

博士課程学生・修了生プロフィール（鹿児島大学大学院連合農研究科）掲載一覧

Profile of doctoral students and graduates (UGSA, Kagoshima University)

No.	専門分野 Specialized field	氏名 Full name	配属大学 Assigned university
1	Advanced Life Science	MYAT HTOO SAN	Saga University
2	Agriculture / Structure and function of polysaccharides	Mahanama Geegana Gamage Awanthi	University of the Ryukyus
3	Agricultural Plant Science, Molecular Biology, Mycorrhiza	R.M.S. Ruwan Chamara	Saga University
4	Agriculture	Constantine Busungu	Kagoshima University

No.1

Name of United Graduate School of Agricultural Sciences	Assigned university	Name
Kagoshima University	Saga University	MYAT HTOO SAN
Specialized field	Advanced Life Science	
Research Theme	Genomic and Physiological Characterization of heat-tolerant <i>Pyropia</i> Species collected from Southwest Coast of Myanmar	
Obtained (planned) degree Acquired degree (planned) date	Doctor of Philosophy Ph.D. (Agriculture) Obtained in March 2025 (scheduled)	
Message		
<p>The oceans are the Earth's greatest resources covering more than 70% of the planet. According to the U.S. National Oceanic and Atmospheric Administration, about 50-80% of oxygen production comes from the ocean ecosystem. Algae, one of the interesting creatures of the ocean ecosystem, are the main producers of marine habitats and are therefore vital in the marine ecosystem. However, nowadays, the world's ocean is threatened by climate change, and as a consequence, marine ecosystems are threatened because rising sea levels and temperatures are adversely affecting the distribution and abundance of seaweeds and their related environments. Therefore, protection and research on seaweed is becoming necessary.</p> <p>Since my childhood, I have strong interest in natural resources especially plant species. Myanmar is a country with a long intact coastal area in continental Southeast Asian countries. However, the study of aquatic flora is still incomplete, and their genomic analysis remains elusive. Therefore, I want to study marine flora resources. Among the untouched aquatic flora resources of Myanmar, I am focusing on <i>Pyropia</i> species. In Japan, the most famous <i>Pyropia</i> species is known as Susabi-nori, and they are cultivated all over Japan.</p> <p>I am interested in the differences between nori in Myanmar and Japan due to the differences in topography and weather conditions between the two countries. In master student years, I focused on physiological characteristics and organellar genomes of Myanmar nori. In my doctoral study, I will focus on the heat tolerance characteristics of Myanmar nori. I do hope that my study will be impactful for the food sector, breeding, and conservation purposes. Moreover, I intend to support Sustainable Development Goals (SDG) 14 of the United Nations "Life below Water".</p> <p>Laboratory homepage: http://www.iac.saga-u.ac.jp/lifescience/</p>		

No.2

Name of United Graduate School of Agricultural Sciences	Assigned university	Name
Kagoshima University	University of the Ryukyus	Mahanama Geegana Gamage Awanthi
Specialized field	Agriculture / Structure and function of polysaccharides	
Research Theme	Study on polysaccharides extracted from macroalgae	
Obtained (planned) degree	Doctor of Philosophy Ph.D (Agriculture)	
Acquired degree (planned) date	Obtained in March 2023 (scheduled)	
Message		
<p>Marine algae are well-known producers of bioactive compounds including polyphenols, proteins, lipids and polysaccharides. Among these compounds, polysaccharides are found at high concentrations in algae,. Particularly, marine algae contain several distinct polysaccharides which are not commonly found in terrestrial biomass: fucoidan, algininate, agar, agarose and carrageenan. Many studies have shown that these polysaccharides have a wide range of physiological and biological activities, so that, they play key roles in the fields of pharmaceutical, nutraceutical, cosmeceutical and functional foods. I am extracting the different types of polysaccharides from seaweed and studying the structural and functional properties under the main supervision of Prof. Teruko konishi. The knowledge acquired from my PhD will be useful in related industrial applications. Furthermore, I am a Sri Lankan student, and I hope to start collaborative research program with Japan related to my study field. Sri Lanka is also rich in different types of seaweeds, with about 440 taxa, belonging to 148 genera. Despite high availability and easy accessibility, seaweeds are unlikely to be utilized effectively in Sri Lanka. Therefore, gained research skills will help to develop the utilization of seaweed in Sri Lanka as well.</p> <p>Qualification:</p> <ul style="list-style-type: none">• Teaching assistant, Bioscience and Biotechnology, Faculty of Agriculture, University of the Ryukyus• Senior lecturer, Faculty of Agriculture, University of Ruhuna, Sri Lanka (2013- up to now) <p>Laboratory homepage: - 多糖類機能化学研究室 琉球大学 農学部 (u-ryukyu.ac.jp) https://www.agr.u-ryukyu.ac.jp/labos/polysaccharide</p> <p>Main published papers: https://scholar.google.com/citations?user=hjdTNOcAAAAJ&hl=en</p>		

