Journal of Species Research 13(4):404-416, 2024

Open Access

List of insect collection by Du-Myung Seok preserved at Kyushu University in Japan

Neung-Ho Ahn[1], Wanggyu Kim[1], Changmu Kim[1], Sadahisa Yagi[2], Jinhyeong Park[3], Satoshi Kamitani[2], Toshiharu Mita[2] and Toshiya Hirowatari[2,*]

[1]*National Institute of Biological Resources, Environmental Research Complex, 42 Hwangyeong-ro, Seo-gu, Incheon 22689, Republic of Korea*
[2]*Entomological Laboratory, Faculty of Agriculture, Kyushu University, 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan*
[3]*Entomological Laboratory, Graduate School of Bioresource and Bioenvironmental Sciences, Kyushu University, 744 Motooka, Nishi-ku, Fukuoka, 819-0395, Japan*

**Correspondent: hirowat_t@agr.kyushu-u.ac.jp*

This report lists and illustrates 35 insect species from a collection of 129 specimens gathered by D. M. Seok, the first Korean entomologist. Most of Seok's collections were preserved at Kyushu University in Japan for about 90 years before being relocated to NIBR (National Institute of Biological Resources) in Korea in September 2024.

Keywords: D. M. Seok, insect collection, Korean peninsula, Kyushu University, list, NIBR

© 2024 National Institute of Biological Resources
DOI:10.12651/JSR.2024.13.4.404

Introduction

Du-Myung Seok (석주명, 石宙明, 1908−1950) was the first Korean entomologist who made significant contributions to the taxonomy of butterflies of Korea. During his lifetime, he classified Korean butterflies into 248 species (Seok, 1973) and collected 750,000 butterfly specimens.

However, his collections were completely destroyed when the Korean War broke out (Lee, 1985; Sibatani, 1985; 1987; Yoon, 2018). To be precise, upon his retirement from teaching at Songdo High School (Gaeseong, North Korea) in April 1942, he destroyed 600,000 specimens due to lack of storage, and an additional 150,000 were thought to have been lost during the Korean War (Lee, 1985; Yoon, 2018).

To date, only 32 butterfly specimens of his collections are known to remain in Korea. However, during our investigation of dried specimens in the Entomological Laboratory, Kyushu University in Japan from 2010 to 2024, we discovered additional specimens collected by D. M. Seok in the Korean Peninsula in the 1930s and 1940s had been stored there.

In this paper, we identified a total of 129 Korean specimens representing 35 insect species collected by D. M. Seok and provided a list of specimens with illustrations. The specimens comprise five species of Order Orthoptera, seven of Order Hemiptera, five of Order Neuroptera, one of Order Megaloptera, one of Order Mecoptera, four of Order Trichoptera, ten of Order Lepidoptera, and two of Order Hymenoptera.

We compiled the list by comparing the collection site notation on the labels with current local names. All photographs of the labels for each specimen are shown in Figs. 1−106. All specimens were relocated from Kyushu University to the insect collections storage at the National Institute of Biological Resources (NIBR) in Korea in September 2024.

Comparison of collection site notation on labels and current local names (Chang *et al*., 2015)

Chouhei: Jangpyeong, Hamgyeongnamdo, N. Korea
Eiko: Yeongheung, Hamgyeongnamdo, N. Korea
Hannasan Saisyum: Hanrasan, Saeseom, Jejudo, S. Korea
Kanhoku Keigen: Gyeongweon, Hamgyeongbukdo, N. Korea
Kanhoku Shinbusei: Shinmuseong, Yanggangdo, N. Korea
Keikido Kaijo: Gaeseong, N. Korea
Kinsen: Geumcheon, Hwanghaebukdo, N. Korea

Kokaido Kinshu: Geumju, Hwanghaedo, N. Korea
Kongosan: Geumgangsan, Gangweondo, N. Korea
Koryo: Gwangneung, Gyeonggido, S. Korea
Kyujo: Gujang, Pyeonganbukdo, N. Korea
Nansen (Namcheon): Pyeongsan, Hwanghaebukdo, N. Korea
Nansetsurei: Namseolryeong, Yanggangdo, N. Korea
Shariin: Sariweon, Hwanghaebukdo, N. Korea

The List of Insect Collection by Du-myung Seok

Order Orthoptera 메뚜기목

Family Tettigoniidae 여치과

Conocephalus maculatus (Le Guillou, 1841) 점박이쌕쌔기
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0059 (fig. 1)

Gampsocleis sedakovii obscura (Walker, 1869) 여치
1 ex. (COREA) Keikido Kaijo, 22. Jun. 1935, D. M. Seok, NIBR2024-0062 (fig. 2)

Ruspolia interrupta (Walker, 1869) 왕매부리
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0060 (fig. 3)

Family Acrididae 메뚜기과

Acrida cinerea (Thunberg, 1815) 방아깨비
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0061 (fig. 4)

Arcyptera coreana Shiraki, 1930 참어리삽사리
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0055 (fig. 5)
2 exs. (COREA) Keikido Kaijo, 23. Jun. 1935, D. M. Seok, NIBR2024-0056−57 (figs. 6, 7)
1 ex. (COREA) Keikido Kaijo, 23. Jul. 1935, D. M. Seok, NIBR2024-0058 (fig. 8)

Order Hemiptera 노린재목

Family Cicadellidae 매미충과

Bothrogonia ferruginea (Fabricius, 1787) 끝검은말매미충
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0049 (fig. 9)
1 ex. (COREA) Keikido Kaijo, 16. Aug. 1935, D. M. Seok, NIBR2024-0050 (fig. 10)

Family Dictyopharidae 상투벌레과

Raivuna patruelis Stål, 1859 상투벌레
1 ex. (COREA) Keikido Kaijo, 19. Jul. 1935, D. M. Seok, NIBR2024-0051 (fig. 11)

