Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Acuña, E., *et al*. 2021. Water Quality in the Reservoirs of Seasonal River Basins in the Mediterranean Region. *Water,*15(6), 661.

Afiatun, N., Sulardiono, B., & Widyorini, N. 2018. Analisis Kualitas Perairan Berdasarkan Kesuburan dan Kelimpahan Fitoplankton di Sungai Lanangan, Klaten. *Journal of Maquares*, 7(3), 253-262.

Allan, J. D., & Castillo, M. M. 2007. Stream Ecology: Structure and Function of Running Waters. 2nd ed. Springer, Dordrecht.

Alprol, A. E., Heneash, A. M. M., Soliman, A. M., Ashour, M., Alsanie, W. F., Gaber, A., & Mansour, A. T. 2021. Assessment of water quality, eutrophication, and zooplankton community in Lake Burullus, Egypt. Diversity, 13(6), 268.

Altindağ, A., & Berdi, D. 2025. Rising temperatures, changing waters: The influence of abiotic factors on freshwater zooplankton community. *Desalination and Water Treatment,* 321, 100991.

American Public Health Association (APHA). 2017. Standard Methods for the Examination of Water and Wastewater. 23rd ed. American Public Health Association, Washington, DC.

Amorim, C. A., & Moura, A. do N. 2021. Ecological impacts of freshwater algal blooms on water quality, plankton biodiversity, structure, and ecosystem functioning. *Science of the Total Environment*, *758*.

Arni, A., & Susilawati. 2022. Pencemaran air sungai akibat pembuangan sampah di Desa Bagan Kuala Tanjung Beringin Kabupaten Serdang Bedagai. *Nautical: Jurnal Ilmiah Multidisiplin*, 1(4), 241–245.

Aryawati, R., Melki, Muslim, E., Ulqodry, T. Z., Diansyah, G., Isnaini, & Sukrisna, W. 2022. Kelimpahan dan sebaran zooplankton di perairan Sungai Musi bagian hilir Sumatera Selatan. *Maspari Journal*, 14(2), 123–132.

Aryawati, R., Melki, Z., Azhara, I., Ulqodry, T. Z., & Hendri, M. 2023. Keragaman fitoplankton dan potensi Harmful Algal Blooms (HABs) di perairan Sungai Musi bagian hilir Provinsi Sumatera Selatan. *Buletin Oseanografi Marina*, 12(1), 27-35.

Azam, F., Fenchel, T., Field, J. G., Gray, J. S., Meyer-Reil, L. A., & Thingstad, F. 1983. The ecological role of water-column microbes in the sea. Marine Ecology Progress Series, 10, 257–263..

Babafemi, O. P., Ajani, T. F., Binuyo, M. O., Ajagbe, A. O., Owonibi, S. K., & Ogwu, M. C. 2024. Biomonitoring for sustainable development. In Biomonitoring of pollutants in the Global South. *Springer Nature Singapore*, (pp. 191–239).

UNIVERSITAS
GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Badan Standardisasi Nasional. 2021. SNI 8995:2021: Metode pengambilan contoh uji air untuk pengujian fisika dan kimia. Badan Standardisasi Nasional, Jakarta.

Bai, Y., Qin, J., Liu, W., Li, L., Zhang, P. 2024. Using DPSIR Model to Assess Water Resource Sustainability in Zhuhai and Macao Cities, China. *Water*, 16(10), 1413.

Baker, J. E., and Smith, R. 2018. *The Role of Ammonia in Aquatic Ecosystems*. *Environmental Science & Technology*, 52(3), 1234-1240.

Barbour, M. T., Gerritsen, J., Snyder, B. D., & Stribling, J. B. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish. 2nd ed. U.S. Environmental Protection Agency, Office of Water, Washington, DC.

Barry, J. 2007. *Environment and Social Theory (2nd ed.).* Penerbit: Routledge, New York

Barus, T. A. 2002. *Pengantar Limnologi Studi Tentang Ekosistem Air Daratan*. Penerbit: USU Press. Medan.

BBL Lampung. 2002. *Petunjuk Teknis Pengelolaan Kualitas Air untuk Budidaya Perairan*. Lampung: Balai Budidaya Laut Lampung.

Beck, M. W., & Hatch, L. K. 2009. A review of research on the development of lake indices of biotic integrity. Environmental Reviews, 17, 21–44.

Bellinger, E. G., & Sigee, D. C. 2010. Freshwater Algae: Identification and Use as Bioindicators. Wiley-Blackwell, Chichester.

Bettinetti, R., & Manca, M. 2014. Understanding the role of zooplankton in transfer of pollutants through trophic food webs. In G. Kehayias (Ed.), Zooplankton: Species Diversity, Distribution and Seasonal Dynamics. Nova Science Publishers, New York.

Bilotta, G. S., & Brazier, R. E. 2008. Understanding the influence of suspended solids on water quality and aquatic biota. *Water Research*, 42(12), 2849–2861.

Boyd, C. E. 1982. Water Quality Management for Pond Fish Culture. Elsevier Scientific Publishing Company, Amsterdam.

Boyd, C. E. 2015. Water Quality: An Introduction. 2nd ed. Springer, Cham.

Burhanudin. 2011. *Perilaku Organisasional*. Penerbit: CAPS, Yogyakarta.

Buss, D. F., Carlisle, D. M., Chon, T. S., Culp, J., Harding, J. S., Keizer-Vlek, H. E., Robinson, W. A., Strachan, S., Thirion, C., & Hughes, R. M. 2015. Stream biomonitoring using macroinvertebrates around the globe: A comparison of large-scale programs. *Environmental Monitoring and Assessment*, 187, 4132.

UNIVERSITAS
GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Cairns, J. and J. R. Pratt. 1993. *A history of biological monitoring using benthic macroinvertebrates*. Penerbit: Chapman & Hall, New York. Hal:10-27

Calbet, A., & Landry, M. R. 2004. Phytoplankton growth, microzooplankton grazing, and carbon cycling in marine systems. Limnology and Oceanography, 49(1), 51–57.

Campbell, N. A., Reece, J. B. 2008. *Biologi Edisi Kedelapan Jilid 1*. Penerbit: Erlangga, Jakarta568 hlm

Cao, M., Hu, A., Gad, M., Adyari, B., Qin, D., Zhang, L., Sun, Q., & Yu, C. P. 2022. Domestic wastewater causes nitrate pollution in an agricultural watershed, China. *Science of the Total Environment*, *823*. https://doi.org/10.1016/j.scitotenv.2022.153680 (diakses tanggal 4 April 2026)

Caroni, R., & Irvine, K. 2010. The potential of zooplankton communities for ecological assessment of lakes: Redundant concept or political oversight? Biology and Environment: Proceedings of the Royal Irish Academy, 110B, 35–53.

