

Kanan Saikai (Kutsuwa)

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Profile

I am currently a JSPS overseas research fellow residing at International Institute of Tropical Agriculture (IITA) in Nairobi, Kenya. My research has focused on the biology and impact of plant-parasitic nematodes, with projects that range in scale from tissue culture to the field. My interest is with all aspects of plant-parasitic nematode biology and the diseases they cause of agricultural crops. This includes basic and applied research, education, and outreach via extension programs for growers.

Professional Experience

Sept. 2020~ International Institute of Tropical Agriculture
Position: Guest/Visiting scholar (JSPS overseas research fellow)
Host researcher: Danny Coyne (Soil health scientist)

My responsibilities at IITA include developing management strategies against *Meloidogyne* species on coffee for small holder farmers as well as supervising the nematode screening for banana breeding programs that are currently ongoing in Nigeria, Tanzania, Uganda, and Kenya.

Education

2014 – 2019 *Ph.D. in Plant Pathology*, University of Wisconsin-Madison (UW-Madison), expected completion date: Fall 2019.
Dissertation title: Characterizing the significance of *Pratylenchus penetrans* on soybean (*Glycine max* (L.) Merr.).
Advisor: Dr. Ann E. MacGuidwin

2012 – 2014 *M.S. in Nematology*, University of Florida (UF)
Thesis title: Investigation of *Belonolaimus longicaudatus* infecting peanut in Florida.
Advisor: Dr. Donald W. Dickson

2008 – 2012 *B.S. in Plant Clinical Sciences*, Hosei University in Japan
Thesis title: Characterization of *Colletotrichum* spp., *Phytophthora nicotianae*, and *Corynespora cassicola* on tropical fruits in Hachijo Island, Japan.
Advisor: Dr. Hiromichi Horie

2010 Internship at Florida Department of Agriculture and Consumer Services as a part of Doctor of Plant Medicine Program at UF.

Dates: August 1st to November 1st (3 months).

Publications

- Saikai, K., and A. E. MacGuidwin. 2020. Intraspecific variation in phenological and phylogenetic features among *Pratylenchus penetrans* isolates from Wisconsin, USA. Journal of Nematology doi.org/10.21307/jofnem-2020-102.
- Saikai, K., and A. E. MacGuidwin. 2020. Difference in lesion formation by male and female *Pratylenchus penetrans*. Journal of Nematology doi.org/10.21307/jofnem-2020-090.
- Vieira, P., Peetz, A., Mimee, B., Saikai, K., Mollov, D., MacGuidwin, A., Zasada, I., and Nemchinov, L. G. 2020. Prevalence of the root lesion nematode virus (RLNV1) in populations of *Pratylenchus penetrans* from North America. Journal of Nematology doi.org/10.21307/jofnem-2020-045.
- Saikai, K., Z. A. Handoo, and A. E. MacGuidwin. 2019. First report of the root-lesion nematode, *Pratylenchus fallax*, on soybean in Wisconsin. Plant Disease doi.org/10.1094/PDIS-02-19-0288-PDN.
- Saikai, K., and A. E. MacGuidwin. 2019. First report of the root-lesion nematode, *Pratylenchus allenii*, on soybean in Wisconsin. Plant Disease doi.org/10.1094/PDIS-03-19-0501-PDN.
- Kutsuwa, K., D. W. Dickson, J. A. Brito., A. Jeyaprakash, and A. Drew. 2014. *Belonolaimus longicaudatus*, an emerging pathogen of peanut in Florida. Journal of Nematology 47:87-96.
- Takeuchi, J., T. Ono, K. Kutsuwa, K. Morita, M. Sano, S. Kagiwada, K. Yazawa, K. Nishio, and H. Horie. 2012. First report of anthracnose of *arthraxon hipidus* by *Colletotrichum destructivum* and lychee by *C. gloeosporioides* found in Japan. Annual report of the Kanto-Tosan Plant Protection Society 59:59-62.

Manuscripts in preparations

- Saikai, K., and A. E. MacGuidwin. Loss of soybean yield and yield components to *Pratylenchus penetrans* in Wisconsin, USA (*Manuscript in preparation for Phytopathology*).
- Saikai, K., Wanjara, S., and Coyne, D. Evaluation of extraction efficiency for *Radopholus similis* using different variations of the modified Baermann method (*Manuscript in preparation for Nematology*).

Professional interest

- Nematode assays and advisory services
- Nematode disease diagnostics
- Fungal disease diagnostics

- PCR, Cloning, and Sequence analysis
- SAS and R programming languages
- Scanning Electron Microscopy

Awards

2021	Schroth Faces of the Future Award: The American Phytopathological Society.
2019	Rod Rodriguez-Kábana student poster competition 1 st place: Organization of Nematologists of Tropical America annual meeting, San Jose, Costa Rica (\$500).
2019	Student paper competition 2 nd place: Society of Nematologists annual meeting, Raleigh, NC (\$300).
2019	Bayer Graduate Student Travel Award: Society of Nematologists annual meeting, Raleigh, NC (\$500).
2019	The Walter R. Stevenson Graduate Student Travel Award: The UW-Madison (\$800).
2018	Bayer Graduate Student Travel Award: Society of Nematologists annual meeting, Albuquerque, NM (\$500).
2017	Dow AgroSciences Graduate Student Travel Award: Society of Nematologists annual meeting, Williamsburg, VA (\$500).
2014	The ONTA Foundation Travel Award: 6 th International Congress of Nematology, Cape Town, South Africa (\$500).

Grants

2020 – 2022	Overseas Research Fellowships from Japan Society for the Promotion of Science (¥4,526,000/ year).
2012 – 2018	Scholarship from Japan Student Services Organization (\$12,000/ year).
2019	Student Research Grants Competition: The UW-Madison (\$1200).

Teaching and Mentorship

Teaching

2020	Basic Crash Course Nematology – Kenya at IITA-ICPE.
2016	Two laboratory sections of Plant Pathology 123; Plants, Parasites, and People.
2016	A guest lecture at Plant Pathology 123 “ <i>Microbes in Our Farming Systems</i> ”.
2016 – 2018	Volunteered as Teaching Assistant in Nematology laboratory sections of Plant Pathology 300; Introduction of Plant Pathology.

Mentorship

2020~	Celestine Oduori, M.Sc in Crop Science at University of Nairobi
2020~	Wanjara Situma, Intern at IITA
2017	David Sundquist, B.S. in Plant Pathology at the UW-Madison

Service

2018 – 2019	Extension committee of Society of Nematologists.
2018 – 2019	Student committee of Society of Nematologists.
2017	Volunteer staff at Garden Expo in Madison, Wisconsin.