

## REFERENCES

- Baskoro, T., Satoto, T. and Diptyanusa, A. (2017) 'Environmental factors of the home affect the density of Aedes aegypti (Diptera: Culicidae)', 25(1), pp. 41–51.
- Cláudia, A. et al. (2022) 'Global trends in research on the effects of climate change on Aedes aegypti: international collaboration has increased, but some critical countries lag behind', *Parasites & Vectors*, pp. 1–12. Available at: <https://doi.org/10.1186/s13071-022-05473-7>.
- Daswito, R. and Samosir, K. (2021) 'Physical environments of water containers and Aedes sp larvae in dengue-endemic areas of Tanjungpinang Riau', 37(1), pp. 13–19.
- Ezeakacha, N.F. and Yee, D.A. (2019) 'The role of temperature in affecting carry-over effects and larval competition in the globally invasive mosquito Aedes albopictus', *Parasites & Vectors*, pp. 1–11. Available at: <https://doi.org/10.1186/s13071-019-3391-1>.
- Gan, S.J. et al. (2021) 'Dengue fever and insecticide resistance in Aedes mosquitoes in Southeast Asia: a review', *Parasites and Vectors*, 14(1), pp. 1–19. Available at: <https://doi.org/10.1186/s13071-021-04785-4>.
- Giancheccchi, E. et al. (2022) 'Yellow Fever: Origin, Epidemiology, Preventive Strategies and Future Prospects', pp. 1–16.
- Heriyani, F. (2019) 'CORRELATION BETWEEN AIR TEMPERATURE AND HUMIDITY'.
- Hossain, T., Adams, M. and Walker, T.R. (2021) 'Role of sustainability in global seaports', *Ocean and Coastal Management*, 202(March), p. 105435. Available at: <https://doi.org/10.1016/j.ocecoaman.2020.105435>.
- Ichsan, M. et al. (2023) 'Habitat Characteristics of Aedes Sp Larval Containers and Density of Container Index (CI) In the Area Endemic and Non-Endemic to DHF In Makassar City', 15(3), pp. 290–295.
- Info, A. (2021) 'Jurnal Kesehatan Masyarakat', 16(3), pp. 366–376.
- Islam, S. et al. (2019) 'Acta Tropica Role of container type, behavioural, and ecological factors in Aedes pupal production in Dhaka, Bangladesh: An application of zero-inflated negative binomial model', *Acta Tropica*, 193(December 2018), pp. 50–59. Available at: <https://doi.org/10.1016/j.actatropica.2019.02.019>.
- Kularatne, S.A. and Dalugama, C. (2022) 'Dengue infection: Global importance, immunopathology and management', *Clinical Medicine, Journal of the Royal College of Physicians of London*, 22(1), pp. 9–13. Available at: <https://doi.org/10.7861/clinmed.2021-0791>.
- Lestari, R.D. and Utomo, B. (2023) 'EFFECTIVENESS OF FOGGING WITH SPATIAL ANALYSIS IN THE', 3(1), pp. 19–26.
- Muhammad, N. et al. (2022) 'A systematic review and meta-analysis of the effects of temperature on the development and survival of the Aedes mosquito'.
- Multini, L.C. et al. (2021) 'The Influence of the pH and Salinity of Water in Breeding Sites on the Occurrence and Community Composition of Immature Mosquitoes in the Green Belt of the City of São Paulo, Brazil'.
- Näslund, J. et al. (2021) 'Emerging Mosquito-Borne Viruses Linked to Aedes aegypti and Aedes albopictus: Global Status and Preventive Strategies', *Vector-Borne and Zoonotic Diseases*, 21(10), pp. 731–746. Available at: <https://doi.org/10.1089/vbz.2020.2762>.

