

## Redescriptions of the Three Pleuronectiform Fishes (Samaridae and Soleidae) from Korea

Jeong-Ho Park, Jin Koo Kim\*, Jung Hwa Choi and Dae Soo Chang

Fisheries Resources Research Team, National Fisheries Research and  
Development Institute, 408-1 Sirang-ri, Gijang-gun, Busan 619-902, Korea

Three pleuronectiform fishes are redescribed based on specimens from southern sea of Korea. A single specimen (73.4 mm SL) of *Samariscus japonicus* of the family Samaridae is characterized by having no pectoral fin on blind side and 5 pectoral fin rays on ocular side of body. Twenty specimens (53.6~125.8 mm SL) of *Plagiopsetta glossa* of the same family are characterized by having 8~10 pectoral fin rays and 6 black ring-shaped blotches on ocular side of body. Three specimens (74.1~83.4 mm SL) of *Aseraggodes kaianus* of the family Soleidae are characterized by having blackish-brown reticulations on ocular side of body.

**Key words :** Redescription, Pleuronectiformes, *Samariscus japonicus*, *Plagiopsetta glossa*, *Aseraggodes kaianus*

Since Kim and Youn (1994) carried out the taxonomic revision of the suborder Pleuronectoidei from Korea firstly, Kim *et al.* (2005) have recognized six families and 52 species in the order Pleuronectiformes from Korea.

Concerning fishes of the East China Sea and the Yellow Sea, Yamada *et al.* (1995) provided their Korean, Japanese, and Chinese names, brief descriptions, and distribution of six pleuronectiform fishes [i.e., *Samariscus japonicus* Kamohara, 1936, *Plagiopsetta glossa* Franz, 1910, *Aseraggodes kaianus* (Günther, 1880), *Pseudorhombus arsius* (Hamilton, 1822), *Arnoglossus yamanakai* Fukui, Yamada and Ozawa, 1988, and *Psettina iijimae* (Jordan and Starks, 1904)]. However, they just only focused on unification of the fish names of three countries and did not describe about the samples in detail. During a survey of the fisheries resources in Korean waters, three species of the order Pleuronectiformes, as mentioned by Yamada *et al.* (1995), were collected around Jeju Island, southern sea of Korea recently (Fig. 1). Therefore, in this study, we redescribe the three pleuronecti-

form fishes on the basis of the Korean specimens in detail and compare them with those of previous studies for the first time.

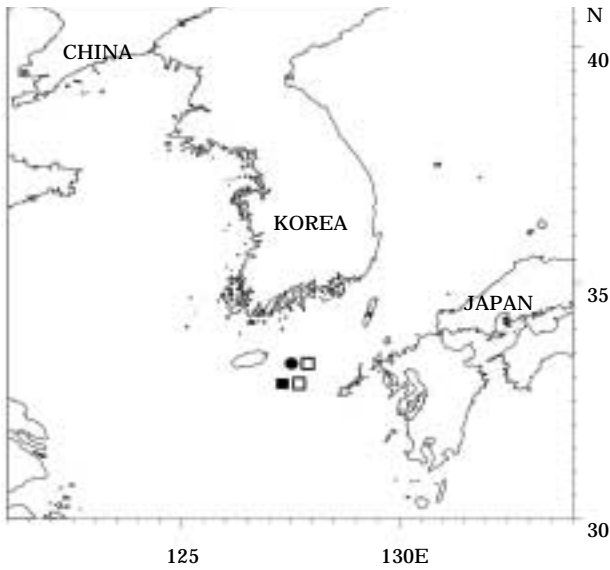
Counts and measurements were followed those of Hubbs and Lagler (1964) and Nakabo (2002a). Number of vertebrae and median fin rays were counted from radiographs. The examined specimens were deposited in the National Fisheries Research and Development Institute (NFRDI) of Korea.

