

DAFTAR PUSTAKA

- Aditriawan, R. M., & Runtuboy, N. (2017). *Length-weight relationship and condition factor of common ponyfish, Leiognathus equulus (Forsskål, 1775) in Pabean Bay, Indramayu, West Java*. *Jurnal Iktiologi Indonesia*, 17(3), 311–316. <https://doi.org/10.32491/jii.v17i3.368>
- Ahmad, A., & Jaafar, Z. (2012). Reproductive biology of archer fish (*Toxotes* spp.) in Malaysian waters. *Journal of Fish Biology*, 81(3), 750-765.
- Allen G. R., 1978 A review of the archer fishes (family Toxotidae). *Records of Western Australian Museum* 6:355-378.
- Allen, G.R. 2001. Toxotidae, archer fish, pp. 3212-3215. In Carpenter, K.E. & V.H. Niem (editors). *FAO Species Identification Guide for Fishery Purposes. The Living Marine Resources of the Western Central Pacific, Volume 5*. FAO, Rome.
- Allen, G.R. 2004. *Toxotes kimberleyensis*, a new species of archerfish (Pisces: Toxotidae) from freshwaters of Western Australia. *Records of the Australian Museum* (56):225- 230.
- Anibeze C.I.P., 2000 Length-weight relationship and relative condition of *Heterobranchus longifilis* (Valenciennes) from Idodo River, Nigeria. *Naga, the ICLARM Quarterly* 23:34-35.
- Animal Diversity Web. (2024). *Toxotes jaculatrix*: INFORMATION. Retrieved from https://animaldiversity.org/accounts/Toxotes_jaculatrix/
- Ardila N. P., 2025 [Ichthyofauna community structure in the Pute River waters, Maros Karst Area, South Sulawesi]. Thesis. Aquatic Resources Management Study Program, Faculty of Marine Sciences and Fisheries, Hasanuddin University, Makassar [in Indonesian].
- Arthington, A., & F. McKenzie. 1997. Review of impacts of displaced/introduced fauna associated with inland waters. *State of the Environment Technical Paper Series (Inland Waters)*, Australia. Series 1, 1997. Accessed 2024-10-16.
- Azevedo J. W. D. J., Castro A. C. L. D., Silva M. H. L., 2017 Length-weight relation, condition factor and gonadosomatic index of the whitemouth croaker, *Micropogonias furnieri* (Desmarest, 1823) (Actinopterygii: Sciaenidae), caught in Lençóis Bay, state of Maranhão, eastern Amazon, Brazil. *Brazilian Journal of Oceanography* 65(1):1-8.
- Bagenal T.B., & Tesch F. W., 1978 Age and growth. In: *Methods for assessment of fish production in fresh waters*. Bagenal T. B. (ed.), Third edition. Blackwell Scientific Publications, London, pp. 101-136.
- Bakar, Y., Simon, K. D., Mazlan, A. G., Arshad, A., & Zaidi, C. C. (2015). Reproductive biology of banded archerfish (*Toxotes jaculatrix*) in mangrove estuaries of Malaysia. *Journal of Fisheries and Aquatic Science*, 10(2), 85-93.
- Blaber, S.J.M. 2000. *Tropical Estuarine Fishes Ecology, Exploitation and Conservation*. Blackwell Science Ltd., Bangor, the United Kingdom. 372 p.
- Devlin, R. H., & Nagahama, Y. (2002). Sex determination and sex differentiation in fish: An overview of genetic, physiological, and environmental influences. *Aquaculture*, 208(3-4), 191-364.
- Diana, J. S. (1995). Biology and ecology of fishes. *Fishery Science*, 16(2), 123-140.
- Dill, L. M. (1977). Refraction and the spitting behavior of the archerfish (*Toxotes chatareus*). *Behavioral Biology*, 20(3), 430–436. [https://doi.org/10.1016/S0091-6773\(77\)90830-3](https://doi.org/10.1016/S0091-6773(77)90830-3)
- Fahmi, M.R. & A. Permana. 2014. Kematangan gonad ikan sumpit (*Toxotes jaculatrix* Pallas 1767) pada salinitas berbeda. *Jurnal Iktiologi Indonesia* 14(3): 235-245.
