Kanan Saikai (Kutsuwa)

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Profile

Currently I am a PhD candidate in the Department of Plant Pathology at the University of Wisconsin-Madison under the supervision of Dr. Ann E. MacGuidwin. I received my M.S. in Plant Nematology at the University of Florida, advised by Dr. Donald W. Dickson. 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. I have a keen interest of plant disease risk from nematodes and their impact on crop yields with emphasis on yield loss analyses.

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
2012	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., 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 (in press).
• Saikai, K., and A. E. MacGuidwin. 2019. First report of the root-lesion nematode, *Pratylenchus alleni,* on soybean in Wisconsin. Plant Disease doi.org/10.1094/PDIS-03-19-0501-PDN (in press).
• Saikai, K., and A. E. MacGuidwin. 2018. Modeling the damage function of *Pratylenchus penetrans* on soybean using a nested error component model. Journal of Nematology 50:654 (Abstr.).
• Kutsuwa, K., and A. E. MacGuidwin. 2017. Gender difference in lesion formation by *Pratylenchus penetrans.* Journal of Nematology 49: 508-509 (Abstr.).
• 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.
• Kutsuwa, K., D. W. Dickson, J. A. Brito., A. Jeyaprakash, and A. Drew. 2014. Investigation of an emerging pathogen, *Belonolaimus* sp., infecting peanut in Florida. Journal of nematology 46:191(Abstr.).
• 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 *Collototichum 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. 2019. Soybean plant growth response to the damage of *Pratylenchus penetrans* (*Manuscript in preparation for Phytopathology*).
• Saikai, K., and A. E. MacGuidwin. 2019. Modeling the damage function of *Pratylenchus penetrans* on soybean using a nested error component model (*Manuscript in preparation for Plant Disease*).
• Saikai, K., and A. E. MacGuidwin. 2019. Characterization of gender difference in feeding activities and associated symptoms of *Pratylenchus penetrans* (*Manuscript in preparation for Journal of Nematology*).
• Saikai, K., D. Sundquist, and A. E. MacGuidwin. 2019. Profiling bi-sexual species of *Pratylenchus penetrans* associated with soybean in Wisconsin (*Manuscript in preparation for Plant Health Progress*).

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

2019	Rod Rodríguez-Kábana student poster competition 1st place: Organization of Nematologists of Tropical America annual meeting, San Jose, Costa Rica ($500).
2019	Student paper competition 2nd 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: 6th International Congress of Nematology, Cape Town, South Africa ($500).

Grants

2020 – 2022	Overseas Research Fellowships from Japan Society for the Promotion of Science (40,000/ 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

2016	Two laboratory sections of Plant Pathology 123; Plants, Parasites, and People.
2016	A guest lecture at Plant Pathology 123 "*Microbes in Our Farming Systems".*
2016 – 2018	Volunteered as Teaching Assistant in Nematology laboratory sections of Plant Pathology 300; Introduction of Plant Pathology.

Mentorship

2017	David Sundquist, B.S. in Plant Pathology "*The distribution of root lesion nematodes in Wisconsin agriculture fields"*.

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.

Conference Presentation

2019	*Annual meeting of Society of Nematologists* in Raleigh, NC. "Damage potential of *Pratylenchus penetrans* on soybean." (Oral presentation).

2019	*Annual meeting of Organizations of Nematologists Tropical America* in San Jose, Costa Rica. “A search for the best yied predictor for root lesion nematodes – a case study of *Pratylenchus penetrans* on soybean.” (Poster presentation).
2018	*Annual meeting of Society of Nematologists* in Albuquerque, NM. “Modeling disease function of *Pratylenchus penetrans* on soybean using the nested error component model.” (Oral presentation).
2017	*Annual meeting of Society of Nematologists* in Williamsburg, VA. “Gender difference in lesion formation by *Pratylenchus penetrans.”* (Oral presentation).
2014	*International Congress of Nematology* in Cape Town, South Africa. “Investigation of an emerging pathogen, a sting nematode, infecting peanut in Florida.” (Oral presentation).

Seminars

2019	“Leaning nematology in the United States.” Hosei University, Tokyo, Japan, March, 6. (Invited).
2017	“Damage potential of *Pratylenchus penetrans* on soybean.” UW-Madison, Madison, Wisconsin, USA. April, 18.
2016	“Growing crops in the growth chamber with *Pratylenchus penetrans.*” UW-Madison, Madison, Wisconsin, USA. March, 18.
2015	“Investigations on sting nematode, *Belonolaimus longicaudatus,* an emerging pathogen of peanut in Florida.” UW-Madison, Madison, Wisconsin, USA. May, 15.
2014	“Investigations on sting nematode, *Belonolaimus longicaudatus,* an emerging pathogen of peanut in Florida.” UF, Gainesville, FL, USA. July, 15.