

**Cosmas Nzaka MUNGA, TROPIMUNDO TUM Local Coordinator**

With over 15 years of marine and fisheries research, and University teaching my interest has been in the ecology, biology and stock assessment of both artisanal and semi-industrial fisheries. I have been studying the performance of artisanal fisheries looking at the spatio-temporal production alongside some aspects of the biology of selected key commercial reef and pelagic fish species. I have also investigated the resource use overlap between the artisanal and semi-industrial fisheries and addressed issues related to resource use conflicts between the artisanal fishery and the bottom trawl prawn fishery in Malindi-Ungwana Bay, Kenya. I have so far supervised to completion a total of 9 post-graduate students. So far I have co-authored over 40 scientific publications including peer reviewed papers and book chapters. I have been Principal Investigator and Co-Investigator of over 10 research projects and consultancies both nationally and regionally in collaboration with both government and non-governmental organizations. I have so far provided professional review for the GIZ Kenya consultant reports on aquaculture value chains development in the coastal counties of Kenya, and market scan and skills needs assessment for selected blue economy sectors in the coastal region of Kenya. Currently I also offer professional contribution as a member of the Editorial Board for the Western Indian Ocean Journal of Marine Science (<http://www.wiomsa.org/wio-journal-of-marinescience/>), and as the Chief Editor of the Multidisciplinary Journal of Technical University of Mombasa (<http://journals.tum.ac.ke/>). Since 2019 to date, I have been holding the position of an Honorary Research Fellow, School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand, Johannesburg, South Africa.

<b>1</b>	<b>Family name</b>	Munga		
<b>2</b>	<b>First name</b>	Cosmas		
<b>3</b>	<b>Place and Date of birth</b>	Kilifi, 7 <sup>th</sup> January 1976		
<b>4</b>	<b>Nationality</b>	Kenya		
<b>5</b>	<b>E-mail</b>	ckamunga2014@tum.ac.ke		
<b>6</b>	<b>Education / Professional studies</b>			
	Dates (from-to)	Institution	Degree/diploma	
	Sept. 2009 – Sept. 2013	Gent University, Belgium	PhD in Marine Sciences	
	Sept. 2006 – Sept. 2008	Free University of Brussels, Belgium	MSc in Ecological Marine Management	
	Oct. 1996 – Dec. 2000	Moi University, Kenya	BSc. Fisheries & Aquatic Sciences	
<b>7</b>	<b>Language skills</b> Grade skill 1-5 (1 = basic, 5 = excellent, * = mother tongue)			
	Language	Speaking	Reading	Writing

	Rabai	*	*	*
	Swahili	5	5	5
	English	5	5	5
	French	2	1	1
<b>8</b>	<b>Membership of professional bodies</b>			
	<ul style="list-style-type: none"> <li>• Member, Western Indian Ocean Marine Science Association (WIOMSA)</li> <li>• Member, Board of Management, Community Action for Nature Conservation (CANCO) <a href="http://www.cancockenya.net">http://www.cancockenya.net</a></li> </ul>			
<b>9</b>	<b>Other Skills</b>			
	<ul style="list-style-type: none"> <li>• Research design and implementation</li> <li>• Scientific data collection and analysis</li> <li>• Univariate and multivariate statistical skills</li> <li>• Scientific writing and publishing</li> <li>• Competency in project management</li> </ul>			
<b>10</b>	<b>Name of organisation currently working for and Present position in the organisation</b>	Technical University of Mombasa, Kenya Senior Lecturer & Academic Leader for the following programs: <ul style="list-style-type: none"> <li>• MSc. Fisheries &amp; Aquaculture</li> <li>• BSc. Marine Resource Management</li> <li>• BSc. Fisheries &amp; Oceanography</li> <li>• BSc. Maritime Management (Commercial)</li> </ul>		
<b>11</b>	<b>Years with the organisation</b>	Seven		
<b>12</b>	<b>Long-term experience in selected countries/territories</b>			
	<b>Country</b>	<b>Date</b>	<b>Details</b>	
	<b>Kenya</b>	Oct. 2013-Jun 2014	Research Officer (RO) I, Kenya Marine & Fisheries Research Institute. Worked under the coastal and marine fisheries and ecology program investigated artisanal fisheries catch composition, gear catch diversity, fish and shrimp ecology, and fisheries socio-economics.  Team Leader in World Bank funded KCDP small and medium pelagic stock assessment surveys – Ring net fishing gear research. Coordination of field surveys for data collection, report writing and publishing of research findings from January 2014 to June 2017.	

