

DAFTAR PUSTAKA

- Aragao, C., Conceicao, L. E. C., Dinis, M. T. and Fyhn, H. J. 2004. *Amino acid pools of rotifers and Artemia under different conditions: nutritional implications for fish larvae*. Aquaculture, 234: 429–445.
- Catacutan, M.R., (2002). Growth and body composition of juvenile mud crab, *Scylla serrata*, fed different dietary protein and lipid levels and protein to energy ratios. Aquaculture 208, 113-123.
- Christensen SM, Macintosh DJ, Phuong NT. 2005. Pond production of the mud crab *Scylla paramamosain* (Estampador) and *S. olivacea* (Hebst) in the Mekong Delta, Vietnam using two different supplementary diets. Aqua Res 35: 1013-1024.
- Cortes-Jacinto E, Villareal-Colmenares H, CruzSuarez LE, Civera-Cerecedo R, Nolasco_Soria H, Hernandez-Liomas A. 2005. Effect of different dietary protein and lipid levels on growth and survival of juvenile Australian redclaw crayfish, *Cherax quadricarinatus* (Von Martens). Aqua Nutr 11: 283-291.
- Dedi Jusadi, Tulas Aprilia, Muhammad Agus Suprayudi dan Deddy Yaniharto. 2006.
- Faidar, Sutia Budi, Erni Indrawati. 2020. *Analisis Pemberian Vitamin C Pada Rotifer Dan Artemia Terhadap Sintasan, Rasio Rna/Dna, Kecepatan Metamorfosis Dan Ketahanan Stres Larva Rajungan (Portunus Pelagicus) Stadia Zoea*. Balai Budidaya Air Payau Takalar. Pascasarjana Universitas Bosowa. J. of Aquac. Environment Vol 2(2) 30-34.
- Fujaya, Y., S.Alamsyah, L.Fudjaja, N.Alam. 2012. Budidaya dan Bisnis Kepiting Lunak. Brilian Internasional. Surabaya.113 hlm.
- Hafezieh M, Kamarudin MS, Saad CRB, Sattar MKA, Agh N, Hosseinpour H. 2009. *Effect of enriched Artemia urmiana on growth, survival and composition of larval Persian sturgeon*. Turkish Journal of Fisheries and Aquatic Sciences 9: 201–207.
- Halima, C. K dan Mbulang. 2016. *Analisis Fitokimia ekstrak Daun Kelor (Moringa oleifera Lamk)* Farmasi STikes Citra Husada mandiri. Kupang. NTT.
- Hassan, A. A., G. M. El Ashry, S. M. Soliman. 2011. *Effect of Supplementation of Chelated Zinc on Milk Production in Ewes*. Food and Nutrition Sciences. 2:706-713. DOI:10.4236/fns.2011.27097. <http://www.SciRP.org/journal/fns>.
- Holme May Hellen. 2008. *Towards development of a formulated diet for mud crab (Scylla serrata) larvae, with emphasis on lipid nutrition*. James cook university. <http://eprints.jcu.edu.au/2150>.
- Isnansetyo, A., & Kurniastuty. (1995). Teknik kultur phytoplankton dan zooplankton dan pakan alami untuk pembenihan organisme laut. Penerbit Kanisius. Yogyakarta. 116 hal.
- Jusadi, B. A dan I. Mokogita. 2006. Pengaruh kadar LAscorbyl-2- phosphate magnesium yang berbeda sebagai sumber vitamin C dalam pakan terhadap pertumbuhan ikan patin (*Pangasius hypophthalmus*). Jurnal Akuakultur Indonesia. 5(1). 21-29 hlm.
- Kanna, I. *Budi Daya Kepiting Bakau Pembenihan dan Pembesaran*. Yogyakarta : Kanisius, 2002.