Carpenter, S. R., Caraco, N. F., Correll, D. L., Howarth, R. W., Sharpley, A. N., & Smith, V. H. 1998. Nonpoint pollution of surface waters with phosphorus and nitrogen. *Ecological Applications*, 8(3), 559–568.

Castro, P., & Huber, M. E. 2019. Marine Biology. 11th ed. McGraw-Hill Education, New York.

Chakraborty, P., De Kock, S., Archambeau, P., Pirotton, M., Erpicum, S., and Dewals, B. 2024. Flood control capacity of a large reservoir under moderate and extreme flood conditions. *EGU General Assembly 2024*, Vienna, Austria, 14–19 Apr 2024, EGU24-15522.

Chapra, S. C. 2008. Surface Water-Quality Modeling. Waveland Press, Long Grove.

Chen, N., Li, W., Hu, S., Luo, R., Jiang, S., Liu, S., Li, N., Liu, X., Su, H., Chen, Y., Zhong, J., & Dai, T. 2025. Water-soluble phosphorus in submerged macrophytes reflects interspecific differences and environmental responses. *Hydrobiologia*.

Cheng, L., Xue, B., Zawisza, E., Liu, J., Yao, S., Li, S. 2021. Specific species response of Cladocera to the trophic and hydrological environments of lakes: A case study of a typical shallow mesotrophic lake. *Catena*, 207, 105630.

Das, J., & Maity, J. 2021. Aquatic entomofauna as biological indicators of water quality: A review. *International Journal of Entomology Research*, 6(2), 257–262.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Dewi, L. S., Supraba, I., Kamulyan, B. 2020. Penentuan Status Mutu Air Waduk Sermo dengan Metode Storet dan Indeks Pencemaran. *Jurnal Sains dan Teknologi Lingkungan*, 12(1): 12-24.

Ding, N., Yang, W., Zhou, Y., González-Bergonzoni, I., Zhang, J., Chen, K., Vidal, N., Jeppesen, E., & Liu, Z. 2018. Different responses of functional traits and diversity of stream macroinvertebrates to environmental and spatial factors in the Xishuangbanna watershed of the upper Mekong River Basin, China. *Science of the Total Environment*, 634, 288–299.

Doubek, J. P., Carey, C. C., Lavender, M., Winegardner, A. K., Beaulieu, M., Kelly, P. T., Pollard, A. I., Straile, D., & Stockwell, J. D. 2019. Calanoid copepod zooplankton density is positively associated with water residence time across the continental United States. *PLoS ONE*, *14*(1).

DPUPKP Kulon Progo. 2021. *Profil Waduk Sermo Kabupaten Kulon Progo*. Kulon Progo: Dinas Pekerjaan Umum, Perumahan, dan Kawasan Permukiman Kabupaten Kulon Progo.

Du, C.; Zhao, F.; Shang, G.; Wang, L.; Jeppesen, E.; Zhang, L.; Zhang, W.; Fang, X. 2023. Ammonia influences the zooplankton assemblage and beta diversity patterns in complicated urban river ecosystems. *Water*, 15(8), 1449.

Du, C.; Zhao, F.; Shang, G.; Wang, L.; Jeppesen, E.; Zhang, L.; Zhang, W.; Fang, X. 2023. Ammonia influences the zooplankton assemblage and beta diversity patterns in complicated urban river ecosystems. *Water*, 15(8), 1449.

Duhamel, S. 2025. The microbial phosphorus cycle in aquatic ecosystems. In *Nature Reviews Microbiology* (Vol. 23, Number 4, pp. 239–255). Nature Research. https://doi.org/10.1038/s41579-024-01119-w (diakses tanggal 10 April 2026)

Dumont, H. J. 1999. The species richness of zooplankton of the world's inland waters. *Hydrobiologia*, 410, 1–17.

Edwards, T. M., Puglis, H. J., Kent, D. B., Durán, J. L., Bradshaw, L. M., & Farag, A. M. 2024. Ammonia and aquatic ecosystems – A review of global sources, biogeochemical cycling, and effects on fish. In *Science of the Total Environment* (Vol. 907). Elsevier B.V.

Effendi, Hefni. 2003. *Telaah Kualitas Air: bagi pengelolaan sumber daya dan lingkungan perairan.* Penerbit : Kanisius Yogyakarta.

Elyazar, N., M. S. Rendra, dan I N. Wardi. 2007. Dampak Aktivitas Masyarakat terhadap Tingkat Pencemaran Air Laut di Pantai Kuta Kabupaten Badung serta Upaya Pelestarian Lingkungan. *Ecotrophic*. Volume 2 Nomor 1, Hal:1-18.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

European Environment Agency (EEA). 1999. Environmental Indicators: Typology and Overview. Technical Report No. 25. European Environment Agency, Copenhagen.

Ewusie, J.Y. 1990. *Pengantar Ekologi Tropika*. Penerbit: ITB Press, Bandung.

Fakihuddin, F., Suhariyanto, T. T., Faishal, M. 2020. Analisis Dampak Lingkungan dan Persepsi Masyarakat terhadap Industri Peternakan Ayam (Studi Kasus pada Peternakan di Jawa Tengah). *Jurnal Teknik Industri*. 10(2): 191 199.

Fawell, J. 2003. *Water Quality and Human Health*. WHO, Geneva.

Febrianti, A. A. P., Manik, M. A., Wijopriono. 2022. Pengukuran Kelimpahan dan Sebaran Spasial Zooplankton Menggunakan Scientific Echosounder Di Semenanjung Utara Pesisir Banyuasin, Sumatera Selatan*. J. Ilmu dan Teknologi Kelautan Tropis*. Volume 14 Nomor 1, hal : 47-68.

Fernández, R., Alcocer, J., & Oseguera, L. A. 2022. Microcrustacean (Cladocera and Copepoda) Assemblages of a Tropical Karst Lake District. *Diversity*, *14*(7). https://doi.org/10.3390/d14070564 (diakses tanggal 10 April 2026)

Fernando, C. H. 2002. A Guide to Tropical Freshwater Zooplankton: Identification, Ecology and Impact on Fisheries. Backhuys Publishers, Leiden.

Ferreira, J. G., Andersen, J. H., Borja, A., Bricker, S. B., Camp, J., Cardoso, D. S. M., Garces, E., Heiskanen, A. S., Humborg, C., Ignatiades., Lancelot, C., Menesguen, A., Tett, P., Hoepffner, N., Claussen, U. 2011. Overview of eutrophication indicators to assess environmental status within the European Marine Strategy Framework Directive. *Estuarine, Coastal and Shelf Science*. Vol 93(2), pp: 117-131.

Fielding, A. H. 2010. *Cluster and Classification Techniques for the Biosciences*. Cambridge: Cambridge University Press.

