



# The Status of Entomology in Korea

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**O**n first introduction to Korean entomology, one learns that there are two societies: the Korean Entomological Society (KES) and the Korean Society of Applied Entomology (KSAE). That reminds us that in the early days of entomology in America, there were also two societies: the American Association of Economic Entomologists (founded in 1889) and the Entomological Society of America (ESA) that first met in 1906. These two American societies merged in 1953 to become the present ESA.

KSAE held its 50<sup>th</sup> anniversary meeting at Vivaldi Park, Hongcheon, Korea 12-14 May 2011. Vivaldi Park is an hour and a half east of Seoul, the Capitol of Korea, by car on a combination of modern freeways and toll-ways. This route follows the famous Han River that bisects Seoul and continues up towards its headwaters.

## Ancient History of Korea.

During early history, the Korean peninsula and much of Manchuria were dominated by three regional kingdoms. Succeeding kingdoms, geographically contracted in the peninsula, were invaded several times by neighboring cultures and forces: China from the west and the north, Mongolians and Manchurians from the north, and Japan from the east. For new visitors to Korea, it is worth doing a quick survey of the past before arrival because the peninsula is littered with exquisite remnants from its long history that are now preserved as UNESCO sites. Today, the

distinct regional dialects spoken by Koreans are maintained in part by the mountainous terrain of 70% of the country, which tends to isolate and preserve the regional identities.

Pre-modern Korea was defined by the Joseon Dynasty (1392-1910), named after the ancient kingdom of Gojoseon. This ruling entity was beset by repeated invasions from Japan, Manchuria, and alliances with China, and moved the capital to Hanyang, which eventually became Seoul. The Joseon culture was characterized by neo-Confucian philosophy, which valued morality, righteousness, and practical ethics. However, the most significant event during this period was the establishment of the Korean alphabet by King Sejong the Great in 1446.

## Prelude to Modern Times

The pre-modern period came to an end after the Sino-Japanese War (1894-1895), which ended traditional influences of China in Korea. In 1897, Joseon was renamed the Korean Empire. Russian influence in Korea largely ended after the Russo-Japanese War in 1904-1905. Thereafter, Japanese occupation in Korea lasted for almost 40 years.

Entomology and other scientific fields were present in Korea during this occupation period, but with the exception of the medical field, opportunities were mainly for Japanese scientists working in governmental research stations. There were some research activities on insect classification and plant insect pest control measures by a few dedicated scholars. Learning Japanese

was compulsory in public schools, and use of the Korean language was discouraged during the Japanese colonial days.

## The Beginnings of Entomology in Korea

While entomological studies from the early 20th century by Ju Myung Seok, Bok Sung Cho, Woon Hah Baik, Chang Whan Kim, and others attest to a long history of entomological interest in Korea, it was mainly after Korea regained independence in 1945 that many modern scientific societies were established in Korea. This period of rapid organization was disrupted by the Korean War of 1950-1953, which ended in a ceasefire. The Korean Agricultural Society (KAS), comprising all agricultural fields, was formed in 1954. KAS held annual meetings and published its own journal every year until 1962.

Right after their ninth annual plant protection section meeting of KAS in 1962, the Korean Society of Plant Protection (KSPP) was established, starting with about 50 members and including the subjects of entomology, plant pathology, agrochemicals, weed science, and bioclimatology. They met once or twice a year and published the Korean Journal of Plant Protection (KJPP). Presidents were elected for two-year terms by direct voting of society council members, and publication of the journal went from once yearly to four times a year. The society also published *A List of Plant Diseases, Insect Pests, and Weeds in Korea* (1<sup>st</sup> Ed. in 1972 and 2<sup>nd</sup> Ed. in 1986) and three other publications

related to research in plant protection.

The separate Entomological Society of Korea (ESK) was established in 1970 at the Seoul campus of Korea University. It also held biannual meetings and published the Korean Journal of Entomology (KJE) in 1971, which appeared quarterly after 1987. This journal became international in 2002, with all articles published in English. The KJE morphed into Entomological Research in 2004; this English version of the society journal made a concerted effort to broaden the editorial board starting before 2007 and increased its publication frequency to six times per year in 2009. The society also published the textbook *General Entomology* in Korean in 1984. The revised edition came out in 2000. The ESK website claims 500 registered members.

With rapid scientific developments in different agricultural subfields, plant pathologists left KSPP to form their own separate society in 1984. The remaining professionals renamed KSPP as the Korean Society of Applied Entomology (KSAE) in 1988. The KSAE has met twice a year since then, with special lectures and symposia from time to time on different subjects. Its journal KSPP was transformed into the Korean Journal of Applied Entomology (KJAE) in 1988, with articles written in Korean or English.

KSAE now claims more than 600 registered members and holds international symposia and special lectures almost every year. KSAE also started publishing an English-language journal, the Journal of Asia-Pacific Entomology (JAPE), biannually in 1998 and quarterly since 2005. Beginning in 2008, JAPE became truly international by including the Taiwan Entomological Society and the Malaysian Plant Protection Society along with KSAE as official sponsors. Its publication is now managed by Elsevier, and it is recognized as one of the science citation index expanded (SCIE) journals by Thomson Reuters. KSAE is now working on revising *Insect Terminology* (1998).

