

## 27th Annual Meeting of the Japanese Nematological Society

Date : 11–13 September 2019

Venue : Tsukuba Center for Institutes (2-20-5, Takezono, Tsukuba, Japan)

### Program

11th Sept.

#### Oral session

- O01 Tomita, R.<sup>1</sup>, Ekino, T.<sup>1</sup>, Kanzaki, N.<sup>2</sup> and Shinya, R.<sup>1,3</sup> (<sup>1</sup>Meiji Univ., <sup>2</sup>Kansai Res. Ctr., FFPRI., <sup>3</sup>JST PRESTO) **Mechanisms of desiccation tolerance in the family of Aphelenchoididae.**
- O02 Horie, H.<sup>1</sup>, Ekino, T.<sup>1</sup>, Kanzaki, N.<sup>2</sup> and Shinya, R.<sup>1,3</sup> (<sup>1</sup>Meiji Univ., <sup>2</sup>Kansai Res. Ctr., FFPRI., <sup>3</sup>JST PRESTO) **The adaptive strategy to starvation in *Seinura caverna* newly hatched juveniles.**
- O03 Ekino, T.<sup>1</sup>, Kanzaki, N.<sup>2</sup> and Shinya, R.<sup>1,3</sup> (<sup>1</sup>Meiji Univ., <sup>2</sup>Kansai Res. Ctr., FFPRI., <sup>3</sup>JST PRESTO) **The mechanism to avoid cannibalism in *Seinura caverna*.**
- O04 Shinya, R.<sup>1</sup>, Shih, P-Y.<sup>2</sup>, Lee, JS.<sup>2</sup>, Kanzaki, N.<sup>3</sup>, Sapir, A.<sup>4</sup> and Sternberg, PW.<sup>2</sup> (<sup>1</sup>Meiji Univ. & JST PRESTO, <sup>2</sup>Caltech, <sup>3</sup>Kansai Res. Ctr. FFPRI., <sup>4</sup>Univ. Haifa) **Extremophile nematodes from mono lake exhibit extreme arsenic resistance.**
- O05 Takeda, A.<sup>1</sup>, Fukuda, H.<sup>1</sup> and Toyota, K.<sup>2</sup> (<sup>1</sup>CAFRC, <sup>2</sup>Tokyo Univ. of Agriculture and Technology) **The management of the soybean cyst nematode, *Heterodera glycines*, by plowing young plant of *Vigna radiate*.**
- O06 Hosoi, A.<sup>1</sup>, Uchiyama, H.<sup>2</sup>, Sasaki, Y.<sup>1</sup>, Yajima, S.<sup>1,2</sup> and Ito, S.<sup>1</sup> (<sup>1</sup>Dept. of Bioscience, Tokyo Univ. of Agr., <sup>2</sup>Genome Research Center Tokyo Univ. of Agr.) **Investigation of host recognition mechanism of soybean cyst nematode.**
- O07 Sakata, I.<sup>1</sup> and Kushida, A.<sup>1</sup> (<sup>1</sup>HARC/NARO) **Evaluation of housekeeping gene expressions in *Globodera pallida* eggs: aiming at establishment of viable nematodes detection method.**
- O08 Sakai, H.<sup>1</sup>, Kushida, A.<sup>1</sup> and Narabu, T.<sup>1</sup> (<sup>1</sup>HARC/NARO) **Multiplex PCR diagnostics of the potato cyst nematodes and carry-over prevention.**
- O09 Gaspard, Jerome T.<sup>1</sup> (<sup>1</sup>Nematenken Co. Ltd.) **Baermann funnel and sugar centrifugal flotation extraction with cream cleanser.**

12th Sept.