Fintelman-Oliveira, E., Kruk, C., Lacerot, G., Klippel, G., & Branco, C. W. C. 2023. Zooplankton functional groups in tropical reservoirs: discriminating traits and environmental drivers. *Hydrobiologia*, *850*(2), 365–384. https://doi.org/10.1007/s10750-022-05074-6 (diakses tanggal 6 April 2026)

Firmansyah, Y. W., Setiani, O., & Darundiati, Y. H. 2021. Kondisi Sungai di Indonesia Ditinjau dari Daya Tampung Beban Pencemaran: Studi Literatur. *Jurnal Serambi Engineering*, 6(2): 1879-1890

Gao, Y., Lai, Z., Wang, C., Li, H., & Mai, Y. (2021). Population characteristics of brachionus calyciflorus and their potential application for evaluating

UNIVERSITAS GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

river health in the pearl river delta, china. *Water (Switzerland)*, *13*(6). https://doi.org/10.3390/w13060749 (diakses tanggal 8 April 2026)

García-Chicote, J., Armengol, X., & Rojo, C. 2018. Zooplankton abundance: a neglected key element in the evaluation of reservoir water quality. *Limnologica*, 69, 46-54.

Gavrilko, D., Zhikharev, V., Zolotareva, T., Kudrin, I., Yakimov, B., Erlashova, A. 2024. Biodiversity of zooplankton (Rotifera, Cladocera and Copepoda) in the tributaries of Cheboksary Reservoir (Middle Volga, Russia). *Biodiversity Data Journal*, 12, e116330.

Goswami, S. C. 2004. *Zooplankton Methodology, Collection and Identification: A Field Manual*. Dona Paula, Goa: National Institute of Oceanography.

Goździejewska, A. M., Cymes, I., & Glińska-Lewczuk, K. 2024. Zooplankton functional diversity as a bioindicator of freshwater ecosystem health across land use gradient. Scientific Reports, 14, 18456. https://doi.org/10.1038/s41598-024-69577-z.

Granada, L., Morão, I. F. C., Lemos, M. F. L., Bossier, P., Novais, S. C. 2024. Molecular mechanisms of induced thermotolerance in two strains of Brachionus koreanus (Rotifera: Monogononta). *Aquaculture*, 595, 741125. https://doi.org/10.1016/j.aquaculture.2024.741125 (diakses tanggal 10 April 2026)

Guan, X., Zhang, L., & Wang, Y. 2020. Sustainable water management in reservoirs. *Journal of Water Resources Management*, 34(8), 1217-1232.

Guermazi, W., Ayadi, H., & Aleya, L. 2023. Zooplankton community structure and environmental drivers in eutrophic aquatic ecosystems. *Environmental Monitoring and Assessment*.

Hafsaridewi, R., Khairuddin, B., Ninef, J., Rahadiati, A., & Adimu, H. E. 2019. Pendekatan sistem sosial–ekologi dalam pengelolaan wilayah pesisir secara terpadu. *Buletin Ilmiah Marina Sosial Ekonomi Kelautan dan Perikanan*, 4(2), 61-74.

Handayani, S., Patria, Mufti. P. 2005. Komunitas Zooplankton Di Perairan Waduk Krenceng, Cilegon, Banten. *Makra Sains*. Volume 9 Nomor 2,Hal: 75 - 80.

Hansen, V, E., O. W., dan G. E. Stringhan. 1992. Dasar-dasar Praktek Irigasi. Terjemahan. Jakarta: Erlangga.

Hansen, Vaughn E; terj. Endang Pipin. 1992. *Dasar-dasar dan Praktek Irigasi.* Penerbit: Erlangga. Jakarta.

Hardiyanto, R., Suherman, H., & Pratama, R. I. 2012. Hubungan kecerahan perairan dengan distribusi vertikal zooplankton. *Jurnal Perikanan dan Kelautan*.

UNIVERSITAS
GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Hariyadi, R. 2023. Pengaruh Pencemaran Limbah Industri dan Domestik terhadap Kualitas Air Waduk Duriangkang. *Jurnal of Science Innovare*, 6(2), 32-35. https://doi.org/10.33751/jsi.v6i2.10635 (diakses tanggal 10 April 2026)

Hariyadi, S., Bengen, D. G., & Hutabarat, S. 1992. *Limnologi: Metode Analisis Kualitas Air*. Bogor: Institut Pertanian Bogor.

Harris, R., Wiebe, P., Lenz, J., Skjoldal, H. R., & Huntley, M. 2000. ICES Zooplankton Methodology Manual. Academic Press, London.

Hartina, S. & Trianto, M. 2020. Keanekaragaman Zooplankton di Perairan Danau Lindu Provinsi Sulawesi Tengah*. JBE*. Volume 5 Nomor 3, Hal: 129-139

Hays, G. C. 2003. A review of the adaptive significance and ecosystem consequences of zooplankton diel vertical migrations. Hydrobiologia, 503, 163–170.

Heddy, S. & Kurniati., M. 2009*. Pengantar Ekologi*. Penerbit: CV Rajawali, Jakarta. 574 hal.

Heimstra, N. W., & McFarling, L. H. 1974. *Environmental Psychology. Monterey*. Penerbit: Brooks/Cole Publishing Company, California.

Hellawell, J. M. 1986. Biological Indicators of Freshwater Pollution and Environmental Management. Elsevier Applied Science Publishers, London.

Hem, J. D. 1985. Study and Interpretation of the Chemical Characteristics of Natural Water. 3rd ed. U.S. Geological Survey Water-Supply Paper 2254. U.S. Geological Survey, Alexandria.

Hickey, J. T. 2013. *Improving Reservoir Management from an Ecological Perspective*. *Dissertation.* University of California.

Hirji, R. F., & Duda, A. 2025. Integrated management of lakes, reservoirs, and their basins is critical for a climate-resilient planet: An urgent wake-up call from collective amnesia. *Water Policy*, 27(1), 66-71

Hove, G., Rathaha, T., & Mugiya, P. 2020. The impact of human activities on the environment, case of Mhondongori in Zvishavane, Zimbabwe*. Journal of Geoscience and Environment Protection*, 8, 330-349

Hutabarat, S & Evans, S. M. 1986. *Kunci Identifikasi Zooplankton*. Penerbit: UI-Press, Jakarta

Indriyanto. 2015. *Ekologi Hutan*. Penerbit: Bumi Aksara.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Ismail, A. H., & Mohd Adnan, A. A. 2016. Zooplankton composition and abundance as indicators of eutrophication in two small man-made lakes. *Tropical Life Sciences Research*, *27*, 31–38.

Iyiola, A. O., Izah, S. C., Morya, S., Akinsorotan, A. M., & Ogwu, M. C. 2023. Owalla Reservoir in South-western Nigeria: Assessment of fish distribution, biological diversity, and water quality index. *Indonesian Journal of Agricultural Research*, 6(2), 106-125.