### Family Samaridae

(New Korean name: Sin-wol-ga-ja-mi-gwa)

Fishes of the family Samaridae live in, primarily deep water, tropical and subtropical seas of the Indo-Pacific Ocean. The origin of dorsal fin in front of eyes, lateral line well-developed or rudimentary, pelvic fins symmetrical, postcleithra absent and 16 caudal fin rays. It comprises three genera, *Plagiopsetta* Franz, 1910, *Samaris* Gray, 1831, and *Samariscus* Gilbert, 1905 with about 20 species in the World (Sasaki and Uyeda, 2002; Nelson, 2006).

\*Corresponding author: taengko@daum.net



**Fig. 1.** Map showing the sampling area of three pleuronectiform fishes, *Samariscus japonicus* (●), *Plagiopsetta glossa* (□), and *Aseraggodes kaianus* (■), from southern sea of Korea.

### Genus *Samariscus* Gilbert, 1905

(New Korean name: Sin-wol-ga-ja-mi-sok)

*Samariscus* Gilbert, 1905: 682, pl. 96 (Type species: *Samariscus corallinus* Gilbert, 1905).

### *Samariscus japonicus* Kamohara, 1936

(Korean name: Sin-wol-ga-ja-mi)

(Figs. 2A, Table 1)

*Samariscus japonicus* Kamohara, 1936: 1006, fig. 1 (type locality: Kochi, Japan); Sakamoto in Masuda *et al.*, 1984: 354, pl. 318-G (Japan); Matsuura in Okamura *et al.*, 1985: 623, fig. 395 (Okinawa Trough, Japan); Yamada *et al.*, 1995: 209, pl. 293 (East China Sea); Sakamoto in Okamura and Amaoka, 1997: 678, fig. 7 (Tosa Bay, Japan); Shinohara *et al.*, 2001: 336 (listed, Tosa Bay, Japan); Nakabo, 2002b: 1382 (Key, description, Japan).



**Fig. 2.** Ocular (left) and blind (right) sides of three pleuronectiform fishes from the southern sea of Korea. A, *Samariscus japonicus* Kamohara, NFRDI 20070104-20, 73.4 mm SL; B, *Plagiopsetta glossa* Franz, NFRDI 20070104-23, 117.2 mm SL; C, *Aseraggodes kaianus* (Günther), NFRDI 20070104-35, 83.4 mm SL.

**Table 1.** Comparison of counts and measurements of *Samariscus japonicus* (O, ocular side; B, blind side)

	Present study	Kamohara (1936)	Matsuura (1985)	Yamada <i>et al.</i> (1995)
Number of specimens	1	3	1	-
Total length (mm)	90.0	93~119	-	-
Standard length (mm)	73.4	72~95	84	-
Counts:				
Dorsal fin rays	69	63~71	67	66~70
Pectoral fin rays	5	5	5	5
Pelvic fin rays	5	5	5	5
Anal fin rays	53	49~57	53	52~54
Caudal fin rays	16	-	-	15~16
Vertebrae	10+28	-	10+29	36~38
Measurements:				
% of standard length				
Body depth	41.8	37.5~40.0	36.2	-
Head length	24.4	22.2~33.7	21.9	-
% of head length				
Snout length	22.9	14.1~21.9	20.7	-
Upper eye diameter	33.0	18.8~35.0	33.7	-
Lower eye diameter	30.2	-	31.7	-
Interorbital width	7.6	-	-	-
Postorbital length	46.0	-	-	-
Upper jaw length (O)	33.0	-	30.0	-
Upper jaw length (B)	27.4	-	28.8	-
Pectoral fin length (O)	75.4	62.5~96.9	125.0	-
Pelvic fin length (O)	38.0	-	-	-
Pelvic fin length (B)	23.6	-	-	-
Pelvic fin base length (O)	17.3	-	-	-
Pelvic fin base length (B)	14.5	-	-	-
Predorsal length	18.5	-	-	-
Prepectoral length	94.1	-	-	-
Prepelvic length	73.1	-	-	-
Preanal length	116.3	-	-	-
Length of longest dorsal fin ray	44.7	-	62.5	-
Length of longest anal fin ray	44.7	-	47.8	-
Caudal fin length	100.6	-	96.2	-
Caudal peduncle depth	55.9	40.6~68.8	62.5	-

**Material examined.** NFRDI 20070104-20, 1 specimen, 73.4 mm in standard length (SL), 127° 42'E, 33° 22'N, southern sea of Korea (around Jeju Island), 118 m depth, 26 October, 2006, bottom trawl, collected by J. H. Park.

