

On the Spiders from Geomun Island, Korea

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巨文島의 거미類에 關하여

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摘 要

著者は 1980年 7月 24일부터 29일까지 巨文島의 古島 (24日, 25日), 西島 (26日, 27日, 28日), 東島 (29日)에서 採集한 거미類 2,000餘 個體를 調査, 整理한 結果 韓國 未記錄種 2種 (*Cyrtarachne nagasakiensis*, *Menemerus confusus*)을 包含한 63種을 얻었다. 이로서 白 (1937), Saito (1941), 및 南宮 (1978)등에 依하여 이미 報告된 것과 합쳐 巨文島의 거미는 都合 21科, 51屬, 67種이 된다.

INTRODUCTION

Geomun island consists of Go-do, Dong-do, Seo-do and some small islets, which belong to Samsan-myeon, Yecheon-gun, Chollanam-do.

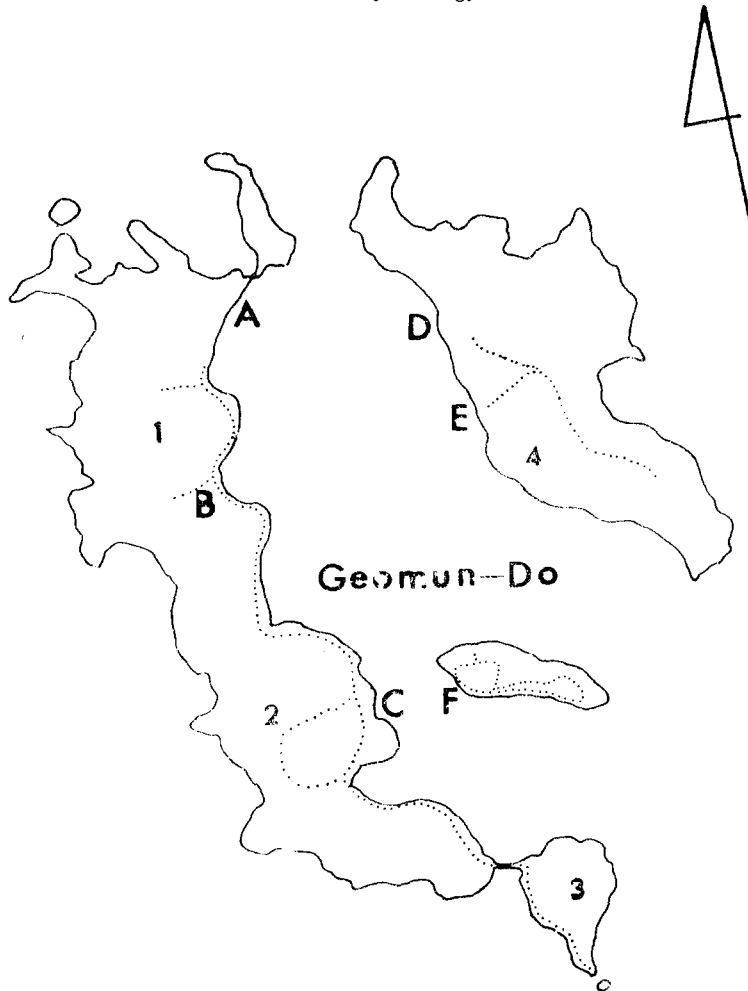
Twenty three species of spiders had been reported from Geomun island by Paik (1937), Saito (1941), Paik and Kim (1956) and Namkung (1978). The author adds 40 species to previously reported 23 species of spiders, including two unreported species from Korea: *Cyrtarachne nagasakiensis* and *Menemerus confusus*.

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DESCRIPTIONS

Cyrtarachne nagasakiensis Strand, 1981 거문새똥거미 (신칭)

(figs. 1-7)



Text-Fig. 1. Collecting course of Geomun island

A: Jangchon B: Byeonchon C: Deogchon D: Yuchon E: Junchon F: Geomunri 1: Mt. Eumdal
2: 195 3: Mt. Suwoel 4: Mt. Manghyang

Collecting date: 24th, 25th (Go-do), 26th, 27th & 28th (Seo-do), 29th (Dong-do), July, 1980.

Cyrtarachne nagasakiensis Strand, 1918. p.81, figs. 12-14; Ishinoda, 1958. p.2, fig. 3;
Yaginuma, 1960. p.61, fig. 150

Measurements (mm): *Female*; BL 5.30, CL 2.32 CW 2.27, AL 3.48 AW 4.90, SL 0.97 SW 1.00, LBL 0.36 LBW 0.51, EDL 0.54 EDW 0.48, CPW 1.52, AER 1.36, PER 1.43. Leg I 5.40 (1.76, 0.86, 1.31, 1.06, 0.56), II 5.50 (1.76, 0.91, 1.31, 1.06, 0.61), III 3.70 (1.21, 0.61, 0.76, 0.66, 0.56), IV 5.31 (1.87, 0.81, 1.26, 1.01, 0.51) Palp 2.10 (0.59, 0.38, 0.44, —, 0.74).

