

## DAFTAR PUSTAKA

- [1] K. F. Rohmah, A. N. Salma, N. Indriyawati, and K. Dewi, “Analisis Laju Penempelan Biofouling terhadap Substrat Alami dan Buatan di Desa Tanjung Piring Kecamatan Socah Kabupaten Bangkalan Madura Analysis of Biofouling Attachment Rate to Natural and Artificial Substrates in Tanjung Piring Village Socah District Bangkalan Regency Madura,” vol. 8, no. 3, pp. 7–8, 2025.
- [2] P. Taylor, “Access details: Access Details: [ subscription number 936074567 ] Economic impact of biofouling on a naval surface ship,” no. 936074567, 2011, doi: 10.1080/08927014.2010.542809.
- [3] A. D. I. K. Yusim *et al.*, “BIOFOULING PADA LAMBUNG KAPAL TERHADAP SKIN FRICTION DRAG EXPERIMENTAL STUDY ON EFFECT OF BIOFOULING GROWTH ON SHIP HULLS AGAINST SKIN FRICTION,” 2016.
- [4] O. F. Maritime, *TRANSPORT*. 2023.
- [5] E. R. Gultom, “Merefungsi Pengangkutan Laut Indonesia melalui Tol Laut untuk Pembangunan Ekonomi Indonesia Timur”.
- [6] B. Solid *et al.*, “UNIT 1 CATEGORIES OF CARGO AND TYPES OF SHIPS,” pp. 5–18.
- [7] P. Perikanan, N. Brondong, and K. Lamongan, “Karakteristik kapal rawai berdasarkan rasio dimensi utama di pelabuhan perikanan nusantara brondong kabupaten lamongan,” vol. 1, no. 1, pp. 53–58, 2020.
- [8] R. Standar and N. Indonesia, “Kapal penangkap ikan – Kapal berbahan kayu dengan panjang hingga 12 m – Material dan ukuran konstruksi (,” 2024.

- [9] A. Iswadi and G. Priyotomo, “Biofouling dan Korosi pada Infrastruktur Energi Laut di Indonesia : Analisis Bibliometrik,” vol. 23, no. 79, pp. 52–60, 2025.
- [10] P. Antifoulant and P. Tbt, “Penanggulangan Biofouling di Dasar Kapal Organisme Laut Universitas Al Azhar Indonesia Fakultas Sains dan Teknologi,” 2010.
- [11] A. K. Yusim, “PUGER Abstrak,” vol. 3, no. 1, pp. 161–164, 2020.
- [12] A. A. Desher, “The Maritime Commons : Digital Repository of the World Maritime Biofouling impacts on the environment and ship energy efficiency BIOFOULING IMPACTS ON THE ENVIRONMENT AND SHIP ENERGY By,” 2018.
- [13] B. A. B. Iii and M. Penelitian, “No Title,” pp. 38–47, 2013.
- [14] A. Farkas, N. Degiuli, and I. Marti, “Impact of Hard Fouling on the Ship Performance of Di fferent Ship Forms,” 2020.
- [15] G. I. Alliance, “Analysing the Impact of Marine Biofouling on the Energy Efficiency of Ships and the GHG Abatement Potential of Biofouling Management Measures”.
- [16] M. L. Hakim, N. Maqbulyani, B. Nugroho, I. Ketut, I. K. Aria, and P. Utama, “WIND-TUNNEL EXPERIMENTS AND CFD SIMULATIONS TO STUDY THE INCREASE IN SHIP RESISTANCE COMPONENTS DUE TO ROUGHNESS,” vol. 16, no. 3, pp. 144–163, 2021.
- [17] A. K. Yusim and I. K. A. P. Utama, “An Investigation Into The Drag Increase on Roughen Surface due to Marine Fouling Growth,” vol. 28, no. 3, 2017.
- [18] “summary-21161774.”