- Karim, M.Y., Azis, H.Y., & Afriani. (2003). *Vitalitas Larva Kepiting Bakau (Scylla serrata Forsskal) yang Dipelihara pada Berbagai Kondisi Pencahayaan*. Jurnal. Jurnal Ilmiah Bumi Kita, Lingkungan Hidup dan Pengelolaan Sumber Daya Alam. 2(3):1412-4173.
- Karim, M.Y. 2006. *Respons fisiologis larva kepiting bakau (S. serrata Forsskal) dan evaluasinya pada salinitas optimum dan kadar protein yang berbeda*. Disertasi. Sekolah Pascasarjana. Institut Pertanian Bogor. Bogor.
- Kasry, A. 1996. *Budidaya Kepiting Bakau dan Biologi Ringkas*. Bhatara. Jakarta. 93 p.
- Kementerian Kelautan dan Perikanan, 2016. *Pedoman Pemeriksaan/Identifikasi Jenis Ikan Dilarang Terbatas (Kepiting Bakau/ Scylla sp.* Pusat Karantina dan Keamanan Hayati Ikan Badan Karantina Ikan, Pengendalian Mutu dan Keamanan Hasil Perikanan.
- Kordi, G. H. 1997. *Budidaya Kepiting dan Ikan Bandeng di Tambak Sistem Polikatur*. Dahara Press. Semarang.
- Krisnadi, A. D. 2015. Kelor Super Nutrisi. Pusat Informasi dan Pengembangan Tanaman Kelor Indonesia, Lembaga Swadaya Masyarakat Media Peduli Lingkungan, Blora.
- Lu, W., Wang, J., Zhang, H. J., Wu, S. G., & Qi, G. H. 2016. Evaluation of Moringa oleifera leaf in laying hens: effects on laying performance, egg quality, plasma biochemistry and organ histopathological indices. *Italian Journal of Animal Science*, 15(4), 658-665. <https://doi.org/10.1080/1828051X.2016.1249967>.
- Kulasekarapandian, S., & Panigrahi, A. 2009. Nursery rearing in seed production of Mudcrabs. In Anonim. Training manual on Mud crab breeding and culture. Central institute of brackishwater aquaculture. Chennai, India. Page 78-84.
- Kuntinyo, 1994. Fattening of Mud Crab *Scylla serrata* Forskal in Net Cages, Installed in The Drain Canal of Intensive Prawn Pellet. The Faculty of Fisheries of The University of The Philippines in The Visayas. Hal : 1 – 56.
- M. Agus Suprayudi, Toshio Takeuchi, Katsuyuki Hamasaki and Jun Hirokawa. 2002. *Effect of Artemia feeding schedule and density on the survival and development of larval mud crab Scylla serrata*. Department of Aquatic Biosciences, Faculty of Fisheries, Tokyo University of Fisheries, Minato, Tokyo 108-8477 and 2Yaeyama Station, Japan Sea-Farming Association, Ishigaki, Okinawa 907-0451, Japan.
- Mardjono, M., Anindiasuti, Hamid, N., Djunaidah, I.S., & Satyantini, W.H. (1994). *Pedoman pembenihan kepiting bakau (Scylla serrata)*. Balai Budidaya Air Payau. Direktorat Jenderal Perikanan. 40 hal.
- Maria Goretti Lili Panggabean. 1984. *Teknik Penetasan Dan Pemanenan Artemia Salina*. Oseana, Volume IX, Nomor 2: 57 – 65.
- Maria Gorety Eny Kristiany, Guntur Prabowo, Suharyadi. 2021. *Kajian Penambahan Asam Askorbat Pada Pengkayaan Artemia Sp. Sebagai Pakan Larva Ikan Patin*. Jurnal Perikanan Volume 11. No. 1 : 110-119. DOI : <https://doi.org/10.29303/jp.v11i1.237>.
- Mas'ud R.P. 2018. *Pengaruh Penggantian Pakan Alami Ke Pakan Buatan Terhadap Kecepatan Metamorfosis Larva Kepiting Bakau (Scylla Olivacea) Stadia Zoea Sampai Megalopa*. Balai Budidaya Air Payau Takalar. Makassar.