**Description.** Counts and measurements are given in Table 1.

Body elliptical; eyes on right side of body, separated by a narrow ridge; upper eye bigger than lower eye; mouth extend to anterior edge of lower eye; rays of dorsal and anal fins longer posteriorly; dorsal fin begin at anterior to the eye; pelvic fin on ocular side longer than that on blind side; pectoral fin rays unbranched, elongate on ocular side; no pectoral fin on blind side; anal fin connected with pelvic fin on ocular side by a mem-

brane; caudal fin rounded and its middle rays branched; anus located between pelvic fin and anal fin; lateral line straight, rising slightly over pectoral fin; teeth on both jaws villiform; scales small, cycloid, covered on both sides.

**Color when fresh.** Body brown or dark brown on ocular side; three pairs of dark brown circular or half circular blotches dorsally and ventrally; pectoral fin black; dorsal and anal fins white with a lot of spots; two black blotches on end of dorsal and anal fins; body uniformly white on blind side; dorsal and anal fins have many dark brown spots.

**Color after preservation.** Body light brown on ocular side; white on blind side; small dark spots on dorsal and anal fins.

**Distribution.** Northwest Pacific: Korea (around Jeju Island, present study), Japan (Nakabo, 2002b), and China (Yamada *et al.*, 1995).

**Remarks.** The counts and measurements of the present specimen are agree well with those of original description of *Samariscus japonicus* (Table 1). The species is characterized by having no pectoral fin on blind side and five pectoral fin rays on ocular side of body. Three species, *S. japonicus*, *S. xenicus* Ochiai and Amaoka, 1962, and *S. latus* Matsubara and Takamuki, 1951, were described from Japan (Nakabo, 2002). *S. japonicus* differs from *S. xenicus* in having the slender body and five rays (vs. four for the latter) in pectoral fin. *S. japonicus* is also different from *S. latus* in having pectoral fin length shorter than head length and pectoral fin uniformly black (Matsuura, 1985; Nakabo, 2002b).

We follow "Sin-wol-ga-ja-mi" provided by Yamada *et al.* (1995) for a Korean name of *S. japo-*

*nicus*.

### Genus *Plagiopsetta* Franz, 1910

(New Korean name: Jung-seol-ga-ja-mi-sok)

*Plagiopsetta* Franz, 1910: 64, pl. 5, fig. 58 (Type species: *Plagiopsetta glossa* Franz, 1910).

### *Plagiopsetta glossa* Franz, 1910

(Korean name: Jung-seol-ga-ja-mi)

(Figs. 2B, Table 2)

*Plagiopsetta glossa* Franz, 1910: 64, pl. 5, fig. 58 (type locality: Yakushima, Japan, depth 150 m); Sakamoto in Masuda *et al.*, 1984: 353, pl. 318-F (Japan); Shen *et al.*, 1993: 575, pl. 194-5 (Taiwan); Cooper *et al.*, 1994: 215, fig. 1 (New South Wales, Australia); Masuda and Kobayashi, 1994: 406, fig. 2 (Izu Peninsula, Japan);