Male; BL 1.94, CL 0.92, CW 0.81, AL 1.17, AW 1.31, SL 0.48 SW 0.43, LBL 0.14, LBW 0.19, EDL 0.22, EDW 0.15, CPW 0.58, AER 0.58, PER 0.61. Leg I 2.53,

(0.83, 0.34, 0.61, 0.46, 0.35), II 2.33 (0.75, 0.34, 0.53, 0.43, 0.32), III 1.53 (0.50, 0.24, 0.29, 0.26, 0.27), IV 1.92 (0.66, 0.29, 0.44, 0.34, 0.26), Palp (0.26, 0.13, 0.08, —, 0.31)

Description: *Female*; Carapace yellowish brown, with faint grey reticulated pattern; convex. Cephalic width index 67. Both eye rows recurved respectively, and the laterals contiguous. Median ocular quadrangle wider than the length (27:32) and slightly wider in front than behind (27:25). Eye ratio, AME=PME>ALE=PLE (10:10:7:7). Anterior median eyes 1.3 diameter apart, 2.5 diameter from laterals. Posterior median eyes one diameter apart, 3.1 diameter from laterals. Eye area index 94. Eye row index 95. Clypeus as high as the diameter of AME.

Chelicerae yellowish brown; rather stout, the index 53; armed with three teeth on both margins. Endite and labium yellow-brown, endite index 89, the converging index 50. Labium wider than the length in the index 141; with basal articular notches about one-third its length. Sternum yellow-brown; triangular, slightly wider than the in the index 103; anterior margin recurved; the end protruded between the 4th coxae.

Legs yellowish brown; leg formula, 2, 1, 4, 3. Leg formular index, 100:102:69:98. Leg I/C 2.33, Fem. I/C 0.76. Fem. I 1/d 4.00, Tib. I 1/d 5.4, leg I Pat.+Tib. /C 0.87.

Abdomen triangular, wider than the length in the index 141; two-thirds of anterior dorsum dark-grey, which include one broad whitish yellow transversal stripe; the posterior part clear golden yellow. Anterior part of dorsum with many muscle-impressions.

Epigynum and genitalia as illustrated in Figs. 4, 5, 6 & 7.

Male; Body much smaller and darker than female. Eye ratio, AME>PME>ALE=PLE (7:6:4:4). Anterior median eye 0.8 diameter apart, one diameter from laterals. Posterior median eyes 0.7 diameter apart, 1.8 diameter from laterals. The end of sternum protruded between the 4th coxae. Leg formula, 1, 2, 4, 3. Leg formular index, 100:92:60:76. Leg I/C 2.75, Fem. I/C 0.90. Fem. I 1/d 5.53, Tib. I 1/d 6.78. Leg I Pat.+Tib. /C 0.96. Abdomen yellowish brown, mottled with dark grey, and with small projections on dorsum.

Male palp as illustrated in Figs. 1, 2 & 3.

Specimens examined: 4♀♀ 1♂♂, Go-do, 3♀♀, Seo-do

Distribution: Japan and Tsushima

***Menemerus confusus* Boes. et Str., 1906 흰수염깡충거미 (신칭)**

(figs. 8-13)

Menemerus confusus Boes. et Str., 1906. p.350, figs. 37, 146; Yaginuma 1974. p.104, fig. 277

Measurements (mm): *Female*; BL 8.13, CL 3.18 CW 2.37, AL 5.20 AW 3.08, SL 1.46 SW 0.92, LBL 0.85 LBW 0.51, EDL 1.04 EDW 0.48, CPW 1.34, 1st ER 1.76, 2nd ER 1.63, 3rd ER 1.79. Leg I 5.28 (1.67, 1.06, 1.21, 0.83, 0.66), II 5.06 (1.57, 1.01, 1.11, 1.81, 0.71), III 5.41 (1.67, 0.96, 1.11, 1.06, 0.76), IV 6.97 (2.02, 1.11, 1.67, 1.41, 0.86). Palp 2.79 (0.95, 0.46, 0.51, —, 0.92)

Male; BL 6.52, CL 3.08 CW 2.42, AL 3.69 AW 2.37, SL 1.38 SW 0.97, LBL 0.63 LBW 0.53, EDL 0.83 EDW 0.58, CPW 2.02, 1st ER 1.71, 2nd ER 1.60, 3rd ER 1.75. Leg I 6.16 (2.02, 1.21, 1.41, 1.01, 0.71), II 5.46 (1.72, 1.06, 1.21, 0.96, 0.66), III 5.66 (1.67, 0.96, 1.16, 1.16, 0.91), IV 6.97 (2.07, 1.11, 1.62, 1.41, 0.92). Palp 2.75 (1.07, 0.43, 0.25, —, 1.08)

Description: *Female;* Carapace rather flat; brown black, covered with black brown and white hairs; margins hemmed with hairs. CI 75. PME separated 19 times their diameter. PLE separated 5.4 times their diameter. Median ocular quadrangle wider than the length (11:92), and very slightly wider in behind than front.

