



DAFTAR PUSTAKA

- Borcherding, N., J. R. Brestoff. 2023. The power and potential of mitochondria transfer. *Nature*, 623(7986): 283-291.
- Cabuga Jr, C., J. M. Pondang, R. Piloton, A. J. Cornites, P. Ejada, M. K. Angco, O. L. P. Obenza. 2023. Intraspecific shape analysis of Bali sardinella (*Sardinella lemuru*) using geometric morphometrics collected in the coast of Cabadbaran, Agusan Del Norte, Philippines. *Marine Science and Technology Bulletin*, 12(4): 495-504.
- Carvalho G. R., L. Hauser. 1994. Molecular genetics and stock concept in fisheries. *Reviews Fish Biology and Fisheries*, (4): 326-350.
- Chang, C. H., K. T. Shao, H. Y. Lin, Y. C. Chiu, M. Y. Lee, S. H. Liu, P. L. Lin. 2017. DNA barcodes of the native ray-finned fishes in Taiwan. *Molecular Ecology Resources*, 17(4): 796-805.
- Chinnery, P. F., E. A. Schon. 2003. Mitochondria. *Journal of Neurology, Neurosurgery & Psychiatry*, 74(9): 1188-1199.
- Cury, P., A. Bakun, R. J. Crawford, A. Jarre, R. A. Quinones, L. J. Shannon, H. M. Verheyen. 2000. Small pelagics in upwelling systems: patterns of interaction and structural changes in “wasp-waist” ecosystems. *ICES Journal of Marine Science*, 57(3): 603-618.
- Dalzell, P. J. 1993. Small pelagic fishes. In A. Wright, & L. Hill, *Nearshore marine resources of the South Pacific*. 97-133.
- Darasi, F., M. Aksissou. 2019. Longline, trawl, and purse seine in coastal fishing of Tangier port in North-West of Morocco. *The Egyptian Journal of Aquatic Research*, 45(4): 381-388.
- Dereeper, A., S. Audic, J. M. Claverie, G. Blanc. 2010. BLAST-EXPLORER helps you building datasets for phylogenetic analysis. *BMC Evolutionary Biology*, 10: 1-6.
- Doğan, İ., N. Doğan. 2016. Genetic distance measures: Review. *Turkiye Klinikleri Journal of Biostatistics*, 8(1): 87-93.
- Esmaeili, H. R., S. Echreshavi. 2023. An updated checklist of Clupeiform fishes (Teleostei: Clupeiformes) in the North-Western Indian Ocean: Taxonomy, diversity, distribution, and conservation status. *TAXA*, 2.
- FAO. 2018. *The State of World Fisheries and Aquaculture 2018 - Meeting the sustainable development goals*. Rome. FAO.



Ferri, G., M. Alu, B. Corrandini, M. Licata, G. Beduschi. 2009. Spesies identifikasi melalui DNA barcode. *Genetic Testing and Molecular Biomarkers*, 13(3): 421-426.

Fischer, J. 2014. Fish identification tools for biodiversity and fisheries assessments: review and guidance for decision-makers. *FAO Fisheries and Aquaculture Technical Paper*, (585): I.

Folmer, O., M. Black, W. Hoeh, R. Vrijenhoek. 1994. DNA primers for amplification of mitochondrial Cytochrome C Oxidase Subunit I from diverse metazoan invertebrates. *Molecular Marine Biology and Biotechnology*, 3(5): 294-299.

Friedheim, S. 2016. Comparison of species identification methods: DNA barcoding versus morphological taxonomy. *Manoa Horizons*, 1: 74-86.

Froese, R., & Pauly, D. 2023. FishBase. www.fishbase.org. Diakses pada 6 November 2023.

Gatz Jr, A. J. 1979. Community organization in fishes as indicated by morphological features. *Ecology*, 60(4): 711-718.

Giducos, C. S., S.I. Karim, A. L. Diamalon, M. M. Piang, M. A. J. Torres, E. A. Requieron. 2015. Describing the shape of *Sardinella lemuru* from Sarangani Bay, Philippines using the landmark-based geometric morphometric analysis. *Aquaculture, Aquarium, Conservation & Legislation*, 8(6): 1072-1080.