Family Belostomatidae 물장군과

Appasus japonicus (Vuillefroy, 1864) 물자라
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0003 (fig. 12)

Family Nepidae 장구애비과

Laccotrephes japonensis Scott, 1874 장구애비
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0001 (fig. 13)

Ranatra chinensis Mayr, 1865 게아재비
1 ex. (COREA) Shariin, 17. Aug. 1935, D. M. Seok, NIBR 2024-0002 (fig. 14)

Family Pentatomidae 노린재과

Pentatoma japonica (Distant, 1882) 분홍다리노린재
10 exs. (COREA) Keikido Kaijo, 9. Oct. 1937, D. M. Seok, NIBR2024-0004−13 (figs. 15−24)

Pentatomidae sp.
35 exs. (COREA) Keikido Kaijo, 9. Oct. 1937, D. M. Seok, NIBR2024-0014−48 (figs. 25−36)

Order Neuroptera 풀잠자리목

Family Ascalaphidae 뿔잠자리과

Libelloides sibiricus sibiricus (Eversmann, 1850) 노랑뿔잠자리
2 exs. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0073−74 (figs. 37, 38)
1 ex. (COREA) Keikido Kaijo, 12, Apr. 1935, D. M. Seok, NIBR2024-0077 (fig. 39)
1 ex. (COREA) Keikido Kaijo, 20, Apr. 1935, D. M. Seok, NIBR2024-0078 (fig. 40)
1 ex. (COREA) Keikido Kaijo, 21, Apr. 1935, D. M. Seok, NIBR2024-0075 (fig. 41)
1 ex. (COREA) Keikido Kaijo, 28, Apr. 1935, D. M. Seok, NIBR2024-0076 (fig. 42)


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
1


[Corea]
Kaijo
(Keikido)
24.vi.* 1935
D. M. Seok
2


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
3


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
4


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
5


[Corea]
Kaijo
(Keikido)
23.vi.* 1935
D. M. Seok
6


[Corea]
Kaijo
(Keikido)
23.vi.* 1935
D. M. Seok
7

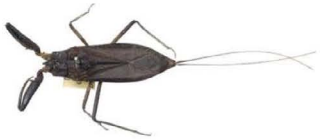

[Corea]
Kaijo
(Keikido)
23.vii.* 1935
D. M. Seok
8


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
9


[Corea]
Kaijo
(Keikido)
16.viii 1935
D. M. Seok
10


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
11


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
12


[Corea]
Kaijo
(Keikido)
. . 1935
D. M. Seok
13


[Corea]
Shariin
17. viii. 1935
14


[Corea]
Kaijo
(Keikido)
9. x. 1937
D. M. Seok
15


[Corea]
Kaijo
(Keikido)
9. x. 1937
D. M. Seok
16

Figs. 1–16. Photographs of Seok's collection and its label. Information on each specimen are given in the text.



Figs. 17–32. Photographs of Seok's collection and its label. Information on each specimen are given in the text.

Family Chrysopidae 풀잠자리과

Chrysopa formosa Brauer, 1851 갑오풀잠자리
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR2024-0064 (fig. 43)

Chrysopa sp.
1 ex. (COREA) Keikido Kaijo, 19. Jun. 1935, D. M. Seok, NIBR2024-0063 (fig. 44)
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0065 (fig. 45)

Family Myrmeleontidae 명주잠자리과

Baliga micans (MacLachlan, 1875) 명주잠자리
1 ex. (COREA) Keikido Kaijo, 22, Jun. 1935, D. M. Seok, NIBR2024-0071 (fig. 46)
2 exs. (COREA) Keikido Kaijo, 23, Jun. 1935, D. M. Seok, NIBR2024-0068–69 (figs. 47, 48)
1 ex. (COREA) Keikido Kaijo, 26, Jun. 1935, D. M. Seok, NIBR2024-0070 (fig. 49)

Distoleon nigricans (Okamoto, 1910) 알락명주잠자리
1 ex. (COREA) Keikido Kaijo, 30, Jul. 1935, D. M. Seok, NIBR2024-0072 (fig. 50)

Order Megaloptera 뱀잠자리목

Family Corydalidae 뱀잠자리과

Neochauliodes formosanus (Okamoto, 1910) 얼룩뱀잠자리
1 ex. (COREA) Keikido Kaijo, 11. Jun. 1935, D. M. Seok, NIBR2024-0067 (fig. 51)
1 ex. (COREA) Keikido Kaijo, 25. Jun. 1935, D. M. Seok, NIBR2024-0066 (fig. 52)

Order Mecoptera 밑들이목

Family Panorpidae 밑들이과

Panorpa coreana Okamoto, 1925 참밑들이
1 ex. (COREA) Keikido Kaijo, 7. Jun. 1935, D. M. Seok, NIBR2024-0053 (fig. 53)
1 ex. (COREA) Keikido Kaijo, 25. Jun. 1935, D. M. Seok, NIBR2024-0054 (fig. 54)

Order Trichoptera 날도래목

Family Goeridae 가시날도래과

Goera sp.
1 ex. (COREA) Keikido Kaijo, 25. Jun. 1935, D. M. Seok, NIBR2024-0080 (fig. 55)

Family Molannidae 날개날도래과

Molanna moesta Banks, 1906 날개날도래
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0079 (fig. 56)

