

## DAFTAR PUSTAKA

- Ajizah, A. (2004). Sensitivitas *Salmonella thypimurium* terhadap Ekstrak Daun *Psidium guajava* L. *Bioscientiae*. 1 (1): 31-38.
- Amalia, R., dan Trimulyona, G. (2018). Aktivitas Antibakteri Ekstrak Lichen *Usnea subfloridana* terhadap Pertumbuhan Bakteri *Escherichia coli* FNCC 0091 dan *Staphylococcus aureus* FNCC 0047. *Lentera Bio*. 8(2): 175-181.
- Ash, C., Farrow, J.A., Dorsch, M., Stackenbrandt, E., dan Collins, M.D. (1991). Comparative Analysis of *Bacillus Anthracis*, *Bacillus Cereus*, and Related Species on The Basis of Reverse Transriptase of 16S rRNA. *Int. J. Syst. Bacteriol.* 41(3): 343–346.
- Azmir, J., Zaidul, I.S.M., Rahman, M.M., Rahman., Sharif, K.M., Mohamed,A., Sahena, F., Jahurul, M.H.A., Ghafoor, K., Norulaini, N.A.N., dan Omar, A.K.M. (2013). Techniques for Extraction of Bioactive Compunds from Plant Materials : A Review. *Journal Of Food Engineering*. 117(4): 426-436.
- Balaji, P., dan Hariharan, G.N. (2007). *In vitro* Antimicrobial Activity of *P. Praesorediosum* Thallus Extracts. *Journal of Botany*. 2(1): 54-59.
- Balouiri, M., Moulay, S., dan Saad, K.I. (2016). Methods for in Vitro Evaluating Antimicrobial Activity: A review. *Journal of Pharmaceutical Analysis*. 6(2): 71-79.
- Bergner. (1990). *Usnea: The Herbal Antibiotic and Other Medicinal Liches*. Capitola: Botanica Press.
- Bottone, E. J. (2010). *Bacillus cereus*, A Volatile Human Pathogen. *Clinical Microbiology Reviews*. 23(2): 382–398.
- Burkholder, P.R., Evans, A.W., McVeigh, I., dan Thornton, H.K. 1994. Antibiotic Activity of Lichens. *Proceedings of The National Academy of Sciences of The United States of America*. 30(9): 250-255.
- Cansaran, D., Aras, S., Atakol, O. (2008). Determination of Usnic Acid Content in Some Lichen Species Found in Anatolia. *Journal of Applied Biological Sciences*. 2(3): 41-44.
- Collier, L. (1998). *Microbiology and Microbial Infections*. 9th Edition. New York : Oxford University Press, Inc.
- Cowan, M.M. (1999). *Plant Product as Antimicrobial Agents*. Oxford: Miami University.
- Davis, W.W., dan Stout,T.R. (1971). Disc Plate Methods of Microbiological Antibiotic Assay. *Applied Microbiology*. 22(1): 659-665.

- Darsana, I., Besung I., dan Mahatmi H, (2012). Potensi Daun Binahong (*Anredera cardifolia* (Tenore) Steenis) dalam Menghambat Pertumbuhan Bakteri *Escherichia coli* secara In Vitro. *Indonesia Medicus Veterinus*. 1 (3): 337-351.
- Dayan, F.E., dan Romagni, J.G. (2001). Lichen as a Potential Source of Pesticides. *Pesticide Outlook*. 12(6): 229-232.
- Departemen Kesehatan Republik Indonesia. (1995). *Materia Medika Indonesia Jilid VI*. Jakarta: Departemen Kesehatan Republik Indonesia.
- Depkes RI. (2000). *Parameter Standar Umum Ekstrak Tumbuhan Obat*. Jakarta.
- Dharmananda, S. (2003). *Usnea: an Herb used in Western and Chinese Medicine*. Portland: Institute for Traditional Medicine.
- Dini, I., Maryono, Akmal, dan Hajar, S. (2017). Phytochemical Analysis and Antimalarial Activity of *Usnea sp.* from South Sulawesi against *Plasmodium falciparum*. *Int.J.Curr.Microbiol.App.Sc.* 6(9): 1653-1660.
- Drobniowski, F.A. (1993). *Bacillus cereus* and Related Species. *Clinical Microbiology Reviews*. 6(4): 324–338.
- Dwiyanti, W., Ibrahim, M dan Trimulyono, G. (2014). Pengaruh Ekstrak Daun Kenikir (*Cosmos caudatus*) terhadap Pertumbuhan Bakteri *Bacillus cereus* secara In Vitro. *Lentera Bio*. 3 (1): 1-5.
- Dzen, S.M. (2003). *Bakteriologi Medik*. Malang : Bayumedia.
- Frankland, G.C., dan Frankland P.F. (1887). Studies on Some New Microorganisms Obtained from Air : Philosophical Transactions of the Royal Society. *Biological Science*. 178: 257–287.
- Farnsworth, N. R. (1966) Biological and Phytochemical Screening of Plants. *J.Pharm.* 55(3): 225-276.
- Galloway, D.J. (1991). *Tropical Lichen: Their Systematics, Conservation and Ecology*. Oxford: Clasendon Pr.
- Halcomb, M. (2010). *Lichens*. Nashville: The University of Tennessee Extension.
- Hale, M.E. (1973). *How to Know The Lichens*. Iowa: Wm. C. Brown Company Publishers.
- Hamdayani, L.A., Subehan, Djide, N. (2019). Uji Aktivitas Antibakteri Fraksi n-Heksana dan Etil Asetat (*Parmotrema tinctoruma* terhadap *Staphylococcus aureus* dan *Escherichia coli*. *Journal of Pharmaceutical and Medicinal Sciences*. 4(2): 26-29.
- Harborne, J.,B. (1987). *Metode Fitokimia* . Institut Teknologi Bandung: Bandung.