Hall B. G. 2011. Phylogenetic trees made easy: a how-to manual. 4th ed. Sunderland (MA): Sinauer Associates.

Hanif, M. A., M. A. Siddik, M. A. Islam, M. R. Chaklader, A. Nahar. 2019. Multivariate morphometric variability in sardine, *Amblygaster clupeoides* (Bleeker, 1849), from the Bay of Bengal coast, Bangladesh. *The Journal of Basic and Applied Zoology*: 80(1): 1-10.

Hauser, L., R. D. Ward. 1998. Population identification in pelagic fish: the limits of molecular markers. *NATO ASI Series a Life Sciences*, 306: 191-224.

Hendri, A., S. Wahyuni. 2016. Perbandingan morphometrik-meristik jantan dan betina ikan kerling (*Tor tambroides*) dari DAS di Aceh Barat. *Jurnal Perikanan Tropis*, 3(2): 1-6.

Hebert, P. D., A. Cywinska, S. L. Ball, J. R. DeWaard. 2003a. Biological identifications through DNA barcodes. *Proceedings of the Royal Society of London. Series B: Biological Sciences*, 270(1512): 313-321.

Hebert, P. D., S. Ratnasingham, J. R. De Waard. 2003b. Barcoding animal life: cytochrome c oxidase subunit 1 divergences among closely related



species. Proceedings of the Royal Society of London. Series B: Biological Sciences, 270: S96-S99.

Himelda, H., E. S. Wiyono, A. Purbayanto, M. Mustaruddin. 2011. Analysis of the Sardine Oil (*Sardinella lemuru* Bleeker 1853) Resources in Bali Strait. Marine Fisheries: Journal of Marine Fisheries Technology and Management, 2(2): 165-176.

Hunnam, K. 2021. The biology and ecology of tropical marine sardines and herrings in Indo-West Pacific fisheries: a review. Reviews in Fish Biology and Fisheries, 31(3): 449-484.

Integrated Taxonomic Information System. 2023. *Sardinella Valenciennes*, 1847. https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=161762&print_version=SCR&source=from_print#null. Diakses pada 6 November 2023.

Jolliffe, I. T. 1973. Discarding variables in a principal component analysis. II: Real data. Journal of the Royal Statistical Society Series C: Applied Statistics, 22(1): 21-31.

Kim, J. K., C. B. Kang, K. H. Han, Y. U. Kim. 2001. A new record of the herring, *Sardinella lemuru* (Pisces: Clupeidae) from Korea. Korean Journal of Ichthyology, 13(3): 190-194.

Kinene, T., J. Wainaina, S. Maina, L. M. Boykin. 2016. Rooting trees, methods for. Encyclopedia of Evolutionary Biology, 489.

Kocovsky, P. M., Adams, J. V., & Bronte, C. R. 2009. The effect of sample size on the stability of principal components analysis of truss-based fish morphometrics. Transactions of the American fisheries society, 138(3): 487-496.

Lakra, W. S., M. S. Verma, M. Goswami, K. K. Lal, V. Mohindra, P. Punia, A. Gopalakrishnan, K. V. Singh, R. D. Ward, P. Hebert. 2011. DNA barcoding Indian marine fishes. Molecular Ecology Resources, 11(1): 60-71.

Luceño, A. J. M., M. A. J. Torres, S. R. Tabugo, C. G. Demayo. 2013. Describing the body shapes of three populations of *Sardinella fimbriata* (Valenciennes, 1847) from Mindanao Island, Philippines using relative warp analysis. Annals of Biological Research, 4(10): 29-39.

Mahrus, H., A. Syukur, L. Zulkifli. 2022. Morphological and molecular characters of Lemuru fish (*Sardinella lemuru*) from Tanjung Luar Waters, East Lombok. Jurnal Biologi Tropis, 22(4): 1474-1482.

Palomera, I., M. P. Olivar, J. Salat, A. Sabatés, M. Coll, A. García, B. Morales-Nin. 2007. Small pelagic fish in the NW Mediterranean Sea: an ecological review. Progress in Oceanography, 74(2-3): 377-396.



