**Biographical Sketch & Publications**

**Cahit Ozturk**

School of Life Sciences, Arizona State University, Tempe, AZ 85287-4701

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**Education and Training**

Cukurova University, Adana, Turkey Animal Science B.S. 1993

Cukurova University, Adana, Turkey Animal Breeding M.S. 1997

Cukurova University, Adana, Turkey Breeding and Genetic Ph.D. 2014

**Research and Professional Experience**

*Professional Appointments*

2014-Present Research Technologist: School of Life Sciences, ASU, Tempe, AZ

2009-2014 Researcher and Beekeeping department manager of Alata Horticultural Research Institute, Mersin, Turkey

2008-2009 Research Technologist: School of Life Sciences, ASU, Tempe, AZ

2001-2008 Researcher at beekeeping department of Alata Horticultural Research Institute, Mersin, Turkey

1999-2001 Lecturer at Selcuk University Taskent Vocational College Beekeeping Department, Konya, Turkey

1994-1999 Lecturer at Selcuk University Taskent Vocational College Beekeeping Department, Nigde, Turkey

***Teaching Experience***

Lectures

1994 – 1999 **Instructor:** Introductory to beekeeping, Beekeeping ecology, Beekeeping anatomy and physiology, Honey bee behavior, Seasonal works in beekeeping, Honey bee diseases and parasites, Bee friendly plants and pollination, Beekeeping equipment and tools, Hive products and production techniques, Queen bee rearing, Instrumental Insemination of queen bees, Bee breeding and genetic Beekeeping Program, Selcuk University

1994 – 1999 **Instructor:** Introductory to beekeeping, Honey bee behavior, Seasonal works in beekeeping, Honey bee diseases and parasites, Beekeeping equipment and tools, Hive products and production techniques, Queen bee rearing, Instrumental Insemination of queen bees, Bee breeding and genetic Beekeeping Program, Nigde University.

Courses

2019 - current ASU Continuing and Professional Education course; Introduction to beekeeping, Hobby beekeeping, Bee diseases and pest management, Queen bee rearing, Instrumental insemination of queen bees and some other courses

<https://careercatalyst.asu.edu/programs/?query=bee&program=Course>

2001 – 2014 **Instructor**: General beekeeping, Queen Bee rearing, Royal jelly production, Instrumental insemination of queen bees, Organic beekeeping at Alata Horticultural Research Institute Erdemli / Mersin /Turkey

**Teaching Certifications**

Honey bee breeding, Instrumental insemination of queen bees, Organic beekeeping, Ministry of Agriculture and Forestry, TURKEY

**Assistance Lectures *Arizona State University***

2015 – 2017 Introduction to Beekeeping and Bee Biology BIO-494 at ASU. Instructors:

Dr. Robert E. Page

2009 Advance Honey Bee Biology at ASU. Instructors: Dr. Robert E Page

*Service*

2019-2021 Arizona Beekeeping Association Board Member

2019 Southeast Regional Library, Gilbert AZ: Why bees are important

2019 Sequoia Pathfinder Academy at Eastmark. April 29th Mesa AZ:

 “Importance of Bees and Pollinators” speech for kindergartens.

2017 Ed Robson Library, October 13th 2017 Sun Lakes, AZ: Bees in Arizona

2017 Perry Library, March 2nd 2017 Gilbert AZ; Beekeeping

***Conferences Attended***

* Apimondia 47th International Apicultural Congress. August 24th - August 28th, 2022. Istanbul, Turkey.
* Apimondia 45th International Apicultural Congress. September 29th - October 4th, 2017. Istanbul, Turkey.
* Apimondia 44th International Apicultural Congress. September 15-20, 2015. Venue Daejeon South Korea.

***Volunteering***

PARTNERS OF THE AMERICAS, Farmer-to-Farmer (F2F) program Queen bee rearing assignment in Guyana **December 11-23rd, 2022**

**Bio:**

Dr. Cahit Ozturk is a research technologist and associate researcher at Arizona State University in Mesa, Arizona. Dr. Ozturk met with the bees in 1989 in his university years and he started to keep his own colonies. He graduated from the Animal Science department in 1993. He received his Master’s in Royal Jelly production in 1997. After completion of his master's degree, he has worked at the two different Universities Beekeeping community colleges as a lecturer from 1994 to 2001. Dr. Ozturk then served as the head of the beekeeping department and researcher from 2001 to 2014 in a Government research Institute in Turkey. During this time, he earned his Ph.D. in Bee Genetics and Breeding in 2014 from Cukurova University, Turkey. His dissertation work involved searching breeding possibilities on a hygienic line with selection in the southeast Mediterranean region in Turkey. After completion of his Ph.D. in 2014, he moved to the US to join the bee research lab at ASU. His main area of honey bee breeding and management, including royal jelly production, queen bee rearing, in vitro bee rearing, hygienic behavior selection, bee genetics, and instrumental insemination of queen bees. He currently works with several distinguished research teams as a research technologist and co-instructor at ASU where he helps design projects focused on honey bee learning and behavior.

