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BIODATA

PART A

1. ORCID ID No. : 0000-0003-3006-4614
2. Date/Place of Birth : 18th November 1984/ Muar, Johore
3. Date of first service : 02nd January 2008
4. Post of first service : Researcher
5. Current post :
 - Main : Senior Researcher
 - Administrative :
 - a) Curator - MDI Herbarium & Plant Anatomy Laboratory.
 - b) Cluster for Research and Development Division, MyGenebank Complex, Agrobiodiversity and Environment Research Centre.
6. Date of promotion to current post : 9th April 2018
7. Research Centre : Agrobiodiversity and Environment Research Centre
8. Area of expertise
 - Plant systematics
 - Plant anatomy and microstructures
 - Palynology
 - Plant genetic resources management
 - Agricultural Science
 - Economic Botany
 - Plant Ecology

- Numerical analysis
- Scientific publication editor

Other area

- Multi variate statistical package analysis
- Biodiversity and biogeography

PART B

1. Academic Qualifications

Ph. D (Plant Systematics); Universiti Kebangsaan Malaysia (December 2017)

M.Sc. (Res.) (Botany); CGPA 4.00 Universiti Kebangsaan Malaysia (March 2014)

B.Sc. with honors (Biology) Universiti Kebangsaan Malaysia (August 2007)

2. Professional Body Membership

- Member, International Association of Plant Taxonomy (2011- to date)
- Member, International Aroid Society (2013-to date)
- Member, American Society of Plant Taxonomy (2011-2013)
- Member, International Society of Horticultural Sciences (2014-2016)
- Member, Persatuan Genetik Malaysia (2009-to date)
- Member, Malaysian Nature Society (2008- to date)
- Member, Persatuan Mikroskopi Elektron Malaysia (2016- to date)
- Member, World Wildlife Foundation, (2010- to date)
- Member, Malaysia Society of Applied Biology, (2011-2015)
- Committee, National Consultation on draft Malaysian Standard of MS 325 Nomenclature of Malaysian Fruits and Vegetables (2016-2017)
- Co-opted Member, Standardization of postharvest handling activities on fresh vegetables including precooling, sorting, cleaning, contaminants, grading, packaging, labelling, storage and transportation. (2018—to date)
- Committee Task Force for “Buku Koleksi 1001 Ulam-ulaman Malaysia” by Federal Agricultural Marketing Authority (FAMA) (2018 - to date).
- Committee, Malaysian Herbal Monograph (2014- to date).
- Editor for American Journal of Plant Biology.
- Editor for Net Journal of Agricultural Sciences.
- Editor for Malaysia Applied Biology Journal.
- Editor for Reinwardtia Journal.
- Committee presenter for Benefit Sharing Fund – Food and Agricultural Organization (FAO), Rome Italy, with successful project bidding entitled “Conservation and Sustainable Utilization of the Underutilized Taro to Increase Food Security and Livelihood of Marginalized Communities Faced with Climate Change” (22-26th October 2018), FAO, Rome, Italy 2018.
- Visiting Scientist in Sapindaceae Family Expertise, Western Australia Herbarium, Department of Biodiversity, Conservation and Attractions, Perth, Australia (19-30th November 2018).

3. **Awards & Recognition**

Research Awards

- Gold Medal for Knowledge Segment, MARDI Science and Technology Exhibition Year 2018.
- Gold Medal for Knowledge Segment, MARDI Science and Technology Exhibition Year 2016.
- Gold Medal for Knowledge Segment, MARDI Science and Technology Exhibition Year 2015.
- Bronze Medal for Knowledge Segment, MARDI Science and Technology Exhibition Year 2014.
- Bronze Medal for Knowledge Segment, MARDI Science and Technology Exhibition Year 2013.
- Silver Medal for Knowledge Segment, MARDI Science and Technology Exhibition Year 2012.
- Most Significant Knowledge Segment Award, MARDI Science and Technology Exhibition Year 2015.
- Young Scientist Award, MARDI Innovation Day 2014
- Young Science Writer Award, MARDI Innovation Day 2014
- Travel Grant for attending International Course on Genebank Management 2011 in Rural Development Agency, South Korea.
- Travel Grant for attending International Course on Crop Seed Technology 2012 in Hubei, Wuhan China.
- Travel Grant for attending ASEAN Young Researcher for PGRFA Management Attachment 2013 in Tsukuba, Japan.
- Travel Grant to Bangkok for attending workshop on rice production, diversity and research & development in Thailand 2015.
- Travel Grant to Royal Botanic Gardens, Kew, England for oral and poster presentation at State of the World's Plant Symposium, 24-25th May 2017.
- Best final report for ASEAN participants in AGRMP course, Tsukuba Japan
- Best Poster Presentation in Malaysian Genetic Congress 2013
- Third Place Winner for World's Water Day Essay Competition