#### Poster session

- P 01 Ishijima, H.<sup>1</sup> and Asakawa, M.<sup>1</sup> (<sup>1</sup>Sch. Vet. Med., Rakuno Gakuen Univ.) **Zoogeography of parasitic nematodes from the genus *Macaca* in Japan with special reference to the recent research result from free-ranged and imported individuals of host macaques.**
- P 02 Koike, Y.<sup>1</sup>, Sheng, Y.<sup>1</sup>, Ozawa, S.<sup>2</sup>, Aikawa, T.<sup>2</sup>, Hasegawa, K.<sup>1</sup> (<sup>1</sup>Chubu Univ., <sup>2</sup>FFPRI Tohoku) **Wide geographical distribution of the nematode with ovoviparous reproduction and its association prevalence to the Onthophagini dung beetles.**
- P 03 Ono, M.<sup>1,2</sup>, Hayakawa, Y.<sup>1,2</sup> and Yoshiga, T.<sup>1,2</sup> (<sup>1</sup>Saga Univ., <sup>2</sup>Kagoshima Univ.) **Non-parasitic nematodes delay the activation of insect hemocytes.**
- P 04 Ozawa, S.<sup>1</sup>, Nakano, K.<sup>2</sup>, Koike, Y.<sup>3</sup>, Subramani, R.<sup>4</sup>, Aikawa, T.<sup>1</sup>, Hasegawa, K.<sup>3</sup> (<sup>1</sup>FFPRI Tohoku, <sup>2</sup>Minato City, Tokyo., <sup>3</sup>Chubu Univ., <sup>4</sup>USP, Fiji) **Host range expansion of the parasitic nematode *Leidynema appendiculatum* exhibiting broad infectivity in invasive cockroach host.**
- P 05 Adachi, Y.<sup>1</sup>, Kuwabara, T.<sup>1</sup>, Shirasawa, K.<sup>2</sup>, Hirakawa, H.<sup>2</sup>, Iwahori, H.<sup>1</sup> and Asamizu, E.<sup>1</sup> (<sup>1</sup>Ryukoku Univ., <sup>2</sup>Kazusa DNA Res. Inst.) **Utilization of root-knot nematode genome sequence information for identification of infection-related genes.**
- P 06 Kobayashi, N.<sup>1</sup>, Tanaka, S.<sup>1</sup>, Iwahori, H.<sup>1</sup> and Asamizu, E.<sup>1</sup> (<sup>1</sup>Ryukoku Univ.) **Detection of nematode DNA from soil samples.**
- P 07 Sugita, Y.<sup>1</sup>, Yoshiga, T.<sup>1</sup> (<sup>1</sup>Saga Univ.) **Comparison of hypoxia/anoxia tolerance among nematode species with different ecological traits.**
- P 08 Suzuki, K.<sup>1</sup>, Kitagami, Y.<sup>1</sup> and Matsuda, Y.<sup>1</sup> (Mie Univ.) **Community structures of nematodes in different parts and substrates of above ground of cedar trees.**
- P 09 Hamaguchi, T.<sup>1</sup>, Hou, Z.<sup>1</sup>, and Hasegawa, K.<sup>1</sup> (<sup>1</sup>Chubu Univ.) **Phenotypic characterization of the abnormal GST expression mutants of the nematode *Caenorhabditis elegans*, while relating to the nematicidal action of the marigold exudate α-terthienyl.**
- P 10 Watanabe, S.<sup>1</sup>, Tsunashima, A.<sup>1</sup>, Itoyama, K.<sup>1</sup> and Shinya, R.<sup>1,2</sup> (<sup>1</sup>Meiji Univ., <sup>2</sup>JST PREST) **Survey of mermithid nematodes infecting the fruit-piercing stink bugs.**
- P 11 Aoki, K.<sup>1</sup>, Hosoi, A.<sup>1</sup>, Yajima, S.<sup>1</sup>, Sasaki, Y.<sup>1</sup> and Ito, S.<sup>1</sup> (<sup>1</sup>Dept. of Bioscience, Tokyo Univ. of Agr.) **Response to GEA in hatching process of soybean cyst nematode.**
- P 12 Kurihara, K.<sup>1</sup>, Owada, K.<sup>1</sup> and Aoi, T.<sup>1</sup> (<sup>1</sup>Nat. Inst. Tech., Gunma College) **Analysis of the genetic variability of nematodes in Chinese yam farm with the soil improvement material utilizing biomass resources.**