- Fowler, J., L. Cohen & P. Jarvis. 1998. *Practical Statistic for Field Biology*. 2nd. Edition, Jhon Wiley and Sons Ltd. Chichester, England. 296 p.
- Fricke, R., W.N. Eschmeyer & R. Van der Laan. (editors) 2025. *Eschmeyer's Catalog Of Fishes: Genera, Species References*. (<http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.a.sp>). Electronic version accessed 16 Oct 2024.
- Froese, R. & D. Pauly. (editors). 2025a. *Toxotes jaculatrix* in FishBase. Accessed on 30 July 2025.
- Froese, R. & D. Pauly. (editors). 2025b. Species in genus *Toxotes* in FishBase. Accessed on 30 July 2025.

- Froese, R. (2006). Cube law, condition factor and weight–length relationships: history, meta-analysis and recommendations. *Journal of Applied Ichthyology*, 22(4), 241–253. [HTTPS://DOI.ORG/10.1111/J.1439-0426.2006.00805.X](https://doi.org/10.1111/j.1439-0426.2006.00805.x)
- Girard, M.G., M.P. Davis, H.H. Tan, D.J. Wedd, P. Chakrabarty, W.B. Ludt, A.P. Summers & W.L. Smith. 2022. Phylogenetics of archerfishes (Toxotidae) and evolution of the toxotid shooting apparatus. *Integrative Organismal Biology*, pp. 1-29. <https://doi.org/10.1093/iob/obac013>.
- Haslina, S., S.B.A. Omar, J. Tresnati & M.T. Umar. 2024. Size distribution, growth pattern and condition factor of common ponyfish, *Leiognathus equula*, in Takalar waters, South Sulawesi, Indonesia. *AAFL Bioflux* 17(4):1375-1387. <http://www.bioflux.com.ro/docs/2024.1375-1387.pdf>
- Hidayah, R., S.K. Harahap, R.K. Lubis, R. Junita, L.N. Sari & K. Khairul. 2023. Monitoring the biological aspects of banded archer fish (*Toxotes jaculatrix* Pallas, 1767) in Bilah River, Labuhanbatu Regency, Indonesia. *Jurnal Penelitian Pendidikan IPA* 9(2): 676–680. <https://doi.org/10.29303/jppipa.v9i2.2321>
- Hoese, D. 2012. *Toxotes jaculatrix*. *IUCN Red List of Threatened Species*. 2012: e.T196451A2458352. doi:10.2305/IUCN.UK.2012.RLTS.T196451A2458352.en. Retrieved 16 October 2024.
- Huzaimah, F.N., S.B.A. Omar & J. Tresnati. 2024. Length-weight relationship and condition factors of the mantis shrimp, *Oratosquilla interrupta* (Kemp 1911) in Bone Bay, South Sulawesi, Indonesia. *Egyptian Journal of Aquatic Biology & Fisheries* 28 (3): 1501-1526 https://ejabf.journals.ekb.eg/article_363134_ca80ea2a9d5b4a7e72a2d356e7bf3d1d.pdf
- Jiménez-Prado, P., Rodríguez-Pinilla, C. A., & González-Corredor, J. D. (2019). Structure of a tilapia (*Oreochromis mossambicus*) population in the Laguna de Los Patos, Venezuela. *Brazilian Journal of Biology*, 80(4), 845–852. <https://doi.org/10.1590/1519-6984.215169>
- Jisr N., Younes G., Sukhn C., El-Dakdouki M. H., 2018 Length-weight relationships and relative condition factor of fish inhabiting the marine area of the Eastern Mediterranean city, Tripoli-Lebanon. *Egyptian Journal of Aquatic Research* 44:299–305. <https://doi.org/10.1016/j.ejar.2018.11.004>
- Jobling, M. (1995). *Environmental Biology of Fishes*. Chapman & Hall.
- Kadarini, T. 2015. Dukungan kelestarian keanekaragaman melalui jenis pakan ikan sumpit (*Toxotes jaculatrix*) yang dipelihara pada salinitas 8 ppt. *Prosiding Seminar Nasional Masyarakat Biodiversitas Indonesia* 1(8): 2034-2038 DOI: 10.13057/psnmbi/m010831.