Service Award in MARDI

- Excellent Service Award Year 2010 / Anugerah Perkhidmatan Cemerlang Tahun 2010.
- Excellent Service Award Year 2014 / Anugerah Perkhidmatan Cemerlang Tahun 2014.

Involvements in Scientific Expedition

- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Royal Belum Inventory 2008 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Sungai Dusun Inventory 2009 (PERHILITAN Malaysia).

- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Sg. Yong, Endau Rompin Inventory 2010 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Bukit Cherakah Inventory, Green Legacy Expedition 2010 (SP Setia Sdn Bhd).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Tioman Island – Gunung Kajang Inventory 2011 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Hulu Terengganu Expedition 2012 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Sungai Teris Inventory 2013 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Krau Wildlife Reserve Inventory 2013 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Tioman Island Inventory with Malayan Nature Society (MNS) 2014
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Taman Negara Pulau Pinang Expedition 2016 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Pulau Pangkor Scientific Expedition 2017 (Vale Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Taman Negara Terengganu – Gua Bewah Scientific Expedition 2017 (PERHILITAN Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Hutan Simpan Lepar Scientific Expedition 2018 (Jabatan Perhutanan Semenanjung Malaysia).
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Imbak Canyon – Borneo Geographic Expedition (Yayasan Sabah) 2018.
- Researcher in flora diversity, herbarium collections and report preparation in Scientific Expedition – Maliau Basin Conservation Area (Kew Gardens England & Jabatan Pertanian Sabah) 2018.

4. Selected Publications

i) Indexed Local and International Journals (full list in Appendix I)

Mohd Norfaizal, G., Amin Asyraf, T. Dome, N., A. Latiff, Muhammad Ikhwanuddin, M.E., Edward, E.B., Ahmad Zaki, Z. & Anuar Rasyidi, M.N. 2019. The systematic significance of leaf epidermal micromorphology of ten *Nepenthes* species (Nepenthaceae) from Peninsular Malaysia. Reinwardtia (accepted for publication 3 September 2019).

Mohd. Norfaizal, G., Anuar Rasyidi, M.N & A. Latiff. 2019. A contribution to the diversity note of rare and wild fruits species in Sungai Kangkawat RS, Imbak Canyon Conservation Area (ICCA), Sabah, Malaysia. Journal of Tropical Biology and Conservation (in press).

Hazniza, A, Musaalbakri, A.M., NurSyafiqah, N.R., Mohd Shukri, M.A., **Mohd Norfaizal, G.,** Hadijah, H., Zul Helmey, M.S. 2019. Acetic acid Fermentation of Kuini (*Mangifera odorata*) and its potential substrate for human health. Journal of Engineering (In press).

Mohd Norfaizal, G. Noraini, T., A. Latiff, Salmaniza, S. Nurshahidah, M.R. 2019. Morfologi debunga family Sapindaceae di Malaysia. Sains Malaysiana 48(3): 487-496.

Mohd Norfaizal, G. Noraini, T., A. Latiff, Anuar Rasyidi M.N. and Mohd Shukri, M.A. 2019. Rare and wild fruits of Pulau Pangkor, Perak, Peninsular Malaysia. The Malaysian Forester 82:210-214.