## Oral session

- O10 Itou, K.<sup>1</sup>, Matsushita, W.<sup>2</sup> and Narabu, T.<sup>1</sup> (<sup>1</sup>HARC/NARO, <sup>2</sup>Kagome Co., Ltd.) **New potato cyst nematodes resistant variety of tomato for processed products.**
- O11 Kushida, A.<sup>1</sup>, Sakata, I.<sup>1</sup> and Tanino, K.<sup>2</sup> (<sup>1</sup>HARC/NARO, <sup>2</sup>Hokkaido Univ.) **Seasonal variation of hatching response in potato cyst nematode Japanese populations to host root diffusate or Solanoeclepin A.**
- O12 Narabu, T.<sup>1</sup>, Yoshida, H.<sup>2</sup>, Kushida, A.<sup>1</sup> and Tanino, K.<sup>3</sup> (<sup>1</sup>HARC/NARO, <sup>2</sup>Tokyo Univ. Agric., <sup>3</sup>Hokkaido Univ.) **Response of potato cyst nematodes against the different source of hatching stimulator.**

## Symposium

- S 01 Okada, H. (CARC/NARO) **What do they have in common? cyst nematodes, root-knot nematodes and Brassica clubroot pathogen.**
- S 02 Uesugi, K. (KARC/NARO) **Biology and control of root-knot nematodes.**
- S 03 Asamizu, E. (Ryukoku Univ.) **Insights into the root-knot nematode genome.**
- S 04 Nakanishi, M. (The Kagawa Prefecture Agricultural Experiment Station) **HeSoDiM approach to the control of clubroot in broccoli.**
- S 05 Ito, S. (Yamaguchi Univ.) **Phylogenetic and pathogenic analyses of emerging *Plasmodiophora brassicae* isolated from Japan.**

13th Sept.

## Oral session

- O13 Sawanomukai, D.<sup>1</sup>, Kotone, M.<sup>1</sup>, Hasegawa, K.<sup>1</sup> (<sup>1</sup>Chubu Univ.) **Study of the *Oscheius* sp. KHA 501 and the accompanying bacterium *Serratia marcescens*, concerning the entomopathogenicity.**
- O14 Kitagami, Y.<sup>1</sup>, Tanikawa, T.<sup>2</sup> and Matsuda, Y.<sup>3</sup> (<sup>1</sup>Mie Univ., <sup>2</sup>Nagoya Univ.) **Effects of microhabitat environments on nematode community structures in Japanese cedar plantation forests.**
- O15 Kirino, H.<sup>1</sup>, Yoshimoto, K.<sup>1</sup>, Konagaya, K.<sup>2</sup> and Shinya, R.<sup>1,3</sup> (<sup>1</sup>Meiji Univ., <sup>2</sup>FFPRI, <sup>3</sup>JST PRESTO) **Functional analysis of candidate pathogenic proteins secreted by *Bursaphelenchus xylophilus* using seed embryo of Japanese black pine.**
- O16 Kanzaki, N.<sup>1</sup>, Ekino, T.<sup>2</sup> and Giblin-Davis, R. M.<sup>3</sup> (<sup>1</sup>Kansai Res. Ctr., FFPRI, <sup>2</sup>Meiji Univ., <sup>3</sup>Univ. Florida) **Feeding dimorphism in *Bursaphelenchus sinensis*.**

