



DAFTAR PUSTAKA

- Abbate, F., Guerrera, M. C., Levanti, M., Laura, R., Aragona, M., Montalbano, K. G., dan Germana, A. (2022). Morphological characteristics of the blackspot seabream (*Pagellus bogaraveo*) tongue: A structural and immunohistochemical study. *Anat Histol Embryol*, 51(1), 103-111. <https://doi.org/10.1111/ahe.12769>
- Ali, M. A., dan Hasan, A. (2005). Morphological and Histochemical Studies on The Tongue of Tilapia Fish (*Oreochromis niloticus*). *Assiut Veterinary Medical Journal*, 51(106), 1-8. <https://doi.org/10.21608/avmj.2005.177996>
- Alsafty, M. A., Seif, M. A., El-Gendy, S. A., El-Beskawy, M., dan Dakroury, M. (2023). Micro-morphological characteristics of the oropharyngeal cavity floor of bogue (*Boops boops*) (Linnaeus, 1758) fish: gross morphology, light, and scanning electron microscopic imaging. *Zoomorphology*, 142, 99-109. <https://doi.org/10.1007/s00435-022-00577-1>
- Alviordinasyari, R., Pribadi, E. S., dan Soejoedono, R. D. (2019). Kadar Protein Terlarut dalam Albumin Ikan Gabus (*Channa striata* dan *Channa micropeltes*) Asal Bogor. *Jurnal Veteriner*, 20(3), 436–444. <https://doi.org/10.19087/jveteriner.2019.20.3.436>
- Amri, K. dan Sihombing, T. (2008). *Mengenal dan Mengendalikan Predator Benih Ikan*. PT Gramedia Pustaka Utama
- Anggoro, S., Indarjo, A., Salim, G., Handayani, K. R., Ransangan, J., Ibrahim, A. J., dan Firdaus, M. (2021). *Biologi Perikanan dan Kelautan di Indonesia*. Banda Aceh: Syiah Kuala University Press
- Asfar, M., Mahendradatta, M., dan Tawali, A. B. (2014). Potensi Ikan Gabus (*Channa striata*) Sebagai Sumber Makanan Kesehatan. *Prosiding Seminar Nasional Teknologi Industri II*: 150-154
- Choudhary, O. P., and Priyanka. (2017). Scanning Electron Microscope: Advantages and Disadvantages in Imaging Components. *International Journal of Current Microbiology and Applied Sciences*, 6(5), 1877–1882. <https://doi.org/10.20546/ijcmas.2017.605.207>
- Darshan, A., Abujam, S., dan Das, D. N. (2019). *Biodiversity of Fishes in Arunachal Himalaya*. Cambridge: Academic Press
- Dey, P. (2018). *Basic and Advanced Laboratory Techniques in Histopathology and Cytology*. Berlin: Springer. <https://doi.org/10.1007/9789811082528>
- Emde, G.; Mogdans, J., Kapoor, B. G. 2004. *The Senses of Fish Adaptations for the Reception of Natural Stimuli*. New Delhi: Kluwer Academic Publishers