**Table 2.** Comparison of counts and measurements of *Plagiopsetta glossa* (O, ocular side; B, blind side)

	Present study	Franz (1910)	Yamada (1986)	Yamada <i>et al.</i> (1995)	Mihara and Amaoka (1995)
Number of specimens	20	1	-	-	15
Total length (mm)	65.2~159.5	110	-	-	64.8~191.7
Standard length (mm)	53.6~125.8	-	-	-	51.9~146.3
Counts:					
Dorsal fin rays	67~73	70	64~75	68~74	68~73
Pectoral fin rays	8~10	10	8~10	8~10	8~10
Pelvic fin rays	5	5	-	5	5
Anal fin rays	50~55	53	49~55	52~54	52~57
Caudal fin rays	16	16	-	16	16~17
Vertebrae	11~12+27~29	-	-	-	10+27~28
Measurements:					
% of standard length					
Body depth	35.9~43.3	-	-	-	38.2~43.9
Head length	23.2~28.5	22.2	-	-	19.6~25.4
% of head length					
Snout length	16.9~28.9	20.0	-	-	17.1~20.4
Upper eye diameter	28.9~38.0	-	-	-	27.4~36.4
Lower eye diameter	26.1~34.2	28.6	-	-	26.8~33.3
Upper jaw length (O)	23.2~32.1	-	-	-	29.2~34.5
Upper jaw length (B)	18.7~33.2	-	-	-	25.1~29.9
Postorbital length	44.6~49.1	-	-	-	-
Pectoral fin length (O)	65.2~98.8	-	-	-	92.6~128.2
Prepectoral length	85.8~98.1	-	-	-	-
Prepelvic length	61.5~67.3	-	-	-	-
Preanal length	96.0~109.6	-	-	-	-
Length of longest dorsal fin ray	37.0~50.5	59.9	-	-	62.1~80.0
Length of longest anal fin ray	38.6~55.5	-	-	-	60.2~82.6
Pelvic fin length (O)	26.1~49.8	59.9	-	-	42.9~81.3
Pelvic fin length (B)	18.5~34.7	33.3	-	-	30.2~52.1
Caudal fin length	77.5~114.3	-	-	-	-
Caudal peduncle depth	41.6~58.6	-	-	-	52.9~71.9

Mihara and Amaoka, 1995: 208, fig. 1 (Kochi, Japan); Yamada *et al.*, 1995: 208, pl. 292 (East China Sea); Wu *et al.*, 1999: 719 (listed, China); Randall and Lim, 2000: 645 (listed, South China Sea); Shinohara *et al.*, 2001: 335 (listed, Tosa Bay, Japan); Nakabo, 2002b: 1381 (Key, description, Japan); Sasaki and Uyeda, 2002: 389, fig. 1 (Tosa Bay, southern Japan); Shinohara *et al.*, 2005: 443 (listed, Ryukyu Islands, Japan).

**Material examined.** NFRDI 20070104-01~10, 10 specimens, 59.4~115.8 mm SL, 127° 42'E, 33° 22'N, southern sea of Korea (around Jeju Island), 117 m depth, 26 October, 2006, bottom trawl; NFRDI 20070104-23~32, 10 specimens, 53.6~125.8 mm SL, 127° 10'E, 32° 47'N, southern sea of Korea (around Jeju Island), 118 m depth, 27 October, 2006, bottom trawl, collected by J.H. Park.

**Description.** Counts and measurements are given in Table 2.

Body elliptical; eyes on right of body; upper eye bigger than lower eye; no pectoral fin on blind side; pectoral fin slightly shorter than head; dorsal fin begin at anterior margin of upper eye; pelvic fin on ocular side longer than that on blind side; middle rays of caudal fin branched; scales ctenoid on both side; lateral line straight; caudal fin rounded.

**Color when fresh.** Body on ocular side almost black; dorsal, anal, and pelvic fins dark brown with black blotches; pectoral fin more dark; six ring-shaped blotches on ocular side of body; posterior margin of caudal fin darker; dark brown on blind side of body.

**Color after preservation.** Ocular side grayish and six ring-shaped blotches pale; blind side light brown.

**Distribution.** Western Pacific: Korea (around Jeju Island, present study), southern Japan (Nakabo, 2002b), Taiwan (Shen *et al.*, 1993), China (Wu *et al.*, 1999), and New South Wales of Australia (Cooper *et al.*, 1994).

**Remarks.** The counts and measurements of the present specimens are similar to those of previous studies, but there are some remarkable differences in the length of each longest ray of dorsal and anal fins (Table 2). Although these differences may be due to geographic variation, further studies on morphological and molecular differences are necessary.

*Plagiopsetta glossa* is characterized by having

8~10 pectoral fin rays and six black ring-shaped blotches on ocular side of body. *P. glossa* has been believed to be endemic to Japan previously, however recent studies have shown that the species is distributed widely from Japan to Australia (Sasaki and Uyeda, 2002).