- Mohd Norfaizal, G.,** Noraini, T., A. Latiff, Anuar Rasyidi, M.N. 2018. Notes on the flora diversity of Asah Campsite, Tioman Island, Peninsular Malaysia. *Journal of Wildlife and Parks* 33: 107-114.
- Mohd Norfaizal, G.,** Noraini, T., A. Latiff, Anuar Rasyidi, M.N. 2018. Variation in the stomatal types and anticlinal wall patterns in Malaysian Sapindaceae species. *Asian Journal of Microbiology, Biotechnology and Environmental Science* 20(2):27-43.
- Mohd Norfaizal, G.,** Khadijah, A., A. Latiff, Anuar Rasyidi, M.N. 2018. Kepelbagaian spesies buah-buahan liar dan nadir di Hutan Simpan Lepar, Pahang, Malaysia Laporan Teknikal Ekspedisi Mini Hutan Simpan Lepar, Pahang 2018. Jabatan Perhutanan Semenanjung Malaysia.
- Mohd Norfaizal, G.,** Noraini, T., A. Latiff, Nurshahidah, M.R. 2017. Comparative studies of leaves venation in some species of Sapindaceae of Malaysia. *Malaysian Applied Biology Journal* 46(2): 115–127.
- Mohd Norfaizal, G.,** Noraini, T., A. Latiff, Nurshahidah, M.R. 2017. Leaf anatomy and micromorphology of *Cardiospermum halicacabum* L. (Sapindaceae) *Malayan Nature Journal* 69(2): 5-16.
- Mohd Norfaizal, G.,** Noraini, T., A. Latiff, Nurshahidah, M.R. 2017. Leaf micromorphology of *Lepisanthes* Blume (Sapindaceae) in Peninsular Malaysia. *American Institute of Physics (AIP)*.
- Mohd Norfaizal, G.,** A. Latiff, Muhammad Fahmi, Y. 2016. *Bouea microphylla* Griff. (Anacardiaceae) reinstated. *Malayan Nature Journal* 67(4):480-490.
- Mohd Norfaizal, G.,** Erny Sabrina, M.N. Mohd Shukri, M.A. Masrom, H. A. Latiff. 2016. *Colocasia, Xanthosoma* and conservation of Malaysia's edible aroid genetic resources. *UTAR Agricultural Science Journal*. Vol. 2(3).
- Tsuji, K. **Mohd Norfaizal, G.,** Zulhairil, A., Mohd. Shukor, N. Maya Izar, K. Leocardio, S. & Mohammad Ehsan, D. 2016. Genetic diversity and geographical differentiation of Nipah (*Nypa fruticans* Wurmb.) in Peninsular Malaysia based on AFLP. *Japan Agricultural Research Quarterly* 50(1): 49-56.
- Mohd. Norfaizal, G.,** Muhammad Radzali, M. & Masrom, H. 2015. Flora Diversity of Pulau Tekak Besar, Hulu Terengganu, Malaysia. *International Journal of Current Research in Bioscience and Plant Biology* Vol. 2(5).
- Mohd Norfaizal, G.,** Masrom, H. Aishah-Farhana, S. & Omar, Y. 2014. A preliminary flora survey in Gunung Kajang, Pulau Tioman, Pahang Darul Makmur, Malaysia. *Malaysia Applied Biology* 43(2): 17-23.
- Mohd Norfaizal, G.,** Masrom, H., Omar, Y. & Mohd Shukri, M.A. 2014. A preliminary flora survey of SUNGKAI Wildlife Reserve, Perak, Malaysia. *Journal of Wildlife and Parks* (2014) 29: 31-35.
- Mohd Norfaizal, G.,** A. Latiff, Muhammad, Fahmi, Y & Masrom, H. Assessment of Genetic Diversity In *Bouea* (Anacardiaceae) Germplasm Using ISSR Marker. *African Journal of Biotechnology* 14(2): 76-85.
- Mohd Norfaizal, G. & A. Latiff.** 2014. Comparative Leaves Anatomical Studies of *Bouea, Mangifera* and *Spondias* (Anacardiaceae) in Malaysia. *Journal of Life Sciences* 8(9): 6-10.
- Mohd. Norfaizal, G.,** Azuan, A., Masrom, H. & Omar, Y. 2014. Flora diversity of Sungai Teris, Krau Wildlife Reserve, Pahang, Malaysia. *Journal of Wildlife and Parks* 28: 81-91.
- Mohd. Norfaizal, G.,** Masrom, H., & Omar, Y. 2014. Flora diversity of Tasek Bera RAMSAR Site, Pahang, Malaysia. *Journal of Wildlife and Parks* 29: 9-11.









