

On the Unreported Species of *Pirata meridionalis* and
Genus *Pirata* (Lycosidae, Araneae) from Korea

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韓國産 부이표 늑대거미屬과 未記錄種에 關하여

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(Received September 18, 1980)

摘 要

1. 1978年 4월부터 1979年 8월까지 *Pirata*屬을 採集한 結果 6種을 얻었다.
2. 이들중 韓國未記錄種인 *Pirata meridionalis*를 記載한다.
3. 韓國産 *Pirata*屬은 *P. meridionalis*가 追加되어 다음 8種이 記錄된다.
 1. *Pirata clercki* (Boes. et Str., 1906) 양산적 늑대거미
 - *2. *P. knorrii* (Scopoli, 1763) 크노르 늑대거미
 - °3. *P. meridionalis* Tanaka, 1974 포천 늑대거미(신칭)
 - *4. *P. piraticus* (Clerk, 1758) 늑산적거미
 5. *P. piratoides* (Boes. et Str., 1906) 공산 늑대거미
 6. *P. procurous* (Boes. et Str., 1906) 좀 늑대거미
 7. *P. subpiraticus* (Boes. et Str., 1906) 황산적거미
 8. *P. yaginumai* Tanaka, 1974 방울 늑대거미

°: 韓國未記錄種

*: 금번조사에서 採集되지 않은 種

INTRODUCTION

Seven species of *Pirata* have been reported by several investigators in Korea since it was first reported by Paik (1954). In this study, we attempted to classify the specimens of 1,500 individuals of *Pirata* collected from Gyeongsangbuk-do, Chollabuk-do and Chollanam-do area from April, 1978 to August, 1979, including preserved specimens at Department of Biology, College of Education, Kyungpook University.

As a result of the investigation, the authors found five reported species and one unre-

ported Species in Korea.

DESCRIPTION

Genus *Pirata* Sundevall, 1833

Conspect. Arachn., p. 24

Type: *Araneus piraticus* Clerk, 1758

Pirata clercki (Bös. et Str., 1906)

Tarentula clercki Bösenberg et Strand, 1906. p. 316, figs. 107 & 320

Piratula clercki; Roewer, 1954. p. 287

Pirata clercki; Fox, 1935. p. 456; Kor. Ent. Soc., 1974. p. 100

Locality: Jeju-do Isl.

Distribution: Korea, Japan, Tsushima, China.

Pirata knorrii (Scopoli, 1763)

Aranea knorrii Scopoli, 1763. Ent. carniol., p. 403

Lycosa knorrii; Simon, 1937. Arachn. de France, 6(5): 1118, 1140, fig. 1764.

Pardosa knorrii; Paik, 1967. p. 63

Pirata knorrii; Simon, 1876. Arachn. de France, 3:296; Saito, 1939. p. 72; Paik, 1954. p. 26; Paik & Kim, 1956. p. 52

Locality: Ulreung-do Isl. (Paik, 1954)

Pirata meridionalis Tanaka, 1954

(Figs. 1 — 10)

Pirata meridionalis Tanaka, 1974. Acta Arachnol., pp. 31~33

Measurement (mm): based on 1 specimen

Female: BL-3.46, CL-2.07, CW-1.55, SL-1.04, SW-0.90, LBL-0.32, LBW-0.29, EDL-0.60, EDW-0.32, CPW-0.94, AER-0.44, PER-0.71, AL-1.79, AW-1.35. Leg I 5.61 (1.62, 0.72, 1.38, 1.24, 0.79), II 5.13 (1.48, 0.69, 1.21, 1.17, 0.72), III 5.04 (1.41, 0.66, 1.14, 1.28, 0.69), IV 7.52 (1.97, 0.79, 1.83, 2.07, 0.72), Palp 2.27 (0.72, 0.41, 0.52, 0.62)

Male: BL-3.06, CL-1.73, CW-1.28, SL-0.86, SW-0.72, LBL-0.26, LBW-0.24, EDL-0.46, EDW-0.24, CPW-0.77, AER-0.36, PER-0.61, AL-1.59, AW-1.21. Leg I 4.76 (1.31, 0.48, 1.10, 1.14, 0.83), II 4.10 (1.21, 0.48, 0.93, 1.00, 0.62), III 3.86 (1.10, 0.45, 0.86, 1.00, 0.55), IV 5.67 (1.55, 0.59, 1.35, 1.52, 0.76). Palp 1.91 (0.59, 0.35, 0.38, 0.59)