Paramo, J., F. Gerlotto, C. Oyarzun. 2010. Three dimensional structure and morphology of pelagic fish schools. *Journal of Applied Ichthyology*, 26(6): 853-860.

Pentinsaari, M., H. Salmela, M. Mutanen, T. Roslin. 2016. Molecular evolution of a widely-adopted taxonomic marker (COI) across the animal tree of life. *Scientific reports*, 6(1): 35275.

Pearson, W. R. 2014. BLAST and FASTA similarity searching for multiple sequence alignment. *Multiple Sequence Alignment Methods*, 75-101.

Pereira, F., J. Carneiro, A. Amorim. 2008. Identification of species with DNA-based technology: current progress and challenges. *Recent Patents on DNA & Gene Sequences (Discontinued)*, 2(3): 187-200.

Pertami, N. D., M. F. Rahardjo, A. Damar, I. W. Nurjaya. 2019. Food and feeding habit of Bali Sardinella, *Sardinella lemuru* Bleeker, 1853 in Bali Strait waters. *Jurnal Iktiologi Indonesia*, 19(1): 143-155.

Prehadi, P., A. Sembiring, E. M. Kurniasih, R. Rahmad, D. Arafat, B. Subhan, H. H. Madduppa. 2015. DNA barcoding and phylogenetic reconstruction of shark species landed in Muncar fisheries landing site in comparison with Southern Java fishing port. *Biodiversitas Journal of Biological Diversity*, 16(1).

Rasmussen, R. S., M. T. Morrissey. 2008. DNA-based methods for the identification of commercial fish and seafood species. *Comprehensive Reviews in Food Science and Food Safety*, 7(3): 280-295.

Rawat, S., S. Benakappa, J. Kumar, K. Naik, G. Pandey, C. W. Pema. 2017. Identification of fish stocks based on truss morphometric: A review. *Journal of Fisheries and Life Sciences*, 2(1): 9-14.

Rola, A. C., T. A. Narvaez, M. R. A. Naguit, D. D. Elazegui, B. B. C. Brillo, M. M. Paunlagui, H. C. Jalotjot, C. P. Cervantes. 2018. Impact of the closed fishing season policy for sardines in Zamboanga Peninsula, Philippines. *Marine Policy*, 87: 40-50.

Salam, M. R., A. Ezaouine, H. Zekhnini, M. El Messal, F. El Mellouli, F. Chegdani, F. Bennis. 2024. Morphological, molecular identification and evaluation of antioxidant activity of seahorses from the Moroccan coasts. *Saudi Journal of Biological Sciences*, 31(2): 103898.

Sartimbul, A., E. Rohadi, S. N. Ikhsani, D. Listyaningsih. 2018. Morphometric and meristic variations among five populations of *Sardinella lemuru* Bleeker, 1853 from waters of Bali Strait, northern and southern-east Java and their relation to environment. *AACL Bioflux*, 11(3): 744-752.



Savolainen, V., R. S. Cowan, A. P. Vogler, G. K. Roderick, R. Lane. 2005. Towards writing the encyclopaedia of life: an introduction to DNA barcoding. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 360(1462): 1805-1811.

Sektiana, S. P., S. Andriyono, H. W. Kim. 2017. Characterization of the complete mitochondrial genome of Mauritian sardinella, *Sardinella jussieu* (Lacepède, 1803), collected in the Banten Bay, Indonesia. *Fisheries and Aquatic Sciences*, 20: 1-9.

Setyadji, B., A. Bahtiar, D. Novianto. 2012. Stomach content of three tuna species in the Eastern Indian Ocean. *Indonesian Fisheries Research Journal*, 18(2): 57-62.

Setyohadi, D., F. Iranawati, S. Hikmah. 2017. Stock identification *Sardinella Lemuru*, Bleeker 1853 In Madura Strait, Bali Strait, and Southern-East Java Water. *Research Journal of Life Science*, 3(3): 137-143.