- O17 Nagae, S.<sup>1</sup>, Morffe, J.<sup>2</sup>, Tanabe, T.<sup>3</sup>, Hasegawa, K.<sup>1</sup> (<sup>1</sup>Chubu Univ, <sup>2</sup>Inst. Ecol. Sistem. Cuba, <sup>3</sup>Kumamoto Univ.) **Symbiosis of the two parasitic nematodes in millipede, Rhigonematidae and Travassosinematidae with evolutionary different origin.**
- O18 Ochi, S.<sup>1</sup>, Nakagaki, T.<sup>2,3</sup> and Sato, K.<sup>2,3</sup> (<sup>1</sup>Meiji Univ. Agri., <sup>2</sup>Hokkaido Univ. RIES, <sup>3</sup>Hokkaido Univ. GSS) **A Social Aggregation of *Caenorhabditis elegans* and its behavioral mechanism.**
- O19 Hamaguchi, T.<sup>1</sup>, and Hasegawa, K.<sup>1</sup> (<sup>1</sup>Chubu Univ.) **Molecular genetics of nematicidal action of the marigold exudate α-terthienyl.**
- O20 Kadota, Y.<sup>1</sup>, Sato, K.<sup>1</sup>, Uehara T.<sup>2</sup>, Ishihama, N.<sup>1</sup>, Iino, E.<sup>1,3</sup>, Maki, N.<sup>1</sup>, Suzuki, T.<sup>4</sup> and Shirasu, K.<sup>1,3</sup> (<sup>1</sup>RIKEN CSRS, <sup>2</sup>CARC/NARO, <sup>3</sup>Univ. of Tokyo, <sup>4</sup>Chubu Univ.) **Plant immunity against root-knot nematode.**
- O21 Miyama, A.<sup>1</sup> and Shinya, R.<sup>1,2</sup> (<sup>1</sup>Meiji univ., <sup>2</sup>JST PRESTO) **Light intensity affects the induction of *Meloidogyne incognita* male.**
- O22 Sato, K.<sup>1</sup>, Kadota, Y.<sup>1</sup>, Pamela, G.<sup>1</sup>, Uehara, T.<sup>2</sup>, Bino, T.<sup>3</sup>, Yamaguchi, K.<sup>3</sup>, Murata, G.<sup>4</sup>, Uesugi, K.<sup>4</sup>, Saito, T.<sup>5</sup>, Maki, N.<sup>1</sup>, Shigenobu, S.<sup>3</sup>, Mukhtar, MS.<sup>6</sup> and Shirasu, K.<sup>1,7</sup> (<sup>1</sup>RIKEN CSRS, <sup>2</sup>CARC/NARO, <sup>3</sup>NIBB, <sup>4</sup>KARC/NARO, <sup>5</sup>NIVFS, <sup>6</sup>UAB, <sup>7</sup>Univ. of Tokyo) **Mining and functional analyses of root-knot nematode effectors.**
- O23 Ohata, S.<sup>1</sup>, Ushijima, K.<sup>1</sup>, Tabuchi, H.<sup>2</sup>, Tahara, M.<sup>1</sup>, Monden, Y.<sup>1</sup> (<sup>1</sup>Okayama Univ., <sup>2</sup>KARC/NARO) **Gene expression profiling associated with *Meloidogyne incognita* resistance in sweetpotato.**
- O24 Suwa, N.<sup>1</sup>, Shimizu, M.<sup>2</sup>, Suga, K.<sup>1</sup>, Arakida, N.<sup>1</sup>, Nishinaka, M.<sup>3</sup>, Katayama, K.<sup>3</sup> and Nishimiya, S.<sup>1</sup> (<sup>1</sup>Ibaraki Agric. Res. Inst., <sup>2</sup>Ibaraki Pref. Central Agriculture and Forestry Office, <sup>3</sup> NICS) **Reducing damage of root-knot nematodes by cultivation of the southern root-knot nematode resistant sweet potato line.**
- O25 Tateishi, Y.<sup>1</sup> and Uehara, T.<sup>1</sup> (<sup>1</sup>CARC/NARO) **Occurrence of *Xiphinema* species in major producers of traditional ornamental trees.**