- Konoyima, K.J., M. Mansaray & I.C.R. Coker. 2020. Some aspects of catch, gonad maturation and growth pattern of *Sardinella maderensis* and *Sardinella aurita* in Sierra Leone. *International Journal of Basic, Applied and Innovative Research* 9(3): 82-98.
- Kottelat, M. & H.H. Tan. 2018. Three new species of archerfishes from the freshwaters of Southeast Asia (Teleostei: Toxotidae) and notes on Henri Mouhot's fish collections. *Ichthyological Exploration of Freshwaters*. IEF-952: 1-19. doi:10.23788/IEF-952.
- Kottelat, M. 2013. The fishes of the inland waters of Southeast Asia: a catalogue and core bibliography of the fishes known to occur in freshwaters, mangroves and estuaries. *Raffles Bulletin of Zoology Supplement No. 27*: 1-663.
- Legendre, M., Alavi, S. M. H., Dzyuba, B., Linhart, O., Prokopchuk, G., Cochet, C., Dugué, R., & Cosson, J. (2016). *Adaptations of semen characteristics and sperm motility to harsh salinity: extreme situations encountered by the euryhaline tilapia Sarotherodon melanotheron heudelotii*. *Theriogenology*, 86(5), 1251–1261. <https://doi.org/10.1016/j.theriogenology.2016.05.018>
- Lloret-Lloret E., Albo-Puigserver M., Giménez J., Navarro J., Pennino M. G., Steenbeek J., Belido J. M., Coll M., 2022 Small pelagic fish fitness relates to local environmental conditions and trophic variables. *Progress in Oceanography*. Volume 202. <https://doi.org/10.1016/j.pocean.2022.102745>.
- Lodang H., Anggraeni D., Kurnia N., Azis A. A., 2018 [Preliminary study inventory of fish species in the river estuary of Jeneberang Makassar]. *Proceedings of the National Seminar on Biology and Its Learning*. *Natural Potential-Based Biology Learning and Research Innovations*. Biology

- Education Studies Program, Graduate Program of Makassar State University. Makassar, 5 May 2018. pp. 607-616 [in Indonesian].
- López-Olmeda, J. F., Sánchez-Vázquez, F. J., & Migaud, H. (2009). Environmental control of reproduction in fish: Integrating knowledge on light and temperature. *Aquaculture*, 287(1-2), 167-182.
- Maulidanti, S., S.B.A. Omar & J. Tresnati. 2024 Sex ratio and size at first maturity of mantis shrimp (*Miyakella nepa*) in Lantebung, Makassar. *AACL Bioflux* 17(4): 1307-1322 <http://www.bioflux.com.ro/docs/2024.1307-1322.pdf>
- Mazlan, A. G., Simon, K. D., & Arshad, A. (2008). Taxonomy and distribution of archerfish (*Toxotidae*) in Malaysian coastal waters. *Asian Fisheries Science*, 21(3), 321-330.
- McGrourther, M. 2020. Banded archerfish, *Toxotes jaculatrix* (Pallas, 1767) <https://australian.museum/learn/animals/fishes/banded-archerfish-toxotes-jaculatrix/>. Accessed on 16 October 2024.
- Nash R. D. M., Valencia A. H., Geffen A. J., 2006 The origin of Fulton's condition factor setting the record straight. *Fisheries* 31:236–238.
- Nelson, J.S., T.C. Grande & M.V.H. Wilson. 2016. *Fishes of the World*. Fifth edition. John Wiley & Sons, Inc. Hoboken, New Jersey.
- Nikolsky, G. V. (1963). *The Ecology of Fishes*. Academic Press.
- Ningsih, N.R., S.B.A. Omar, A. Haris, M. Nur, & R.F. Larasati. 2023. Length-weight relationship and condition factors of endemic fish, *Lagusia micracanthus* Bleeker, 1860 (Pisces: Terapontidae) in Gilireng River, Wajo Regency, Indonesia. *Jurnal Ilmiah Perikanan dan Kelautan* 15 (2): 290-301.
- Olopade O. A., Dienye H. E., Eyekpegaha A., 2018 Length frequency distribution, length-weight relationship and condition factor of cichlid fishes (Teleostei: Cichlidae) from the New Calabar River, Nigeria. *Iranian Journal of Ichthyology* 5(1):74-80.