Ji, G., Wang, X., & Wang, L. 2013. Planktonic rotifers in a subtropical shallow lake: Succession, relationship to environmental factors, and use as bioindicators. The Scientific World Journal.

Julita, R., Sari, N. P., & Putra, A. 2023. Pengaruh kecepatan arus terhadap konsentrasi total suspended solid pada perairan. *Jurnal Sumberdaya Akuatik*.

Junaidi, M., Nurliah, F., & Azhar, F. 2018. Struktur komunitas zooplankton di perairan Kabupaten Lombok Utara, Provinsi Nusa Tenggara Barat. *Jurnal Biologi Tropis*, 18(2), 159-169.

Kalff, J. 2002. Limnology: Inland Water Ecosystems. Prentice Hall, Upper Saddle River.

Kalra, S., Madguni, O., Rana, D. 2023. Sustainable Waste Management of Man-Made Dams and Reservoirs—A Review. Proceedings of the International Conference on Advances and Innovations in Recycling Engineering (AIR-2021). Lecture Notes in Civil Engineering, vol 301. *Springer, Singapore.*

Kementerian Kesehatan. 2010. Permenkes No. 492 Tahun 2010 tentang Persyaratan Kualitas Air Minum. Jakarta

Kementerian Negara Lingkungan Hidup. 2003. Keputusan Menteri Negara Lingkungan Hidup Nomor 115 Tahun 2003 tentang Pedoman Penentuan Status Mutu Air. Kementerian Negara Lingkungan Hidup, Jakarta.

Kementerian Pekerjaan Umum dan Perumahan Rakyat. 2013. *Waduk Sermo Terbaik di Indonesia.* Jakarta.

Kementerian Pekerjaan Umum. 2023. *Profil Bendungan Sermo*. Jakarta: Direktorat Jenderal Sumber Daya Air, Kementerian Pekerjaan Umum.

Khambali, 2017. *Pencemaran Lingkungan. Surabaya*, Himpunan Ahli Kesehatan Lingkungan Indonesia Provinsi Jawa Timur.

Kiørboe, T. 2011. What makes pelagic copepods so successful? Journal of Plankton Research, 33(5), 677–685.

Kolářová, N., & Napiórkowski, P. 2024. Response of copepods and rotifers to trophic conditions and food-resource availability in freshwater ecosystems. *Ecological Indicators*.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Krebs, C. J. 1989. *Ecological Methodology*. New York: Harper and Row Publisher

Kristanto, P. 2004. *Ekologi Industri*. Yogyakarta: Andi.

Lakshmikandan, M., Li, M., & Pan, B. 2024. Cyanobacterial Blooms in Environmental Water: Causes and Solutions. In *Current Pollution Reports* (Vol. 10, Number 4, pp. 606–627). Springer Science and Business Media Deutschland GmbH.

Lalli, C. M., & Parsons, T. R. 1997. Biological Oceanography: An Introduction. 2nd ed. Butterworth-Heinemann, Oxford.

Lampert, W., & Sommer, U. 2007. Limnoecology: The Ecology of Lakes and Streams. 2nd ed. Oxford University Press, Oxford.

Laurens, J. 2012*. Perilaku Manusia dalam Perspektif Lingkungan. Penerbit: PT Raja Grafindo Persada*, Jakarta.

Ławniczak-Malińska, A., Ptak, M., Celewicz, S., & Choiński, A. 2023. Eutrophication and water quality degradation in lake ecosystems. *Water*.

Li, C., Shen, J., Feng, J., Chi, L., & Wang, X. 2024. Variations of phosphorus in sediments and suspended particulate matter of a typical mesotrophic plateau lake and their contribution to eutrophication. *Scientific Reports*, *14*(1).

Liang, D., Wei, N., Wang, Q., Jersabek, C. D., He, X., & Yang, Y. 2019. Influence of hydrological heterogeneity on rotifer community structure in three different water bodies in Shantou Area, Guangdong (China). *Zoological Studies, 58*, 23.

Lomartire, S., Marques, J. C., & Gonçalves, A. M. M. 2021. The key role of zooplankton in ecosystem services: A perspective of interaction between zooplankton and fish recruitment. *Ecological Indicators*, 129, 107867.

Lürling, M. 2006. Investigation of a rotifer (Brachionus calyciflorus) - Green alga (Scenedesmus pectinatus) interaction under non- and nutrient-limited conditions. *Annales de Limnologie*, *42*(1), 9–17.

Ma, Q., Zhang, J., & Liu, Z. 2024. Flood control and disaster mitigation through reservoir management. *International Journal of Disaster Risk Reduction,* 54, 94-107.

Mackay, E. B., Jones, I. D., Folkard, A. M., & Thackeray, S. J. 2011. Transition zones in small lakes: The importance of dilution and biological uptake on lake-wide heterogeneity. *Hydrobiologia*, *678*(1), 85–97.

Mahipe, F. V. N., Mantiri, R. O. S. E., Moningkey, R. D. 2017. Komunitas Zooplankton Di Pesisir Pantai Malalayang Kota Manado. *Jurnal Ilmiah Platax*. Volume 5 Nomor 1, hal : 77-83.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Martinello, M., Manzinello, C., Dainese, N., Giuliato, I., Gallina, A., & Mutinelli, F. 2021. The honeybee: An active biosampler of environmental pollution and a possible warning biomarker for human health. *Applied Sciences*, 11(14), 6481.

Mauchline, J. 1998. The Biology of Calanoid Copepods. Academic Press, San Diego.

McCleskey, R. B., Cravotta, C. A., Miller, M. P., Tillman, F., Stackelberg, P., Knierim, K. J., & Wise, D. R. 2023. Salinity and total dissolved solids measurements for natural waters: An overview and a new salinity method based on specific conductance and water type. *Applied Geochemistry*, *154*.

Mercado-Bettín, D., Clayer, F., Shikhani, M., Moore, T. N., Frías, M. D., Jackson-Blake, L., Sample, J., Iturbide, M., Herrera, S., French, A. S., Norling, M. D., Rinke, K., & Marcé, R. (2021). Forecasting water temperature in lakes and reservoirs using seasonal climate prediction. *Water Research*, *201*. https://doi.org/10.1016/j.watres.2021.117286 (diakses tanggal 10 April 2026)

Midya, S., Bhattacharya, S., Islam, S. S., Ganguly, R. K., Chakraborty, S.K. 2018 Observation on freshwater zooplankton and hydrophytes composition in different wetlands of Paschim Medinipur, West Bengal (India). *Int J Zool Stud*, 3:5–9

Miller, G. T. 1982. *Living in the Environment: Concepts, Problems, and Alternatives (4th ed.).* Belmont, CA: Wadsworth Publishing.

