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Publications

2026
Jurnal internasional bereputasi

Spatiotemporal Dynamics of Benthic Macroinvertebrates along an Upstream–Downstream Gradient in the Batang Toru River, North Sumatra

TERNALA ALEXANDER BARUS , Adrian Hartanto

2025
Jurnal internasional bereputasi

DNA Barcoding Shows Taxonomic Uncertainty in North Sumatran Mahseer, Neolissochilus: towards Comprehensive Revision in Indonesia

TERNALA ALEXANDER BARUS , Tri Widiyanto , OCTAVIANTO SAMIR , Ruby Vidia Kusumah , YOLANDA SIMARETHA CHRISTIANY SINUHAJI , Huria Marnis , Dwi Febrianti , MEY RISTANTI WIDORETNO , GEMA WAHYUDEWANTORO , Sekar Larashati

2025
Jurnal internasional bereputasi

Nekton diversity and community structure in Belawan watershed, North Sumatera Province

TERNALA ALEXANDER BARUS , DENI EFIZON , SYAFRUDDIN ILYAS , Desrita

2025
Jurnal nasional terakreditasi

Pengaruh Aktivitas Keramba Jaring Apung Terhadap Daya Tampung Beban Pencemar Total Fosfo

TERNALA ALEXANDER BARUS , HAMIDAH HARAHAP , Vega Valentine Bangun

2024
Jurnal internasional bereputasi

Christmas tree worm Spirobranchus spp. (Annelida: Serpulidae) as indicators of coral health at Weh Island, Aceh Province, Indonesia

Afkar , Arlen Hanel John , Muhammad Ali Sarong , TERNALA ALEXANDER BARUS

2024
Prosiding seminar internasional

Structure and Dominance of Macrozoobenthos as Biomonitoring Instrument in the Reuleng River, Leupung, Aceh Besar, Indonesia

ZULFIKAR , M. ALI S , AFKAR , TERNALA ALEXANDER BARUS , NADIA ALDYZA , MISWAR BUDI MULYA

2024
Prosiding seminar internasional

Potential of Coral Resilience Post Bleaching in 2016 in the Water of Ujong Seuke East Coast of Weh Island Indonesia

Muhammad Ali Sarong , Nadia Aldyza , MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS

2024
Makalah ilmiah

Biodiversity and Management of Lake Toba

TERNALA ALEXANDER BARUS

2023
Prosiding seminar internasional

Ecological conditions and coral recovery in Jaboi waters, Weh Island Sabang Indonesia

ARLEN H J , Muhammad Ali Sarong , Afkar , TERNALA ALEXANDER BARUS

2023
Jurnal nasional terakreditasi

Analysis of Microplastic Abundance in Lake Siombak, Medan Marelan, Medan

ARIF NURYAWAN , Jaka Ramananda , TERNALA ALEXANDER BARUS

2023
Jurnal internasional bereputasi

Gastropods As Markers In Babura River At North Sumatra

MASDIANA SINAMBELA , TERNALA ALEXANDER BARUS , BINARI MANURUNG

2022
Jurnal internasional bereputasi

Coral resilience inside and outside of Pesisir Timur Pulau Weh conservation zone, Sabang City, Indonesia

MISWAR BUDI MULYA , M. ALI S , TERNALA ALEXANDER BARUS , NADIA ALDYZA

2022
Jurnal internasional bereputasi

Coral resilience inside and outside of Pesisir Timur Pulau Weh conservation zone, Sabang City, Indonesia

TERNALA ALEXANDER BARUS

2022
Jurnal internasional bereputasi

Density, morphometric characteristics and distribution pattern of Asiatic hard clam (Meretrix meretrix) in Karang Gading estuary, Deli Serdang District, Indonesia

MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS

2022
Jurnal nasional terakreditasi

ASSESSMENT OF OBJECTS AND ATTRACTIONS OF KRUENG GEUNIE LHOK KEUTAPANG KABUPATEN PIDIE ACEH FOR NATURAL TOURISM

RAHMAWATY , TERNALA ALEXANDER BARUS

2022
Jurnal nasional terakreditasi

NATURAL ECOTOURISM DEVELOPMENT IN THE KRUENG GEUNIE LHOK KEUTAPANG AREA, PIDIE REGENCY

TERNALA ALEXANDER BARUS , RAHMAWATY

2022
Jurnal internasional bereputasi

Density, length-frequency distribution and growth pattern of Penaeus monodon in Karang Gading estuar

MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS

2022
Jurnal nasional terakreditasi

Coral Covers and The Abundance of Chaetodontidae in Suaka Alam Perairan of Weh Island Aceh

MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS

2022
Jurnal internasional bereputasi

Fish diversity and heavy metal accumulation of Pb, Cu and Zn after Mount Sinabung Eruption in Benuken River, North Sumatra, Indonesia

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS

2021

Jurnal internasional bereputasi

The undergrowth composition and distribution in different forest area utilization

BUDI UTOMO , TERNALA ALEXANDER BARUS , DELVIAN

2021
Jurnal internasional bereputasi

Cadmium concentration in water and sediment from lake Lau Kawar, North Sumatra

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS

2021
Jurnal internasional bereputasi

Coastal Water Properties and Hydrodynamic Processes in the Malacca Strait: Case Study Northeastern Coast of Sumatra, Indonesia

TERNALA ALEXANDER BARUS

2021
Jurnal internasional bereputasi

Checklist of phytoplankton and their abundance in Toba Lake, North Sumatra, Indonesia

SYAFRUDDIN ILYAS , TERNALA ALEXANDER BARUS , MISWAR BUDI MULYA

2021
Prosiding seminar internasional

The effect of forest land allocation on understory plant species associations

TERNALA ALEXANDER BARUS , BUDI UTOMO , DELVIAN

2021
Jurnal internasional bereputasi

Analysis of water quality and nutrient content in the Belawan River

TERNALA ALEXANDER BARUS

2020
Jurnal internasional

The Opportunity of Understorey Species to Absorb Secondary Metabolites in the Soil (Case Study in IUPHHK - Industrial Plantation Forests PT. Toba Pulp Lestari, Tbk)

TERNALA ALEXANDER BARUS , BUDI UTOMO , DELVIAN

2020
Buku referensi

Limnologi

TERNALA ALEXANDER BARUS

2020
Jurnal internasional bereputasi

The impact of marine sand mining on sea water quality in Pantai Labu, Deli Serdang Regency, Indonesia

KERISTA SEBAYANG , TERNALA ALEXANDER BARUS

2019
Jurnal internasional bereputasi

Reproductive Biology of Pacific Oyster (Crassostrea gigas): A Decade after the Tsunami Disaster in Aceh, Indonesia

TERNALA ALEXANDER BARUS , MISWAR BUDI MULYA

2019
Jurnal internasional bereputasi

Reproductive Biology of Pacific Oyster (Crassostrea gigas): A Decade after the Tsunami Disaster in Aceh, Indonesia

TERNALA ALEXANDER BARUS , AGUNG SETIA BATU BARA , LILI KASMINI , M. ALI S , MISWAR BUDI MULYA

2019
Jurnal internasional

Phytoplankton diversity of Situmurun village, Toba Samosir regency, North

Sumatera

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS , MISWAR BUDI MULYA

2019
Jurnal internasional bereputasi

Phytoplankton diversity of Situmurun village, Toba Samosir regency, North Sumatera

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2019
Jurnal internasional

Phytoplankton diversity of Situmurun village, Toba Samosir regency, North-Sumatera

SYAFRUDDIN ILYAS , MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS , IKA ROSENTA PURBA

2019
Jurnal internasional bereputasi

Distribution of Nitrate, Phosphate, Dissolved Oxygen and Macrozoobenthos Density in Belawan River

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2019
Jurnal internasional bereputasi

Gastropods Community in Babura River, Medan city

TERNALA ALEXANDER BARUS

2018
Jurnal internasional bereputasi

Macrozoobenthos diversity as bioindicator of water quality in the Bilah river, Rantauprapat

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2018
Jurnal internasional

Macrozoobenthos diversity as bioindicator of water quality in the Bilah river, Rantauprapat

MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS , ARMAN HARAHAP , M. ALI S

2018
Jurnal internasional

Morphometric study of pacific oyster (Crassostrea gigas) in the coastal area of Banda Aceh

LILI KASMINI , MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS , M. ALI S

2018
Jurnal internasional bereputasi

Morphometric study of pacific oyster (Crassostrea gigas) in the coastal area of Banda Aceh

TERNALA ALEXANDER BARUS

2018
Jurnal nasional terakreditasi

Hubungan panjang berat dan faktor kondisi tiram (Crassostrea gigas) di Kawasan Estuari Tibang dan Ulee Lheue, Kota Banda Aceh

MISWAR BUDI MULYA , TERNALA ALEXANDER BARUS , M. ALI S , LILI KASMINI

2017
Monograf

Keanekaragaman Makrozoobentos dan Hubungannya dengan Penutupan Padang Lamun (Seagrass) di Perairan Mandailing Natal Sumatera Utara

