

## ***CURRICULUM VITAE***

**Kyung Seok Kim, Ph.D.**

### **Personal**

Name : Kyung Seok Kim

Nationality : Citizen of United States of America, Origin: South Korea

Position : Research Scientist, Dept. of Natural Resources Ecology and Management, Iowa State University

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### **Major Field**

Population Genetics, Molecular Ecology, Conservation genetics, Evolutionary biology

### **Previous Employment**

2015 ~ 2017: Affiliate Assistant Professor, Dept. of Ecology, Evolution, and Organismal Biology, Iowa State University, Ames, Iowa, USA 50011

2012 ~ 2015: Contract Research Scientist, USDA-ARS, Corn Insects and Crop Genetics Research Unit, Ames, Iowa, USA 50011

2008 ~ 2017: Research Professor and Adjunct Professor, College of Veterinary Medicine, Seoul National University, Seoul, Korea

2002 ~ 2008: Postdoctoral Research Associate (GS-11 & 12), USDA-ARS, Corn Insects and Crop Genetics Research Unit, Genetics Bldg., Ames, IA 50011

### **Education**

<b>Date</b>	<b>Institution</b>	<b>Degree</b>	<b>Major</b>	<b>GPA</b>
1998	Kyungpook National University, Korea	Ph.D.	Population genetics	4.25
1993	Kyungpook National University, Korea	M.S.	Microbial genetics	3.93
1991	Kyungpook National University, Korea	B.S.	Molecular biology	3.69

### **Dissertation Titles**

Ph. D. Thesis: Genome Analysis of the Domestic Dog (*Canis familiaris*) Mitochondrial DNA and Genetic Relationships among Dog Breeds by Analysis of Microsatellite Loci

M.S. Thesis: Biological Control of *Pseudomonas spp.* against *Fusarium solani* causing Plant Root Rot

### **Other related education**

Attended Conservation Genetics Course entitled “Recent Advances in Conservation Genetics” (August 17-30, 2002, Washington D.C.)

Attended Workshop entitled “Population Genetics Training Using GenAlEx” (June 29-30, 2007, Iowa State University, Instructor: Dr. Rod Peakall)

Organized and instructed Workshop entitled “The 1<sup>st</sup> EMPIRICAL POPULATION GENETICS TRAINING WORKSHOP” (May 27-June 5, 2008, Seoul National University, Korea)

Organized and instructed Workshop entitled “Concepts and Applications of Conservation Genetics” (Feb. 6, 2009, Sangmyung University, Korea)

Organized and instructed Workshop entitled “The 2<sup>nd</sup> EMPIRICAL POPULATION GENETICS TRAINING WORKSHOP” (June 21-July 2, 2010, Seoul National University, Korea)

### **Awards or Honors**

2010. 8.: Award for excellent poster presentation (The 65<sup>th</sup> Annual Meeting of the Korean Association of Biological Sciences, Symposium, Seoul Univ., Seoul, Korea, August 19-21, 2010)
2008. 4.: Award from USDA-ARS [For Innovative Methods of Development and Insightful Application of Microsatellite Markers to Population Genetics and Dispersal of Insect Pests]
2007. 6.: Award from USDA-ARS [For Innovative Methods of Development, and Insightful Application of Microsatellite Markers to Population Genetics and Dispersal of Insect Pests]
2006. 4.: Award from USDA-ARS [For Innovative Application of Microsatellite Markers to Questions of Dispersal, Invasion, and Population Genetics of Insect Pests [Promotion in Grade]
2005. 2.: Award from USDA-ARS, CICGRU [For the Timely Development and Unselfish Distribution of Western Corn Rootworm Microsatellite DNA Markers to the Scientific Community]
2004. 2.: Award from USDA-ARS, APMRU for outstanding official performance during 2003. 1. - 2003. 12.

2003. 8.: Award from The Zoological Society of Korea for excellent poster presentation (The Zoological Society of Korea, Symposium, Chungnam Univ., Daejeon, Korea, August 19-21, 2003)
2003. 1.: Award from USDA-ARS, IFNRRU for outstanding official performance during 2002. 7. - 2002. 12.
- 2002.5.: Scholarship from American Genetic Association for 2002 Conservation Genetics Course “Recent Advances in Conservation Genetics” (August 17-30, 2002, Washington, D.C.)

### **Employment History**

2015. 3.16.-2017. 2.28.: Affiliate Assistant Professor, Dept. of Ecology, Evolution, and Organismal Biology, Iowa State University
2011. 6. - Present: Contract Research Scientist, USDA-ARS, Corn Insects and Crop Genetics Research Unit, Ames, Iowa, USA
2013. 1. - Present: Adjunct Professor, State University College of Veterinary Medicine, Seoul National University, Seoul, Korea
2008. 12. - 2012. 8.: Research Professor, College of Veterinary Medicine, Seoul National University
2004. 4. -2008. 4.: Postdoctoral Research Associate, USDA-ARS, Corn Insect and Crop Genetics Research Unit, Ames, IA 50011
2002. 4. – 2004. 4.: Postdoctoral Research Associate, USDA-ARS, APMRU, Texas
2000. 3. – 2002. 2.: Research Professor, Institute of Biotechnology, Yeungnam University, Kyongsan, Kyungsangpook-do, Korea
1999. 3. - 2000. 2.: Postdoctoral Fellow, Korean National Institute of Health, Eunpyung-ku, Seoul, 122-020, Korea
1998. 9. - 1999. 2.: Postdoctoral Fellow, Korea Institute of Oriental Medicine, Chungdam-dong, Kangnam-ku, Seoul, Korea
1993. 3. - 1998. 8.: Ph.D. graduate student, Department of Genetic Engineering, Kyungpook National University, Puk-gu, Daegu, Korea