Mishbach, I., Zainuri, M., Widianingsih, W., Kusumaningrum, H. P., Sugianto, D. N., & Pribadi, R. 2021. Analisis Nitrat dan Fosfat Terhadap Sebaran Fitoplankton Sebagai Bioindikator Kesuburan Perairan Muara Sungai Bodri. *Buletin Oseanografi Marina*, *10*(1), 88–104.

Morse, J. M. 2020. The changing face of qualitative inquiry. *International Journal of Qualitative Methods*, 19, 1–7.

Moyle, P. B., & Cech, J. J. 2004. Fishes: An Introduction to Ichthyology. 5th ed. Prentice Hall, Upper Saddle River.

Mukhtasor. 2007. *Pencemaran Pesisir dan Laut*. Jakarta: Pradnya Paramita.

Müller-Navarra, D. C., Brett, M. T., Liston, A. M., & Goldman, C. R. 2000. A highly unsaturated fatty acid predicts carbon transfer between primary producers and consumers. Nature, 403, 74–77.

Mulyadi. 2004. *Calanoid Copepods in Indonesian Waters*. Jakarta: Research Center for Biology, Indonesian Institute of Sciences.

Muñoz-Colmenares, M. E., Sendra, M. D., Sòria-Perpinyà, X., Soria, J. M., & Vicente, E. 2021. The use of zooplankton metrics to determine the

UNIVERSITAS
GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

trophic status and ecological potential: An approach in a large mediterranean watershed. *Water (Switzerland)*, *13*(17).

Nawaz, M. A., War, M. U. D., Baskar, G., Valliappan, S. M., & Sivakumar, K. 2025. Unveiling the ecology of planktonic harpacticoids (Harpacticoida: Copepoda) in a stressed tropical coastal ecosystem, Bay of Bengal, India. *Aquatic Ecology*, 59(2), 159-167.

Nevaev, A. S. 2024. Effectiveness analysis of surface reservoirs environmental monitoring methods in conditions of their eutrophication by agricultural facilities (review). *Agrarnaâ Nauka Evro-Severo-Vostoka*, *25*(6), 969–987.

Nguyen, T. T., Nguyen, H. T., & Le, T. P. Q. 2021. Rotifer community structure as an indicator of trophic status in freshwater reservoirs. *Water*, 13, 1–15.

Ni, B., Liu, X., Wu, X., Jiang, M., Zou, Y. 2025. A comprehensive water quality assessment for a typical river–lake watershed in Northeast China: implications for the water management of boundary lake. *Ecological Indicators*, 178.

Nogueira, M.G., Reis-Oliveira, P.C., Britto, Y.T., 2008. Zooplankton assemblages (Copepoda and Cladocera) in a cascade of reservoirs of a large tropical river (SE Brazil). *Limnetica* 27 (1), 151–170.

Nontji, A. 2008. *Plankton Laut*. Jakarta: LIPI Press.

Novotny, V., & Olem, H. 1994. Water Quality: Prevention, Identification, and Management of Diffuse Pollution. Van Nostrand Reinhold, New York.

Nybakken J. W. 1992. *Biologi Laut*: *Suatu Pendekatan Ekologis.* Penerbit: Gramedia Pustaka Utama, Jakarta.

Odum, E. P. 1993. *Ecology: A Bridge between Science and Society*. Sunderland, MA: Sinauer Associates.

Odum, E. P. 1996. *Dasar-Dasar Ekologi Edisi ketiga*. Penerbit: Gadjah Mada University Press, Yogyakarta.

Odum, E. P., & Barrett, G. W. 2005. Fundamentals of Ecology. 5th ed. Thomson Brooks/Cole, Belmont.

Omoboye, H. Y., Adedeji, A. A., Adeniyi, I. F. 2022. Zooplanktonic Community Assessment over Space and Time: A biomonitoring Tool in an Artificial Lake. *Asian Journal of Research in Zoology*, 5(1): 31-47.

Omori, M., & Ikeda, T. 1984. Methods in Marine Zooplankton Ecology. John Wiley & Sons, New York.

Organisation for Economic Co-operation and Development (OECD). 1982. Eutrophication of Waters: Monitoring, Assessment and Control. OECD, Paris.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Paiki, K., Kalor, J. D., Indrayani, E., & Dimara, L. 2018. Distribusi kelimpahan dan keanekaragaman zooplankton di perairan pesisir Yapen Timur, Papua. *Maspari Journal*, 10(2), 199-206.

Pásková, M., Štekerová, K., Zanker, M., Lasisi, T. T., & Zelenka, J. 2024. Water pollution generated by tourism: Review of system dynamics models. *Heliyon, 10*, e23824.

Patton, M. Q. 2015. Qualitative Research & Evaluation Methods: Integrating Theory and Practice. 4th ed. SAGE Publications, Thousand Oaks.

Pemerintah Republik Indonesia. 2009. *Undang-Undang Nomor 32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup*. Jakarta: Sekretariat Negara Republik Indonesia.

Pemerintah Republik Indonesia. 2009. *Undang-Undang Republik Indonesia Nomor 10 Tahun 2009 tentang Kepariwisataan.* Jakarta: Sekretariat Negara Republik Indonesia.

Pemerintah Republik Indonesia. 2021. *Peraturan Pemerintah Nomor 22 Tahun 2021 tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup*. Jakarta: Sekretariat Negara Republik Indonesia.

Perbiche-Neves, G., Nogueira, M.G., Naliato, D.A.O., Casanova, S.M.C., Debastiani-Júnior, J.R., Espíndola, E.G. 2016. Cyclopoid copepods as bioindicators of eutrophication in reservoirs: do patterns hold for large spatial extents? *Ecological Indicators*, 70, 340-347.

Perbiche-Neves, G., Pomari, J., Serafim-Júnior, M., Gomes Nogueira, M. 2021. Cyclopoid copepods as indicators of trophic level in South American reservoirs: A new perspective at species level based on a wide spatial-temporal scale. *Ecological Indicators*, 127, 107744.

Piatka, D. R., Wild, R., Hartmann, J., Kaule, R., Kaule, L., Gilfedder, B., Peiffer, S., Geist, J., Beierkuhnlein, C., & Barth, J. A. C. 2021. Transfer and transformations of oxygen in rivers as catchment reflectors of continental landscapes: A review. In *Earth-Science Reviews* (Vol. 220). Elsevier B.V. https://doi.org/10.1016/j.earscirev.2021.103729 (diakses tanggal 10 April 2026)

Pielou, E. C. 1966. The measurement of diversity in different types of biological collections. *Journal of Theoretical Biology,* 13, 131-144.

Pielou, E. C. 1975. Ecological Diversity. John Wiley & Sons, New York.

Pinto, I., Nogueira, S. F., Rodrigues, S., Formigo, N., & Antunes, S. C. 2023. Can Zooplankton Add Value to Monitoring Water Quality? A Case Study of a Meso/Eutrophic Portuguese Reservoir. *Water*, *15*(9), 1678.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Pinto-Coelho, R. M. 2008. Zooplankton assemblages as indicators of eutrophication in tropical reservoirs. *Brazilian Journal of Biology*.