Family Phryganeidae 날도래과

Semblis phalaenoides (Linnaeus, 1758) 굴뚝날도래
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0089 (fig. 57)
1 ex. (COREA) Keikido Kaijo, 28. Apr. 1935, D. M. Seok, NIBR2024-0087 (fig. 58)
1 ex. (COREA) Keikido Kaijo, 20. May. 1935, D. M. Seok, NIBR2024-0086 (fig. 59)
1 ex. (COREA) Keikido Kaijo, 22. May. 1935, D. M. Seok, NIBR2024-0085 (fig. 60)
1 ex. (COREA) Keikido Kaijo, 25. May. 1935, D. M. Seok, NIBR2024-0084 (fig. 61)
1 ex. (COREA) Keikido Kaijo, 7. Jun. 1935, D. M. Seok, NIBR2024-0083 (fig. 62)
1 ex. (COREA) Keikido Kaijo, 10. Jun. 1935, D. M. Seok, NIBR2024-0082 (fig. 63)
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR 2024-0090 (fig. 64)
1 ex. (COREA) Keikido Kaijo, 13. Jun. 1935, D. M. Seok, NIBR2024-0088 (fig. 65)

Family Stenopsychidae 각날도래과

Stenopsyche sp.
1 ex. (COREA) Keikido Kaijo, 29. Jun. 1935, D. M. Seok, NIBR2024-0081 (fig. 66)

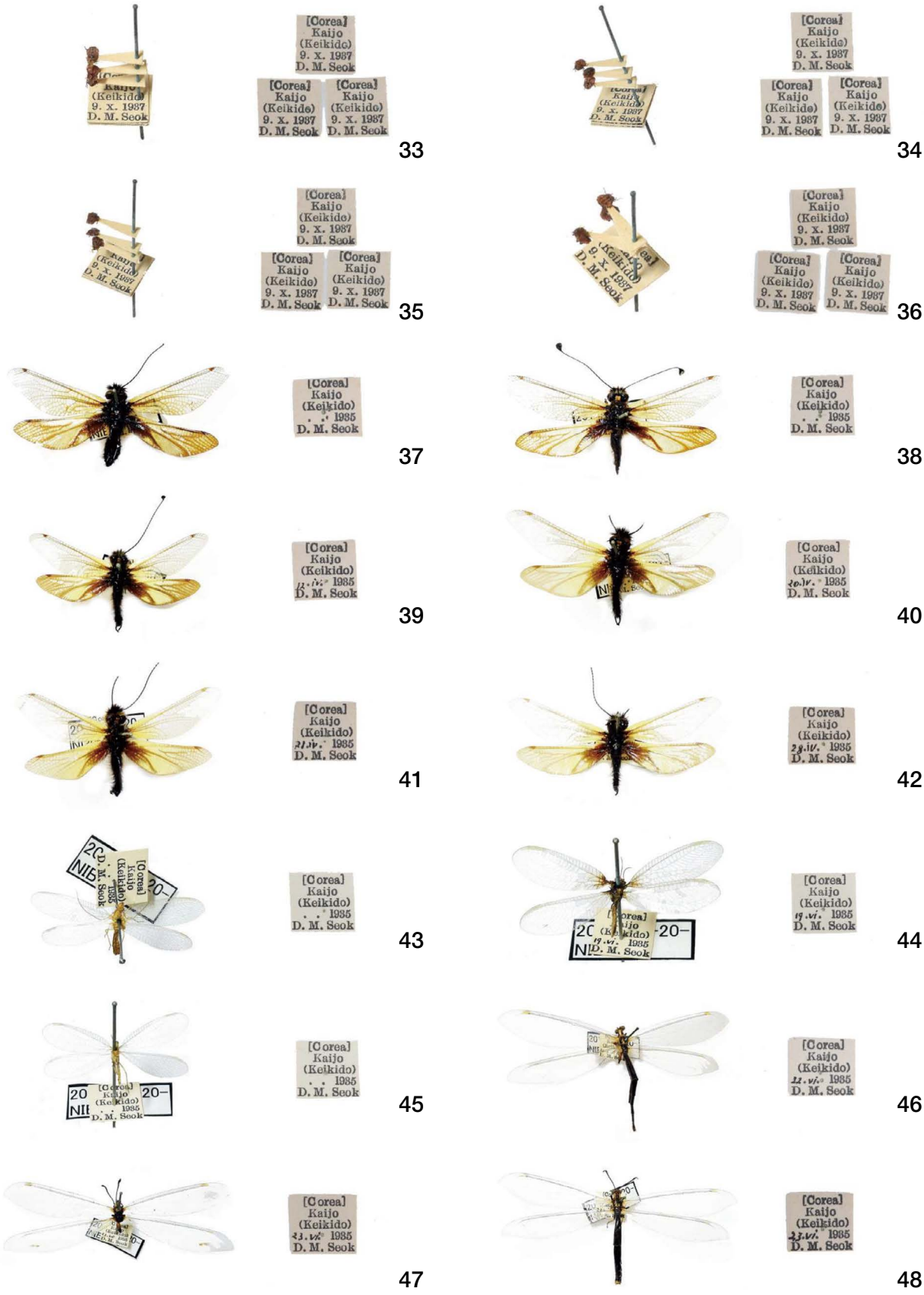
Order Lepidoptera 나비목

Family Lasiocampidae 솔나방과

Malacosoma neustria testacea (Motschulsky [1861]) 천막벌레나방
1 ex. (COREA) Keikaido Kaijo, 1935, D. M. Seok, NIBR 2024-0125 (fig. 67)
1 ex. (COREA) Keikaido Kaijo, Jun. 1935, D. M. Seok, NIBR2024-0127 (fig. 68)

Family Lycaenidae 부전나비과

Celastrina argiolus (Linnaeus, 1758) 푸른부전나비
1 ex. (KOREA) Kinsen, 2. Aug. 1934, D. M. Seok, NIBR



Figs. 33–48. Photographs of Seok's collection and its label. Information on each specimen are given in the text.