- Mega Rahadiyani, Diana Rachmawati, Istyanto Samidjan. (2014). *Substitusi Pakan Segar Dengan Pakan Buatan Terhadap Pertumbuhan Dan Kelulushidupan Kepiting Bakau (Scylla paramamosain)*. Journal of Aquaculture Management and Technology. Volume 3, Nomor 4, Tahun 2014, Halaman 34-39.
- Mia Setiawati, Darina Putri, Dedi Jusadi. (2013). *Sintasan dan pertumbuhan larva ikan patin yang diberi Artemia mengandung vitamin C*. Jurnal Akuakultur Indonesia 12 (2), 136–143
- Misra, S., & Misra, M. K. (2014). *Nutritional evaluation of some leafy vegetable used by the tribal and rural people of south Odisha, India*. Journal of Natural Product and Plant Resources, 4, 23-28.
- Onn, K.K. (2013). Current practices in juvenile mud crab rearing. Aquaculture Asia Pacific, Vol.9 No.4 (44-46).
- Pandey, A, Pandey R. D, Tripathi P, Gupta, P. P, Haider J, Bhatt, S and Singh A. V. 2012. *Moringa oleifera Lam. (Sahijan) – a plant with a plethora of diverse therapeutic benefits: an update retrospection*. Medicinal and Aromatic Plants 1(1) :2-8.
- Prajapati RD, Murdia PC, Yadav CM, Chaudhary JL. 2003. *Nutritive value of drumstick (Moringa oleifera) leaves in sheep and goats*. Indian Journal of Small Ruminants (2): 136-137.
- Pratiwi, R. 2011. *Biologi Kepiting Bakau (Scylla spp.) di Perairan Indonesia*. Oseana, Vol. 36(1): 1-11sunat.
- Ratna Sulistyorini, Sarjadi, Andrew Johan, Kis Djamiatun, 2015. *Pengaruh Ekstrak Etanol Daun Kelor (Moringa oleifera) pada Ekspresi Insulin dan Insulitis Tikus Diabetes Melitus*. Fakultas Kedokteran Gigi, Universitas Muhammadiyah Semarang, Bagian Patologi Anatomi Fakultas Kedokteran Universitas Diponegoro, Bagian Biokimia Fakultas Kedokteran Universitas Diponegoro, Magister.
- Sally, S.M., Ewansiha, J.U., Anna, H.L., and Ajunwa, M.O. 2014. *Harvesting time and temperature relationship with antimicrobial activity of Moringa oleifera Lam (dum stick)*. Peak Journal of Medicine Plant Research 2(3): 33-37.
- Simbolan, J. M. dan Katharina, N. 2007. *Cegah Malnutrisi dengan Kelor*. Kanisius. Yogyakarta.
- Sirait, J. M., *Kualitas Habitat Kepiting Bakau, Scylla serrata, S. Oceanica dan S. Tranquebarica, di Hutan Mangrove RPH Cibuaya, Karawang*. Skripsi. Falkutas Perikanan. IPB. 1997.
- Sri Redjeki. (1999). *Budidaya Rotifera (Brachionus plicatilis)*. Oseana, Volume XXIV, Nomor 2 : 27-43. ISSN 0216-1877.
- Steel, R.G.D., & Torrie, J.H. (1993). *Prinsip dan prosedur statistika*. Jakarta: Gramedia Pustaka Utama, 748 hlm.
- Stenly Wullur. 2017. *Rotifer Dalam Perspektif Marikultur*. Lembaga Penelitian Dan Pengabdian Kepada Masyarakat, Universitas Sam Ratulangi (Lppm Unsrat). Manado – Sulawesi Utara. 95115. ISBN 978-602-60359-4-3.

- Sutia Budi, Zainuddin, Siti Aslamsyah. 2011. *Peningkatan kadar nutrisi dan pertumbuhan rotifer (Brachionus plicatilis) dengan pengkayaan (Bacillus sp.) pada lama pengkayaan berbeda*. Jurnal Akuakultur Indonesia 10 (1) 67-74.
- Sutia Budi, M. Yusri Karim, Dody D. Trijuno, M. Natsir Nessa, dan Herlinah. 2017. *Pengaruh Hormon Ecdyson Terhadap Sintasan Dan Periode Moulting Pada Larva Kepiting Bakau Scylla olivacea*. Jurnal Riset Akuakultur, 12 (4), 2017, 335-339.
- Tiea, J., Jianga, M., Lia, H., Zhanga, S., Zhangb, X. 2015. *A comparison between Moringa oleifera seed presscake extract and polyaluminum chloride in the removal of direct black 19 from synthetic wastewater*. J. Industrial Crops and Products., 74: 530–534.
- USDA (United States Department of Agriculture). 2013. Natural Resources Conservation Service : PLANTS Profile Moringa oleifera Lam. Horseradish tree. <http://plants.usda.gov>
- Yameogo, W. C., Bengaly, D. M., Savadogo, A., Nikièma, P. A., Traoré, S. A. 2011. *Determination of Chemical Composition and Nutritional values of Moringa oleifera Leaves*. Pakistan Journal of Nutrition 10 Vol (3): 264-268.

LAMPIRAN

Lampiran 1. Kandungan kimia tubuh larva kepiting bakau yang diberi berbagai dosis serbuk daun kelor

Dosis Serbuk Daun Kelor (mg/L)	Kadar protein (%)	Kadar lemak (%)	Kadar Energi(Kkal/g)
0 (1)	46.12	4.69	247.46
0 (2)	45.47	4.47	245.67
0 (3)	45	4.24	240.05
Rata-rata	45.53 ± 184	4.4667 ± 40	244.39 ± 14
50 (1)	46.24	5	260.66
50 (2)	45.82	5.05	263.15
50 (3)	45.02	4.88	263.14
Rata-rata	45.693 ± 184	4.9767 ± 47	262.32 ± 31
100 (1)	49.15	7.2	305.4
100 (2)	48.83	7.49	309.09
100 (3)	49.1	7.23	306
Rata-rata	49.027 ± 201	7.3067 ± 69	306.83 ± 34
150 (1)	46.41	5.03	263.23
150 (2)	46.18	5.29	277.56
150 (3)	46.44	5.46	277.95
Rata-rata	46.343 ± 190	5.26 ± 52	272.92 ± 34