			Research Ship Manager, R/V Mtafiti (Oceanographic research vessel) with KMFRI for 6 months. Immediate operationalization of R/V Mtafiti through coordination and writing of vessel's research strategy, objectives, budgeting and networking
	<b>Kenya</b>	Oct. 2009 - Sep 2013	Research Officer (RO) II, Kenya Marine & Fisheries Research Institute. Worked under the coastal and marine fisheries and ecology program. Participated in the South West Indian Ocean Fisheries Project (SWIOFP) experimental trawl surveys off the Malindi-Ungwana Bay, Kenya.
	<b>Kenya</b>	Jan. 2005 – Sep 2009	Assistant Research Officer (ARO), Kenya Marine & Fisheries Research Institute. Worked under the coastal and marine fisheries and ecology, and aquaculture programs.
	<b>Kenya</b>	Apr 2001 – Dec 2004	Fisheries Officer, Coast Development Authority (CDA) and Project Assistant in implementation of the Integrated Coastal Area Management (ICAM) Programme along Nyali-Bamburi-Shanzu Area and Diani-Chale Management Area.
<b>13</b>	<b>Professional experience record</b>		
	Location	Date	Organisation
1	Zanzibar, Tanzania	12 <sup>th</sup> – 23 <sup>rd</sup> February 2019	Oceans & Lakes, State University of Zanzibar
	Position	Monsoon School Expert Trainer in artisanal fisheries for Master students in Marine & Lacustrine Science & Management	
	Responsibilities	Integrating formal lecturing, field courses and guided independent work for students jointly organized by Vrije Universiteit Brussel, Universiteit Gent and Universiteit Antwerpen supported by VLIR UOS	
2	Zanzibar, Tanzania	Feb 2015	Oceans & Lakes, State University of Zanzibar
	Position	Expert trainer in coral reef ecology	
	Responsibilities	Initiation, development and running of the VLIR-UOS funded regional training workshop on International Intensive Southern Training Programme and Network Development for Marine and Lacustrine Scientists	
3	Seychelles	Aug 12 <sup>th</sup> – 16 <sup>th</sup> 2019	The Nature Conservancy & Seychelles Marine Parks