49



50



51



52



53



54



55



56



57



58



59



60



61



62

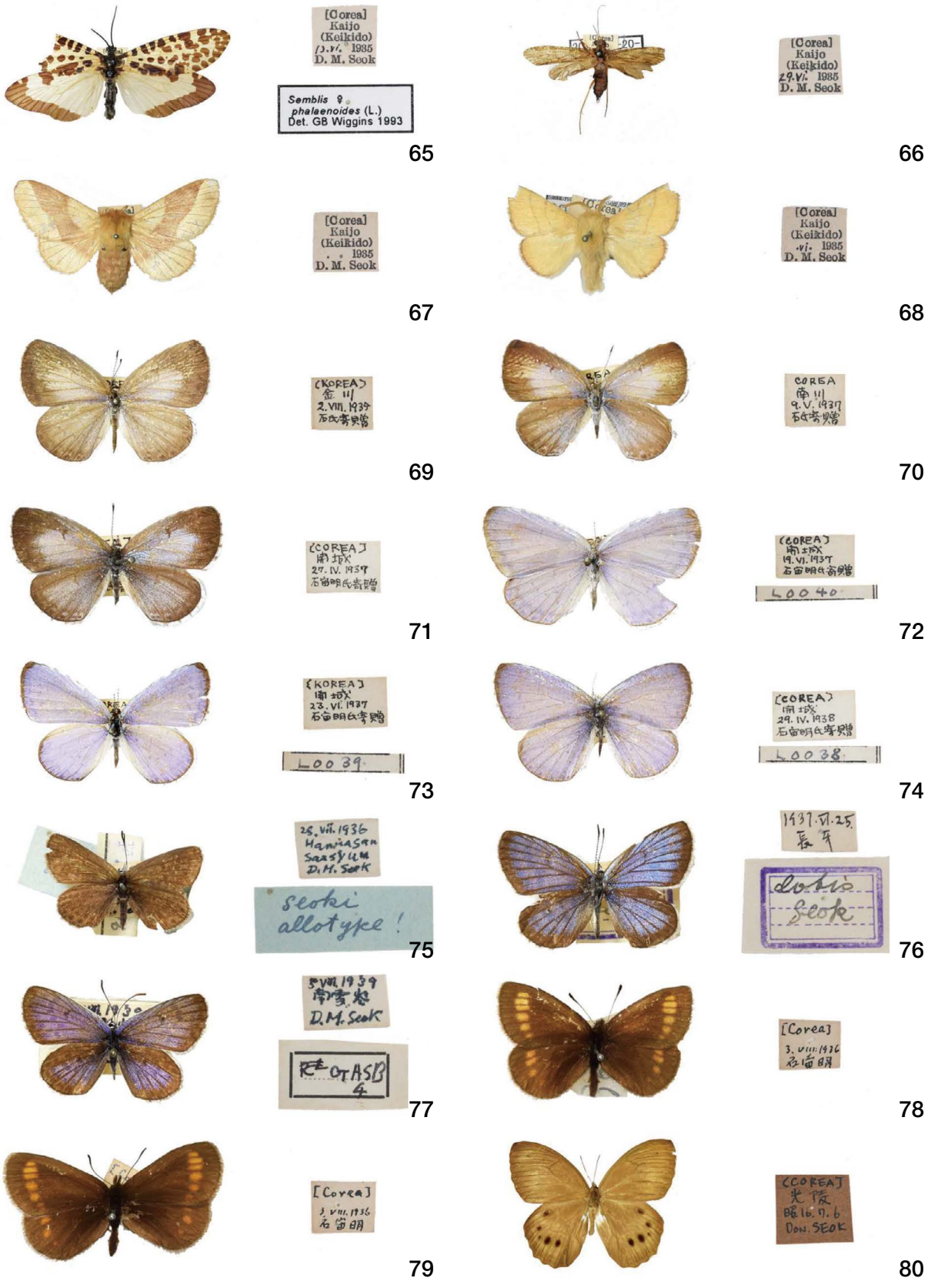


63



64

Figs. 49–64. Photographs of Seok's collection and its label. Information on each specimen are given in the text.



Figs. 65–80. Photographs of Seok's collection and its label. Information on each specimen are given in the text.

2024-0097 (fig. 69)
1 ex. (KOREA) Nansen, 9. May. 1937, D. M. Seok, NIBR 2024-0096 (fig. 70)
1 ex. (COREA) Kaijo, 27. Apr. 1937, D. M. Seok, NIBR 2024-0100 (fig. 71)
1 ex. (COREA) Kaijo, 19. Jun. 1937, D. M. Seok, NIBR 2024-0094 (fig. 72)
1 ex. (COREA) Kaijo, 23. Jun. 1937, D. M. Seok, NIBR 2024-0095 (fig. 73)
1 ex. (COREA) Kaijo, 29. Apr. 1938, D. M. Seok, NIBR 2024-0093 (fig. 74)

Plebejus argus (Linnaeus, 1758) 산꼬마부전나비
1 ex. Hannasan Saisyum, 28. Jul. 1936. D. M. Seok, NIBR2024-0098 (fig. 75)
1 ex. Chouhei, 25. Jun. 1937. Seok, NIBR2024-0101 (fig. 76)
1 ex. Nanseturei, 5. Aug. 1939. D. M. Seok, NIBR2024-0099 (fig. 77)

Family Nymphalidae 네발나비과

Erebia pawlowskii Ménétriès, 1859 차일봉지옥나비
2♂. (COREA), 3. Aug. 1936, D. M. Seok, NIBR2024-0102–103 (figs. 78, 79)

Ninguta schrenckii (Ménétriès, 1859) 왕그늘나비
1 ex. (COREA) Koryo, 6. Jul. 1941, D. M. Seok, NIBR 2024-0104 (fig. 80)