- OECD (2018) 'No Title', in *Harmonisation of Regulatory Oversight in Biotechnology, Safety Assessment of Transgenic Organisms in the Environment, Volume 8*. Paris: OECD Publishing, p. 136. Available at: <https://doi.org/9264302239>.
- Of, D. et al. (2020) 'Jurnal Pendidikan IPA Indonesia DEVELOPMENT OF THE DENGUE FEVER PREVENTION PARADIGM', 9(4), pp. 532–539. Available at: <https://doi.org/10.15294/jpii.v9i4.24542>.
- Osoro, E. et al. (2022) 'Prevalence of microcephaly and Zika virus infection in a pregnancy cohort in Kenya , 2017 – 2019', *BMC Medicine*, pp. 1–11. Available at: <https://doi.org/10.1186/s12916-022-02498-8>.
- Pinontoan, O.R. et al. (2022) 'The variability of temperature , rainfall , humidity and prevalance of dengue fever in Manado City', 11(1), pp. 81–86. Available at: <https://doi.org/10.15562/bmj.v11i1.2722>.
- Powell, J.R., Gloria-soria, A. and Kotsakiozi, P. (2018) 'Recent History of Aedes aegypti : Vector Genomics and Epidemiology Records', 68(11), pp. 854–860. Available at: <https://doi.org/10.1093/biosci/biy119>.
- Prameswarie, T. et al. (2023) 'Majalah Kesehatan Indonesia Aedes Aegypti Hatchability and Larval Development Based on Three Different Types of Water', 4(1), pp. 27–32. Available at: <https://doi.org/10.47679/makein.2023124>.
- Ramadhani, F.Y. (2021) 'Analysis of managerial components in mosquito vectors (aedes aegypti) control in the buffer area of the class 1 surabaya port health office', (June 2019), pp. 230–241. Available at: <https://doi.org/10.20473/ijph.v16i1.2021.230-241>.
- Ramos, D.G. et al. (2021) 'The global burden of yellow fever', pp. 1–22.
- Reinhold, J.M. and Lazzari, C.R. (2018) 'Effects of the Environmental Temperature on Aedes aegypti and Aedes albopictus Mosquitoes: A Review'. Available at: <https://doi.org/10.3390/insects9040158>.
- Riyanto, V.A., Thohari, I. and Sulistio, I. (2005) 'THE RESISTANCE STATUS OF Aedes Sp LARVAE TO TEMEPHOS IN THE PERIMETER AND BUFFER AREAS OF SURABAYA'.
- Roberts, D. (2014) 'Mosquito Larvae Change Their Feeding Behavior in Response to Kairomones From Some Predators', (Sinha 1976), pp. 368–374.
- Syafar, M., Palutturi, S. and Arsin, A.A. (2019) 'Potential of Rainfall , Humidity and Temperature , Against the Increasing of larvae in Makassar City , Indonesia', 3075(1), pp. 1485–1487. Available at: <https://doi.org/10.35940/ijitee.A4296.119119>.
- Wang, W.H. et al. (2020) 'Dengue hemorrhagic fever – A systemic literature review of current perspectives on pathogenesis, prevention and control', *Journal of Microbiology, Immunology and Infection*, 53(6), pp. 963–978. Available at: <https://doi.org/10.1016/j.jmii.2020.03.007>.
- Wang, X. and Cheng, Z. (2020) 'Cross-Sectional Studies', *Chest*, 158(1), pp. S65–S71. Available at: <https://doi.org/10.1016/j.chest.2020.03.012>.
- Webb, C.E., Porigneaux, P.G. and Durrheim, D.N. (2021) 'Assessing the risk of exotic mosquito incursion through an international seaport, Newcastle, NSW, Australia', *Tropical Medicine and Infectious Disease*, 6(1). Available at: <https://doi.org/10.3390/tropicalmed6010025>.
- Wei, L. et al. (2023) 'DAYTIME RESTING ACTIVITY OF AEDES AEGYPTI AND CULEX', 39(3), pp. 157–167.
- Wulandari, R.A. et al. (2023) 'Analysis of Climate and Environmental Risk Factors on Dengue Hemorrhagic Fever Incidence in Bogor District Analysis of Climate and

Environmental Risk Factors on Dengue Hemorrhagic Fever Incidence in Bogor District', 18(3), pp. 209–214. Available at: <https://doi.org/10.21109/kesmas.v18i3.7351>.

Zeng, C. *et al.* (2020) 'Chapter 7: EFFECTS OF ENVIRONMENTAL CONDITIONS ON LARVAL GROWTH AND DEVELOPMENT', (October). Available at: <https://doi.org/10.1093/oso/9780190648954.003.0007>.