Pradhan. A., Bhaumik, P., Das, S., Mishra, M., Khanam, S., Hoque,B, A., Mukherjee, I., Thakur, A. R. and Chauthuri, S. R. 2008. Phytoplankton Diversity as Indicator of Water Quality for Fish Cultivation. *American Journal of Environmental Sciences*, Volume 4, Pp:406-411.

Pranoto, B.A., Zainuri, A.M. 2005. Struktur Komunitas Zooplankton di Muara Sungai Serang, Jogjakarta. *Jurnal Kelautan.* Volume10 Nomor 2, hal: 90-97.

Putri, M. R., & Yusuf, M. 2020. Mikrozooplankton sebagai bioindikator pencemaran perairan. *Jurnal Ilmu Kelautan dan Perikanan*.

Qi, J., Wang, Y., Yuan, J., Liao, C., Liu, J., & Guo, C. 2025. Variations of zooplankton community as bioindicators of eutrophication and water quality in shallow Yangtze Lakes. *Limnologica*, 112, 126248.

Quadra, G. R., Teixeira, J. R. P. V. A., Barros, N., Roland, F., & Amado, A. M. 2019. Water pollution: One of the main limnology challenges in the anthropocene*. Acta Limnologica Brasiliensia*, 31.

Rahmawati, D., Suryanto, A., & Wibowo, H. 2021. Pengaruh degradasi kualitas air terhadap pengolahan air baku dan produktivitas perikanan. *Jurnal Pengelolaan Sumberdaya Alam dan Lingkungan*.

Rasyid, I. 2022*. Buku Panduan Konservasi Waduk*. Jakarta: Kementerian Pekerjaan Umum dan Perumahan Rakyat.

Raymont, J. E. G. 1963. *Plankton and Productivity in the Oceans*. Oxford: Pergamon Press.

Raza, M. A., Roohi, N., Khan Sulehria, A. Q., & Khan, M. K. A. 2024. Population Dynamics of Rotifers as Influenced by Physicochemical Parameters and Heavy Metals at Khanki Headworks, Gujranwala, Pakistan. *Pakistan Journal of Zoology*, *56*(6), 2885–2892.

Razak, S. B. A., & Sharip, Z. 2019. Spatio-temporal variation of zooplankton community structure in tropical urban waterbodies along trophic and urban gradients. Ecological Processes, 8, 44.

Reynolds, C. S. 2006. The Ecology of Phytoplankton. Cambridge University Press, Cambridge.

Rezagama, A., & Tamlikha, A. 2016. Identifikasi pencemar Waduk Manggar Kota Balikpapan. *Jurnal Pengembangan Kota*, 4(1), 40–48.

Richardson, A. J. 2009. In hot water: Zooplankton and climate change. ICES Journal of Marine Science, 65(3), 279–295.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Rodal-Morales, N. D., Beutel, M., Fuhrmann, B., Defeo, S., Hansen, A. M., Harmon, T., Brower, S., & Pasek, J. 2024. Hydrology and oxygen addition drive nutrients, metals, and methylmercury cycling in a hypereutrophic water supply reservoir. *Frontiers in Water*, *6*.

Rofiana Budi Ayumi Sita Dewi. 2025. Spatial Analysis of Physical Parameters Influencing Water Quality: A Case Study in Seloromo Reservoir, Central Java, Indonesia. *LIMNOTEK Perairan Darat Tropis Di Indonesia*, *31*(1), 1–9.

Rosenberg, D. M., & Resh, V. H. 1993. Freshwater Biomonitoring and Benthic Macroinvertebrates. Chapman & Hall, New York.

Saari, H. K., Schmidt, K., & Hakkarainen, J. 2018. Low dissolved oxygen and aquatic organism stress in freshwater ecosystems. *Science of the Total Environment*.

Saber, A., James, D. E., Hayes, D. F., & Moret, G. J. M. 2018. Effects of seasonal fluctuations of surface heat flux and wind stress on mixing and vertical diffusivity of water column in deep lakes. *Advances in Water Resources*, *119*, 150–163. https://doi.org/10.1016/j.advwatres.2018.07.006 (diakses tanggal 10 April 2026)

Saha, J. K., Hasan, M. R., Ali, M. M., Habibi, M. A. M., Sarder, M. R. I., Patra, S., Das, R., Patra, B. C. 2010. Studies On Biodiversity and Abundance Of Fishes In Floodplain Beels Of Bangladesh. *J. Mountain Res*. Volume 5, Hal: 51 – 72.

Santika, Y. E. 2024. Analisis status mutu air dengan metode Indeks Pencemaran berdasarkan parameter fisika-kimia di Sungai Beji, Desa Pondok, Kecamatan Karanganom, Kabupaten Klaten. Ekosains, 16(1), 30–37.

Saputra, A., Nugroho, R. A., & Prasetyo, B. 2025. Dampak aktivitas wisata terhadap kualitas lingkungan perairan waduk. *Jurnal Pariwisata dan Lingkungan*.

Saragi, P. A., Soesilo, T. E. B., & Abidin, C. A. 2020. Review on community-based strategies for improving the quality of lake waters (Case study: Urban Lake Rawa Besar, Depok, West Java, Indonesia). IOP Conference Series: Materials Science and Engineering *725*

Sarang, T & Manoj, K. 2021. Assessment of water quality of Tapi river with reference to rotifera community. *Journal of Entomology and Zoology Studies*. Vol 9 (1), Hal: 2281 – 2284.

Segers, H. 2007. Annotated checklist of the rotifers (Phylum Rotifera), with notes on nomenclature, taxonomy and distribution. *Zootaxa*, 1564, 1–104.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Selfirsta, J. 2021. Pengaruh Aktivitas Masyarakat terhadap Kualitas Perairan Waduk Sermo Kabupaten Kulon Progo. *Thesis*, Universitas Gadjah Mada, Yogyakarta.

Shannon, C. E., & Weaver, W. 1963. The Mathematical Theory of Communication. University of Illinois Press, Urbana.

Sharma, R. S., Rana, A., Panthari, D. 2020. Wastewater pollution induced detrimental impacts on aquatic biodiversity: A review. *Agro Environ Media - Agriculture and Ennvironmental Science Academy, Haridwar, India.* https://doi.org/10.26832/AESA-2020-AEPM-08 (diakses tanggal 2 Februari 2026)

Shaw, B. C., Mechenich, L., & Klessig. 2004. *Understanding Lake Data*. Penerbit: University of Wisconsin, USA

Shi, K., Wang, X., Qin, Y., Woolway, R. I., Fleischmann, A. S., & Piao, S. 2025. Lake surface water temperature in 2024: Climate chronicles. In *Nature Reviews Earth and Environment* (Vol. 6, Number 4, pp. 258–260). Springer Nature.