Lampiran 2. Nilai protein, lemak dan energy dapat dilihat pada hasil analisis Anova

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Nilai Protein	Between Groups	23.737	3	7.912	42.181	.000
	Within Groups	1.501	8	.188		
	Total	25.237	11			
Nilai lemak	Between Groups	13.990	3	4.663	142.826	.000
	Within Groups	.261	8	.033		
	Total	14.251	11			
Nilai Energi	Between Groups	23.376	3	7.792	14.493	.001
	Within Groups	4.301	8	.538		
	Total	27.677	11			

Lampiran 3. Kandungan nilai protein, lemak dan energi dengan menggunakan uji W-Tukey

Nilai Protein

Tukey HSD^a

Ulangan	N	Subset for alpha = 0.05	
		1	2
0	3	45.5300	
50	3	45.6933	
150	3	46.3433	
100	3		49.0267
Sig.		.177	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Nilai lemak

Tukey HSD^a

Ulangan	N	Subset for alpha = 0.05		
		1	2	3
0	3	4.4667		
50	3		4.9767	
150	3		5.2600	
100	3			7.3067
Sig.		1.000	.292	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Nilai Energi

Tukey HSD^a

ulangan	N	Subset for alpha = 0.05	
		1	2
0	3	2.5867	
50	3		4.7700
150	3		5.6900
100	3		6.2500
Sig.		1.000	.140

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 3.000.

Lampiran 4. Hasil uji lanjut W-Tuckey kandungan protein, lemak dan energi larva kepiting bakau yang diberi berbagai dosis serbuk daun kelor

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) ulangan	(J) ulangan	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Nilai Protein	0	50	-.16333	.35362	.965	-1.2958	.9691
		100	-3.49667*	.35362	.000	-4.6291	-2.3642
		150	-.81333	.35362	.177	-1.9458	.3191
	50	0	.16333	.35362	.965	-.9691	1.2958
		100	-3.33333*	.35362	.000	-4.4658	-2.2009
		150	-.65000	.35362	.324	-1.7824	.4824
	100	0	3.49667*	.35362	.000	2.3642	4.6291
		50	3.33333*	.35362	.000	2.2009	4.4658
		150	2.68333*	.35362	.000	1.5509	3.8158
	150	0	.81333	.35362	.177	-.3191	1.9458
		50	.65000	.35362	.324	-.4824	1.7824
		100	-2.68333*	.35362	.000	-3.8158	-1.5509
Nilai lemak	0	50	-.51000*	.14754	.035	-.9825	-.0375
		100	-2.84000*	.14754	.000	-3.3125	-2.3675
		150	-.79333*	.14754	.003	-1.2658	-.3209
	50	0	.51000*	.14754	.035	.0375	.9825
		100	-2.33000*	.14754	.000	-2.8025	-1.8575
		150	-.28333	.14754	.292	-.7558	.1891
	100	0	2.84000*	.14754	.000	2.3675	3.3125
		50	2.33000*	.14754	.000	1.8575	2.8025
		150	2.04667*	.14754	.000	1.5742	2.5191
	150	0	.79333*	.14754	.003	.3209	1.2658
		50	.28333	.14754	.292	-.1891	.7558
		100	-2.04667*	.14754	.000	-2.5191	-1.5742
Nilai Energi	0	50	-2.18333*	.59868	.027	-4.1005	-.2661
		100	-3.66333*	.59868	.001	-5.5805	-1.7461
		150	-3.10333*	.59868	.004	-5.0205	-1.1861
	50	0	2.18333*	.59868	.027	.2661	4.1005
		100	-1.48000	.59868	.140	-3.3972	.4372
		150	-.92000	.59868	.461	-2.8372	.9972
	100	0	3.66333*	.59868	.001	1.7461	5.5805
		50	1.48000	.59868	.140	-.4372	3.3972
		150	.56000	.59868	.788	-1.3572	2.4772
	150	0	3.10333*	.59868	.004	1.1861	5.0205
		50	.92000	.59868	.461	-.9972	2.8372
		100	-.56000	.59868	.788	-2.4772	1.3572

*. Perbedaan rata-rata signifikan pada tingkat 0,05.

Lampiran 5. Foto Kegiatan



Wadah penelitian pakan



Pemberian serbuk daun kelor ke



Serbuk daun kelor



Proses Pengkayaan



Pengukuran kualitas air



Bak kultur pakan