# ATTACHMENT

**Attachment 1 Research Permit from the Makassar City Investment and One-Stop Integrated Services Office**



**PEMERINTAH PROVINSI SULAWESI SELATAN**  
**DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU SATU PINTU**  
Jl.Bougenville No.5 Telp. (0411) 441077 Fax. (0411) 448936  
Website : <http://simap-new.sulseprov.go.id> Email : [ptsp@sulseprov.go.id](mailto:ptsp@sulseprov.go.id)  
Makassar 90231

Nomor : **15848/S.01/PTSP/2024**  
Lampiran : -  
Perihal : **Izin penelitian**

Kepada Yth.  
Pimpinan PT Pelabuhan Soekarno  
Hatta Makassar  
di-  
**Tempat**

Berdasarkan surat Dekan Fak. Kesehatan Masyarakat UNHAS Makassar Nomor : 05325/UN4.14.1/PT.01.04/2024 tanggal 14 Juni 2024 perihal tersebut diatas, mahasiswa/peneliti dibawah ini:

N a m a :  
Nomor Pokok :  
Program Studi :  
Pekerjaan/Lembaga :  
Alamat :

: SITI HAIRUNISA  
: K011181801  
: Kesehatan Lingkungan  
: Mahasiswa (S1)  
: Jl. P. Kemerdekaan Km., 10 Makassar  
**PROVINSI SULAWESI SELATAN**

Bermaksud untuk melakukan penelitian di daerah/kantor saudara dalam rangka menyusun SKRIPSI, dengan judul :

**" RELATIONSHIP BETWEEN BREEDING CONTAINERS AND PHYSICAL ENVIRONMENT WITH THE PRESENCE OF AEDES.SP AT SOEKARNO PORT MAKASSAR "**

Yang akan dilaksanakan dari : Tgl. **24 Juni s/d 26 Juli 2024**

Sehubungan dengan hal tersebut diatas, pada prinsipnya kami **menyetujui** kegiatan dimaksud dengan ketentuan yang tertera di belakang surat izin penelitian.

Demikian Surat Keterangan ini diberikan agar dipergunakan sebagaimana mestinya.

Diterbitkan di Makassar  
Pada Tanggal 20 Juni 2024

**KEPALA DINAS PENANAMAN MODAL DAN PELAYANAN TERPADU  
SATU PINTU PROVINSI SULAWESI SELATAN**



**ASRUL SANI, S.H., M.Si.**

Pangkat : PEMBINA TINGKAT I  
Nip : 19750321 200312 1 008

Tembusan Yth

1. Dekan Fak. Kesehatan Masyarakat UNHAS Makassar di Makassar;
2. Pertinggal.

## Attachment 2 Research Permit Letter from the Dean of FKM Unhas



**KEMENTERIAN PENDIDIKAN KEBUDAYAAN,  
RISET DAN TEKNOLOGI  
UNIVERSITAS HASANUDDIN  
FAKULTAS KESEHATAN MASYARAKAT**  
 Jl. Perintis Kemerdekaan Km.10 Makassar 90245, Telp.(0411) 585658,  
 e-mail : fkm.unhas@gmail.com, website: https://fkm.unhas.ac.id/

Nomor : 05325/UN4.14.1/PT.01.04/2024

14 Juni 2024

Lampiran: 1 (Satu) Lembar

Hal : Permohonan Izin Penelitian

Yth. Kepala Dinas Penanaman Modal dan Pelayanan Terpadu Satu Pintu  
 Provinsi Sulawesi Selatan  
 Cq. Bidang Penyelenggaraan Pelayanan Perizinan  
 di-Makassar

Dengan hormat, kami sampaikan bahwa mahasiswa Fakultas Kesehatan Masyarakat Universitas Hasanuddin bermaksud untuk melakukan penelitian dalam rangka penyusunan skripsi.  
 Sehubungan dengan itu, kami mohon bantuan Bapak kiranya dapat memberikan izin untuk penelitian kepada:

Nama Mahasiswa	:	Siti Hairunisa
Nomor Pokok	:	K011181801
Program Studi	:	S1 - Kesehatan Masyarakat
Departemen	:	Kesehatan Lingkungan
Judul Penelitian	:	Relationship Between Containers and Physical Environmental with The Presence of Aedes Aegypti Larvae at Soekarno Port Makassar.
Lokasi Penelitian	:	Pelabuhan Soekarno Makassar
Tim Pembimbing	:	1. Prof. dr. Hasanuddin Ishak, M.Sc., Ph.D 2. Dr. Erniwati Ibrahim, S.KM., M.Kes
No. Telp	:	0822-7108-1150