TERNALA ALEXANDER BARUS

2013
Jurnal nasional

HUBUNGAN ANTARA KUALITAS AIR DENGAN KEBIASAAN MAKANAN IKAN BATAK (Tor soro) DI PERAIRAN SUNGAI ASAHAN SUMATERA UTARA

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS , Budianto Siregar

2013
Jurnal nasional

HUBUNGAN ANTARA KUALITAS AIR DENGAN KEBIASAAN MAKANAN IKAN BATAK (Neolissochilus sumatranus) DI SUNGAI ASAHAN, SUMATERA UTARA

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS , Mesrawati Purba

2007
Monograf

Keanekaragaman Hayati Ekosistem Danau Toba dan Upaya Pelestariannya

TERNALA ALEXANDER BARUS

2004
Jurnal nasional terakreditasi

Faktor-faktor lingkungan abiotik dan keanekaragaman plankton sebagai indikator kualitas perairan danau toba (Environmental abiotic factors and the diversity of plankton asÃ‚Â ...

TERNALA ALEXANDER BARUS

2004
Buku referensi

Pengantar limnologi studi tentang ekosistem air daratan

TERNALA ALEXANDER BARUS

1996
Monograf

Oekophysikalische und-chemische Faktoren des Wilhelmshauser Bachsystems und ihre Veranderung durch Nutzungseingriffe

TERNALA ALEXANDER BARUS

Researches

2025
Penelitian Fundamental

Analisis Kontaminasi Mikroplastik Pada Krustase, Bivalvia Dan Ikan Di Pantai Timur Sumatera Utara Serta Implikasinya Terhadap Keamanan Pangan Nasional

TERNALA ALEXANDER BARUS , RINI HARDIYANTI , MISWAR BUDI MULYA

2024

ANALISIS TINGKAT PEMANFAATAN, POTENSI LESTARI DAN UPAYA PENANGKAPAN OPTIMUM IKAN KAKAP PUTIH (Lates calcarifer) DI PANTAI TIMUR SUMATERA UTARA DALAM MENCAPAI KEMANDIRIAN

TERNALA ALEXANDER BARUS , TAMRIN , MISWAR BUDI MULYA

2022
Penelitian Dana Lokal Perguruan Tinggi

Nekton diversity and community structure in Belawan watershed, North Sumatera Province

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS , DENI EFIZON

2021
Penelitian Fundamental

DINAMIKA POPULASI UDANG PUTIH (Penaeus merguiensis de Man) DI EKOSISTEM MANGROVE BELAWAN SUMATERA UTARA

TERNALA ALEXANDER BARUS

2021
Penelitian Tim Pasca Sarjana

Produktivitas Primer Fitoplankton di Perairan Belawan

TERNALA ALEXANDER BARUS

2021
Penelitian Tim Pasca Sarjana

Studi Ekologi Distribusi Bivalvia Perairan Belawan Sumatera Utara

TERNALA ALEXANDER BARUS

2019
Penelitian Fundamental

Fish diversity and heavy metal accumulation of Pb, Cu and Zn after Mount Sinabung Eruption in Benuken River, North Sumatra, Indonesia

TERNALA ALEXANDER BARUS , SYAFRUDDIN ILYAS

Community Services

2026
Ipteks Bagi Masyarakat

Tim Uji Kelayakan Lingkungan Hidup

TERNALA ALEXANDER BARUS , Kepala Dinas Lingkungan Hidup Kota Pematangsiantar

2025

Narasumber pada Focus Group Discussion (FGD) terkait Hasil Kajian Daya Dukung dan Daya Tampung Danau Toba untuk Budidaya Perikanan

NITA MARIKENA , TERNALA ALEXANDER BARUS

2025

Tim Uji Kelayakan Lingkungan Hidup, Dinas Lingkungan Hidup, Kab. Samosir.

TERNALA ALEXANDER BARUS

2025

Pengurus Yayasan Pendidikan Tinggi Neumann Indonesia (YPTNI) Periode 2025 - 2030

TERNALA ALEXANDER BARUS

2024

Tim Pelaksana Pekerjaan Enviromental Management And Monitoring Survey For Asahan No. 3 Hydroelectric Power Plant Constuction Project

TERNALA ALEXANDER BARUS , SRI ALEM BR SEMBIRING

2022

Pengurus Yayasan Perguruan Tinggi Neumann Indonesia

TERNALA ALEXANDER BARUS