Oeneis urda (Eversmann, 1847) 함경산뱀눈나비
2 exs. (KOREA) Eiko, 4. May. 1942, D. M. Seok, NIBR 2024-0106, 108 (figs. 81, 82)
2 exs. (KOREA) Eiko, 9. May. 1942, D. M. Seok, NIBR 2024-0105, 107 (figs. 83, 84)

Polygonia c-album (Linnaeus, 1758) 산네발나비
1 ex. (COREA) Kaijo, Unknown, D. M. Seok, NIBR 2024-0111 (fig. 85)
1 ex. (COREA), Unknown, D. M. Seok, NIBR2024-0120 (fig. 86)
1♂. Kanhoku Shinbusei, 31. Jul. 1931, D. M. Seok, NIBR2024-109 [Allotype, Holotype] (Fig. 87)
1 ex. Kanhoku Shinbusei, 31. Jul. 1931, D. M. Seok, NIBR 2024-123 (fig. 88)
1 ex. (COREA) Kaijo, 9. Jun. 1933, D. M. Seok, NIBR 2024-0112 (fig. 89)
1 ex. (COREA) Kaijo, 11. Jun. 1933, D. M. Seok, NIBR 2024-0113 (fig. 90)
2 exs. (COREA) Kyujo, 14. Jun. 1933, D. M. Seok, NIBR 2024-0115–0116 (figs. 91, 92)
1 ex. (COREA) Kaijo, 14. Jun. 1933, D. M. Seok, NIBR 2024-0117 (fig. 93)
1 ex. (COREA) Kaijo, 18. Jun. 1933, D. M. Seok, NIBR 2024-0114 (fig. 94)
1 ex. (COREA) Kaijo, 13. May. 1934, D. M. Seok, NIBR 2024-0119 (fig. 95)
1 ex. (COREA) Kaijo, 15. Jun. 1934, D. M. Seok, NIBR 2024-0121 (fig. 96)
1♀. (COREA) Kaijo, 22. Jul. 1934, D. M. Seok, NIBR 2024-0110 [Allotype, Holotype] (fig. 97)
1 ex. (COREA) Kokaido Kinshu, 28. Jul. 1934, D. M. Seok, NIBR2024-0122 (fig. 98)
1 ex. (COREA) Kanhoku Keigen, 4. Aug. 1934, D. M. Seok, NIBR2024-0124 (fig. 99)
1 ex. (COREA) Kaijo, 14. Aug. 1934, D. M. Seok, NIBR 2024-0118 (fig. 100)

Family Pieridae 흰나비과

Pontia daplidice (Linnaeus, 1758) 풀흰나비
2 pupae, (COREA) Keikido Kaijo, 23. Jun. 1935, D. M. Seok, NIBR2024-0091–92 (figs. 101, 102)

Family Crambidae 풀명나방과

Chilo sp.
1 ex. (COREA) Keikaido Kaijo, Jun. 1935, D. M. Seok, NIBR2024-0126 (fig. 103)

Family Thyrididae 창나방과

Striglina cancellata Christoph, 1914 창나방
1 ex. (COREA) Keikaido Kaijo, 1935, D. M. Seok, NIBR 2024-0128 (fig. 104)

Order Hymenoptera 벌목

Family Vespidae 말벌과

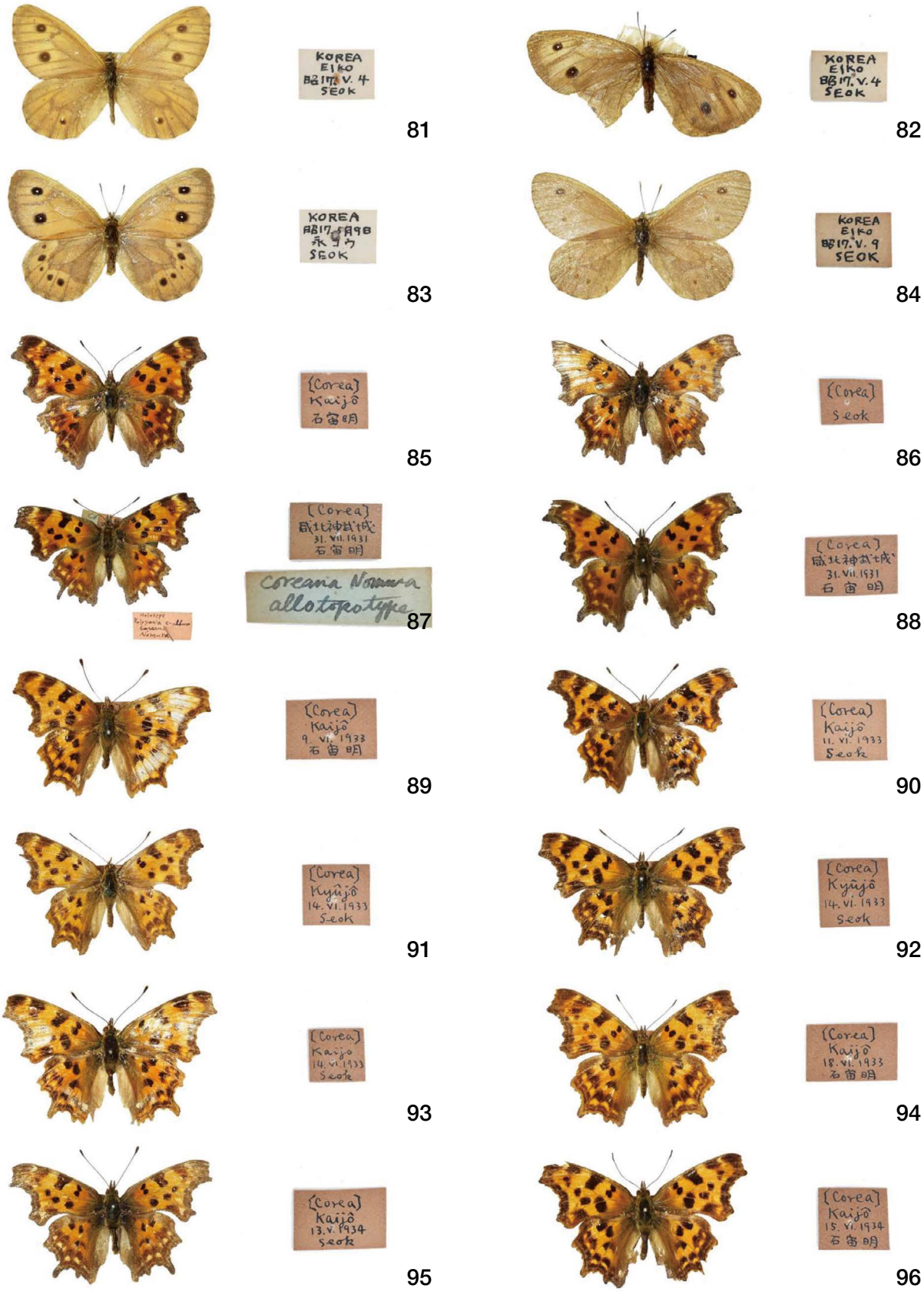
Vespa crabro flavofasciata Cameron, 1903 말벌
1 ex. (COREA) Keikido Kaijo, 1935, D. M. Seok, NIBR2024-0052 (fig. 105)