### **Teaching Experience**

- 2009.3. – 2009. 8.: Lecturer, College of Veterinary Medicine, Seoul National University, Korea  
Taught graduate course, “Wildlife conservation genetics with the help of population genetics”.
2001. 3. – 2001. 8.: Lecturer, Dept. of Medical Life Science, Catholic University of Daegu, Hayang-up, Kyongsan 712-702, Korea

Taught undergraduate course, “Gene Recombination and Experiments”.  
2000. 3. – 2001. 8.: Lecturer, Dept. of Animal science, Yeungnam University, Kyungsan,  
Kyungsangpook-do, Korea

Taught undergraduate course, “Modern Society and Biotechnology”.  
1994. 3. – 1997. 8.: Lecturer, Dept. of Genetic Engineering, Kyungpook National University,  
Korea

Taught undergraduate course, “Basic Experiments in Microbiology”.

### **Technical and Computational Skills**

1. General Microbiology experiments including cell cultivation and identification,
2. Destructive and noninvasive DNA isolation from organisms (insects, mammals, etc).
3. DNA cloning
4. DNA sequencing including Next Generation Sequencing
5. Hybridization analysis (Southern, Northern, Western blotting)
6. PCR technology (regular and multiplex PCR, RT-PCR, etc)
7. Development of DNA markers, including microsatellites
8. Molecular population genetics and analysis tools using DNA markers (RAPD, AFLP, RFLP, Microsatellites, SNP, GeneMapper, etc)
9. Bioinformatics (Phylogenetic analysis, NCBI BLAST search, GBS pipeline, STACKS, Linux, R package, Python, and PERL)
10. Acquainted with Population Genetics and Statistics Software including R *adegenet*, STRUCTURE, ARLEQUIN, CERVUS, GenAIEx, BOTTLECK, GENECLASS, MICROSAT, GENETIX, GENEPOP, POPGENE, DISPAN, FSTAT, CLUSTAL V/W, PHYLIP, PUZZLE, REAP, PAUP, XLSTAT, SPSS, STATISTIX, AGARST, etc.

### **Professional Affiliations**

Entomological Society of America

American Genetic Association

Society of Systematic Biologists

### **Grants**

1. “Estimating Dispersal And Modeling Its Impact On Resistance Remediation In Western Corn Rootworm” (PI: Michael A. Caprio, Co-PI: Tom Sappington, Kyung Kim, Joseph Spencer, and Nicholas Friedenber, 2014-2017), Grant funded by Monsanto (\$746,150)

2. “Genetic Diversity and Population Genetic Structure of Three Wild Species of Artiodactyla from East Asia” (PI: Kyung Seok Kim, 2009-2012), The Korea Science and Engineering Foundation (KOSEF) grant funded by the Korea government (MEST) (No. 20090080227, \$285,000)
3. “Development of microsatellite markers and population genetic studies for wild vertebrate management and conservation” (Co-PI: Kyung Seok Kim and Hang Lee, 2008), Korean Brain Pool Program (\$40,000)
4. “Phylogeography, population genetics and comparative morphological study of raccoon dogs (*Nyctereutes procyonoides*) in East Asia” (PI: Misook Min, Co-PIs: Kyung Seok Kim, Junpei Kimura, 2009-2012), The Korea Science and Engineering Foundation (KOSEF) (No. 2009-0085754, \$400,000)
5. “Spatial and Temporal Characterization of Gene Flow Among European Corn Borer Populations Using Microsatellite Markers” (PI: T. W. Sappington, Co-PIs: Uwe Stolz, Mark Bagley, Richard Hellmich)\*, USDA-NRI (2005-2008), Integrative Biology of Arthropods and Nematodes program (\$398,636).

[\*I was Co-PI in the original proposal, to which I contributed significant writing, but because of the nature of my position in the USDA, I could only be listed under Key Personnel.]