Shirota, A. 1966. The Plankton of South Vietnam: Fresh Water and Marine Plankton. Overseas Technical Cooperation Agency, Japan.

Simpson, E. H. 1949. Measurement of diversity. Nature, 163, 688.

Singh, R., Kumar, P., & Sharma, V. 2025. Dissolved oxygen dynamics and ecological stress in aquatic ecosystems. *Environmental Monitoring and Assessment*.

Sisingih, D., Wahyuni, A., Hidayat, F. 2021. *Sedimentasi Waduk.* Penerbit: Universitas Brawijaya, Malang

Smith, V. H., Joye, S. B., & Howarth, R. W. 2006. Eutrophication of freshwater and marine ecosystems. *Limnology and Oceanography*, 51(1part2), 351–355.

Soemarwoto, O. 2004. *Ekologi, Lingkungan Hidup, dan Pembangunan (3rd ed*.). Penerbit: Djambatan, Jakarta.

Stirn, J. 1981. Manual Methods in Aquatic Environment Research. Part 8 Rome: Ecological Assesment of Pollution Effect. FAO.

Sudarmadji & Widyastuti, M. 2014. Dampak dan Kendala Wisata Waduk Sermo dari Aspek Lingkungan Hidup dan Risiko Bencana. *Jurnal Teknosains UGM*,3(2): 81-166.

Sugiyono. 2017. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfabeta, Bandung.

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Sugiyono. 2019. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfabeta, Bandung.

Sulastri, Meutia, A. A., & Nomosatryo, S. 2014. Zooplankton sebagai bioindikator kualitas perairan danau. *Limnotek: Perairan Darat Tropis di Indonesia*.

Sulata, K & Das, K. 2016. Zooplankton Diversity of a freshwater Pond in a Cachar district of Assam, India. *Int J. of Life Sciences*, 4(1): 125 - 128

Sumich, J. L. 1999. An Introduction to the Biology of Marine Life. 7th ed. WCB/McGraw-Hill, Boston.

Susanti, R. 2010. Distribusi zooplankton dan hubungannya dengan faktor fisika-kimia perairan. *Jurnal Ilmu Perairan*.

Susanto, H. 2000. *Planktonologi*. Jakarta: Universitas Terbuka.

Susilo, H. 2012. *Psikologi Perilaku Manusia*. Penerbit: PT Raja Grafindo Persada, Jakarta.

Suwandana, A.F., Purnomo, P.W., Rudiyanti, S. 2018. Analisis Perbandingan Fitoplankton dan Zooplankton Serta TSI (Trophic Saprobic Index) pada Perairan Tambak di Kampung Tambak Lorok Semarang. *Journal of Maquares*. Volume 7 Nomor 3, Hl: 237-245.

Tambaru, R., Muhiddin, A.M., & Malida, H.S. 2014. Analisis Perubahan Kepadatan Zooplankton Berdasarkan Kelimpahan Fitoplankton pada Berbagai Waktu dan Kedalaman Di Perairan Pulau Badi Kabupaten Pangkep. *Torani*. Volume 24 Nomor 3, Hal:40-48.

Thukral, A. K., Bhardwaj, R., Kumar, V., & Sharma, A. 2019. New indices regarding the dominance and diversity of communities, derived from sample variance and standard deviation. *Heliyon*, 5(10), e02606.

Tian, D., Zhao, X., Gao, L., Jiang, T., Liang, Z., Yang, Z., Zhang, P., Wu, Q., Ren, K., Yang, C., Li, R., Li, S., Cao, Y., Xuan, Y., Chen, J., & Zhu, A. (2025). A framework for tracing the sources of nitrate in surface water through remote sensing data coupled with machine learning. *Npj Clean Water*, *8*(1).

Toruan, R. L. (2021). Zooplankton diversity in Lake Tondano, Indonesia. *IOP Conference Series: Earth and Environmental Science*, *744*(1).

Tugiyono, T., Nurcahyani, N., & Kanedi, M. 2023. Plankton community structure as a bioindicator of water quality. Jurnal Biologi Eksperimen dan Keanekaragaman Hayati, 10(2), 1–10.

U.S. Environmental Protection Agency. 2021. *Phytoplankton Sample Collection and Preservation Field Procedures.* LG400, Version 10.

UNIVERSITAS GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

U.S. Environmental Protection Agency. 2025. *Harmful Algal Blooms Research*. Washington, DC: United States Environmental Protection Agency.

Umi, W. A. D., Yusoff, F. M., Balia Yusof, Z. N., Ramli, N. M., Sinev, A. Y., & Toda, T. (2024). Composition, Distribution, and Biodiversity of Zooplanktons in Tropical Lentic Ecosystems with Different Environmental Conditions. *Arthropoda*, *2*(1), 33–54.

United Nations Environment Programme. 2016. Global Environment Outlook: Regional Assessments. Nairobi, Kenya: UNEP. Available at: https://www.unep.org/resources/report/global-environment-outlook-regional-assessments (diakses 5 Juni 2025)

Vakati, V., Fuentes-Reinés, J.M., Wang, P., Wang, J., Dodsworth, S. 2023. A summary of Copepoda: synthesis, trends, and ecological impacts. *Journal of Oceanology and Limnology*, 41(3), 1050-1072.

Vanesa, A. A., Oktaviani, F., Wisuta, R., Nauli, S. I., Ananda, H., Pasa, A. P., Hanan, F. Z., Salwa, N. A., Nazhimah, S. 2025. Analisis Dampak Pencemaran Air Terhadap Lingkungan Sekitar dan Pertanggungjawabannya Dalam Perspektif Hukum Lingkungan. *Aurelia: Jurnal Penelitian dan Pengabdian Masyarakat Indonesia*, 4(1).

Vighi, M., *et al.* 2018. Impact of Domestic Wastewater on Freshwater Quality: A Review. *Environmental Pollution*, 238, 357-369.

Wagner, M., & Erickson, A. 2017. Sustainable management of eutrophic lakes and reservoirs. *Journal of Environmental Protection*, 8, 436-463.

Wahyuastari, D. 2015. Penyusunan baku mutu air dan daya tampung beban pencemaran. *Jurnal Sumber Daya Air*.

Wahyuni, E & Santoso, D. 2023. Dampak Lingkungan dan Keberlanjutan Peternakan Ayam Ras Pedaging Pola Kemitraan. *Jurnal Agrikultura*, 34 (2): 237-254

Walangitan, H. D., Rotinsulu, W. C., & Paat, F. J. 2024. Analysis of Management Strategies for Lake Tondano Ecosystem in North Sulawesi, Indonesia Using Swot and AHP Methods. *Revista De Gestão, 18*(2).

