

DAFTAR PUSTAKA

- Ab Wahab, S. Z., Abdul Kadir, A., Nik Hussain, N. H., Omar, J., Yunus, R., Baie, S., Wan Yusoff, W. Z. 2015. The Effect of *Channa striatus* (Haruan) Extract on Pain and Wound Healing of Post-Lower Segment Caesarean Section Women. *Evidence-Based Complementary and Alternative Medicine*. <https://doi.org/10.1155/2015/849647>
- Adamson, E. A. S., Hurwood, D. A., & Mather, P. B. 2012. Insights into historical drainage evolution based on the phylogeography of the chevron snakehead fish (*Channa striata*) in the Mekong Basin. *Freshwater Biology*, 57(11), 2211–2229. <https://doi.org/10.1111/j.1365-2427.2012.02864.x>
- Ajaz, A. B., M., A. H., M., J. M., Bilal, A. P., P., R. D., & A., G. 2014. Genetic variation of striped snakehead (*Channa striatus* Bloch, 1793) populations using random amplified polymorphic DNA (RAPD) markers. *International Journal of Biodiversity and Conservation*, 6(5), 363–372. <https://doi.org/10.5897/IJBC2013.0649>
- Amos, W., & Harwood, J. 1995. Factors affecting levels of genetic diversity in natural populations. *Applied Human Science: Journal of Physiological Anthropology*, 14(4), 195–196. <https://doi.org/10.2114/ahs.14.195>
- Aquino, L. M. G., Tango, J. M., Canoy, R. J. C., Fontanilla, I. K. C., Basiao, Z. U., Ong, P. S., & Quilang, J. P. 2011. DNA barcoding of fishes of Laguna de Bay, Philippines. *Mitochondrial DNA*, 22(4), 143–153. <https://doi.org/10.3109/19401736.2011.624613>
- Arisuryanti, T. 2016. Molecular Genetic and Taxonomic Studies of the Swamp Eel (*Monopterus albus* Zuiew 1793), Doctoral Disertation. (February).
- Arisuryanti, T., Hasan, R. L., & Koentjana, J. P. 2018. Genetic identification of two mudskipper species (Pisces: Gobiidae) from Bogowonto Lagoon (Yogyakarta, Indonesia) using *COI* mitochondrial gene as a DNA barcoding marker. *AIP Conference Proceedings*, 2002. <https://doi.org/10.1063/1.5050164>
- Bachsin, H. S. A. F. Z. 2003. *45 Tahun Kiprah & Pengabdian DPRD Kalteng*. Indomedia. Jakarta Timur. P. 59.
- Baisvar, V. S., Kumar, R., Singh, M., Singh, A. K., Chauhan, U. K., Nagpure, N. S., & Kushwaha, B. 2019. Genetic Structuring in Riverine Population of *Channa striata* (Bloch, 1793) from India using Cytochrome Oxidase I Gene. *Proceedings of the National Academy of Sciences India Section B - Biological Sciences*, 89(1), 303–312. <https://doi.org/10.1007/s40011-017-0943-z>
- Bandelt, H., Forster, P., Röhl, A. 1999. Median-joining networks for inferring intraspecific phylogenies. *Mol Biol Evol*, 16(1), 37–48.