**I was listed under Key Personnel or collaborator in the following grants.**

1. “The targeted sequencing of bacterial artificial chromosome (BAC) clones from the Western corn rootworm, *Diabrotica virgifera virgifera*, library, DvvBAC1” (PI: Brad Coates, 2012-2013, Monsanto, \$163,763)
2. “Molecular phylogeography and species status of the genus *Onychodactylus* in Northeast Asia” (PI: Mi-Sook Min, 2009-2011), The Korea Science and Engineering Foundation (KOSEF) grant funded by the Korea government (MEST) (No. 20090067686, \$91,000)
3. “Impact and vulnerability assessment of agro-biotic community on climate change” (PI: Young-Eun Na, 2009-2011) Rural Development Administration (\$340,000)

4. “Moving simulation of migratory insects and surveillance system of their occurrence” (PI: Si-Woo Lee, 2009-2011) Rural Development Administration (\$360,000)
5. “Risk of western corn rootworm adaptation to transgenic corn” (Lead PI: B. E. Hibbard, Co-PDs: T. W. Sappington, B. D. Siegfried, J. E. Foster, 2007-2009), USDA-CSREES, Biotechnology Risk Assessment Research (\$398,000).
6. “Study of biological invasions based on intentional and unintentional insect introductions” (France) Programme « Biodiversité » 2006 ANR- IFB, 2007-2009, (Lead PI: T. Guillemaud)

## **Publications in Refereed Journals (In reverse chronological order)**

*(Names in italics indicate students supervised by Kyung Seok Kim.)*

1. Yangzhou Wang, **Kyung Seok Kim**, Wenchao Guo, Qiyun Li, Yunyue Zhang, Zhenying Wang, Brad S. Coates (2017) Introgression between divergent corn borer species in a region of sympatry: implications on the evolution and adaptation of pest arthropods to global agricultural production. Submitted to *Molecular Ecology*
2. *YoonJee Hong*, **Kyung Seok Kim**, Junpei Kimura, Mariko Sashika, Hang Lee, and Mi-Sook Min (2017) Population structure of the raccoon dog (*Nyctereutes procyonoides*) of South Korea and Japan using microsatellite loci analysis: Implications on management of disease derived by the raccoon dog. Submitted to *Journal of Veterinary Science*
3. *Sung Kyoung Choi*, Nickolay Markov, Elmar Babaev, Yu. I. Rozhkov, Inna Voloshina, Damdingiin Bayarlkhagva, Jong-Ryol Chong, Mi-Sook Min, Hang Lee and **Kyung Seok Kim** (2017) Asia-wide phylogeography of wild boar (*Sus scrofa*) based on mitochondrial DNA and Y-chromosome. Submitted to *BMC Evolutionary Biology* (Corresponding author)
4. Han-Chan Park, Nozomi Kurihara, **Kyung Seok Kim**, Mi-Sook Min, Sungyong Han, Hang Lee and Junpei Kimura (2017) Phylogenetic Study of the Otter Species in East Asia using Complete Cytochrome b Sequence: Emphasis on the Japanese otter. Submitted to *Animal Cells and Systems*
5. *Yun Sun Lee*, Nickolay Markov, Alexander Argunov, Inna Voloshina, Damdingiin Bayarlkhagva, Mi Sook Min, Hang Lee and **Kyung Seok Kim** (2016) Genetic diversity and phylogeography of Siberian roe deer, *Capreolus pygargus*, in central and peripheral populations. *Ecology and Evolution* Oct 6: 7286-7297 (Corresponding author)
6. *Yun Sun Lee*, Nickolay Markov, Inna Voloshina, Alexander Argunov, Damdingiin Bayarlkhagva, Jang Geun Oh, Yong-Su Park, Mi-Sook Min, Hang Lee and **Kyung Seok Kim** (2015) Genetic diversity and genetic structure of the Siberian roe deer (*Capreolus pygargus*) populations from Asia. *BMC Genetics* Aug 17, 16: 100 (Corresponding author)
7. *Sung Kyoung Choi*, *Suwon Chun*, Junghwa An, Mu-Yeong Lee, Hyeon Jeong Kim, Mi-Sook Min, Soo-Wan Kwon, Tae Young Choi, Hang Lee and **Kyung Seok Kim** (2015) Genetic diversity and population structure of the long-tailed goral, *Naemorhedus caudatus*, in South Korea. *Genes & Genetic Systems*. June 25, 90: 31-41. (Corresponding author)
8. Hwa Yeun Nam, Brad Coates, **Kyung Seok Kim**, Marana Park, and Joon-Ho Lee (2015) Characterization of 12 Novel Microsatellite Markers of *Sogatella furcifera* (Hemiptera: Delphacidae) Identified From Next-Generation Sequence Data Jul 9, *J. Insect Sci.* 15(1): 94; DOI: 10.1093/jisesa/iev069