DESCRIPTION: *Female*; Carapace yellow-brown, with dark bands on submargin and margin, and hemmed with a narrow dark line; median light band enclosed a dark v-shaped mark; median groove reddish brown, cervical and radial grooves distinct, dark grey; carapace index 75. Both side of head a little slanting. Cephalic width index 61. Anterior eye row straight in dorsal view but a little procurved in frontal view; Eye row index 62. Eye

area index 76. Eye ratio, PME>PLE>AME>ALE (13:10:6:4). Anterior median eyes separated from each other by 0.5 times their diameter, from anterior lateral eye by 0.3 times their diameter. Posterior median eyes separated from each other by 0.6 times their diameter and posterior lateral eyes by 2.7 times their diameter. Median ocular quadrangle, posterior side>anterior side>height (31:21:13). Posterior ocular quadrangle, posterior side>anterior side>height (42:31:29). Clypeus 0.5 times the diameter of anterior median eye.

Chelicerae yellow-brown, with 3 sharp teeth on each margin of fang furrow. Endite yellow-brown. Endite index 53. Endite converging index 41. Labium greyish yellow; longer than the width in the index 91; the basal articular notches about one-fifth its length. Sternum greyish yellow, with a longitudinal median yellow stripe and 4 pairs of yellow spots along the margin. Sternum index 87.

Legs yellow-brown with faint annulations; Leg I/c 2.71. Femur I/c 0.78 Femur I l/d 3.68. Tibia I l/d 5.31. Leg formula 4, 1, 2 3. Leg formular index 100:91:90:134.

Abdomen ovoid; dorsum dark grey, with a yellow cardiac pattern and some yellow chevrons. At the lateral side of each chevron is a spot of white hairs. Epigynum as illustrated in figure 5. Genitalia with a pair of large spermathecae at the anterior part and with 2 pairs of small spermathecae at the posterior part.

Male; Similar to female in general features. Eye row index 58 eye area index 80. Median ocular quadrangle, posterior side>height>anterior side (26:18:12). Posterior ocular quadrangle, posterior side>anterior side>height (36:26:25). Eye ratio, PME>PLE>AME>ALE (11:9:5:3). Anterior median eyes separated from each other by 0.6 times their diameter, from anterior lateral eyes by 0.4 times their diameter. Posterior median eyes separated from each other by 0.5 times their diameter and posterior lateral eyes separated from each other by 2.7 times their diameter. Endite index 52, endite converging index 36. Labium index 92. Sternum index 84.

Leg I/c 2.75. Femur I/c 0.76. Femur I l/d 3.85. Tibia I l/d 5.79. Leg formula 4, 1, 2, 3. Leg formular index 100:86:81:119.

Median apophysis of palpal organ with a projection on the middle part ventrally. The distal portion of median apophysis forms a lamella.

Locality: Idong, Pocheon-gun, Gyeonggi-do (1♀, 1♂, 23-IX-1978, Jo Tae Ho)

Distribution: Japan

Pirata piraticus (Clerk, 1758)

Araneus piraticus Clerk, 1758. Aran. Svec., p.102, pl. 5, fig. 4

Aranea piratica: Olivier, 1789. Encycl. Method., 4:218

Lycosa piratica: Walckenaer, 1805. Tabl. Aran., p.14

L. argenteomarginata: Lucas, 1846. Explor. Sci. Algér. Zool. I Arachn., p.120, pl. 3, fig. 10

L. febriculosa: Becker, 1881. Ann. Soc. Ent. Belg. 25, CR., p.45, pl. 2, fig. 2

L. wacondana: Sheffer, 1904. Ent. News, 15:260, pl. 17, fig. 7

Potamia piratica: Thorell, 1856. Rec. Crit. Aran., p. 63

P. argenteomarginata: Simon, 1864. Hist. Nat. Araign. (1 ED), p. 352

Pirata prodigiosa: Keysering, 1876. Verh. Zool. Bot. Ges. Wien., 26:669, pl. 8, fig. 44