- Emura, S., Okumura, T., Chen, H., dan Shoumura, S. (2006). Morphology of the Lingual Papillae in the Raccoon Dog and Fox. *Okajimas Folia Anatomica Japonica*, 83(3), 73-76. <https://doi.org/10.2535/ofaj.83.73>
- Fauziah, P., Purnama, A. A., Yolanda, R., dan Karno, R. (2017). Keanekaragaman Ikan (*Pisces*) di Danau Sipogas Kabupaten Rokan Hulu Provinsi Riau. *Jurnal Biologi Udayana*, 21(1), 17–20
- Fischer, E. R., Hansen, B. T., Nair, V., Hoyt, F. H., dan Dorward, D. W. (2012). Scanning electron microscopy. *Current Protocols in Microbiology, SUPPL.25*. <https://doi.org/10.1002/9780471729259.mc02b02s25>
- Fujaya, Y. (2004). *Fisiologi Ikan, Dasar-Dasar Pengembangan Teknologi Perikanan*. Rineka Cipta Pres
- Govind, P. (2013). Overviews in Diversity of Fish. *Research Journal of Animal, Veterinary, and Fishery Sciences*, 1(8), 12–18
- Graham, J. B. (1997). *Air-Breathing Fishes*. Cambridge: Academic Press
- Haryanto, H. (2019). *Budi Daya Ikan Gabus dan Keampuhannya*. Yogyakarta: Laksana
- Irmawati, Tresnati, J., Nadiarti, Fachruddin, L., Rahmawaty, N., Arma, Haerul, A. (2017). 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), 165–173. <https://doi.org/10.32491/jii.v17i2.356>
- Kashi, A. M., Tahemanesh, K., Chaichian, S., Joghataei, M. T., Moradi, F., Tavangar, S. M., Mousavi Najafabadi, A. S., Lotfibakhshairesh, N., Pour Beyranvand, S., Fazel Anvari-Yazdi, A., and Abed, S. M. (2014). How to Prepare Biological Samples and Live Tissues for Scanning Electron Microscopy (SEM). *Galen Medical Journal*, 3(2), 63–80. <https://doi.org/10.31661/gmj.v3i2.267>
- Kasozi, N., Degu, G. I., Mukalazi, J., Kato, C. D., Kisekka, M., Wadunde, A. O., Kityo, G., Namulawa, V. T. (2017). Histomorphological Description of the Digestive System of Pebble Fish, *Alestes baremoze* (Joannis, 1835). *The Scientific World Journal*, 2017(8591249), 1-9. <https://doi.org/10.1155/2017/8591249>
- Kasumyan, A. O. (2019). The taste system in fishes and the effects of environmental variables. *Journal of Fish Biology*, 95(1), 155-178. <https://doi.org/10.1111/jfb.13940>
- Konishi, J., Hidaka, I., Toyota, M., dan Matsuda, H. 1969. High Sensitivity of The Palatal Chemoreceptors of The Carp to Carbon Dioxide. *The Japanese Journal of Physiology*, 19, 327-341. <https://doi.org/10.2170/JJPHYSIOL.19.327>



Kusmini, I. I., Gustiano, R., Prakoso, V. A., dan Ath-thar, M. H. F. (2018). *Budidaya Ikan Gabus*. Jakarta: Penebar Swadaya

Murtey, M. dan Ramasamy, P. (2016). Sample Preparations for Scanning Electron Microscopy – Life Sciences. In *Modern Electron Microscopy in Physical and Life Sciences*. InTech. <https://doi.org/10.5772/61720>

Muttaqien, Balqis, U., dan Silvina, R. D. (2018). Gambaran Histopatologi Lidah Babi Hutan yang Terinfeksi Endoparasit di Kawasan Lhoknga Aceh Besar. *JIMVET*, 2(4), 584–592

Namulawa, V. T., Kato, C. D., Nyatia, E., Rutaisire, J., dan Britz, P. (2013). Scanning Electron Microscopy of The Gastrointestinal Tract of Nile Perch (*Lates niloticus*, Linneaus, 1758). *Int. J. Morphol.*, 31(3), 1068-1075

Nisa, G. K. (2021). *Struktur Hewan Vertebrata*. Semarang: CV. Alinea Media Dipantara

Nur, F. M., Batubara, A. S., dan Muchlisin, Z. A. (2019). *Jenis-jenis Ikan di Kawasan PT. Mifa Bersaudara Kabupaten Aceh Barat*. Banda Aceh: Syiah Kuala University Press

Onuk, B., Kabak, M., dan Sixer, S. S. (2022). Morphology of the tongue dorsal surface of turbot (*Scophthalmus maximus*). *Microscopy Research and Techniquw*, 1(1), 1-6

Kementerian Lingkungan Hidup dan Kehutanan. 2018. Peraturan Menteri Lingkungan Hidup dan Kehutanan Republik Indonesia Nomor P.106/MENLHK/SETJEN/KUM.1/12/2018 tentang *Perubahan Kedua Atas Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor P.20/MENLHK/SETJEN/KUM.1/6/2018 tentang Jenis Tumbuhan dan Satwa yang Dilindungi*. Jakarta

Pertiwi, S. L., Zainuddin, dan Rahmi, E. (2017). Gambaran Histologi Sistem Respirasi Ikan Gabus (*Channa striata*). *JIMVET*, 1(3), 291-298