9. Jing Li, Brad S. Coates, **Kyung Seok Kim**, Denis Bourguet, Sergine Ponsard, Kanglai He, Zhenying Wang (2014) The Genetic Structure of Asian Corn Borer, *Ostrinia furnacalis*, Populations in China: Haplotype Variance in Northern Populations and Potential Impact on Management of Resistance to Transgenic Maize. *Journal of Heredity*, Sep-Oct 105(5): 642-655.
10. Sung Kyoung Choi, Ji-Eun Lee, Young-Jun Kim, Mi-Sook Min, Inna Voloshina, Alexander Myslenkov, Jang Geun Oh, Tae-Hun Kim, Nickolay Markov, Ivan Seryodkin, Naotaka Ishiguro, Li Yu, Ya-Ping Zhang, Hang Lee and **Kyung Seok Kim** (2014) Genetic Structure of Wild Boar (*Sus scrofa*) Populations from East Asia Based on Microsatellite Loci Analyses. *BMC Genetics*. Jul 17, 15: 85. (Corresponding author)
11. Baek-Jun Kim, Yun-Sun Lee, Yong-Su Park, **Kyung Seok Kim**, Mi-Sook Min, Sang-Don Lee, and Hang Lee (2014) Mitochondrial Genetic Diversity, Phylogeny, and Population Structure of *Hydropotes inermis* in South Korea. *Genes & Genetic Systems*. Oct. 89(5): 227-235.
12. Brad S. Coates, Holly Johnson, **Kyung-Seok Kim**, Richard L. Hellmich, Craig A. Abel, Charles Mason and Thomas W. Sappington (2013) Frequency of hybridization between *Ostrinia nubilalis* E- and Z-pheromone races in regions of sympatry within the United States. *Ecology and Evolution* Aug 24. 3(8): 2459–2470.
13. Park, M., **K.S. Kim**, and J.H. Lee (2013) Genetic structure of *Lycorma delicatula* (Hemiptera: Fulgoridae) populations in Korea: Implication for invasion Process in Heterogeneous Landscape. *Bulletin of Entomological Research*. Aug 8. 103(4): 414-424.
14. **Kim, K.S.** and T.W. Sappington (2013) Invited Review: Population genetics strategies to characterize long-distance dispersal of insects. *Journal of Asia-Pacific Entomology* 16: 87-97.
15. Hong, Y.J., **K.S. Kim**, H. Lee, and M.S. Min (2013) Population genetic study of the Raccoon dog (*Nyctereutes procyonoides*) in South Korea using newly developed 12 microsatellite markers. *Genes & Genetic Systems*. May. 88(1): 69-76.
16. Kuester, A.P., R.W. Jones, T.W. Sappington, **K.S. Kim**, N.B. Barr, R.L. Roehrdanz, P. Senechal, J.D. Nason (2012) Population Structure and Genetic Diversity of the Boll Weevil, *Anthonomus grandis* (Coleoptera: Curculionidae), on *Gossypium* in North America. *Ann. Entomol. Soc. Am.* 105(6): 902-916.
17. Lee, J.S., K-T Lee, S.M. Ahn, S.H. Lee, D.J. Lim, Y.J. Kim, E.S. Cho, **K.S. Kim**, H. Dadi, and T.H. Kim (2012) Genetic characterization of Northeast Asian cattle based on sequence polymorphisms in the complete mitochondrial genome, *Open Journal of Animal Science* Oct 2(4): 217-223.



18. Park, M., **K.S. Kim**, and J.H. Lee (2012) Isolation and characterization of eight microsatellite loci from *Lycorma delicatula* (White) (Hemiptera: Fulgoridae) for population genetic analysis in Korea. *Molecular Biology Reports* May 21. 39(5): 5637-5641.
19. Agunbiade, A.T., B.S. Coates, **K.S. Kim**, D. Forgacs, V.M. Margam, L.L. Murdock, M.N. Ba, C.L. Binso-Dabire, I. Baoua, M.F. Ishiyaku, T. Manuele, B.R. Pittendrigh (2012) The spatial genetic differentiation of the legume pod borer, *Maruca vitrata* F. (Lepidoptera: Pyralidae) populations in West Africa. *Bulletin of Entomological Research* Oct 102(5): 589-599.
20. Kim, S.I., J.H. An, S.K. Choi, Y.S. Lee, H.C. Park, J. Kimura, **K.S. Kim**, M.S. Min, and H. Lee (2012) Development and Characterization of Nine Microsatellite Loci from the Korean hare (*Lepus coreanus*) and genetic diversity in South Korea. *Animal Cells and Systems* Jun 16: 230-236. (Corresponding author)
21. Coates, B.S., D.V. Sumerford, M.D. Lopez, H. Wang, L.M. Fraser, J.A. Kroemer, T. Spencer, **K.S. Kim**, C.A. Abel, R.L. Hellmich, and B.D. Siegfried (2011) A single major QTL controls expression of larval Cry1F resistance trait in *Ostrinia nubilalis* (Lepidoptera: Crambidae) and is independent of midgut receptor genes. *Genetica* 139(8): 961–972.
22. Park, H.C., T.Y. Han, D.C. Kim, M.S. Min, S.Y. Han, **K.S. Kim**, and H. Lee (2011) Individual Identification and Sex Determination of Eurasian Otters (*Lutra lutra*) in Daegu city based on Genetic Analysis of Otter Spraints. *Genes & Genomics* Dec 33: 653-657. (Corresponding author)
23. Kim, **K.S.**, B.S. Coates, M.J. Bagley, R.L. Hellmich, and T.W. Sappington (2011) Genetic structure and gene flow among European corn borer (Lepidoptera: Crambidae) populations from the Great Plains to the Appalachians of North America. *Agricultural and Forest Entomology* 13: 383-393.
24. Lee, Y.S., S.K. Choi, J.H. An, H.C. Park, S.I. Kim, M.S. Min, **K.S. Kim**, and H. Lee (2011) Isolation and characterization of 12 microsatellite loci from Korean water deer (*Hydropotes inermis argyropus*) for population structure analysis in South Korea. *Genes and Genomics* Oct 33: 535-540. (Corresponding author)
25. Choi, S.K., **K.S. Kim**, H. Lee, J. Adamczyk, S. Greenberg, J. Westbrook, and T.W. Sappington (2011) Temporal Changes in Genetic Variation of Boll Weevil (Coleoptera: Curculionidae) Populations, and Implications for Population Assignment in Eradication Zones. *Annals of ESA* 104 (4): 816-825. (Corresponding author)
26. Kim, Y.K., Y.J. Hong, M.S. Min, **K.S. Kim**, Y.J. Kim, I. Voloshina, A. Myselenkov, G. Smith, N. Cuong, H. Tho, S.H. Han, D.H. Yang, C.B. Kim, and H. Lee (2011) Genetic status of Asiatic black bear (*Ursus thibetanus*) reintroduced into South Korea based on