- Hardjoeno. (2007). *Kumpulan Penyakit Infeksi dan Tes Kultur Sensitivitas Kuman Serta Upaya Pengendaliannya*. Makassar: Cahya Dinan Rucitra.
- Hashemi, S., Nasrollah, A., Rajabi., M. (2013). Irrational Antibiotic Prescribing : A Local Issue or Global Concern. *EXCLI Journal*. 12(1): 384-395.
- Hasnunidah, N. (2009). *Botani Tumbuhan Rendah*. Bandar Lampung: Unila.
- Hazimi, H., Fitmawati, dan Emrizal. (2018). Skrining Fitokimia Ramuan Obat Pahit Suku Melayu Lingga Kepulauan Riau. *Jurnal Riau Biologia*. 3(1): 34 – 40.
- Heyne, K. (1987). *Tumbuhan Berguna Indonesia*. Jakarta: Sarana Wana Jaya.
- Hsu, K.J. dan Reijers, T.J.A. (1986). *Manual of Carbonate Sedimentology A Lexicographical Approach*: Academic Press, Inc.
- Huneck, S. (1999). The Significance of Lichens and Their Metabolites. *Naturwissenschaften*. 86: 559-570.
- Ikmalia. (2008). Analisa Profil Protein Isolat *Escherichia Coli* S1 Hasil Iradiasi Sinar Gamma. Fakultas Sains Teknologi Universitas Islam Negeri Syarif Hidayatullah: Jakarta.
- Indrayani, L., Soetjipto, H., dan Sihasale L. (2006). Skrining Fitokimia dan Uji Toksisitas Ekstrak Daun Pecut Kuda (*Stachytarpheta jamaicensis* L. Vahl) terhadap Larva Udang *Artemia salina* Leach. *Berkeley Penel Hayati*. 12: 57-61.
- Jannah, M., dan Afifah, N. (2020). Studi Kayu Angin (*Usnea* Spp.) sebagai Bahan Obat Tradisional. *Jurnal Teknosains*. 14(11): 61-67.
- Janny, S., Bert, F., Dondero, F., Nicolas, C.M.H., dan Belghiti, J. (2012). Fatal *Escherichia coli* Skin and Soft Tissue Infection in Liver Transplant Recipients: Report of Three Cases. *Transpl Infect Dis*. 15(2): 49-53.
- Jawetz, E., Melnick, J.L., Adelberg, E.A. (2001). *Mikrobiologi Kedokteran*. Jakarta: Penerbit Salemba Medika.
- Jones, W.P., Kinghorn, A.D. 2006. Extraction of Plant Secondary Metabolites. *Natural Product Isolation*. New Jersey: Humana Press.
- Kementerian Kesehatan Republik Indonesia. (2011). Situasi Diare di Indonesia. *Buletin Jendela Data dan Informasi Kesehatan*. 2(2): 1-6.
- Kementerian Kesehatan Republik Indonesia. (2020). *Profil Kesehatan Indonesia Tahun 2019*. Jakarta: Kementerian Kesehatan RI.
- Kosanic, M., Rankovic, B., dan Stanojkovic, T. (2012). Antioxidant, Antimicrobial and Anticancer Activities of Three *Parmelia* Species. *Journal of the Science of Food and Agriculture*. 92(9): 1909–1916.
- Kristanti, A. (2008). *Buku Ajar Fitokimia*. Surabaya: Universitas Airlangga Press.