Rahayu, G. K., Solihin, D. D., dan Butet, N. A. (2021). Keragaman populasi ikan gabus, *Channa striata* (Bloch, 1793) dari Bekasi, Jawa Barat dan Barito Kuala, Kalimantan Selatan menggunakan gen *Cytochrome B*. *Jurnal Iktiologi Indonesia*, 21(1), 61–73. <https://dx.doi.org/10.32491/jii.v21i1.552>

Reginato, G. S., Barbosa, G. K., Ferreira, A. O., Vasconcelos, B. G., Rici, R. E., Watanebe, I., dan Ciena, A. P. (2020). Morphological and ultrastructural characteristics of the tongue of wild boar. *European Journal of Histochemistry*, 64(2), 3128. <https://doi.org/10.4081/ejh.2020.3128>

Robison, H. W. dan Buchanan, T. M. (2020). *Fishes of Arkansas*. Fayetteville: The University of Arkansas Press



- Rochow, V. B. M. (1981). Fish tongues – surface fine structures and ecological considerations. *Zoological Journal of the Linnean Society*, 71(4), 413–426. <https://doi.org/10.1111/j.1096-3642.1981.tb01137.x>
- Sadeghinezhad, J., Rahmati-holasoo, H., Fayyaz, S., dan Zargar, A. (2015). Morphological study of the northern pike (*Esox lucius*) tongue. *Anat Sci Int.*, 90, 235-239
- Safrida. (2021). *Zoologi Vertebrata: Memuat Riset Terkini*. Banda Aceh: Syiah Kuala University Press
- Said, N. E., dan Bakary, R. E. (2014). Morphological study of the asymmetrical buccal cavity of the flatfish common solea (*Solea solea*) and its relation to the type of feeding. *Asian Pacific Journal of Tropical Biomedicine*, 4(1), 13-17. [https://doi.org/10.1016/S2221-1691\(14\)60201-X](https://doi.org/10.1016/S2221-1691(14)60201-X)
- Sinaga, E., Suprihatin, dan Saribanon, N. (2019). *Ikan Marga Channa Potensinya Sebagai Bahan Nutrasetikal*. Jakarta: UNAS Press
- Subaer, Irfanita, R., Armayani, M. (2023). *Mengenal Scanning Electron Microscopy (SEM) Jilid I*. Batangkaluku: Jariah Publishing Intermedia
- Subramanian, K. S., Janavi, G. J., Marimuthu, S., Kannan, M., Raja, K., Haripriya, S., Sharmila, D. J. S., dan Moorthy, P. S. (2018). *Scanning Electron Microscopy: Principle, Components and Applications*. New Delhi: Astral International
- Suprayitno, E. (2017). *Misteri Ikan Gabus*. Malang: UB Press
- Surjawata dan Astuti, B. (2015). *Sensor Ofet Berbasis Film Tipis untuk Deteksi Gas Beracun*. Yogyakarta: Deepublish
- Survana, K. S., Layton, C., dan Bancroft, J. D. (2019). *Bancroft's Theory and Practice of Histological Techniques* (eighth). Amsterdam: Elsevier
- Syafei, L. S. (2017). Keanekaragaman Hayati dan Konservasi Ikan Air Tawar. *Jurnal Penyuluhan Kelautan dan Perikanan Indonesia*, 11(1), 48–62
- Syah, F., Yustina, dan Suwondo. (2020). *Keanekaragaman Ikan Kabupaten Kampar*. Klaten: Penerbit Lakeisha
- Todd, R. B. (1859). *The Cyclopaedia of Anatomy and Physiology*. London: Sherwood, Gillbert, dan Piper
- Takemura, A., Uemura, M., Toda, I., Fang, G., Hikida, M., dan Suwa, F. (2009). Morphological study of the lingual papillae in the ferret (*Mustela putorius furo*). *Okajimas Folia Anat. Jpn.*, 86(1), 17-24
- Ul-Hamid, A. (2018). *A Beginners' Guide to Scanning Electron Microscopy*. Springer. <https://doi.org/10.1007/978-3-319-98482-7>



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Identifikasi Morfologi dan Struktur Histologi Lidah Ikan Gabus (*Channa striata*) Menggunakan Scanning

Electron Microscope (SEM) dan Pewarnaan Hematoksilin Eosin

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