- Bannikova, A., Lebedev, V., Dubrovskaya, A., Solovyeva, E., Moskalenko, V., Kryštufek, B., Hutterer, R., Bykova, E., Zhumabekova, B., Rogovin, K., Shenbrot, G. 2019. Genetic evidence for several cryptic species within the *Scarturus elater* species complex (Rodentia: Dipodoidea): when cryptic species are really cryptic. *Biological Journal of the Linnean Society*, 126(1), 16–39. <https://doi.org/10.1093/biolinnean/bly154>
- Benziger, A., Philip, S., Raghavan, R., Anvar Ali, P. H., Sukumaran, M., Tharian, J. C., Dahanukar, N., Baby, F., Peter, R., Devi, K. R., Radhakrishnan, K. V., Haniffa, M. A., Britz, R., Antunes, A. 2011. Unraveling a 146 years old

- taxonomic puzzle: Validation of Malabar Snakehead, species-status and its relevance for Channid systematics and evolution. *PLoS ONE*, 6(6), 10–20. <https://doi.org/10.1371/journal.pone.0021272>
- Boehme, P., Amendt, J., & Zehner, R. 2012. The use of *COI* barcodes for molecular identification of forensically important fly species in Germany. *Parasitology Research*, 110(6), 2325–2332. <https://doi.org/10.1007/s00436-011-2767-8>
- Cahyono, B. 2000. *Budidaya Ikan Air Tawar: Ikan Gurami, Ikan Nila, Ikan Mas*. Kanisius. Yogyakarta. p. 9.
- Chinnery, P. F., & Hudson, G. 2013. Mitochondrial genetics. *British Medical Bulletin*, 106(1), 135–159. <https://doi.org/10.1093/bmb/ldt017>
- Cong, N. Van, Phuong, N. T., & Bayley, M. 2009. Effects of repeated exposure of diazinon on cholinesterase activity and growth in snakehead fish (*Channa striata*). *Ecotoxicology and Environmental Safety*, 72(3), 699–703. <https://doi.org/10.1016/j.ecoenv.2008.10.007>
- Conte-Grand, C., Britz, R., Dahanukar, N., Raghavan, R., Pethiyagoda, R., Tan, H. H., Hadiaty, R. K., Yaakob, N. S., Rüber, L. 2017. Barcoding snakeheads (Teleostei, Channidae) revisited: Discovering greater species diversity and resolving perpetuated taxonomic confusions. *PLoS ONE*, 12(9), 1–24. <https://doi.org/10.1371/journal.pone.0184017>
- Copeland, W. C. 2009. Mitochondrial DNA, 554. <https://doi.org/10.1007/978-1-59745-521-3>
- Courtenay, W. R and Williams, J. D. 2004. *Snakeheads (Pisces, Channidae)- A Biological Synopsis and Risk Assessment*. U.S. Geological Survey Circular 1251. Florida. Retrieved from <https://pubs.usgs.gov/circ/2004/1251/report.pdf>
- Dahrudin, H., Hutama, A., Busson, F., Sauri, S., Hanner, R., Keith, P., Hubert, N. 2017. Revisiting the ichthyodiversity of Java and Bali through DNA barcodes: taxonomic coverage, identification accuracy, cryptic diversity and identification of exotic species. *Molecular Ecology Resources*, 17(2), 288–299. <https://doi.org/10.1111/1755-0998.12528>
- Dako, E. G. A. 2008. *Phylogenetic and Genetic Variation Analyses in Cucurbit Species*. Cuvillier Verlag. Gottingen. P. 5.
- De Jong, M. A., Wahlberg, N., van Eijk, M., Brakefield, P. M., & Zwaan, B. J. 2011. Mitochondrial DNA signature for range-wide populations of *Bicyclus anynana* suggests a rapid expansion from recent refugia. *PLoS ONE*, 6(6), 1–5. <https://doi.org/10.1371/journal.pone.0021385>
- Dhar, B., & Ghosh, S. K. 2015. Genetic assessment of ornamental fish species from North East India. *Gene*, 555(2), 382–392. <https://doi.org/10.1016/j.gene.2014.11.037>
- Dharmayanti, N. L. P. I. 2011. Filogenetika Molekuler: Metode Taksonomi Organisme Berdasarkan Sejarah Evolusi. *Jl. R.E. Martadinata No. Bogor*, 30(16114), 1–10.
- Efron, B., Halloran, E., & Holmes, S. 1996. Bootstrap confidence levels for phylogenetic trees. *Proceedings of the National Academy of Sciences of the United States of America*, 93(23), 13429–13434. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/8917608%0A>
<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=PMC24110>
- Efron, B., & Tibshirani, R. J. 2011. An Introduction to The Bootstrap. *Turkiye Entomoloji Dergisi*, 35(4), 539–558.