Family Braconidae 고치벌과

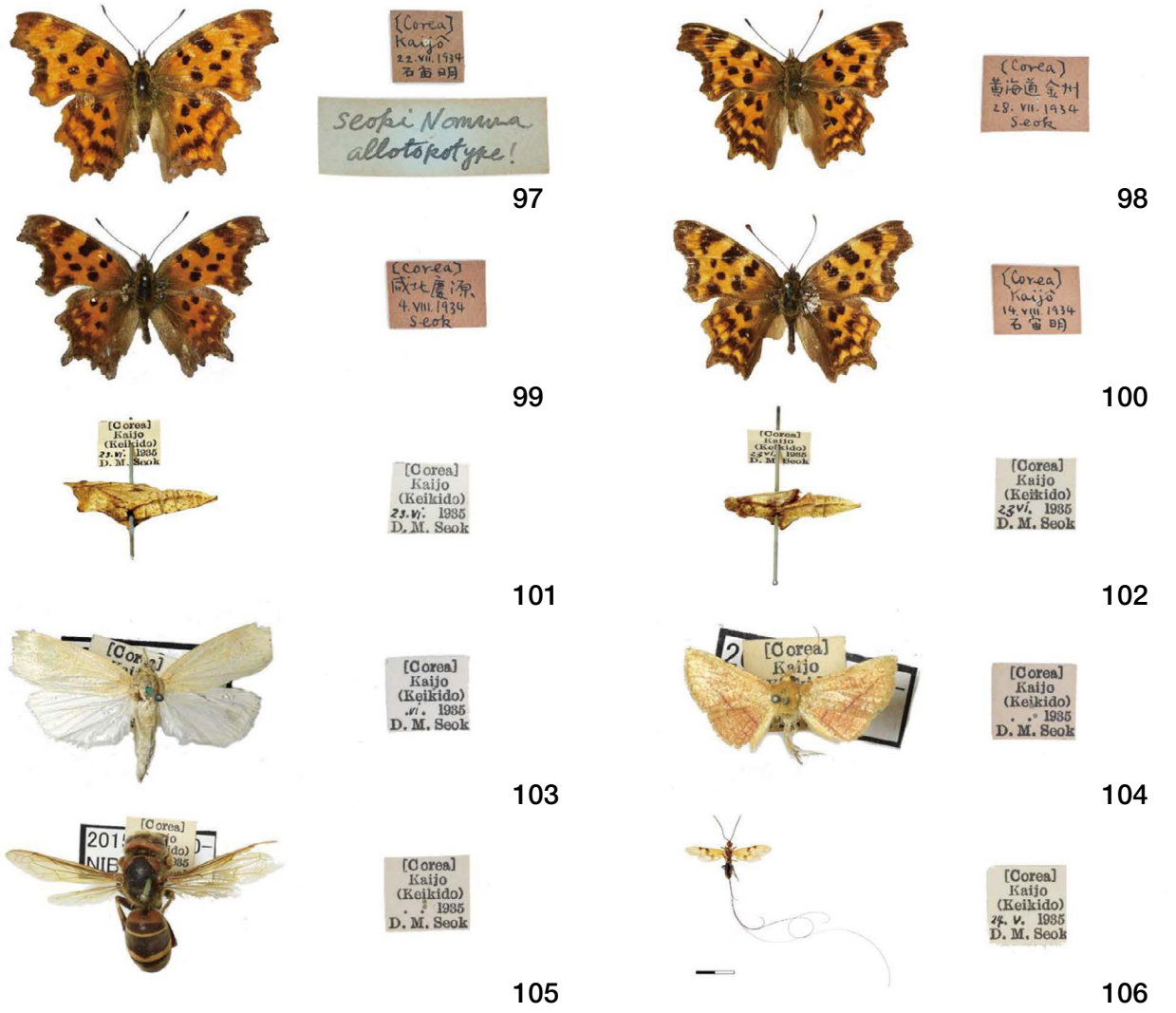
Euurobracon yokahamae (Dalla Torre, 1898) 말총벌
1 ex. (COREA) Kaijo, 24. May. 1935, D. M. Seok, NIBR 2024-0129 (fig. 106)

Discussion

According to Sibatani (1985; 1987), Seok entered the Kagoshima Agricultural and Forestry College in Japan in 1926 to study agriculture. Later, he became interested in natural history and studied entomology under Ginji



Figs. 81–96. Photographs of Seok's collection and its label. Information on each specimen are given in the text.