mitochondrial DNA and microsatellite loci analysis. *Journal of Heredity* Feb. 102 (2): 165-174. (Corresponding author)

27. An, J.H., S.K. Choi, J. Sommer, E. Louis JR, R. Brenneman, B. Zemanová, P. Hájková, G. Park, M.S. Min, **K.S. Kim**, and H. Lee. (2010) A core set of microsatellite markers for conservation genetics studies of Korean goral (*Naemorhedus caudatus*) and its cross-species amplification in Caprinae species. *Journal of Veterinary Science* 11: 351-353. (Corresponding author)
28. Kim, H.J., M.Y. Kim, **K.S. Kim**, H. Lee, K.A. Hoelmer, and S.H. Lee (2010) Isolation and characterization of microsatellite loci from the soybean aphid, *Aphis glycines* Matsumura (Hemiptera: Aphididae). *Molecular Ecology Resources* 10: 1098-1105.
29. Baker, C.S., D. Steel, Y. Choi, H. Lee, **K.S. Kim**, S.K. Choi, Y.U. Ma, C. Hambleton, L. Psihoyos, R.L. Brownell, and N. Funahashi (2010) Genetic evidence of illegal trade in protected whales links Japan with the U.S. and South Korea. *Biology Letters* 6: 647-650.
30. An, J.H., M.J. Kim, D.S. Park, J.H. Lee, V. Krukov, **K.S. Kim**, H. Lee, and M.S. Min (2010) Development of 10 microsatellite loci from the Korean Ratsnake (*Elaphe schrenckii*) and its application across *Elaphe* species from South Korea, Russia, and China. *Genes and Genomics* 32:401-405.
31. An, J.H., H. Okumura, Y.S. Lee, **K.S. Kim**, M.S. Min, and H. Lee (2010) Organization and variation of the mitochondrial DNA control region in 5 Caprinae species. *Genes and Genomics* 32(4): 335-344.
32. **Kim, K.S.**, G.D. Jones, J.K. Westbrook, and T.W. Sappington (2010) Multidisciplinary fingerprints: forensic reconstruction of an insect reinvasion. *Journal of the Royal Society Interface* 7: 677-686.
33. An, J.H., D.S. Park, J.H. Lee, **K.S. Kim**, H. Lee, and M.S. Min (2010) No Genetic Differentiation of *Elaphe schrenckii* Subspecies in Korea Based on 9 Microsatellite Loci. *Korean Journal of Systematic Zoology* 26: 15-19.
34. An, J.H., Y.S. Lee, S.K. Choi, S.I. Kim, H.C. Park, K. Laster, Y.S. Kwan, Y.J. Won, H. Lee, **K.S. Kim**, and M.S. Min (2010) Development and characterization of 14 microsatellite loci in the long-tailed salamander (*Onychodactylus fischeri*) from South Korea. *Molecular Ecology Resources* 10(2): 404-408. (Corresponding author)
35. Kang, B.T., **K.S. Kim**, M.S. Min, Y.J. Chae, J.W. Kang, J.H. Yoon, J.H. Choi, J.K. Seong, H.C. Park, J.H. An, M.H. Lee, H.M. Park, and H. Lee. (2009) Microsatellite loci analysis for the genetic variability and the parentage test of five dog breeds in South Korea *Genes & Genetic Systems* 84: 245-251.
36. **Kim, K.S.**, M.J. Bagley, B.S. Coates, R.L. Hellmich, and T.W. Sappington (2009) Spatial and temporal genetic analyses show high gene flow among European corn borer (Lepidoptera:

Crambidae) populations across the central US Corn Belt. *Environmental Entomology* 38: 1312-1323.