Mohd Norfaizal, G., Khatijah, H. & Mohammad Ruzi, A.R. 2012. Leaf anatomical study of five *Macaranga* species (Euphorbiaceae). *Journal of Tropical Agriculture and Food Sciences* 40(2): 289–296.











Tsuji, K. **Mohd Norfaizal, G.,** Zulhairil, A., Mohd. Shukor, N. Maya Izar, K. Leocardio, S. & Mohammad Ehsan, D. 2011. Biological and Ethnobotanical Characteristics of Nypa Palm (*Nypa fruticans* Wurmb.): A Review. *Sains Malaysiana* 40(12): 1407–1412.

Appendix II

List of Research and Development Projects (till date)

Bil	Tajuk Projek	Kod Projek COP	Status Pendaftaran Projek	Status Pelaksanaan Projek	Status Kemajuan Terkini (%)	Laporan Kemajuan	Buku Log
1	Pembangunan Teknik Krio Awetan dan Pemuliharaan Sumber Genetik Tanaman	21003001150004-G	Diperakui PP2	Projek Dilaksana	100.00		
2	Evaluation of Genetic Variability of <i>Nypa fruticans</i> (Nipah) in Peninsular Malaysia	SR1.1.20	Diperakui PP2	Projek Siap	100.00		
3	Inventorization, Characterization and Conservation of Rare Fruits, Herbal, Medicinal plants and Wild Trees in Taman Tropika Kenyir.	SR1.1.21	Diperakui PP2	Projek Siap	100.00		
4	Biodiversity of <i>Bouea macrophylla</i> (Kundang) & <i>Bouea oppositifolia</i> (Remia) in Peninsular Malaysia	SR1.1.7	Diperakui PP2	Projek Siap	100.00		

Bil	Tajuk Projek	Kod Projek COP	Status Kemajuan Terkini (%)	Laporan Kemajuan	Buku Log
1	Biji benih dan germplasma dari sumber agrobiodiversiti sebagai sumber genetik	21003001150004-2015-B	93.00		
2	Sebatian kimia berfungsi dan bioaktiviti sumber agrobiodiversiti	21003001470001-A	93.00		
3	Produk tambah nilai daripada sumber agrobiodiversiti (biopestisida, concentrated healthy herbs/ indigenous vegetables, antioksidan, feromon dan polen lebah kelulut)	21003001470001-B	80.00		
4	Penghasilan produk berasaskan buah-buahan baharu serta penilaian kualiti, keselamatan dan kefungsiannya	21003004070001-2018-E	98.60		

5	Collection of Crop Wild Relatives (CWR) in Malaysia	K-GB 166	60.00		
6	Sumber Kekayaan Baru (SKB): Pembangunan Industri Durian Melalui Peningkatan Varieti, Pengurusan Sistem Ladang dan Pengendalian Lepas Tuai	K-RH200-1001-KSR999	0		
7	Unlocking the Malaysian Stingless Bee (Heterotrigona itama) Queen Caste Differentiation Pathway through Genomics to Improve Colony Propagation for Sustainable Species Management and Conservation	R-RB011-1001-NCTF10	20.00		
8	Laporan Teknikal 'Five Years of Excellence' MARDI RMK10	SI1.2.10 (2016)	5.00		
9	Field genebank maintenance of plant genetic resources for food and agriculture (PGRFA) and arthropods	SR1.1.20	50.00		
10	Conservation and Sustainable Use of Cultivated and Wild Tropical Fruit Diversity: Promoting Sustainable Livelihoods, Food Security and Ecosystem Services (UNEP/GEF)	SR1.4.1	75.00	