Figs. 97–106. Photographs of Seok's collection and its label. Information on each specimen are given in the text. Scale bar = 20 mm (Fig. 106).

Okajima, a teacher at the same college. Seok returned to Korea in 1929 and got a teaching job at Songdo High School in his hometown of Gaeseong.

Seok's teacher, Ginji Okajima, established the three laboratories of Zoology, Entomology, and Silkworm Science at Kyushu University between 1921 and 1922 and built the foundation by organizing the literature related to entomology before the currently recognized first professor of the Entomological laboratory, Teiso Esaki, took up the position. Ginji Okajima's name is also associated with the species names "*Neptis okajimai*" and "*Zephyrus ginzii*," which were named after him by Seok (Seok, 1936). Currently, the former is treated as a synonym of *Neptis philyra* and the latter as *Protantigius superance ginzi* (Paek *et al*., 2010; Joo *et al*., 2021).

Atsuhiro Sibatani, who studied Seok's work, had direct contact with him. Sibatani received materials from Seok from the Korean Peninsula while publishing a book on Lepidopteran genitalia. Seok also had been in contact with Iwahiko Sugitani, a famous entomologist and mathematics teacher at Kyoto Sanko High School at the time, who visited the Korean Peninsula many times and built up a valuable collection.

In fact, Seok dedicated the species named *Clossiana selene sugitanii* to Sugitani (Seok, 1939; 1947). This species was called 'Sugitani-eunjeomseon-pyobeomnabi' in Korea until very recently (Shin, 1996; Paek *et al*., 2010).

Sugitani's collection of 36,000 butterflies and moths is currently preserved at Kyushu University and was also utilized in the taxonomic revision of the genus *Maculinea* conducted by Sibatani *et al*. (1993), contributing to the understanding of lepidopteran fauna of the Korean

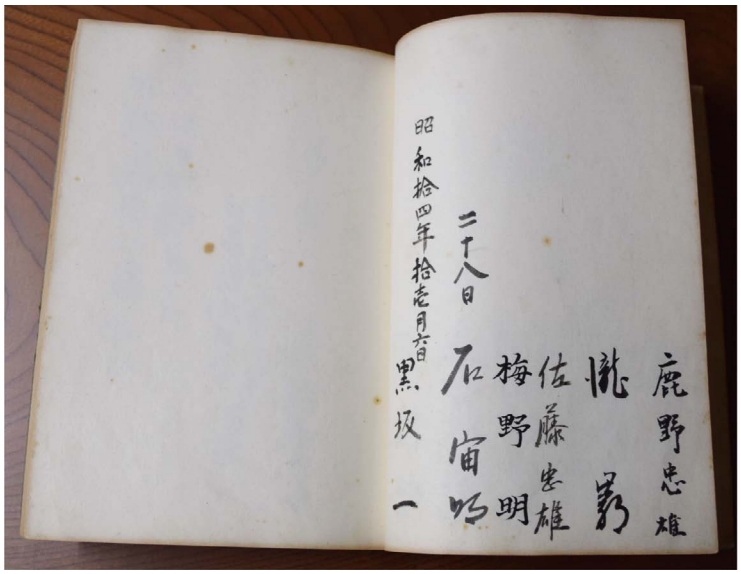


Fig. 107. Seok's signature when he visited the Entomological laboratory of Kyushu University on October 28, 1936.

Peninsula.

We identified a total of 129 specimens of 35 species at Kyushu University collected by Seok in 1931–1942 in the Korean Peninsula. Most specimens were collected in Gaeseong between 1933 and 1937 when Seok was working at Songdo High School in Gaeseong. Other specimens include those from what is now North Korea, such as Eiko (Yeongheung) Korea, and some from other parts of what is now South Korea, such as Koryo (Gwangneung), Seoul, and Jeju Island. The details of how Seok's specimens were donated to Kyushu University are unclear, but Seok's teacher, Ginji Okajima, was enrolled at Kyushu University, and there appears to have been some interaction with Seok and their Entomological laboratory during the time of Teiso Esaki.

In fact, in 1939, the Royal Asiatic Society of Great Britain and Ireland published 'A Synonymic List of Butterflies of Korea,' which included a preface by Okajima and an afterword by Esaki. Furthermore, during his visit to the Entomological Laboratory of Kyushu University on October 28, 1936, Seok signed the guest book designated for outside visitors (Fig. 107). Since some specimens collected between 1935 and 1937 bear the label "Donated by D.M.Seok," these specimens were considered to have been donated to Kyushu University personally by Seok at that time.

Below, we introduce some of the noteworthy species identified in the current lot.

Plebejus argus is a rare species found only on Jeju Island in South Korea, with other populations found in the northern part of North Korea (Joo *et al*., 2021). This species inhabits high altitudes in Japan, but populations are declining in various places. This lycaenid deposited at Kyushu University was collected by Seok from Hanrasan Mountain on Jeju Island. The label of the female has the place name "Hannasan, Saisyum" written by hand, which is thought to be the Japanese reading of "Hanrasan, Jeju." The specimen also has a note "Allotype!" (Taf. 4, Fig. 2), which represents the subspecies that Shirôzu and Sibatani (1943) dedicated to Seok as *Plebejus argus seoki*. Shirôzu and Sibatani (1943) stated that all the type series were collected by Seok on the summit of Hanrasan Mountain on July 27–28, 1936. However, the label of the male holotype indicates that Seok collected it on August 5, 1939, at Namseturei (Namseolryeong, Yanggangdo, North Korea). Thus, the authenticity of some of these labels needs further verification.