**Publications** *last five years*

Original Research Articles

1. Fisher, A., Glass, J.R., **Ozturk, C.,** DesJardins, N.S., Raka, Y., DeGrandi-Hoffman G., Smith, B.H., Fewell, H.J., Harrison, F.J. Seasonal variability in physiology and behavior affect the impact of fungicide exposure on honey bee (Apis mellifera) health. **2022,** Environmental Pollution 311:120010
2. Fisher, A., Cogley, T., **Ozturk, C.,** DeGrandi-Hoffman G., Smith, B.H., Kaftanoglu, O., Fewell, H.J., Harrison, F.J. The active ingredients of a mitotoxic fungicide negatively affect pollen consumption and worker survival in laboratory-reared honey bees (Apis mellifera). **2021,** Ecotoxicology and Environmental Safety 226:112841
3. Lemanski, N., Cook, C.N., **Ozturk, C.,** Smith, B.H., N. Pinter-Wollman. The effect of individual learning on collective foraging in honey bees in differently structured landscapes. **2021,** Animal Behaviour 179(1):113-123
4. Sezen, E., Dereszkiewicz, E., Hozan, A., Bennet, M.M., **Ozturk, C.,** Smith, B.H., **Cook, C.N.,** Heritable Cognitive Phenotypes Influence Appetitive Learning but not Extinction in Honey Bees. **2021,** Annals of the Entomological Society of America 114(5)
5. DesJardins, N.S., Fisher, A., **Ozturk, C.,** Fewell, H.J., DeGrandi-Hoffman G., Harrison, F.J. Smith, B.H., A common fungicide, Pristine®, impairs olfactory associative learning performance in honey bees (Apis mellifera). **2021,** Environmental Pollution 288(11):117720
6. DeGrandi-Hoffman G., Smith, B.H., **Ozturk, C.,** Kaftanoglu, O., Fewell, H.J., Harrison, F.J. Field cross-fostering and in vitro rearing demonstrate negative effects of both larval and adult exposure to a widely used fungicide in honey bees (Apis mellifera) Ecotoxicology and Environmental Safety **2021,** 217:112251
7. Glass, J., Fisher, A., Fewell, H.J., DeGrandi-Hoffman G., **Ozturk, C.,** Harrison, F.J. Consumption of field-realistic doses of a widely used mito-toxic fungicide reduces thorax mass but does not negatively impact flight capacities of the honey bee (Apis mellifera) Environmental Pollution **2021,** 274(11)116533
8. **Goss, D.,** Mistry, Y., N.,Niverty, S., Noe, C., Santhanam, B., **Ozturk, C.,** Penick, C., Lee, C., Chawla, N., Grishin, A., Shyam, V., Bhate, D., Bioinspired Honeycomb Core
Design: An Experimental Study of the Role of Corner Radius, Coping and
Interface. Biomimetics **2020**, 5(4), 59.
9. **Cook, C.N.,** Lemanski, N.,Mosqueiro, T., Gadau, J., **Ozturk, C.,** Pinter-Wollman, N. B.H. Smith. **2020**. Heritable Learning Phenotypes Drive Collective Cognition. Proceedings of the National Academy of Sciences. 117 (30) 17949-17956.
10. Cook C. N., Lemanski, J. N., Mosqueiro, T., Gadau, J., **Ozturk**, C., Pinter Wollman, N., Smith, B. H. **2020** Heritable Variation in Learning Phenotypes Drive Collective Cognition. The Preprint Server for Biology.
11. Lemanski, N., **Cook, C.N.,** Gadau, J., **Ozturk, C.,** Smith, B.H., N. Pinter-Wollman. **2019**. A multiscale review of behavioral variation in collective foraging behavior in honey bees. Insects. 10(11), 370;
12. Mustard, J. A., Akyol, E., Robles, K.D., **Ozturk**, **C.**, Kaftanoglu,. O. Influence of sugar experience during development on gustatory sensitivity of the honey bee. Journal of Insect Physiology 116, May 3rd **2019** 100-105.
13. Cook, C.N., Mosqueiro, T., Brent, C.S., **Ozturk, C.**, Gadau, J., Wollman, N.P., Smith, B.H. Individual differences in learning and biogenic amine levels influence the behavioral division between foraging honeybee scouts and recruits. Journal of Animal Ecology October **2018**; 1–11.
14. Akyol E., Unalan A., Yeninar., H., Ozkok D., **Ozturk C.,** “Comparison Of Colony Performances Of Anatolian, Caucasian And Carniolan Honeybee (Apis Mellifera L.) Genotypes In Temperate Climate Conditions”, ITALIAN JOURNAL OF ANIMAL SCIENCE, vol.13, no.3, pp.0-0, **2014**

Review Articles & Congress Presentations

1. **Ozturk, C,** Cook, C.N., Kaftanoglu, O.Effects of glucose, fructose and high fructose corn syrup on the development, memory and learning behavior of honey bees. Apimondia 45th International Apicultural Congress. September 29th - October 4th, **2017**. Istanbul, Turkey.
2. Kaftanoglu, O., **Ozturk, C.,** Page R.E. In vitro rearing techniques of honey bee larvae: Pros and cons. The American Association of Professional Apiculturists` **2016** American Bee Research Conference. 8 and 9 January **2016** Sawgrass Marriott Golf Resort & Spa, Ponte Vedra Beach (Jacksonville), FL.
3. Kaftanoflu, O., **Ozturk, C.** Larval metophrene application affects the live weights of thequeen bees and ovariol numbers of the worker bees (Apis *mellifera* L.). Apimondia 44th International Apicultural Congress. September 15-20, **2015**. Venue Daejeon South Korea.
4. **Ozturk, C.,** Uysal, O., Subaşı,O,S., Seçer, A., Alemdar,T., Ören, M,N. A Review on Beekeeping Equipments Usage In Beekeeping Enterprises In Mediterranean Region, 12th Asian Apicultural Association Conference, April 24th - 27th, **2014** Antalya, Turkey.