- Fishbase.org. 2018. List of Freshwater Fishes reported from Indonesia (online). Accessed at http://fishbase.org/country/CountryChecklist.php?what=list&trpp=50&c_code=360&csub_code=&cpresence=present&sortby=alpha&ext_CL=on&ext_pic=on&vhabitat=fresh
- Gamaniel, I. B., & D. S. Gwaza. 2017. Molecular Characterization of Animal Genetics Resources, its Potential for use in Developing Countries. *Journal of Genetics and Genetic Engineering*, 1(1), 43–57. Retrieved from <https://www.researchgate.net/publication/321171398>
- Hanner, R., Corthals, A., & Dessauer, H. C. 2005. Salvage of genetically valuable tissues following a freezer failure. *Molecular Phylogenetics and Evolution*, 34(2), 452–455. <https://doi.org/10.1016/j.ympev.2004.10.008>
- Hebert, P. D. N., Alina, C., Shelley, L. B., & Jeremy, R. W. 2009. Síntesis de catalizadores de Fe-Mo soportados sobre sílice para la oxidación selectiva de metano hasta formaldehído. *Ingenieria e Investigacion*, 29(1), 53–59. <https://doi.org/10.1098/rspb.2002.2218>
- Hebert, P. D. N., Ratnasingham, S., & de Waard, J. R. 2003. Overview. *Mitsubishi Electric Advance*, 125 (August 2003), 1. <https://doi.org/10.1098/rsbl.2003.0025>
- Iengar, P. 2012. An analysis of substitution, deletion and insertion mutations in cancer genes. *Nucleic Acids Research*, 40(14), 6401–6413. <https://doi.org/10.1093/nar/gks290>
- Irmawati, I., Tresnati, J., Fachruddin, L., Arma, N. R., & Haerul, A. 2019. Identifikasi ikan gabus, *Channa* spp. (Scopoli 1777) stok liar dan generasi I hasil domestikasi berdasarkan gen *Cytochrome C Oxidase Subunit I (COI)*. *Jurnal Iktiologi Indonesia*, 17(2), 165. <https://doi.org/10.32491/jii.v17i2.356>
- Iskandariah, Soelistyowati, D. T., Gustiano, R., Kusmini, I. I., & Huwoyon, G. H. 2013. Genetic Diversity of Three Populations of Snakeskin Gourami (*Trichopodus pectoralis* Regan; Osphronemidae) from Kalimantan Based on RAPD Analysis and Truss Morphometrics Measurements, 57–68.
- Jamaluddin, J. A. F., Pau, T. M., & Siti-Azizah, M. N. 2011. Genetic Structure of the Snakehead Murrel, *Channa striata* (Channidae) based on the Cytochrome Oxidase Subunit I gene: Influence of historical and geomorphological factors. *Genetics and Molecular Biology*, 34(1), 152–160. <https://doi.org/10.1590/S1415-47572011000100026>
- Jayadi, Tamsil, A., & Hadijah, S. 2015. Kajian Variasi Genetik Ikan Beseng-Beseng (*Telmatherina ladigesi*) Dari Sulawesi Selatan Dengan Metode Random Amplified Polymorphism DNA (RAPD). *Seminar Nasional Mikrobiologi Kesehatan Dan Lingkungan*, (2002), 21–27.
- Kottelat, M. 2013. The fishes of the inland waters of Southeast Asia: A catalogue and core bibliography of the fishes known to occur in freshwater, mangroves, and estuaries. *The Raffles Bulletin of Zoology*, 27:1-663.
- Kuan-Chung, L., Bao-Sen, S., Yuh-Wen, C., Da-Ji, H., & Shih-Hsiung, L. 2016. Growth, diet composition and reproductive biology of the invasive freshwater fish Chevron snakehead *Channa striata* on a subtropical Island. *Zoological Studies*, 55. <https://doi.org/10.6620/ZS.2016.55-53>
- Kumar, S., Stecher, G., Tamura, K. 2016. MEGA7: Molecular Evolutionary Genetics Analysis version 7.0 for bigger datasets. *Molecular Biology and*

Evoluution. **33**: 1870-1874.