	Position	Expert Trainer	
	Responsibilities	Data summarization and graphing in training of expert practitioners in strategic adaptive management (SAM) for marine protected areas staff from Kenya, Tanzania and Seychelles	
4	Senegal & the Gambia	Oct. 21 <sup>st</sup> – 30 <sup>th</sup> 2015	EAF-FAO NANSEN Project
	Position	Scientist	
	Responsibilities	Fisheries resource assessment onboard R/V Dr. <i>Fridtjof Nansen</i> on acoustic and pelagic trawl surveys off the Senegalese and Gambian Atlantic Ocean waters	
<b>14</b>	<b>Publications</b>		
	Number of publications in peer-reviewed journals		
	More than 40 scientific publications		
	10 publications that are most representative in the field of tropical biodiversity and ecosystems		
	<ol style="list-style-type: none"> <li>1. Kiti, H.M., <b>Munga, C.N.</b>, Odalo, J.O., Guyo, P.M., Kibiti, C.M. (2021). Diversity of mangrove fungal endophytes from selected mangrove species of coastal Kenya. <i>Western Indian Ocean Journal of Marine Science</i>. 20(1): 125-136</li> <li>2. Groeneveld, J.C., Hoguane, A., Kuguru, B., Mackay, C.F., <b>Munga, C.</b>, Santos, J. (2021). Estuarize-WIO: A socio-ecological assessment of small-scale fisheries in estuaries of the Western Indian Ocean. <i>Western Indian Ocean Journal of Marine Science</i>. Special Issue 1:1-15</li> <li>3. Dzoga, M., Simatele, M.D., <b>Munga, C.</b> (2019). Climate variability and small-scale fisheries in Kenya: Characterization of current socio-economic conditions of artisanal fishing communities in Ungwana Bay and the lower Tana Delta. <i>International Journal of Environmental Sciences &amp; Natural Resources</i>. Vol 17 (4): 1 – 7.</li> <li>4. Dzoga, M., Simatele, D., <b>Munga, C.</b> (2018). Assessment of ecological vulnerability to climate variability on coastal fishing communities: A study of Ungwana Bay and Lower Tana Estuary, Kenya. <i>Ocean &amp; Coastal Management</i> 163: 437 – 444</li> <li>5. Olendo M.I., Okemwa G.M., <b>Munga C.N.</b>, Mulupi L.K., Mwasi L.D., Mohamed H.B., Siband M., Ong'anda H.O. (2017). The value of long-term community-based monitoring of marine turtle nesting: a study in the Lamu archipelago, Kenya. <i>Oryx</i> Doi: 10.1017/S00306905317000771. 10pp</li> <li>6. Okemwa G.M., Maina G.W., <b>Munga C.N.</b>, Mueni E., Barabara M.S., Ndegwa S., Thoya P., Ntheketha N. (2017). Managing coastal pelagic fisheries: A case study of the small-scale purse seine fishery in Kenya. <i>Ocean &amp; Coastal Management</i> 144: 31 – 39.</li> <li>7. Kaunda-Arara, B., <b>Munga, C.N.</b>, Manyala, J., Kuguru, B., Igulu M., Chande, M., Kangwe, S., Mwakiti, S., Thoya, P., Mbaru, E., Ruwa, R. (2016). Spatial variation in benthopelagic fish assemblage structure along coastal East Africa from recent bottom trawl surveys. <i>Regional studies in Marine Science</i>. <a href="http://dx.doi.org/10.1016/j.rsma.2016.04.001">http://dx.doi.org/10.1016/j.rsma.2016.04.001</a></li> <li>8. Everett, B.I., Groeneveld, J.C., Fennessy, S.T., Dias, N., Filipe, O., Zacarias, L., Igulu, M., Kuguru, B., Kimani, E., <b>Munga, C.N.</b>, Rabarison, G.A., Razafindrakoto, H., Yemane, D. (2015). Composition and abundance of deep-water crustaceans in the Southwest Indian Ocean: Enough to support trawl fisheries? <i>Ocean &amp; Coastal Management</i> 111: 50 – 61</li> </ol>		

	<p>9. <b>Munga, C.N.</b>, Omukoto, J.O., Kimani, E., Vanreusel, A. (2014). Propulsion-gear-based characterization of artisanal fisheries in the Malindi-Ungwana Bay, Kenya and its use for fisheries management. <i>Ocean &amp; Coastal Management</i> 98: 130 – 139</p> <p>10. <b>Munga, C.N.</b>, Mwangi, S., Ong'anda, H., Ruwa, R., Manyala, J., Groeneveld, J.C., Kimani, E., and Vanreusel, A. (2013). Species composition, distribution patterns and population structure of penaeid shrimps in Malindi-Ungwana Bay, Kenya, based on experimental bottom trawl surveys. <i>Fisheries Research</i> 147: 93 - 102</p>		
<b>15</b>	<b>Number of conference presentations (between brackets invited contributions)</b>		
	<p>International : 10, National : 6 &amp; Invited talks : 5</p> <p>Participation through oral presentation, posters and as a member of the scientific organizing committee</p>		
<b>16</b>	<b>Most important awards</b>		
	<b>Award</b>	<b>Award date</b>	<b>Issuing organisation</b>
1	Research grant No. A/5106-1. Ecological & socio-economic impact of spear fishing in selected areas along the Kenya coast	2012 - 2013	International Fund for Science (IFS)
2	Doctor of Science Scholarship, Marine Sciences, Gent University, Belgium	2009 – 2013	VLIR PhD ICP
3	MSc. Scholarship, Ecological Marine Management, Vrije Universiteit Brussel (VUB)	2006 – 2008	VLIR UOS
4	EFN professional development grant for participation in the Advanced International Training on sustainable coastal development organized by SSPA Sweden AB	Sep – Oct 2005	WWF