- Omar, S.B.A. 2010. Aspek reproduksi ikan nilam, *Osteochilus vittatus* (Valenciennes, 1842) di Danau Sidenreng, Sulawesi Selatan. *Jurnal Iktiologi Indonesia* 10(2): 111-112. <https://doi.org/10.32491/jii.v10i2.163>
- Omar, S.B.A. 2013. *Biologi Perikanan*. Departemen Perikanan, Fakultas Ilmu Kelautan dan Perikanan, Universitas Hasanuddin, Makassar. 168 hal.
- Omar, S.B.A., Kariyanti, D. Yanuarita, M.T. Umar, & Y.S.A. Lawi. 2020. Length-weight relationship and condition factor of the Celebes rainbowfish *Marosatherina ladigesii*, endemic to the Maros karst region, South Sulawesi, Indonesia. *AACL Bioflux* 13(6): 3384-3396.
- Rainboth, W. J. (1996). *Fishes of the Cambodian Mekong*. FAO Species Identification Field Guide for Fishery Purposes. FAO, Rome.
- Sarkar U. K., Khan G. E., Dabas A., Pathak A. K., Mir J. I., Rebello S. C., Singh S. P., 2013 Length weight relationship and condition factor of selected freshwater fish species found in River Ganga, Gomti and Rapti, India. *Journal of Environmental Biology* 3(4):951-956.
- Simon K. D., 2024. *Archer fish biology*. First edition. CRC Press, Boca Raton, Florida. 136 p.
- Simon K. D., Bakar Y., Mazlan A. G., Zaidi C. C., Samat A., Arshad A., Temple S. E., Brown-Peterson N. J., 2012 Aspects of the reproductive biology of two archer fishes *Toxotes chatareus* (Hamilton 1822) and *Toxotes jaculatrix* (Pallas 1767). *Environmental Biology of Fishes* 93:491–503. DOI 10.1007/s10641-011-9944-6
- Simon K. D., Bakar Y., Samat A., Zaidi C. C., Aziz A., Mazlan A. G., 2009 Population growth, trophic level, and reproductive biology of two congeneric archer fishes (*Toxotes chatareus* Hamilton, 1822 and *Toxotes jaculatrix* Pallas, 1767) inhabiting Malaysian coastal waters. *Journal of Zhejiang University Science B* 10(12):902–911. doi:10.1631/jzus.B0920173
- Simon K. D., Bakar Y., Temple S. E., Mazlan A. G., 2010a Morphometric and meristic variation in two congeneric archer fishes *Toxotes chatareus* (Hamilton 1822) and *Toxotes jaculatrix* (Pallas 1767) inhabiting Malaysian coastal waters. *Journal of Zhejiang University Science B (Biomed & Biotechnol)* 11(11):871-879. doi:10.1631/jzus.B1000054
- Simon K. D., Mazlan A. G., 2008 Length-weight and length-length relationship of archer and puffer fish species. *Open Fish Science Journal* 1(1):19-22. doi:10.2174/1874401X00801010019.
- Simon K. D., Mazlan A. G., 2010 Trophic position of archerfish species (*Toxotes chatareus* and *Toxotes jaculatrix*) in the Malaysian estuaries. *Journal of Applied Ichthyology* 26:84–88. doi: 10.1111/j.1439-0426.2009.01351.x.

- Simon K. D., Mazlan A. G., Cob Z. C., 2013 Condition factors of two archerfish species from Johor coastal waters, Malaysia. *Sains Malaysiana* 42(8):1115–1119.
- Simon K. D., Mazlan A. G., Cob Z. C., Samat A., Arshad A., 2008 Age determination of archer fishes (*Toxotes jaculatrix* and *Toxotes chatareus*) inhabiting Malaysian estuaries. *Journal of Biological Sciences* 8(6):1096-1099.