- Kusmini, I. I., Prakosos, V. A., & Kusdiarti, K. 2015. Keragaman Fenotipe Truss Morfometrik dan Genotipe Ikan Gabus, *10*(1), 501–510.
- Lakra, W. S., Goswami, M., & Gopalakrishnan, A. 2009. Molecular identification and phylogenetic relationships of seven Indian Sciaenids (Pisces: Perciformes, Sciaenidae) based on 16S rRNA and cytochrome c oxidase subunit i mitochondrial genes. *Molecular Biology Reports*, *36*(5), 831–839. <https://doi.org/10.1007/s11033-008-9252-1>
- Lakra, W. S., Goswami, M., Gopalakrishnan, A., Singh, D. P., Singh, A., & Nagpure, N. S. 2010. Genetic relatedness among fish species of Genus *Channa* using mitochondrial DNA genes. *Biochemical Systematics and Ecology*, *38*(6), 1212–1219. <https://doi.org/10.1016/j.bse.2010.12.012>
- Lau, J.-S., Ransangan, J., & Rodrigues, K. F. 2018. Genetic Diversity and Population Structure of the Asian Green Mussel (Pernaviridis) in the Waters of Sabah, Malaysia Based on Mitochondrial DNA D-Loop Sequences. *Turkish Journal of Fisheries and Aquatic Sciences*, *18*(August), 1123–1139. <https://doi.org/10.4194/1303-2712-v18>
- Librado, P. and Rozas, J. 2009. DnaSP v5: A software for comprehensive analysis of DNA polymorphism data. *Bioinformatics*. **25**: 1451-1452.
- Lyons, D. M., & Luring, A. S. 2017. Evidence for the selective basis of transition-to-transversion substitution bias in two RNA viruses. *Molecular Biology and Evolution*, *34*(12), 3205–3215. <https://doi.org/10.1093/molbev/msx251>
- Maddison, W. P. and Maddison, D. R. 2018. Mesquite: a modular system for evolutionary analysis. Version 3.51. Accessed at <http://www.mesquiteproject.org>.
- Matsumaru, K. 2009. Overview. *Mitsubishi Electric Advance*, *125*(figure 1), 1. <https://doi.org/10.1098/rsbl.2003.0025>
- Muchlisin, Z. A., Thomy, Z., Fadli, N., Sarong, M. A., & Siti-Azizah, M. N. 2013. DNA barcoding of freshwater fishes from Lake Laut Tawar, Aceh Province, Indonesia. *Acta Ichthyologica et Piscatoria*, *43*(1), 21–29. <https://doi.org/10.3750/AIP2013.43.1.04>
- Murugaiah, C., Noor, Z. M., Mastakim, M., Bilung, L. M., Selamat, J., & Radu, S. 2009. Meat species identification and Halal authentication analysis using mitochondrial DNA. *Meat Science*, *83*(1), 57–61. <https://doi.org/10.1016/j.meatsci.2009.03.015>
- Mustafa, A., Widodo, M. A., & Kristianto, Y. 2012. Albumin And Zinc Content Of Snakehead Fish (*Channa striata*) Extract And Its Role In Health. *IEESE International Journal Of Science and Technologi*, *1*(2), 1–8. <https://doi.org/10.1080/14733285.2013.743282>
- Muthmainnah, D. 2016. Growout of Striped Snakehead (*Channa Striata*) in Swamp Water System Using Fences and Cages. *Romanian Biotechnological Letters*, *21*(2), 11298–11303. <https://doi.org/10.7763/IPCBE>
- Myers, P., Espinosa, R., Parr, C. S., Jones, T., Hammond, G. S., Dewey, T. A. 2018. The Animal Diversity Web (online). Accessed at <https://animaldiversity.org>.