Demikian surat permohonan izin ini, atas bantuan dan kerjasama yang baik kami sampaikan banyak terima kasih.

a.n. Dekan  
 Wakil Dekan Bidang Akademik  
 dan Kemahasiswaan,



Dr. Wahiduddin, S.KM., M.Kes  
 NIP 19760407 200501 1 004

Tembusan :

1. Dekan (sebagai laporan)
2. Ketua Program Studi S1 Kesehatan Masyarakat
3. Kepala Bagian Tata Usaha
4. Kepala Subbagian Akademik dan Kemahasiswaan
5. Mahasiswa yang bersangkutan



Catatan :

1. UU ITE No. 11 Tahun 2008 Pasal 5 Ayat 1 "Informasi Elektronik dan/atau Dokumen Elektronik dan/atau hasil cetakannya merupakan alat bukti yang sah."
2. Dokumen ini telah ditandatangani secara elektronik menggunakan sertifikat elektronik yang diterbitkan oleh BSeT



**Attachment 3****Observation List**

Building Name:

Observation date:

No.	Container type	Total container	Larva presence		Water temperature	Air Humidity
			Positive	Negative		
	Water storage place (TPA)					
1.	Water Tub					
2.	Drum					
3.	Dispenser					
4.	Bucket					
5.	pool					
	Non- Water Storage place (Non-TPA)					
1.	Can					
2.	Used Tires					

## Attachment 4 SPSS Analysis

### Correlations

		container type	presence of larva
container type	Pearson Correlation	1	.082
presence of larva	Pearson Correlation	.082	1
	Sig. (2-tailed)		.168
	N	285	285
	Sig. (2-tailed)		.168
	N	285	285

### container type \* presence of larva Crosstabulation

Count

container type		presence of larva		Total
		negative	positive	
Water Tub	13	0	13	
Bucket	168	8	176	
Dispensers	32	0	32	
Drum	25	6	31	
Pool	2	0	2	
Used tires	21	2	23	
Can	8	0	8	
Total	269	16	285	

### Correlations

		temperature potential	presence of larva
temperature potential	Pearson Correlation	1	-.053
presence of larva	Pearson Correlation	-.053	1
	Sig. (2-tailed)		.370
	N	286	285
	Sig. (2-tailed)		.370
	N	285	285

**temperature potential \* presence of larva  
Crosstabulation**

Count

		presence of larva		Total
		negative	positive	
temperature potential	potential	73	6	79
	non-potential	196	10	206
Total		269	16	285

**container type \* Humidity potential Crosstabulation**

Count

		Humidity potential		Total
		not-potential	potential	
container type	Water Tub	11	2	13
	Bucket	123	53	176
	Dispensers	27	5	32
	Drum	20	11	31
	Pool	1	1	2
	Used tires	19	4	23
	Can	5	3	8
Total		206	79	285

**Correlations**

		container type	Humidity potential
container type	Pearson Correlation	1	-.009
	Sig. (2-tailed)		.876
	N	285	285
Humidity potential	Pearson Correlation	-.009	1
	Sig. (2-tailed)	.876	
	N	285	286

**Attachment 5**  
**Research Documentation**





## CURRICULUM VITAE



### A. Personal Data

- |                     |   |  |
|---------------------|---|--|
| 1. Name             | : | Siti Hairunisa   |
| 2. ID Number        | : | K011181801   |
| 3. Place/time birth | : | Kotamobagu, 20 Juni 2000   |
| 4. Religion         | : | Islam  |
| 5. Blood type       | : | A  |
| 6. Address          | : | Jl. Wesabbe, Kec. Tamalanrea   |
| 7. Email            | : | <a href="mailto:sitihairunisa20@gmail.com">sitihairunisa20@gmail.com</a> |
| 8. No. Hp           | : | 082271081150   |

### B. Educational Background

1. Finished Primary School, Year 2012 in MI Baitul Makmur Kotamobagu
2. Finished Middle School. Year 2015 in SMP Negeri 4 Kotamobagu
3. Finished High School. Year 2018 in MAN Kotamobagu
4. Bachelor (Undergraduate) Public Health (Environmental Health Department) Year 2024 in Hasanuddin University

### C. Organisation Background

- Archery UKM Unhas