Sfakianakis, D. G., I. Leris, A. Laggis, M. Kentouri. 2011. The effect of rearing temperature on body shape and meristic characters in zebrafish (*Danio rerio*) juveniles. *Environmental Biology of Fishes*, 92: 197-205.

Singkam, A. R., A. P. Yani, A. Fajri. 2020. Keragaman ikan laut dangkal Provinsi Bengkulu. *Jurnal Enggano*, 5(3): 424-438.

Stern, N., B. Rinkevich, M. Goren. 2016. Integrative approach revises the frequently misidentified species of *Sardinella* (Clupeidae) of the Indo-West Pacific Ocean. *Journal of Fish Biology*, 89(5): 2282-2305.

Strauss, R. E., C. E. Bond. 1990. Taxonomic methods: morphology. *Methods for Fish Biology*, 109-140.

Strauss, R. E., F. L. Bookstein. 1982. The truss: body form reconstructions in morphometrics. *Systematic Biology*, 31(2): 113-135.

Sultana, F. 2021. Morphological approach to the identification, distribution and diversity of fish species under clupeidae family in the chattogram coast. Tersedia dari Doctoral dissertation, Chattogram Veterinary and Animal Sciences University Chattogram-4225, Bangladesh.

Sundari, S., B. Priadi. 2020. Teknik isolasi dan elektroforesis DNA ikan tapah. *Buletin Teknik Litkayasa Akuakultur*, 17(2): 87-90.

Susanti, R., R. S. Iswari, F. Fibriana, I. Indriawati. 2018. The duck cytochrome oxidase I (COI) gene: sequence and patterns analysis for potential barcoding tool. *Biodiversitas Journal Of Biological Diversity*, 19(3): 997-1003.

Tamura, K., G. Stecher, S. Kumar. 2021. MEGA11: Molecular Evolutionary Genetics Analysis Version 11. *Molecular Biology and Evolution*, 38(7): 3022-3027.



Tåning, Å. V. 1952. Experimental study of meristic characters in fishes. *Biological Reviews*, 27(2): 169-193.

Teletchea, F. 2009. Molecular identification methods of fish species: reassessment and possible applications. *Reviews in Fish Biology and Fisheries*, 19(3): 265-293.

Turan, C., D. Ergüden, M. Gürlek, F. Turan. 2004. Genetic and morphologic structure of *Liza abu* (Heckel, 1843) populations from the rivers Orontes, Euphrates and Tigris. *Turkish Journal of Veterinary & Animal Sciences*, 28(4): 729-734.

Varela, J. L., K. M. Intriago, J. C. Flores, C. R. Lucas-Pilozo. 2017. Feeding habits of juvenile yellowfin tuna (*Thunnus albacares*) in Ecuadorian waters assessed from stomach content and stable isotope analysis. *Fisheries Research*, 194: 89-98.

Ward, R. D., T. S. Zemlak, B. H. Innes, P. R. Last, P. D. Hebert. 2005. DNA barcoding Australia's fish species. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 360(1462): 1847-1857.

Whitehead, P. J. P. 1985. FAO species catalogue, Vol. 7. Clupeoid fishes of the world. An annotated and illustrated catalogue of the herrings, sardines, pilchards, sprats, anchovies and wolf herrings. Part 1-Chirocentridae, Clupeidae and Pristigasteridae. FAO Fish. Synop., 125(7): 303.

Willette, D. A., M. D. Santos, M. A. Aragon. 2011. First report of the Taiwan sardinella *Sardinella hualiensis* (Clupeiformes: Clupeidae) in the Philippines. *Journal of Fish Biology*, 79(7): 2087-2094.

Wong, W. L., G. Khoo. 2017. A review of fish taxonomy conventions and species identification techniques. *Journal of Survey in Fisheries Sciences*, 54-93.

Wujdi, A., S. Suwarso, W. Wudianto. 2016. Biologi reproduksi dan musim pemijahan ikan lemuru (*Sardinella lemuru* Bleeker 1853) di Perairan Selat Bali. *BAWAL Widya Riset Perikanan Tangkap*, 5(1): 49-57.

Zein, M. S. A., D. M. Prawiradilaga. 2013. DNA barcode fauna Indonesia. Prenada Media.