- Nguyen, N. T. T., & Duong, T. Y. 2016. Morphological and genetic differences between cultured and wild populations of *Channa striata* in Viet Nam and its phylogenetic relationship with other *Channa* species. *Songklanakarinn Journal of Science and Technology*, *38*(4), 427–434.

- Nishimaki, T., & Sato, K. 2019. An Extension of the Kimura Two-Parameter Model to the Natural Evolutionary Process. *Journal of Molecular Evolution*, 87(1), 60–67. <https://doi.org/10.1007/s00239-018-9885-1>
- Nugroho, E., & Kusmini, I. I. 2016. Evaluasi Variasi Genetik Tiga Ras Ikan Gurame (*Osphronemus gouramy*) dengan Menggunakan Isozyme. *Jurnal Riset Akuakultur*, 2(1), 51. <https://doi.org/10.15578/jra.2.1.2007.51-57>
- Pattengale, N. D., Alipour, M., Stamatakis, A., Bininda-Emonds, O. R. P., & Moret, B. M. E. 2010. How many bootstrap replicates are necessary? *J. Comput. Biol.*, 17(3), 337–354. Retrieved from <http://www.liebertonline.com/doi/abs/10.1089/cmb.2009.0179>
- Pietan, L. L., Spradling, T. A., & Demastes, J. W. 2016. The Mitochondrial Cytochrome Oxidase Subunit I Gene Occurs On A Minichromosome With Extensive Heteroplasmy In Two Species Of Chewing Lice, *Geomydoecus Aurei* And *Thomomydoecus Minor*. *PLoS ONE*, 11(9), 1–15. <https://doi.org/10.1371/journal.pone.0162248>
- Prasetya, H., Saefuddin, A., & Muladno. 2011. Performance Comparison Between Kimura 2-Parameters and Jukes-Cantor Model in Constructing Phylogenetic Tree of Neighbour Joining. *Forum Statistika Dan Komputasi*, 16(1), 8–16.
- Panprommin, D., & Phuttawongk, S. 2014. Identification of 14 fish species in Bueng Boraphet using DNA barcodes. *Agricultural Sciences*, 4(3), 310-317.
- Ramadhaniaty, M., Setyobudiandi, I., & Madduppa, H. H. 2018. Morphogenetic and population structure of two species marine bivalve (Ostreidae: *Saccostrea cucullata* and *Crassostrea iredalei*) in Aceh, Indonesia. *Biodiversitas Journal of Biological Diversity*, 19(3), 978–988. <https://doi.org/10.13057/biodiv/d190329>
- Requieron, E. A., Torres, M. A. J., & Demayo, C. G. 2012. Applications Of Relative Warp Analysis In Describing Of Scale Shape Morphology Between Sexes Of The Snakehead Fish *Channa striata*. *International Journal of Biological, Ecological and Environmental Sciences*, 1(6), 205–209. <https://doi.org/10.1046/j.1365-313X.1998.00146.x>
- Sahoo, B., Behura, A., & Padhy, S. 2010. Fine Grain Parallel Construction of Neighbour-joining Phylogenetic Trees with Reduced Redundancy Using Multithreading. *International Journal of Distributed and Parallel Systems*, 1(2), 129–140. <https://doi.org/10.5121/ijcnc.2010.1211>
- Saitou, N., & Nei, M. 1987. The neighbor-joining method: a new method for reconstructing phylogenetic trees. *Molecular Biology and Evolution*, 4(4), 406–425. <https://doi.org/10.1093/oxfordjournals.molbev.a040454>
- Saputra, W. A., Muslim, & Sasanti, A. D. 2014. Perbedaan Jumlah Kromosom Ikan Gabus (*Channa Striata*) Dari Rawa Dataran Rendah, Dataran Tinggi Dan Pasang Surut. *Jurnal Akuakultur Rawa Indonesia*, 2(1), 67–77. Retrieved from <http://ejournal.unsri.ac.id/index.php/jari/article/view/2055>