37. Coates, B.S., D.V. Sumerford, N.J. Miller, **K.S. Kim**, T.W. Sappington, B.D. Siegfried, and L.C. Lewis (2009) Comparative performance of single nucleotide polymorphism (SNP) and microsatellite markers for population genetic analysis. *Journal of Heredity* 100(5): 556-564.
38. **Kim, K.S.**, Z. Szendrei, C. Rodriguez-Saona, P. Mulder, and T.W. Sappington (2009) Molecular diagnostic for boll weevil (Coleoptera: Curculionidae) based on amplification of three species-specific microsatellites. *Journal of Economic Entomology* 102(2): 759-766.
39. **Kim, K.S.**, T.W. Sappington, and C.T. Allen (2008) *Forum*: Genetic profiling to determine potential origins of boll weevils (Coleoptera: Curculionidae) captured in a Texas eradication zone: Endemicity, immigration, or sabotage? *Journal of Economic Entomology* 101(6): 1729-1736.
40. Ciosi, M., N.J. Miller, **K.S. Kim**, R. Giordano, A. Estoup and T. Guillemaud (2008) Invasion of Europe by the western corn rootworm, *Diabrotica virgifera virgifera*: multiple transatlantic introductions with various reductions of genetic diversity. *Molecular Ecology* 17: 3614-3627.
41. **Kim, K.S.**, U. Stolz, N. Miller, E. Waits, T. Guillemaud, D. Sumerford, and T. W. Sappington (2008) *Forum*: A core set of microsatellite markers for western corn rootworm (Coleoptera: Chrysomelidae) population genetics studies. *Environmental Entomology* 37(2): 293-300.
42. **Kim, K.S.**, S.T. Ratcliffe, B.W. French, L. Liu, and T.W. Sappington (2008) Utility of EST-derived SSRs as population genetics markers in a beetle. *Journal of Heredity* 99(2): 112-124.
43. **Kim, K.S.**, B.S. Coates, R.L. Hellmich, D.V. Sumerford, and T.W. Sappington (2008) Isolation and characterization of microsatellite loci from the European corn borer, *Ostrinia nubilalis* (Hübner) (Insecta: Lepidoptera: Crambidae). *Molecular Ecology Resources* 8: 409-411.
44. **Kim, K.S.**, B.W. French, D.V. Sumerford, and T.W. Sappington (2007) Genetic diversity in laboratory colonies of western corn rootworm (Coleoptera: Chrysomelidae), including a non-diapause colony. *Environmental Entomology* 36: 637-645.
45. **Kim, K.S.**, P. Cano-Ríos, and T.W. Sappington (2006) *Forum*: Using genetic markers and population assignment techniques to infer origin of boll weevils (Coleoptera: Curculionidae) unexpectedly captured near an eradication zone in Mexico. *Environmental Entomology* 35: 813-826.
46. Miller, N., **K.S. Kim**, S. Ratcliffe, A. Estoup, D. Bourguet, and T. Guillemaud (2006) Absence of genetic divergence between western corn rootworms resistant and susceptible to control by crop rotation. *Journal of Economic Entomology* 99: 685-690.

47. **Kim, K.S.** and T.W. Sappington. (2006) Molecular genetic variation of boll weevil populations in North America estimated with microsatellites, and implications for patterns of dispersal. *Genetica* 127: 143-161.
48. Miller N., A. Estoup, S. Toepfer, D. Bourguet, L. Lapchin, S. Derridj, **K.S. Kim**, P. Reynaud, L. Furlan, and T. Guillemaud (2005) Multiple transatlantic introductions of the western corn rootworm. *Science* 310: 992.
49. Kim, T.H., **K.S. Kim**, B.H. Choi, D.H. Yoon, G.W. Jang, K. T. Lee, H.Y. Chung, H.Y. Lee, H.S. Park, and J.W. Lee. (2005) Genetic structure of pig breeds from Korea and China using microsatellite loci analysis. *Journal of Animal Science*, **83**: 2255-2263. (Co-first authors)
50. **Kim, K.S.** and T.W. Sappington (2005) Genetic structuring of western corn rootworm (Coleoptera: Chrysomelidae) populations in the U.S. based on microsatellite loci analysis. *Environmental Entomology* 34: 494-503.
51. **Kim, K.S.** and T.W. Sappington. (2005) Polymorphic microsatellite loci from the western corn rootworm (Insecta: Coleoptera: Chrysomelidae) and cross-amplification with other *Diabrotica* spp. *Molecular Ecology Notes* 5: 115-117.
52. **Kim, K.S.** and T.W. Sappington. (2004) Isolation and characterization of polymorphic microsatellite loci in the boll weevil, *Anthonomus grandis* Boheman (Coleoptera: Curculionidae). *Molecular Ecology Notes* 4: 701-703.
53. **Kim, K.S.** and T.W. Sappington (2004) Genetic Structuring of Boll Weevil Populations in the U.S. Based on RAPD Markers. *Insect Molecular Biology* 13: 292-303.
54. **Kim, K.S.** and T.W. Sappington (2004) Boll Weevil (*Anthonomus grandis*, Boheman) Dispersal in the Southern United States: Evidence from Mitochondrial DNA variation. *Environmental Entomology* 33: 457-470.
55. **Kim, K.S.**, M.S. Min, J.H. An, and H. Lee (2004) Cross-species amplifications of bovidae microsatellites and low diversity of the endangered Korean goral. *Journal of Heredity* 95(6): 521-525.
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### **Book Chapter**

**Kim, K.S.**, and T.W. Sappington (2013) *Microsatellites. Methods in Molecular Biology* series, In: S. Kantartzi (ed.), Humana Press. Chapter 19. Microsatellite data analysis for population genetics. P 271-296. *Microsatellites. Methods Mol. Biol.* Methods Mol Biol 2013 Mar 15. 1006: 271-295.

