delta\Delta CT}$ Method. *METHODS*. **25** : 402–408.
- Meek, J., Dubois, L. A., Zandbergen, M. A., van Huizen, R. B., Peute, P. 2001. Functional Morphology of cGnRH-II Cells in The Midbrain of A Teleost Fish, *Clarias gariepinus*. *Hoofdstuk*. **6** : 93-114.
- Merenyi, G., Lind, J. 1998. Free Radical Formation in the Peroxynitrous Acid (ONOOH)/Peroxynitrite (ONOO-) System. *Chem. Res. Toxicol.* **4** : 243–246
- Nalle, M. M. D., Gimini, R. 2015. Pengaruh Konsentrasi Sublethal Endosulfan dan Glifosat Terhadap Konsumsi Oksigen Kerang Darah (*Anadara granosa*). *Depik*. **4** (3) : 144-152.
- Nuryanto, A. 2001. Morfologi, Kariotip dan Pola Protein Ikan Nilem (*Osteochilus* sp.) dari Sungai Cikawung dan Kolam Budidaya Kabupaten Cilacap. *Tesis. Program Pascasarjana. IPB*, Bogor.
- Pardal, S. J. 2010. Menguji ekspresi gen menggunakan *real time* PCR. *Warta Penelitian dan Pengembangan Pertanian*. **32** : 13-14.
- Piazza, Y. G., Pandolfi, M., Nostro, F. L. L. 2011. Effect of the Organochlorine Pesticide Endosulfan on GnRH and Gonadotrope Cell Populations in Fish Larvae. *Arch Environ Contam Toxicol.* **61** : 300–310.
- Piazza, Y. G., Pandolfi, M., DaCuña, R., Genovese, G., Lo Nostro, F. 2015. Endosulfan Affects GnRH Cells in Sexually Differentiated Juveniles of the Perciform *Cichlasoma dimerus*. *Ecotoxicology and Environmental Safety*. **116** : 150–159.
- Prabowo, R., Subantoro, R. 2012. Kualitas Air dan Beban Pencemaran Pestisida di Sungai Babon Kota Semarang. *MEDIAGRO*. **8** (1) : 9–17.
- Pranawaty, R. N., Buwono, I. D., Liwiawaty, E. 2012. Aplikasi Polymerase Chain Reaction (PCR) Konvensional dan *Real Time* untuk Deteksi White Spot Syndrome Virus Pada Kepiting. *Jurnal Perikanan dan Kelautan*. **3** (4) : 61-74.
- Prayogo, N. A., Siregar, A., Sukardi, P., 2016. The Disruptive Effect Mercurychloride (HgCl) on Gene Expression of cGnRH-II, sGnRH, and Estradiol Level in Silver Sharkminnow (*Osteochillus hasseltii* C.V.). *Turkish Journal of Fisheries and Aquatic Sciences*. **16** : 1003-1009.
- Prayogo, N. A., Wijayanti, G. E., Murwantoko, Kawaichi, M., Astuti, P. 2012. Effect of Photoperiods on Melatonin Levels, The Expression of cGnRH-II and sGnRH Genes and Estradiols Level in Hard-Lipped Barb (*Osteochilus hasselti* C.V.). *Global Veterinaria*. **8** (6) : 591-597.
- Prayogo, N. A., Wijayanti, G. E., Sulistyo, I., Sukardi, P. 2016. Identification and Expression of Two Types of chicken GnRH-II Genes in Mature Hard-Lipped Barb, *Osteochilus hasselti*. *BIODIVERSITAS*. **17** (2) : 523-530.

- Putri, D. S. J., Abulias, M. N., Bhagawati, D. 2014. Studi Kekerabatan Ikan Familia Cyprinidae yang Tertangkap di Sungai Serayu Kabupaten Banyumas. *SCRIPTA BIOLOGICA*. **1 (2)** : 129-135.
- Raina, S., Sachar, A. 2014. Effect of Heavy Metal, Zinc and Carbamate Pesticide, Sevin on Haematological Parameters of Fish, *Labeo Boga*. *International Journal of Innovative Research in Science, Engineering and Technology*. **3 (5)** : 12636–12644.
- Rochmatin, S. Y., Solichin, A., Saputra, S. W. 2014. Aspek Pertumbuhan dan Reproduksi Ikan Nilem (*Osteochilus hasseltii*) di Perairan Rawa Pening Kecamatan Tuntang Kabupaten Semarang. *Diponegoro Journal of Maquares*. **3 (3)** : 153–159.
- Rodríguez, G. N., Sánchez, C. L., Estrada, A. S., Chavez, M. R. C., Reynoso, F. L., Vazquez, A. P., Nikolskii, I. G. 2016. Endosulfan: Its Isomers and Metabolites in Commercially Aquatic Organisms from the Gulf of Mexico and the Caribbean. *Journal of Agricultural Science*. **8 (1)** : 8–24.
- Saanin. 1984. *Taksonomi dan Kunci Identifikasi Ikan Volume I dan II*. Bina Rupa Aksara. Jakarta.
- Sabdono, A., Rochaddi, B., Chrisna, A.S, & Susanti, B. 2008. Persistent Organochlorine Residues in Household Wells of Java Central Urban Areas, Indonesia. *J. App. Sci.* **8 (12)** : 2318–2323.