- Satoh, T. P., Miya, M., Mabuchi, K., & Nishida, M. 2016. Structure and variation of the mitochondrial genome of fishes. *BMC Genomics*, 17(1), 1–20. <https://doi.org/10.1186/s12864-016-3054-y>
- Serrao, N. R., Steinke, D., & Hanner, R. H. 2014. Calibrating snakehead diversity with DNA barcodes: Expanding taxonomic coverage to enable identification of potential and established invasive species. *PLoS ONE*, 9(6). <https://doi.org/10.1371/journal.pone.0099546>

- Slatkin, M. 1994. Molecular Markers, Natural History and Evolution. Chapman and Hall. ISBN: 0-412-03771-8(hb). ISBN: 0-412-03981(pb). *Journal of Evolutionary Biology*, 7(6), 766–767. <https://doi.org/10.1046/j.1420-9101.1994.7060766.x>
- Song, L. M., Munian, K., Abd Rashid, Z., & Bhassu, S. 2013. Characterisation of Asian snakehead Murrel *Channa striata* (Channidae) in Malaysia: An insight into molecular data and morphological approach. *The Scientific World Journal*, 2013. <https://doi.org/10.1155/2013/917506>
- Sood, N., Chaudhary, D. K., Pradhan, P. K., Verma, D. K., Raja Swaminathan, T., Kushwaha, B., Jena, J. K. 2015. Establishment And Characterization Of A Continuous Cell Line From Thymus Of Striped Snakehead, *Channa striatus* (Bloch 1793). *In Vitro Cellular and Developmental Biology - Animal*, 51(8), 787–796. <https://doi.org/10.1007/s11626-015-9891-1>
- Supriatna, J. 2008. *Melestarikan Alam Indonesia*. Yayasan Obor Indonesia. Jakarta. p. 391.
- Supriatna, J. 2018. *Konservasi Biodiversitas: Teori dan Praktik di Indonesia*. Yayasan Pustaka Obor Indonesia. Jakarta. p. 323.
- Tautz, D., Arctandert, P., Minelli, A., Thomas, R. H., & Vogler, A. P. 2002. 1.8 Corres th, 1. Retrieved from papers2://publication/uuid/CCCA99A4-A355-433D-9881-CC61B71F7DAF
- Telles, G. P., Araújo, G. S., Walter, M. E. M. T., Brigido, M. M., & Almeida, N. F. 2018. Live neighbor-joining. *BMC Bioinformatics*, 19(1), 1–13. <https://doi.org/10.1186/s12859-018-2162-x>
- Thu, N. D., Dalsgaard, A., Loan, L. T. T., & Murrell, K. D. 2007. Survey For Zoonotic Liver And Intestinal Trematode Metacercariae In Cultured And Wild Fish In An Giang Province, Vietnam. *The Korean Journal of Parasitology*, 45(1), 45–54. <https://doi.org/10.3347/kjp.2007.45.1.45>
- Verity, R., & Nichols, R. A. 2014. What Is Genetic Differentiation, And How Should We Measure It. *Molecular Ecology*, 23(17), 4216–4225. <https://doi.org/10.1111/mec.12856>
- Ward, R. D., Hanner, R., & Hebert, P. D. N. 2009. The Campaign To DNA Barcode All Fishes, FISH-BOL. *Journal of Fish Biology*, 74(2), 329–356. <https://doi.org/10.1111/j.1095-8649.2008.02080.x>
- Ward, R. D., Zemplak, T. S., Innes, B. H., Last, P. R., & Hebert, P. D. N. 2005. DNA Barcoding Australia's Fish Species. *International Journal of Environmental and Science Education*, 11(13), 5845–5856. <https://doi.org/10.1098/rstb.2005.1716>
- Zemplak, T. S., Ward, R. D., Connell, A. D., Holmes, B. H., & Hebert, P. D. N. 2009. DNA barcoding reveals overlooked marine fishes. *Molecular Ecology Resources*, 9(SUPPL. 1), 237–242. <https://doi.org/10.1111/j.1755-0998.2009.02649.x>