Chelicerae black; armed with two promarginal teeth and one retromarginal tooth. Labium and endite dark brown, pale tipped. Labium longer than the width in the index 63. Endite index 54, the converging index 49. Sternum muddy brown, covered long white hairs; elongated oval, the width of anterior margin less than that of labium; the end bluntly protruded, but not extended between 4th coxae. Palp brown, with long white hairs.

Legs brown, with two dark annulations on each segment. Leg formula, 4, 3, 2, 1. Leg formular index, 100:101:107:141. Spination; femora I & II, dorsal 1-1, prolateral 0-1; III, dorsal 1-1-1, pro. and retrolateral 0-1; ventral spines of tibiae, I 2-2-1pe, II 1r-1pe, III & IV 0-2e.

Abdomen whitish grey, with complicated black dorsal marks and striking black band surrounded the dorsum; venter pale yellow.

Epigynum and genitalia as illustrated on Figs. 11, 12 & 13.

Male; Body rather smaller than the female. Coloration and structure essentially similar to female, but abdominal black dorsal marks more distinct.

Male palp as illustrated in Figs. 8, 9 & 10.

Specimens examined: 2♀♀ 2♂♂, Go-do

Distribution: Japan, Tsushima and Formosa

LIST OF SPIDERS

Dictynidae 잎거미 과

Dictyna felis Boes. et Str., 1906 잎거미

Segestriidae 공주거미 과

Ariadna lateralis (Karsch, 1881) 공주거미

Oonopidae 알거미 과

Gamasomorpha cataphracta Karsch, 1881 진드거거미

Scytodidae 가죽거미 과

Scytodes thoracica (Latreille, 1804) 아롱가죽거미

Pholcidae 유령거미 과

* *Pholcus phalangioides* (Fusslin, 1775) 집유령거미

Theridiidae 꼬마거미 과

- * *Achaearanea tepidariorum* (C. Koch, 1841) 말꼬마거미
- Anelosimus crassipes* (Boes. et Str., 1906) 잎무늬꼬마거미
- * *Argyrodes bonadea* (Karsch, 1881) 백금더부살이거미
- A. miniaceus* (Doleshall, 1857) 주홍더부살이거미
- Dipoena mustelina* (Simon, 1888) 게꼬마거미
- Episinus nubilus* Yaginuma, 1960 민마름보거미
- Phoroncidia pilula* (Karsch, 1879) 흑부리꼬마거미
- Theridion kompirense* Boes. et Str., 1906 석점박이꼬마거미
- T. octomaculatum* Boes. et Str., 1906 여덟점꼬마거미
- T. sudabides* Boes. et Str., 1906 넷흑꼬마거미

Linyphiidae 접시거미과

- Neriere oidedicata* Helsdingen, 1969 고무레접시거미

Mimetidae 해방거미과

- Ero japonica* Boes. et Str., 1906 빨해방거미

Araneidae 왕거미과

- Acusilas coccineus* Simon, 1895 일왕거미
- Araneus mitificus* (Simon) 미녀왕거미
- * *Araneus ventricosus* (L. Koch, 1878) 산왕거미
- * *Argiope amoeba* L. Koch, 1878 호랑거미
- * *A. bruennichii* (Scopoli, 1772) 긴호랑거미
- * *A. minuta* Karsch, 1879 꼬마호랑거미
- * *Cyclosa japonica* Boes. et Str., 1906 북던지거미
- ** *Cyrtarachne nagasakiensis* Strand, 1916 거문새똥거미 (신칭)
- Larinia argiopiformis* Boes. et Str., 1906 어리호랑거미
- * *Neoscona mellottei* (Simon, 1895) 짐연두어리왕거미
- N. nautica* (L. Koch, 1875) 집왕거미
- * *N. scylla* (Karsch, 1879) 지이어리왕거미
- * *N. subpullata* (Boes. et Str., 1906) 분왕거미
- * *N. theisi* (Walckenaer, 1841) 석어리왕거미
- * *Nephila clavata* L. Koch, 1878 무당거미
- Pronous minutus* (Saito, 1939) 콩왕거미

Tetragnathidae 갈거미과

- * *Leucauge blanda* (L. Koch, 1878) 중백금거미
- L. subblanda* Boes. et Str., 1906 꼬마백금거미
- Tetragnatha japonica* Boes. et Str., 1906 민갈거미

1. * Mark indicates reported species by Paik (1937), Saito (1941), Paik et Kim (1956) and Namkung (1978).
 2. ** Mark indicates unreported species from Korea.