No.3

Name of United Graduate School of Agricultural Sciences	Assigned university	Name
Kagoshima University	Saga University	R.M.S. Ruwan Chamara
Specialized field	Agricultural Pant Science, Molecular Biology, Mycorrhiza	
Research Theme	<ul style="list-style-type: none"> • Studying of mycorrhizal fungi associated with orchids • Screening of beneficial fungi for efficient propagation targeting the orchid conservation and for commercial horticulture use 	
Obtained (planned) degree	Doctor of Philosophy Ph.D. (Agriculture)	
Acquired degree (planned) date	2024- October	
Message		
<p>I am interested in a wide range of research areas, emphasizing sustainable agriculture and food security. On the other hand, my research is interdisciplinary, combining agronomy, physiology, microbiology, soil science, and new technological applications in sustainable agricultural production. As an undergraduate student and throughout my master's degree, I majored in agricultural science. After graduating, I served as a teaching assistant at the university for four years, which sparked my interest in a career in academia and research. My long-term research interests are to bring together several unique and well-documented ecological, physiological and agronomical findings towards sustainable agriculture. I am a Ph.D. student at the Laboratory of Vegetable and Ornamental Horticulture, Faculty of Agriculture, Saga University. I am researching orchid mycorrhizal associations to conserve endangered orchid species and commercial horticulture use.</p> <p>Orchids depend on symbiosis relationships with certain mycorrhizal fungi for their early supply of nourishments during seed germination and the subsequent establishment of seedlings and plant growth. Understanding their biology may assist in the conservation of endangered orchid species since they contribute to the health of the forests, woodlands, and grassland ecosystems. Moreover, these discoveries are beneficial to agricultural uses. Therefore, a comprehensive and in-depth study of Orchid Mycorrhizal associations for seed germinations and, subsequently, plant growth and development will bring these symbiosis association studies towards advanced plant science studies into the global context. In the future, I intend to have a career or a position where I can carry out research and teaching activities in a variety of agricultural disciplines, horticulture in particular.</p> <p>Qualification: Teaching, agronomy, crop science, microbiology, and mycorrhiza</p> <p>Main published papers:</p> <p>Ranil RHG, Chamara RMSR, Pushpakumara DKN, Bussmann RW. Exploration, Conservation, and Utilization of Ethnobotanical Knowledge: Sri Lankan Perspective. In: Abbasi A.M., Bussmann R.W. (eds) Ethnobiology of Mountain Communities in Asia.</p>		

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Benaragama CK, **Chamara RMSR.**, Kumara GDK and Goto K. Intraspecific Plasticity in Circadian Rhythms Within *Euglena gracilis* Strain Z. *Int. J. of Appl. Sci. Biotechnol.* 7 (2): 207-216, (2019). doi: doi.org/10.3126/ijasbt.v7i2.24278

No.4

Name of United Graduate School of Agricultural Sciences	Assigned university	Name
Kagoshima University	Kagoshima University	Dr. Constantine Busungu (St.Augustine University of Tanzania)
Specialized field	Agriculture	
Research Theme	<ul style="list-style-type: none"> • Mutation breeding for disease resistance, increase yield and drought resistance in rice(<i>Oryza sativa</i>) • Biotechnology, Agrotourism 	
Obtained (planned) degree	Doctor of Philosophy Ph.D(Bioresource Production) March 2018	
Message		
<p>Agriculture is the key sector in the world. Agriculture is responsible for feeding and nutrition of the human population worldwide. Also, agriculture is a catalyst of economic development of different countries in the world through cash crops and value addition of agricultural products. My major during my PhD studies at Kagoshima University was about mutation breeding in rice whereby I was able to identify new novel gene <i>xa42</i> through mutagenesis using Nitrosourea (chemical mutagens). The new gene is resistance to bacterial blight disease caused by <i>Xanthomonas oryzae</i> pv <i>oryzae</i>. I am also interested in breeding for yield quality, drought resistance and different novel biotechnologies to help increase agricultural production in the world. I have extended my interests to include urban agriculture, Invasive species and linkage of agriculture and tourism. I am looking forward to able to help reduce hunger, malnutrition, diseases, poverty and make the world a better place to live by using novel biotechnologies and innovations.</p> <p>Qualification: Lecturer.</p> <p>Laboratory homepage: URL https://saut.ac.tz/</p> <p>Main published papers</p> <p>Busungu. C (2021) Current Status, Implications and Challenges of Introduced and Invasive Species at Saanane Island National Park. <i>The Eastern African Journal of Hospitality, Leisure and Tourism Vol 8.1:23-35</i> https://businesstourism.saut.ac.tz/documents/Article%204.pdf</p> <p>Busungu and Kessy D (2020) <i>Serving Rural Communities: Deciphering roles of Community Businesses in providing Basic Goods and Services to Rural Communities</i>; In Community Business edit Satoru et al.,2020 Publisher: Border Inc Publishing, Okinawa Japan. 108-152.</p> <p>Kessy and Busungu. C (2020) <i>The rise of night markets in urban areas: Transforming community business through women and youth empowerment</i>; In Community Business edit Satoru et al., 2020. Publisher: Border</p>		

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