- Lay, B.W. (1994). *Analisis Mikroba di Laboratorium*. Jakarta: Raja Grafindo Persada.
- Madamombe, I., T., dan Afolayan, A.,J. (2013). Evaluation of Antimicrobial Activity of Extracts from South African *Usnea barbata*. *Pharmaceutical Biology*. 41(3): 199-202.
- Markham, K.R. (1988). *Cara Mengidentifikasi Flavonoid*. Bandung: ITB.
- Marlina,T., Dini, I., dan Maryono. (2011). Isolasi Senyawa Alkaloid dari Fraksi Ekstrak Kloroform *Usnea sp.*. *Jurnal Chemica* 12(2): 27-35.
- Marselia, S., Agus, M.W., Arrenuz, S. (2015). Aktivitas Antibakteri Ekstrak Daun Soma (*Ploiarium alternifolium melch*) terhadap *Propionibacterium acnes*. *J Med Vet*. 2(1): 60-65.
- Maulidiyah., Thamrin, A., Sabarwati,S., Nurdin,M. (2015). Isolasi dan Identifikasi Senyawa (-)-Asam Usnat dari Lichen *Usnea sp.* Serta Aktivitas Sitotoksiknya terhadap Sel Murine Leukemia P388. *JIFI*. 13(1): 40-44.
- Miksusanti, F dan Marfinda, N. (2011). Aktivitas Campuran Ekstrak Kulit Manggis (*Garcinia mangostana L.*) dan Kayu Secang (*Caesalpina sappan L.*) terhadap *Bacillus cereus*. *Jurnal Penelitian Sains*. 14 (3): 41-47.
- Molnar, K., dan Farkas, E. (2010). Current Results on Biological Activities of Lichen Secondary. *J Biosci*. 65(3-4): 157-73.
- Mora, A. (2005). Antimicrobial Resistance of Shiga Toxin (Verotoxin) Producing *Escherichia coli* O157:H7 and Non-O157 Strains Isolated from Humans, Cattle, Sheep, and Food in Spain. *Res. Microbial*. 156: 793-806.
- Muller, K. (2001). Pharmaceutically Relevant Metabolites from Lichens. *Applied Microbiology and Biotechnology*. 55(1-2): 9-16.
- Murningsih. (2016). Jenis-Jenis Lichen di Kampus UNDIP Semarang. *Jurnal Bima*. 18(1): 20-29.
- Muslim dan Hasairin, A. (2018). Eksplorasi Lichenes pada Tegakan Pohon di Area Taman Margasatwa (Medan Zoo) Simalingkar Medan Sumatera Utara. *Jurnal Biosains*. 4(3): 145-153.
- Nash, T.H. (2008). *Lichen Biology Second Edition*. New York: Cambridge University Press.
- Negi, H.R. (2003). Lichens : A Valuable Bioresource for Environmental Monitoring and Sustainable Development. *Resonance*. 8(1): 51-58.
- Nuria, M.C. Faizatun, A dan Sumantri. (2009). Uji Antibakteri Ekstrak Etanol daun Jarak Pagar (*Jatropha curcas L*) terhadap Bakteri *S. aureus E.coli*, dan *S.typhi*. *Jurnal Ilmu-ilmu Pertanian*. 5 (2): 26-37.



- Ohmura, Y. (2001). Taxonomic Study of The Genus *Usnea* (Lichenized Ascomycetes) in Japan and Taiwan. *The Journal of the Hattori Botanical Laboratory*. 90: 1-96.
- Oxoid. (2013). *Nutrient Agar and Nutrient Broth*. England : Oxoid LTD.
- Pelczar, M.J, dan Chan, E.C.S. (2006). *Dasar-Dasar Mikrobiologi*. Jakarta: UI Press.
- Podterob, A.P. (2008). Chemical Composition of Lichens and Their Medical Applications. *Pharmaceutical Chemistry Journal*. 42(10): 582-588.
- Pratama, R. (2015). Efektivitas Ekstrak Daun dan Biji Jarak Pagar (*Jantropa curcass*) sebagai Antibakteri *Xanthomonas campestris* Penyebab Penyakit Busuk Hitam pada Tanaman Kubis. *Lentera Bio*. 4(1): 112-118.
- Prateeksha, Paliya, B.S, dan Bajpai, R. (2016). Kosanic, M., Rankovic, B., dan Stanojkovic, T. (2012). Antioxidant, Antimicrobial and Anticancer Activities of Three *Parmelia* Species. *Royal Society of Chemistry*. 6(1): 72-96.
- Purpis, W. (1990). *The Lichen Flora of Great Britain and Ireland*. London: Natural Historical Museum Publication in Association with the British Lichen Society.
- Purwanti, F., Isnawati dan Trimulyono, G. (2017). Efektivitas Antibakteri Ekstrak Lichen *Parmelia sulcata* terhadap Pertumbuhan Bakteri *Shigella dysenteriae*. *Lentera Bio*. 6 (3): 55- 61.
- Rahmawati, N., Sudjarwo, E., dan Widodo, E. Uji Aktivitas Antibakteri Ekstrak Herbal terhadap Bakteri *Escherichia coli*. *Jurnal Ilmu-Ilmu Peternakan* 24 (3): 24 – 31.
- Rakhmawati, F., dan Bintari, S.H. (2014). Studi Aktivitas Antibakteri Sari Daun Binahong (*Anredera cordifolia*) terhadap Pertumbuhan *Bacillus cereus* dan *Salmonella enteritidis*. *Unnes Journal of Science*. 3(2): 103-111.
- Robinson, T. (1991). *The Organic Consituents of High Plant*. Edisi Keempat. New York: University of Massachusentts.
- Rankovic, B., Kosanic, M. Stanojkovic, T., Vasiljevic, P., dan Manojlovic, N. (2012). Biological Activities of *Toninia candida* and *Usnea barbata* Together with Their Norstictic Acid and Usnic Acid Constituents. *Int. J. Mol. Sci*. 13(1): 707-722.
- Rostinawati, T. (2009). Aktivitas Antibakteri Ekstrak Etanol Bunga Rosella (*Hibiscus Sabdariffa* L.) terhadap *Escherichia Coli*, *Salmonella Typhi* dan *Staphylococcus Aureus* dengan Metode Difusi Agar. *Sainstech*. 23(1): 35-42.
- Roziaty, E. (2016). Review Lichen: Karakteristik Anatomis dan Reproduksi Vegetatifnya. *Jurnal Pena Sains*. 3(1): 45-46.