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### **Other Technical Publications**

#### Non-refereed Publications

**Kim, K.S.** and T.W. Sappington (2003) DNA fingerprinting boll weevil populations from non-eradicated states and northeast Mexico. *Proc. Beltwide Cotton Conf.* 2003: 1575-1587.

## **Invited Presentations**

1. **Kim, Kyung Seok**, and Thomas Sappington, “Genetic Neighborhood Area of Western Corn Rootworm (*Diabrotica virgifera virgifera*) Using Genotyping by Sequencing (GBS)” Monsanto Summit Meeting (Feb 21~23, 2017, St. Louis, USA)
2. **Kim, Kyung Seok**, and Thomas Sappington, “Pattern of dispersal and gene flow of cotton boll weevil in North America” 2012 International Congress of Entomology (Aug 19-25, Daegu, Korea)
3. Sappington Thomas, **Kyung Seok Kim**, Jing Sun, and Shelby Fleischer, “Gene flow and neighborhood area in European corn borer (Lepidoptera: Crambidae) in the U.S., and implications for insect resistance management” 2012 International Congress of Entomology (Aug 19-25, Daegu, Korea)
4. **Kim, Kyung Seok**, “What Can Population Genetics Tell Us About Insect Dispersal?” 2010 Korean Society of Applied Entomology (May 13-15, Jinju, Korea)
5. **Kim, Kyung Seok**, “Multidisciplinary Fingerprints: Forensic Reconstruction of an Insect Reinvasion” for symposium *Molecular Phylogenetics and Evolution*, 2009 Meeting of Korean Molecular and Cell Biology (Oct 15-16, 2009, Seoul, Korea).
6. **Kim, Kyung Seok**, “Population Genetics Study on Insect Dispersal” Dept. of Agriculture and Life Science, Seoul National University (April 13, 2009)
7. **Kim, Kyung Seok**, “Application of Molecular Genetics; Natural Population Management” Dept. of Veterinary Science, Seoul National University (June 20, 2008)
8. **Kim, Kyung Seok**, “Application of Population Genetics Tools for Inferring Natural Population Dispersal” Dept. of Biotechnology, Yeungnam University (June 17, 2008, Gyeongsan, Korea)
9. **Kim, Kyung Seok**, “Management of Insect Populations: Insights from Molecular Population Genetics” Dept. of Agricultural Science. Seoul National University, (June 9, 2008)
10. **Kim, Kyung Seok**, “Nationwide genetic variation of European corn borer and implication for Bt resistance monitoring” NC-205 Annual Meeting (Jan. 28-30, 2008, St. Louis, MO)
11. **Kim, Kyung Seok**, “Gene flow among European corn borer populations using microsatellite markers” Annual Meeting of the Entomological Society of America (December 9-12, 2007, San Diego, CA)
12. Sappington Thomas, **Kyung Seok Kim**, Nicholas J. Miller “Using molecular markers to characterize insect movement over large spatial scales” symposium: *From the Small to the Grand Scale: Innovations in Studies on Insect Dispersal*, Annual Meeting of the Entomological Society of America (December 9-12, 2007).

13. **Kim, Kyung Seok**, “Spatial and temporal characterization of gene flow among European corn borer populations using microsatellite markers” NCERA-148 annual meeting (October 3-5, 2007, Minneapolis, MN)
14. **Kim, Kyung Seok**, “Insect Resistance Management and the Role of Empirical Population Genetics” Dept. of Entomology, Ohio State University (May 18, 2007, Columbus, OH)
15. **Kim, Kyung Seok**, “Applying Population Genetics Tools to Infer Insect Pest Dispersal” Ohio Agricultural Research and Development Center, (May 17, 2007, Wooster, OH)
16. **Kim, Kyung Seok**, and Thomas W. Sappington, “Development of microsatellite markers for *Diabrotica virgifera virgifera*, and population structuring in the U.S.” International Conference on *Diabrotica* Genetics, (December 13–15, 2004, Kansas City, MO)
17. **Kim, Kyung Seok**, “Genetic structuring of boll weevil populations in the United States” Department of Entomology, Iowa State University (Feb 2, 2004)