- Simon K. D., Mazlan A. G., Samat A., Zaidi C. C., Aziz A., 2010b Size, growth and age of two congeneric archer fishes (*Toxotes jaculatrix* Pallas, 1767 and *Toxotes chatareus* Hamilton, 1822) inhabiting Malaysian coastal waters. *Sains Malaysiana* 39(5): 697–704
- Simon, K.D., Y. Bakar, S.E. Temple & A.G. Mazlan. 2011. Spitting success and accuracy in archer fishes *Toxotes chatareus* (Hamilton, 1822) and *Toxotes jaculatrix* (Pallas 1767). *Scientific Research and Essays* 6(7): 1627-1633.
- Sumpter, J. P. (2005). The endocrinology of fish reproduction. *Fish Physiology*, 24, 55-91.
- Suryati, N.K., S. Makmur & S. Nurdawati. 2014. Biologi reproduksi ikan sumpit (*Toxotes microlepis* Gunther 1860) di perairan Sungai Musi, Sumatera Selatan. *Bawal* 6(3): 119-126.
- Temple, S.E. 2007. Effect of salinity on the refractive index of water: considerations for archer fish aerial vision. *Journal of Fish Biology*, 70(5):1626-1629.
- Thompson. L., 2023 Gambar ikan sumpit <https://hastingsaquarium.co.uk/blog/animal-stories/what-is-an-archerfish-5-facts-you-should-know/>
- Tikawati, S.B.A. Omar & M. Nur. 2024. Length-weight relationship and condition factor of threadfin goby *Sicyopterus longifilis* de Beauford, 1912 (Teleostei: Sicydiinae) at Ummiding and Matama Rivers, West Sulawesi, Indonesia. *Biodiversitas* 25(5): 2074-2085, DOI: 10.13057/biodiv/d250525. <https://smujo.id/biodiv/article/view/17528>
- Timmermans, P.J.A. & P.M. Souren. 2004. Prey catching in archer fish: the role of posture and morphology in aiming behavior. *Physiology & Behavior*, 81(1): 101-110. <https://doi.org/10.1016/j.physbeh.2004.01.010>
- Tjong, D. H., Taufik, M., Rahman, A., & Erfan, M. (2018). *Tingkatan kematangan gonad ikan sumpit (Toxotes jaculatrix) pada berbagai tingkat salinitas di media budidaya*. *Jurnal Ikhtologi Indonesia*, 18(1), 33–41. <https://jurnal-ikhtologi.org/index.php/jii/article/view/84>
- Urbano, T., Velásquez, P., Lodeiros, C., & Maeda-Martínez, A. N. (2024). Reproductive parameters of *Oreochromis mossambicus* in *Laguna de Los Patos*, Cumaná, Venezuela. *Brazilian Journal of Biology*, 84, e202824. <https://doi.org/10.1590/1519-6984.282485>
- Van der Laan, R., R. Fricke & W.N. Eschmeyer. (editors) 2025. *Eschmeyer's Catalog of Fishes: Classification*. (<http://www.calacademy.org/scientists/catalog-of-fishes-classification/>). Electronic version accessed 16 Oct 2024.
- Wardhani, D.K., S.B.A. Omar, J. Tresnati & M.T. Umar. 2024 Sex ratio and length at first maturity of berber ponyfish, *Leiognathus berbis*, at Takalar waters, South Sulawesi, Indonesia. *AACL Bioflux* 17(4):1673-1685. <http://www.bioflux.com.ro/docs/2024.1673-1685.pdf>
- Weatherley A. H., Gill H. S., 1987 *The biology of fish growth*. Academic Press, London. 443 p.
- Wootton, R.J. 1990. *Ecology of Teleost Fishes*. Chapman and Hall, London. 404 p.
- Wootton, R.J. 1998. *Ecology of Teleost Fishes* (2nd ed.). Springer.
- Yuliza, R. (2018). Studi Indeks Kematangan Gonad pada Ikan Air Tawar. *Jurnal Biologi Akuatik*, 5(2), 45-52.
- Zar, J.H. 2010. *Biostatistical Analysis*. Fifth edition. Pearson Prentice Hall. New Jersey. 944 p.
- Zargar U. R., Yousuf A. R., Mustaq B, Dilafroza J. A. N., 2012 Length–weight relationship of the crucian carp, *Carassius carassius* in relation to water quality, sex and season in some lentic water bodies of Kashmir Himalayas. *Turkish Journal of Fisheries and Aquatic Sciences* 12(2):683–689.