- Sani, R.N., Fithri C.N., Ria D.A., dan Jaya M.M. (2014). Analisis Rendemen dan Skrining Fitokimia Ekstrak Etanol Mikroalga Laut *Tetraselmis chuii*. *Jurnal Pangan dan Agroindustri*. 2(2): 121-126.
- Sangi, M., Runtuwene, M. R. J., Simbala, H. E. I., dan Makang, V. M. A. (2008). Analisis Fitokimia Tumbuhan Obat di Kabupaten Minahasa Utara. *Chemistry Progress*. 1(1): 47-53.
- Sastrawan, I.N., Sangi, M., Kamu, V. Skrining Fitokimia dan Uji Aktivitas Antioksidan Ekstrak Biji Adas (*Foeniculum vulgare*) Menggunakan Metode DPPH. *Jurnal Ilmiah Sains*. 13(2): 111-115.
- Sharnoff, S. (2008). *Lichens of North America*. London: Yale University Press.
- Shibamoto, T., Kumon, H. (2006). Inhibitory Effect of Lichen Constituent on Mutagenicity Induced by Heterocyclic Amines. *Wiley Inter Science*. 18(1): 35.
- Shrestha, G., dan St. Clair, L.L. (2013). Lichens: A Promising Source of Antibiotic and Anticancer Drugs. *Phytochemistry Reviews*. 12(1): 229-244.
- Silva, O. (2013). Which Approach is More Effective in The Selection of Plants with Antimicrobial Activity. *Evidence-Based Complementary and Alternative Medicine*. 2(3): 1-9.
- Sudira, I.W., Merdana, I dan Wibawa, I. (2011). Uji Daya Hambat Ekstrak Daun Kedondong (*Lannea grandis* Engl.) terhadap Pertumbuhan Bakteri *Erwinia carotovora*. *Buletin Veteriner Udayana*. 3(1): 45-50.
- Susanto., Sudrajat., dan Ruga. (2012). Studi Kandungan Bahan Aktif tumbuhan Meranti Merah (*Shorea leprosula* Miq.) Sebagai Sumber Senyawa Antibakteri. *Jurnal Kesehatan*. 11(2): 1-15.
- Stark, J.S., dan Tyler, A. (1950). *Assessment and Program Evaluation*. Needham Heights: Simon & Schuster Custom Publishing.
- Svehla, G. (1990). *Analisis Anorganik Kualitatif Makro dan Semimikro*, Edisi kelima. Jakarta: Media Pusaka.
- Thadhani, V.M., dan Karunaratne, V. (2017). Potential of Lichen Compounds as Antidiabetic Agents With Antioxidative Properties. *Oxidative Medicine and Cellular Longevity*. 1(1): 1-10.
- Tjitrosoepomo, G. (1989). Taksonomi Shizohyta, Thallopyta, Briophyta, Pteridophyta. Yogyakarta: Gajah Mada.
- Vivek, K.G. (2007). Antimicrobial Activity of Lichen. *Pharmaceutical Biology*. 45(3): 200-204.

Wibowo, M. (2008). Mengungkap Patogenitas *Escherichia coli*. *Poultry Indonesia*. 8: 68-69.

Widoyono. (2005). *Penyakit Tropis, Epidemiologi, Penularan, Pencegahan, dan Pemberantasan*. Jakarta: Erlangga

Zambare, V.P., dan Christopher, L.P. (2012). Biopharmaceutical Potential of Lichens. *Pharmaceutical Biology*. 50(6): 778-798.



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