- [19] M. P. Schultz, J. A. Bendick, E. R. Holm, and W. M. Hertel, “Economic impact of biofouling on a naval surface ship,” pp. 10–12, 2011.
- [20] “ADOPTS the 2023 Guidelines for the control and management of ships’ biofouling to minimize the transfer of invasive aquatic species , as set out in the annex to the present resolution ;,” vol. 378, no. July, 2023.
- [21] O. Turan, Y. Kemal, S. Day, and T. Tezdogan, “Experimental determination of added hydrodynamic resistance caused by marine biofouling on ships,” *Transp. Res. Procedia*, vol. 14, no. 0, pp. 1649–1658, 2016, doi: 10.1016/j.trpro.2016.05.130.
- [22] E. Methods, H. Speed, M. Vehicles, and R. Test, “ITTC – Recommended Procedures ITTC – Recommended Procedures,” 2002.
- [23] E. Date, “ITTC – Recommended Procedures and Guidelines ITTC Quality System Manual Recommended Procedures and Guidelines 1978 ITTC Performance Prediction Method ITTC – Recommended Procedures and Guidelines,” 2017.
- [24] S. A. Alghamdi, “The Maritime Commons : Digital Repository of the World Maritime The impact of biofouling on marine environment : a qualitative review of the current antifouling technologies THE IMPACT OF BIOFOULING ON MARINE ENVIRONMENT,” 2019.
- [25] E. Science, “Investigation of fuel consumption on an operating ship due to biofouling growth and quality of anti-fouling coating Investigation of fuel consumption on an operating ship due to biofouling growth and quality of anti-fouling coating,” 2019, doi: 10.1088/1755-1315/339/1/012037.
- [26] I. Davidson, P. Cahill, A. Hinz, D. Kluza, C. Scianni, and E. Georgiades, “A

- Review of Biofouling of Ships ' Internal Seawater Systems," vol. 8, no. October, pp. 1–16, 2021, doi: 10.3389/fmars.2021.761531.
- [27] M. A. Sectors, "Marine biofouling: non-indigenous species and management across sectors".
- [28] A. Growcott, D. Kluza, and E. Georgiades, *Literature review : In-water systems to remove or treat biofouling in vessel sea chests and internal pipework*, vol. 5, no. March. 2016.
- [29] L. D. Chambers, K. R. Stokes, F. C. Walsh, and R. J. K. Wood, "Modern approaches to marine antifouling coatings," vol. 201, pp. 3642–3652, 2006, doi: 10.1016/j.surfcoat.2006.08.129.
- [30] L. Delauney and C. Comp, "Biofouling protection for marine environmental sensors," pp. 503–511, 2010, doi: 10.5194/os-6-503-2010.
- [31] R. N. Cuthbert *et al.*, "Science of the Total Environment Global economic costs of aquatic invasive alien species," vol. 775, 2021, doi: 10.1016/j.scitotenv.2021.145238.
- [32] J. Bannister, M. Sievers, F. Bush, and N. Bloecher, "Biofouling in marine aquaculture : a review of recent research and developments," *Biofouling*, vol. 35, no. 6, pp. 631–648, 2019, doi: 10.1080/08927014.2019.1640214.
- [33] D. M. Yebra, S. Kiil, and K. Dam-johansen, "Antifouling technology — past , present and future steps towards efficient and environmentally friendly antifouling coatings," vol. 50, pp. 75–104, 2004, doi: 10.1016/j.porgcoat.2003.06.001.
- [34] S. E. Susilowati and D. Sumardiyanto, "PENERAPAN MARINE GROWTH PREVENTION SYSTEM ( MGPS ) PADA PENGOPERASIAN KAPAL

UNTUK MENGHAMBAT LAJU,” vol. 10, no. 2, 2018.

- [35] T. S. Perkapalan, F. Teknik, and U. H. Tuah, “PENERAPAN MGPS ( Marine Growth Prevention System ) PADA LAMBUNG KAPAL,” pp. 53–55.
- [36] P. A. Vinagre, T. Simas, E. Cruz, E. Pinori, and J. Svenson, “Marine Biofouling: A European Database for the Marine Renewable Energy Sector,” 2020.
- [37] G. Onwater, C. Of, T. Marine, E. Protection, P. Prevention, and M. Governments, “I:\CIRC\MEPC\1\MEPC.1-Circ.918.docx,” vol. 44, no. January, 2025.
- [38] M. Environment, P. Committee, E. Pre-session, W. Programme, O. F. The, and C. Bodies, “No Title,” vol. 1173, no. 33, 2024.
- [39] “GUIDELINES ON BIOFOULING MANAGEMENT,” no. December, 2022.