Wang, B., Yu, F., Teng, Y., Cao, G., Zhao, D., & Zhao, M. 2022. A SEEC model based on the DPSIR framework approach for watershed ecological security risk assessment: A case study in Northwest China. Water, 14(1), 106. https://doi.org/10.3390/w14010106.

Wang, H., Liu, X., Cui, Y. 2015. Holistic Management Strategy:Integrate Environmentalhydrological-Ecological-Economic Measures to Conserve And Rehabilitate The Yangtze Lake Ecosystems. *J-Global*, 24(3): 353-357

Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon
Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Wang, K., Xiao, S., Liu, J., Li, P., He, C., Shi, Q., & He, D. 2022. Spatial dynamics of dissolved organic matter among different segments of a large-scale reservoir in the water-level declining period. *Frontiers in Environmental Science*, *10*.

Wang, L., Zhang, Y., Li, J., & Chen, X. 2022. Spatial variation of water quality parameters in reservoir systems under hydrological regulation. *Water*, 14, 1–17.

Wang, Q., Li, S., & Zhao, H. 2023. Dissolved oxygen variation and ecological effects in freshwater ecosystems. *Water*, 15, 1–18.

Wang, W., Sun, Y., & Wu, J. 2018. Environmental warning system based on the DPSIR model: A practical and concise method for environmental assessment. *Sustainability*, 10(6), 1728.

Wang, W., Xiang, L., Li, Y., Suo, Q., Song, X., Zhang, Y., Huang, C., Muhammad, F., Wang, T., Ren, X., Chen, S., Chen, G., Huang, X. 2024. Modern distribution of Cladocera in lakes of northern China and western Mongolia and its environmental implications. Fundamental Research.

Weber-Scannell, P. K., & Duffy, L. K. 2007. Effects of total dissolved solids on aquatic organisms: A review of literature and recommendation for salmonid species. American Journal of Environmental Sciences, 3(1), 1–6. https://doi.org/10.3844/ajessp.2007.1.6.

Wedderburn, S. D., Hammer, M. P., Bic, C. M. 2012. Shifts in small-bodied fish assemblages resulting from drought-induced water level recession in terminating lakes of the Murray– Darling Basin, Australia. *Hydrobiologia*. Vol 6(1), pp: 35–46.

Wetzel, R.G. 2001. *Limnology: Lake and River Ecosystems. Third Edition*. Penerbit: Academic Press, San Diego, 1006 p.

Widyarani, Wulan, D. R., Hamidah, U., Komarulzaman, A., Rosmalina, R. T., & Sintawardani, N. 2022. Domestic wastewater in Indonesia: generation, characteristics and treatment. In *Environmental Science and Pollution Research* (Vol. 29, Number 22, pp. 32397–32414). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/s11356-022-19057-8 (diakses tanggal 3 Maret 2026)

Winton, R. S., Calamita, E., & Wehrli, B. 2019. Reviews and syntheses: Dams, water quality and tropical reservoir stratification. Biogeosciences, 16, 1657–1671.

Woolway, R. I., Sharma, S., & Smol, J. P. 2022. Lakes in Hot Water: The Impacts of a Changing Climate on Aquatic Ecosystems. In *BioScience* (Vol. 72, Number 11, pp. 1050–1061). Oxford University Press.

UNIVERSITAS GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Yadav, S. C. 2024. Water Pollution: The Problems and Solutions. *Science Insights*, 44(2): 1245 – 1251. https://doi.org/10.15354/si.24.re905 (diakses tanggal 2 Februari 2026)

Yağcı, M., Külköylüoğlu, O., Yağcı, A., Erbatur, İ., & Bulut, C. 2024. Interannual and seasonal changes in the distribution and ecological responses of zooplankton communities in Lake Eğirdir (Türkiye). *Biologia,* 79, 3361-3380.

Yu, Y., Li, X., Wang, J., & Zhang, L. 2024. Agricultural fertilizer and pesticide inputs increase nitrate and phosphate accumulation in soil and water environments. *Science of the Total Environment*.

Yun, S. C., Jeong, H., Lee, J. S., Kim, J. H., Kim, I. C., Maszczyk, P., Yang, Z., Hagiwara, A., & Lee, J. S. 2026. A review of ammonia toxicity on aquatic organisms: Species-specific responses, microbial shifts, and environmental interactions. In *Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology* (Vol. 300). Elsevier Inc. https://doi.org/10.1016/j.cbpc.2025.110388 (diakses tanggal 2 Februari 2026)

Zanatia, R., Putri, M. R., & Sari, D. P. 2019. Faktor penyebab penurunan kualitas dan kuantitas air akibat pencemaran. *Jurnal Lingkungan dan Sumberdaya Alam*.

Zeng, Y., Wang, Z., Zhao, Q., Huang, N., Li, J., Wang, J., & Sun, F. 2025. Assessment of the effects and contributions of natural and human factors on the nutrient status of typical lakes and reservoirs in the Yangtze River Basin. *Water,* 17(4), 559.

Zhang, J., Xie, P., Tao, M., & Guo, L. 2013. Longitudinal gradients and spatial heterogeneity of water quality in reservoir ecosystems. *Environmental Monitoring and Assessment*.

Zhang, T., Zhou, L., Zhou, Y., Zhang, Y., Guo, J., Han, Y., Zhang, Y., Hu, L., Jang, K. S., Spencer, R. G. M., Brookes, J. D., Dolfing, J., & Jeppesen, E. 2024. Terrestrial dissolved organic matter inputs accompanied by dissolved oxygen depletion and declining pH exacerbate CO2 emissions from a major Chinese reservoir. *Water Research*, *251*.

Zhang, X., Liu, Z., Gulati, R. D., & Jeppesen, E. 2018. The effect of environmental variables on zooplankton community structure in lakes and reservoirs. *Ecological Indicators*.

Zhang, Y., Li, X., & Liu, S. 2018. Utilization of Zooplankton as Bioindicators of Water Quality in Aquatic Ecosystems*. Environmental Science and Pollution Research*, 25(6), 5339-5347.

UNIVERSITAS
GADJAH MADA
Kajian Kualitas Air dan Zooplankton Sebagai Bioindikator Pencemaran di Waduk Sermo Kabupaten Kulon Progo Daerah Istimewa Yogyakarta
Lisa Andini, Dr. Tjahyo Nugroho Adji, S.Si., M.Sc.Tech.; Prof. Dr. Suwarno Hadisusanto, S.U.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Zhang, Y., Shen, J., He, L., Feng, J., Chi, L., & Wang, X. 2024. Challenge to Lake Ecosystems: Changes in Thermal Structure Triggered by Climate Change. In *Water (Switzerland)* (Vol. 16, Number 6). Multidisciplinary Digital Publishing Institute (MDPI).

Zhou, J., Leavitt, P. R., Zhang, Y., Qin, B. 2022. Anthropogenic eutrophication of shallow lakes: Is it occasional?. *Water Research*, 221.