More recently, KSAE held binational meetings with the Japanese applied entomology society in 2003 and with the acarology society in 2008. The Asia-Pacific Congress of Entomology held at Jeju in 2005 ushered in a new era in East and Southeast Asia collaboration.

The leadership of KSAE is drawn in part from faculty members of several national universities and governmental research organizations, including Seoul National University (SNU). The current KSAE president,

Young-Joon Ahn, and the president-elect, Joon-Ho Lee, are both from SNU. In addition, until a few years ago, the agriculture campus of SNU was located in Suwon, about an hour south of Seoul. It was originally co-localized with RDA (Rural Development Administration, equivalent of USDA in the USA), now called National Academy of Agricultural Science, RDA. There has long been a close tie between RDA and KSAE, with RDA often funding meetings and other activities. At the recent Vivaldi Park meeting of KSAE, Sang-Guei Lee, a senior entomologist at RDA in the Crop Protection Division in Suwon, was master of ceremonies for a number of the sessions in his role as Secretary of KSAE.

The Korean War forms an indelible bond between Americans and Koreans. Even though it was a United Nations conflict, the Americans stayed on to stabilize the region while rebuilding the country after the war. While relations were at times contentious (for example, read *Blowback* by Chalmers Johnson [2000]), the investment has been well worth the effort. Today, Korea has joined the G-20, the richest 20 countries in the world.

There was once a natural competition between the two American Entomology societies, one pure and one applied, and the marriage between the two societies that took place in 1953 was described as partly acrimonious. The two Korean entomology societies also exhibit their own mixture of affectionate and competitive feelings between the members. For several years in the past, they held their annual meetings together, and the two societies jointly published *Korean Insect Names* in 1994 and *Insect Terminology* in 1998. Both Korean

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Fig. 1. Examples of Korean business cards.

entomology societies are collaborating in preparation for the next International Congress of Entomology in 2012.

### Future Leadership in Korean Entomology

Countries in East and Southeast Asia currently seem to be prospering. It is appropriate that scientists in Malaysia, Taiwan, and Korea join to create Asia-Pacific Entomology. The challenge of amalgamating entomology in this region has always been the language



Fig. 2.  
(from left to right) Byung-Jin Kim, Tom Miller, David Gammel, and Ho-Yong Park at the KSAE meeting.

barrier. The trend to publish and hold international meetings in English in this region is of great benefit to entomologists in America and Europe.

Despite modern advances, a great deal of antiquity is preserved in life in Korea and the rest of East Asia, especially in matters of language. Students in this culture master 3,000 Chinese characters before studying geography. Today, you can see two scripts on every street corner and in all of the newspapers in Korea, often mixed with English. The compulsory learning of Chinese characters ended about 30 years ago, but if you get a business card from a Korean professor of entomology, it will likely feature English on one side and Chinese characters on the back, or a mixture of Chinese and Korean. This is partly due to frequent communication among scientists in the Far East.

The two business cards shown here were provided by Ho-Yong Park. The first is from his insect biotechnology company. His name is printed in English letters, and above that his name is given in Chinese characters with Korean letters in parentheses, partly due to his close collaboration with Chinese partners. You can distinguish the more elaborate nature of the Chinese characters from the simpler Korean letters.

Since the eastern characters are phonetic, translation into the English alphabet is not an exact science. For example, one of the main cities in Korea is sometimes spelled Busan and sometimes Pusan. It was recently announced that the spelling of Kwangju was in the process of being converted to Gwangju. English and Korean languages are both based on their own alphabets, but the principles of those alphabets are totally different. Therefore, there is no hard and fast rule for writing a Korean or English version, and Koreans are not offended if the English equivalent of their name is spelled more

than one way, as long as the sound is correct.

We chose Dr. Park's business card as an example because he is currently the Vice President of both ESK and KSAE, and next year he will become President of ESK. The accompanying photo was taken at the Vivaldi Park KSAE meeting, showing (from left to right) Byung-Jin Kim, Tom Miller, David Gammel, and Ho-Yong Park. Miller is holding the Park business card.

Dr. Park enjoys a unique position in our profession. It is his responsibility to convert findings from basic research in entomology into usable products. He is an entrepreneur. Like Dr. Park, many of the young, well-educated members of KSAE work hard trying to emulate the late SNU professor Woon Hah Baik, the only president who served as the consecutive first- and second-term president of KSPP/KSAE. He carried out research on taxonomy and the biology of dung beetles in Korea and their role in the prevention of fly breeding in dung. 1964-1968), as well as aphid biology and taxonomy in Korea financially supported by the USDA.

To learn more about Korean entomology, please visit the following Web sites:

The Korean Entomological Society: <http://www.korentsoc.org> (English version: <http://www.korentsoc.org/english/index.html>)

The Korean Society of Applied Entomology: <http://www.entomology.or.kr> (English version: [http://www.entomology.or.kr/e\\_1s\\_1.html](http://www.entomology.or.kr/e_1s_1.html))

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