P. febriculosa: Chamberlin, 1908. Proc. Ac. Nat. Sci. Philad., 60:311, pl. 22, figs. 1 — 2

P. Sylvestris: Emerton, 1909. Trans. Connect. Ac. Sci., 14(3):209, pl. 6, fig. 8

P. wacondana: Crosby & Bishop, 1928. Mem. Cornell Univ. Agr. Exper. Stat., 101:1069

P. piratica: Sundevall, 1833. Consp. Arachn., p. 24

P. piraticus: Simon, 1876. Arachn. de France, 3:300, pl. 12, figs. 7 — 8; Namkung et al., 1971. p. 50; Namkung et al., 1972. p. 94; Namkung, 1972. p. 132; Paik, Namkung & Paik, 1973. p. 60; Namkung & Paik, 1973. P. 134; Paik et Namkung, 1979. p. 68

Localities: Gyeongsangbuk-do (Namkung, 1980), Chollanam-do (Namkung, Paik & Yoon, 1971, 1972; Yoon & Namkung, 1979), Chollabuk-do (Namkung, 1972), Gyeonggi-do (Paik, Namkung & Paik, 1973; Namkung & Yoon, 1975). Gangweon-do (Namkung & Paik, 1973; Namkung & Yoon, 1976, 1980)

Distribution: Korea, Japan

Pirata piratoides (Bös et Str., 1906)

Tarentula piratoides Bösenberg et Strand, 1906. p. 318. pl. 13, fig. 336

Piratula piratodes: Roewer, 1954. p. 287

Pirata japonicus: Tanaka, 1974. p. 29, pl. 2 figs. 11 — 14

P. clercki: Namkung, 1976. p. 85; Paik, 1979b. p. 181

P. piratoides: Yaginuma, 1962. p. 38; Paik, 1979b. p. 181; Paik, 1979c. p. 278.

Localities: Gyeongsangbuk-do, Gyeongsangnam-do, Chollanam-do

Distribution: Korea, Japan

Pirata procurvus (Bös. et Str., 1906)

Tarentula procurva Bösenberg et Strand, 1906. p. 315. pl. 13, fig. 321

Piratula procurva: Roewer, 1954. p. 288

Pirata procurva: Paik, 1970. p. 87; Paik et al., 1973. p. 60

P. procurvus: Yaginuma, 1962. p. 38; Namkung et al., 1972. p. 94; Namkung, 1976. p. 85; Paik, 1976. p. 85; Paik, 1979a. p. 142; Paik, 1979b. p. 181; Paik, 1979c. p. 278

Localities: Gyeonggi-do, Chungcheongbuk-do, Gangweon-do, Gyeongsangbukdo, Gyeongsangnam-do, Chollabuk-do, Chollanam-do, Busan, Jeju-do Isl.

Distribution: Korea, Japan, Tsushima, Amami-o-shima, Tokara Isl.

Pirata subpiraticus (Bös. et Str., 1906)

Tarentula subpiratica Bösenberg et Strand, 1906. p. 317, pl. 13, fig. 339

Piratula subpiraticus: Roewer, 1954, p. 288.

Pirata subpiratica: Paik, 1967, p. 63.

P. subpiraticus: Yaginuma, 1962, p. 38; Namkung, 1964, p. 42; Namkung et al., 1971, p. 50; Paik et Kim, 1973, p. 126; Paik et al., 1974, p. 24; Okuma et al., 1978, p. 83;

Paik et Namkung, 1979, p. 68.

Localities: Gyeonggi-do, Chungcheongbuk-do, Gyeongsangbuk-do, Gyeongsangnam-do, Chollanam-do, Jeju-do Isl.

Distribution: Korea, Japan, Amami-o-shima

***Pirata yaginumai* Tanaka, 1974**

Pirata yaginumai Tanaka, 1974, pp. 27-29; Paik, 1976, p. 85, figs. 5-6; Paik, 1979c, p. 278.

Localities: Gangweon-do, Chungcheongbuk-do, Gyeongsangbuk-do, Gyeongsangnam-do, Chollabuk-do, Chollanam-do, Jeju-do Isl.

Distribution: Korea, Japan.

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EXPLANATION OF FIGURES

1. *Pirata meridionalis* Tanaka, 1974, female
2. Eyes of female
3. Sternum of female
4. Chelicera of female, left, inner view
5. Epigynum
6. Genitalia, dorsal view
7. Genitalia, ventral view
8. Male palp, left, ventral view
9. Male palp, left, inner view
10. Male palp, left, ectal view