- Sabra, F. S., Mehana, E. E., 2015. Pesticides Toxicity in Fish with Particular Reference to Insecticides. *Asian Journal of Agriculture and Food Sciences*. **3 (1)** : 40–60.
- Shao, B., Zhu, L., Dong, M., Wang, J., Wang, J., Xie, H., Zhan, Q., Du, Z., Zhu, S. 2012. DNA Damage and Oxidative Stress Induced by Endosulfan Exposure in Zebrafish (*Danio rerio*). *Ecotoxicology*. **21** : 1533–1540.
- Sherwood, N. M., Hew, C. L., Farrell, A. P., Randall, D. J. 1994. *Fish Physiology, Volume XIII : Molecular Endocrinology of Fish*. Academic Press. San Diego.
- Shi, S., Yang, F., Zhu, X., Du, E., Yang, Y., Wang, S., Wu, Q., Zhang, Y. 2016. Evaluation of Housekeeping Genes for Quantitative Real-Time PCR Analysis of *Bradysia odoriphaga* (Diptera: Sciaridae). *International Journal of Molecular Sciences*. **17 (1034)** : 1-19.
- Siregar, A. S., Prayogo, N. A. 2017. The Disruptive Effect of Mercury Chloride (HgCl) on Gene Expression of Gonadotrophin Hormones and Testosterone Level in Male Silver Sharkminnow (*Osteochilus hasseltii* C.V.) (Teleostei: Cyprinidae). *The European Zoological Journal*. **84 (1)** : 436–443.
- Sivan, B. L., Safarian, H., Rosenfeld, H., Elizur, A., Avitan, A. 2004. Regulation of Gonadotropin-Releasing Hormone (GnRH)-Receptor Gene Expression in Tilapia: Effect of GnRH and Dopamine. *Biology of Reproduction*. **70** : 1545–1551.
- Sulaksono, I. C. 2001. Kajian jenis dan tingkat residu insektisida serta pengaruhnya terhadap komunitas makrozoobentos di sentra produksi padi Pantai Utara Jawa Barat. *Tesis. Program Pascasarjana, IPB*. Bogor.

- Sumarmin, R., Radi. 2016. Uji Embriotoxik Endosulfan Terhadap Daya Tetas Telur Ikan Nila (*Oreochromis niloticus*). *EKSAKTA*. **1** : 67-74.
- Suryono, C. A., Rochaddi, B., Irwani. 2016. Kajian Awal Kontaminasi Pestisida Organoklorin dalam Air Laut di Wilayah Perairan Paling Barat Semarang. *Buletin Oseanografi Marina*. **5 (2)** : 101–106.
- Taufik, I., Setiadi, E. 2012. Toksisitas serta Potensi Bioakumulasi dan Bioeliminasi Insektisida Endosulfan Pada Ikan Mas (*Cyprinus carpio*). *Jurnal Riset Akuakultur*. **7 (1)** : 131-143.
- Taufik, I., Setiadi, E. 2015. Pemaparan Insektisida Endosulfan Pada Konsentrasi Subletal Terhadap Kondisi Hematologis dan Histologis Ikan Mas (*Cyprinus carpio*). *Jurnal Riset Akuakultur*. **10 (1)** : 109-115.
- Taufik, I., Supriyono, E., Nirmala, K. 2009. Pengaruh Bioakumulasi Endosulfan Terhadap Pertumbuhan Ikan Mas (*Cyprinus carpio* LINN). *Jurnal Akuakultur Indonesia*. **8 (1)** : 59-65.
- Thomas, R. 1990. *Osteochilus hasselti*. <http://www.fishbase.org/photos/PicturesSummary.php?StartRow=1&ID=277&what=species&TotRec=7>. (Diakses Tanggal 23 Maret 2018).
- Tyas, N. M., Batu D. T. F. L., Affandi, R. 2016. Uji Toksisitas Letal Cr⁶⁺ Terhadap Ikan Nila (*Oreochromis niloticus*). *Jurnal Ilmu Pertanian Indonesia*. **21 (2)** : 128-132.
- Wijayanti, G. E., Soeminto, Simanjuntak, S. B. I. 2009. Profi Hormon Reproduksi dan Gametogenesis Pada Gurame (*Osphronemus gouramy*). *Jurnal Akuakultur Indonesia*. **8 (1)** : 77-89.
- Volkoff, H., Peter, R. E. 1999. Actions of Two Forms of Gonadotropin Releasing Hormone and a GnRH Antagonist on Spawning Behavior of the Goldfish *Carassius auratus*. *General and Comparative Endocrinology*. **116** : 347–355.
- Yesubabu, Elavazhagan, T. 2009. Expression of Eukaryotic Gene in *E. coli*. *Middle-East Journal of Scientific Research*. **4 (3)** : 133-136.
- Yuantari, M. G. C. 2011. Dampak Pestisida Organoklorin Terhadap Kesehatan Manusia dan Lingkungan Serta Penanggulangannya. *Prosiding Seminar Nasional “Peran Kesehatan Masyarakat dalam Pencapaian MDG’s di Indonesia”*. p.187-199.
- Yusuf, D. H., Sugiharto, Wijayanti, G. E. 2014. Perkembangan Post-Larva Ikan Nilem *Osteochilus hasselti* C.V. dengan Pola Pemberian Pakan Berbeda. *SCRIPTA BIOLOGICA*. **1 (3)** : 185-192.