- * *T. praedonia* L. Koch, 1878 장수갈거미
Urocteidae 남거미과
- * *Uroctea compactilis* L. Koch, 1878 왜남거미
Agelenidae 가계거미과
Agelena limbata Thorell, 1897 들풀거미
- * *A. opulenta* L. Koch, 1878 에풀거미
- * *Coras vulgaris* Paik, 1971 한국갈매기거미
Tegenaria domestica (Clerck, 1758) 참집가계거미
Pisauridae 닳거미과
Perenethis fascigera (Boes. et Str., 1906) 번개닳거미
Pisaura lama Boes. et Str., 1906 아키늘서성거미
Lycosidae 늑대거미과
- * *Pardosa astrigera* L. Koch, 1878 벌늑대거미
Pirata procurvus (Boes. et Str., 1906) 줄늑대거미
Oxyopidae 스라소니거미과
- * *Oxyopes sertatus* L. Koch, 1879 닳포스라소니거미
Thomisidae 게거미과
- * *Misumenops tricuspidatus* (Fabricius, 1775) 꽃게거미
Philodromus subaureolus Boes. et Str., 1906 갈새우게거미
Runcinia albostrigata Boes. et Str., 1906 흰줄게거미
- * *Thomisus labefactus* Karsch, 1881 살밭이게거미
Xysticus ephippiatus Simon, 1880 대륙게거미
X. saganus Boes. et Str., 1906 멍게거미
Salticidae 깡충거미과
Dendryphantes atratus (Karsch, 1881) 까치깡충거미
Evarcha albaria (L. Koch, 1878) 흰눈섭깡충거미
- * *Icius himeshimensis* (Doen. et Str., 1906) 해안깡충거미
Marpissa elongata (Karsch, 1879) 살깃깡충거미
- ** *Menemerus confusus* Boes. et Str., 1906 흰수염깡충거미 (신칭)
Myrmarachne innermichelis Boes. et Str., 1906 각시개미거미
M. japonica (Karsch, 1879) 불개미거미
Plexippus setipes Karsch, 1879 세줄깡충거미
Silerella vittata (Karsch, 1879) 청띠깡충거미
Telamonia bifurcilinea Boes. et Str., 1906 황줄깡충거미
Clubionidae 엽낭거미과
Chiracanthium japonium Boes. et Str., 1906 애어리엽낭거미
Heteropodidae 농발거미과
Heteropoda koreana Paik, 1968 한국농발거미
Ctenidae 너구리거미과

Anahita fauna Karsch, 1879 너구리거미

Gnaphosidae 수리거미과

Zelotes asiaticus (Boes. et Str., 1906) 아시아열라거미

RESULTS AND DISCUSSION

1. There have been reported 21 families, 52 genera, 67 species of spiders by Namkung, Paik, Saito and the author at Geomun island as shown in Table 1.
2. The type-locality of two unreported species from Korea, *Cyrtarachne nagasakiensis* and *Menemerus confusus* is Japan, and there is a possibility that these can be found at other Southern islands of Korea
3. Two Korean endemic species, *Coras vulgaris* and *Heteropoda koreana* were found in this investigation.

Table 1. Synopsis of the spiders from Geomun island

Family	Genus	Species	Family	Genus	Species
1. Dictynidae	1	1	12. Agelenidae	3	4
2. Segestriidae	1	1	13. Pisauridae	2	2
3. Oonopidae	1	1	14. Lycosidae	2	2
4. Scytodidae	1	1	15. Oxyopidae	1	1
5. Pholcidae	1	1	16. Thomisidae	5	6
6. Theridiidae	7	10	17. Salticidae	9	10
7. Linyphiidae	1	1	18. Clubionidae	1	1
8. Mimetidae	1	1	19. Heteropodidae	1	1
9. Araneidae	9	16	20. Ctenidae	1	1
10. Tetragnathidae	2	4	21. Gnaphosidae	1	1
11. Urocteidae	1	1	Total	52	67

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EXPLANATIONS OF FIGURES

Fig. 1-7. *Cyrtarachne nagasakiensis* Strand, 1916

1. Ectal view of male left palp
2. Dorsal view of male left palp
3. Inner view of male left palp
4. Epigynum of female, ventral view
5. Epigynum of female, posterior view
6. Half of genitalia of female, ventral view
7. Half of genitalia of female, dorsal view

Fig. 8-13. *Menemerus confusus* Boes. et Str., 1906

8. Ventral view of male left palp
9. Inner view of male left palp
10. Dorsal view of male left palp
11. Epigynum of female, ventral view
12. Half of genitalia, ventral view
13. Half of genitalia, dorsal view