#### **Other Presentations**

1. **Kim et al.** “Population Genetic Structure of Wild Boar from Northern Eurasia Based on Microsatellite Loci Analysis” XXXth IUGB Congress (International Union of Game Biologist) and Perdix XIII (Sep 5-9, 2011, Barcelona Spain)
2. **Kim et al.** “Evolutionary status and extent of genetic diversity of Siberian roe deer in Northern Eurasia” 2011 Evolution Annual Meeting (June 17-22, 2011, Norman, Oklahoma, USA)
3. **Kim et al.** “Molecular Phylogeography and Genetic Structure of Siberian roe deer in Northern Eurasia” 2011 Theriological Conference (Feb 1-4, 2011, Moscow, Russia)
4. **Kim et al.** “Genetic Diversity of Wild Boar from South Korea and Russia Based on Microsatellite Loci Analysis ” 2011 Theriological Conference (Feb 1-4, 2011, Moscow, Russia)
5. **Kim et al.** “Isolation and characterization of five microsatellite loci in the Korean hare (*Lepus coreanus*) (Symposium “Molecular Phylogenetics and Evolution” of The 2009 Meeting of Korean Molecular and Cell Biology, Oct 15-16, 2009, Seoul, Korea)
6. Lee, Yun-Sun, Sung-Kyoung Choi, Junghwa An, **Kyung-Seok Kim**, Mi-Sook Min and Hang Lee Development and characterization of 12 microsatellite loci in the Korean water deer (*Hydropotes inermis argyropus*) from South Korea (Symposium “Molecular Phylogenetics and Evolution” of The 2009 Meeting of Korean Molecular and Cell Biology, Oct 15-16, 2009, Seoul, Korea)
7. **Kim, Kyung Seok**, Wade French, Douglas V. Sumerford, and Thomas W. Sappington, “Genetic diversity in laboratory colonies of western corn rootworm (Coleoptera:



Chrysomelidae), including a non-diapausing line” (2006 ESA meeting, Dec10-13, 2006, Indianapolis, IN)

8. **Kim, Kyung Seok**, Susan T. Ratcliffe and Thomas W. Sappington, “EST-derived microsatellites from western corn rootworm and their potential as population genetics markers” “Evolution 2006, June 23-27, 2006, Stony Brook, NY)
9. **Kim, Kyung Seok**, Pedro Cano Rios and Thomas W. Sappington, “Assessment of interpopulation movement of boll weevil, *Anthonomus grandis*, Boheman, (Coleoptera: curculionidae) in northern Mexico inferred from microsatellite variation” 2005 Annual meeting of the Entomological Society of America (Nov 6-9, 2005, Fort Lauderdale, FL)
10. **Kim, Kyung Seok**, and Thomas W. Sappington, “Microsatellite Variation in Western Corn Rootworm Populations across the Central Corn Belt in the United States” (International Conference on Diabrotica Genetics, December 13–15, 2004, Kansas City, Missouri)
11. Armstrong, J.S., **Kyung Seok Kim**, Thomas W. Sappington and Veronica Cardoza, “The use of genomic DNA based microsatellites for the detection of spider predation of boll weevils (Coleoptera: Curculionidae)” (2004 ESA Annual Meeting, November 14-17, 2004, Salt Lake City, Utah)
12. **Kim, Kyung Seok**, and T. W. Sappington, “Genetic Structuring of Western Corn Rootworm Populations in the U.S. Based on Microsatellite Loci Analysis” (XXII International Congress of Entomology, Brisbane, Queensland, Australia, August 15-21, 2004)
13. **Kim, Kyung Seok**, and T. W. Sappington, “Genetic Structuring of Boll Weevil Populations in the U.S. Based on Microsatellite loci analysis” (2004 Evolution Conference, Colorado State University, Fort Collins, Colorado, June 26-30, 2004)
14. **Kim, Kyung Seok**, Mi-Sook Min, Jung-Hwa An, Hang Lee, “Polymorphic Microsatellites Developed by Cross-species Amplifications for Population Study of Korean Goral (*Nemorhaedus caudatus*)” (The Zoological Society of Korea, Symposium, Chungnam Univ., Daejeon, Korea, August 19-21, 2003)
15. Min, M.S., Hideo Okumura, Jung-Hwa An, Dong-Jun Cho, **Kyung-Seok Kim**, Chang-Bae Kim, Chang-Hoon Han, Inna V. Voloshina, Hang Lee, “Molecular Phylogenetic Status of the Korean Goral and Japanese Serow Based on the Partial Sequence of Mitochondrial Cytochrome b Gene” (The Zoological Society of Korea, Symposium, Chungnam Univ., Daejeon, Korea, August 19-21, 2003)
16. **Kim, Kyung Seok**, and T. W. Sappington, “Structuring of boll weevil populations based on RAPD markers” (2003 Evolution Conference, California State University, Chico, California, June 20-24, 2003)

17. **Kim, Kyung Seok**, and T. W. Sappington, “Short and Long-Range Dispersal of Boll Weevils” (15<sup>TH</sup> Conference on Biometeology and Aerobiology, Kansas City, Missouri, USA, Oct 27~Nov 1, 2002)
18. **Kim, Kyung Seok**, “Study on the Genetic Structure of Korean Domestic Animals Using Microsatellite Loci Analysis” (College of Veterinary Medicine and School of Agricultural Biotechnology, Seoul National University, Korea, April 8, 2002)
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**27. Kim, Kyung-Seok**, Hong, S.H., Lee, E.J., and Ha, J.H., “Biological Control of *Pseudomonas spp.* against *Fusarium solani* causing Plant Root Rot” (The Applied Microbial Society of Korea, Symposium, Seoul, Korea, April, 1993)

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