Polygonia c-album is distributed in the Korean peninsula from Gangwon-do northward. Nomura (1937) designated the subspecific name *coreana* to *Polygonia c-album* using a specimen collected by Seok at Kanboku Shinbusei (Shinmuseong Yanggangdo, North Korea) as the type specimen and further described *f. seoki* within this subspecies. However, *P. c-album coreana* is currently treated as a synonym of *P. c-album hamigera* (Butler, 1877) (Joo *et al*., 2021), and *f. seoki* is regarded as an invalid name.

Eurobracon yokahamae is a large parasitic wasp characterized by its extremely long ovipositor. This species parasitizes the larvae of large long-horned beetles and is distributed throughout Asia, including the Korean peninsula and the Japanese archipelago, but its population has been declining in recent years. The specimen deposited

at Kyushu University was collected in Seoul on May 24, 1935.

Libelloides sibiricus (Eversmann, 1850) is distributed throughout the Korean Peninsula. This species lives in moist, low shrub forests and grassland environments, but as these environments decline, its population is thought to be decreasing and will require thorough monitoring in the future. Currently, this species is listed as LC (Least Concern) in the Red Data Book of the Republic of Korea (NIBR, 2022). Several individuals of *L. sibiricus* collected by Seok in April 1935 at Gaeseong were confirmed in the current lot.

A closely related species, *Ascalaohus ramburi*, is distributed in Japan, but its population is also decreasing nationwide.

Except for some types of specimens, the insect collection by D. M. Seok was donated from Kyushu University to NIBR (National Institute of Biological Resources) in Korea in September 2024 and was transferred to the insect collections storage in NIBR. All specimens were well-preserved thanks to the efforts of former staff at Kyushu University, who carefully managed these insect specimens for over 90 years. Their dedication is a good example of how important specimen storage and management are in taxonomy.

The authors of this paper have no affiliation with any interest and are solely responsible for the paper.

Conflicts of Interest

The author of this paper has no affiliation with any interests and is solely responsible for the paper.

Acknowledgements

We wish to our cordial thanks to Dr. Mun-Ki Paek (Institute of Korean Peninsula Insects Conservation, Korea), Dr. Sangwook Park (Research Institute of Forest Insect Diversity, Korea), Dr. Seulki Kim (Department of Agricultural Biology, Jeonbuk National University, Korea), Dr. Sun-Jin Park (Kyonggi University, Korea) and Dr. Taewoo Kim (National Institute of Biological Resources) for their assistance in the identification of species.

We also wish to express thanks to Dr. Chang-Woo Hyun (National Institute of Biological Resources) for providing information about the collecting locality in Jeju lsland.

This work was supported by grants from the National Institute of Biological Resources (NIBR), funded by the Ministry of Environment (MOE) of the Republic of Korea (NIBR202402108; A study on the species diversity of insects from Korea).

References

Chang, C.-S., H. Kim and K.S. Chang. 2015. Botanical Gazetteer for the Korean Peninsula Flora. Designpost, Goyang-si, Korea. 243 pp (in Korean).

Joo, H.Z, S.S. Kim, H.C. Kim, J.D. Sohn, Y.J. Lee and J.S. Ju. 2021. The Butterflies of Korea. Geobook Publishing Co., Korea. 479 pp (in Korean).

Lee, B.C. 1985. Seok, Du-Myung, Dongcheonsa. Seoul, Korea. 299 pp.

National Institute of Biological Resources. 2022. Red Data Book of Republic of Korea. Vol. 7, Insects I. Echo Design, 174 pp (in Korean).

Nomura, K. 1937. On the forms of *Polygonia c-album* Linne occurring in the Japanese Empire. Zephyrus 7:109−127.

Paek, M.K. and Y.H. Shin. 2010. Butterflies of the Korean Peninsula. In Cho, Y.K. (eds): <Nature & Ecology> Academic Series 1, Nature & Ecology, 430 pp (in Korean).

Seok, D.M. 1936. Pri la Du Novaj Specoj de Papilioj, *Neptis okazimai* kaj *Zephyrus ginzii* (ヲカジマミスヂ及びギンジシジミなる2新種の蝶に就て [附]金剛山産蝶類目錄). Zoological Magazine 48(2):60-66.

Seok, D.M. 1939. A Synonymic List of Butterflies of Korea (Tyôsen). Korea Branch of the Royal Asiatic Society. Seoul, Korea. 391 pp.

Seok, D.M. 1947. A list of Butterflies of Korea (Tyôsen). Bulletin of The Zoological section of National Science museum. Seoul, Korea, 2(1):1-16 (in Korean).

Seok, D.M. 1973. The Distribution Maps of Butterflies in Korea. Bojinjae, Seoul, Korea. 517 pp.

Sibatani, A. 1985. Seok : Du-myong by A. SIBATANI, Yadoriga 123:12-15 (in Japanese).

Sibatani, A. 1987. Seok D.M. (Sok Ju-myong) revisited by Atsuhiro Sibatani, Yadoriga 128:12-19 (in Japanese).

Sibatani, A., T. Saigusa and T. Hirowatari. 1993. The genus *Maculinea* van Eecke, 1915 (Lepidoptera: Lycaenidae) from the East Palaearctic Region. Lepidoptera Science 44(4):157-220.

Shirôzu, T. and A. Sibatani. 1943. Uber die japanischen Arten der Lycaenidenuntergattungen *Plebejus* Kluk und *Lycaeides* Hübner (Lep.). (日本産ヒメシジミ、ミヤマシジミ及び其の近縁種について) The Transactions of the Kansai Entomological Society 13(1):25-36 (in Japanese).

Yoon, Y.T. 2018. The Renaissance man of Korea, D.M. Seok. Kungree Press, Paju. 331 pp (in Korean).

Submitted: September 9, 2024
Revised: October 30, 2024
Accepted: October 30, 2024