We follow "Jung-seol-ga-ja-mi" provided by Yamada *et al.* (1995) for a Korean name of *P. glossa*.

#### ***Aseraggodes kaianus* (Günther, 1880)**

(Korean name: Geu-mul-dong-seo-dae)  
(Figs. 2C, Table 3)

*Solea kaiana* Günther, 1880: 49, pl. 21, fig. C  
(type locality: Ki Islands, Indonesia).

*Aseraggodes kaianus*: Ochiai in Masuda *et al.*, 1984: 354, pl. 319-F (Japan); Shen *et al.*, 1993: 582, pl. 197-6 (Taiwan); Yamada *et al.*, 1995: 210, pl. 296 (East China Sea); Sakamoto in Okamura and Amaoka, 1997: 682, fig. 2 (Tosa Bay, Japan); Wu *et al.*, 1999: 80 (listed, China); Randall and Lim, 2000: 645 (listed, South China Sea); Shinohara *et al.*, 2001: 335 (listed, Tosa Bay, Japan); Nakabo, 2002b: 1385 (key, description, Japan).

**Material examined.** NFRDI 20070104-35~37, 3 specimens, 74.1~83.4 mm SL, 127° 10'E, 32° 47'N, southern sea of Korea (around Jeju Island), 118 m depth, 27 October, 2006, bottom trawl, collected by J. H. Park.

**Description.** Counts and measurements are given in Table 3.

Body elliptical; eyes very small, located on right of body; interorbital space rather narrow; mouth almost straight or slightly curved; anterior nasal tube short, not reaching anterior edge of lower eye; dorsal fin origin at snout; rays of dorsal and anal fins longer posteriorly; pectoral fin absent on both sides; dorsal and anal fins unbranched; anus locate at origin of anal fin; caudal fin rounded, not connected with dorsal and anal fins; lateral line straight; scales small, ctenoid.

**Color when fresh.** Ground color of ocular side of body overall brown or light brown; blackish-brown reticulations on ocular side; blind side uniformly white; fins brown on both sides.

**Color after preservation.** Ocular side of body light brown; brown or light brown reticulations on ocular side; blind side of body white; fins light brown on both sides.

**Table 3.** Comparison of counts and measurements of *Aseraggodes kaianus* (O, ocular side)

	Present study	Günther (1880)	Yamada (1986)	Yamada <i>et al.</i> (1995)
Number of specimens	3	1	-	-
Total length (mm)	90.0 ~ 101.8	108.0	-	-
Standard length (mm)	74.1 ~ 83.4	-	-	-
Counts:				
Dorsal fin rays	65 ~ 67	70	64 ~ 71	63
Pelvic fin rays	5	-	-	5
Anal fin rays	48 ~ 49	50	47 ~ 52	48
Caudal fin rays	18	-	17 ~ 18	18
Vertebrae	10+27	-	36 ~ 37	45 ~ 48
Measurements:				
% of standard length				
Body depth	40.0 ~ 42.5	40.0	-	-
Head length	26.0 ~ 27.7	over 25.0	-	-
% of head length				
Snout length	27.5 ~ 30.9	-	-	-
Upper eye diameter	9.8 ~ 13.8	-	-	-
Lower eye diameter	9.7 ~ 12.9	-	-	-
Interorbital width	7.1 ~ 8.8	-	-	-
Upper jaw length (O)	23.9 ~ 26.0	-	-	-
Postorbital length	42.7 ~ 47.3	-	-	-
Length of longest dorsal fin ray	33.3 ~ 36.1	-	-	-
Length of longest anal fin ray	30.2 ~ 33.3	-	-	-
Pelvic fin length (O)	25.4 ~ 31.4	-	-	-
Pelvic fin base length (O)	7.9 ~ 10.0	-	-	-
Prepelvic length	84.8 ~ 87.6	-	-	-
Preanal length	110.7 ~ 123.0	-	-	-
Caudal fin length	71.7 ~ 76.0	-	-	-
Caudal peduncle depth	47.8 ~ 52.1	-	-	-

**Distribution.** Western Pacific: Korea (around Jeju Island, present study), southern Japan (Nakabo, 2002b), China (Wu *et al.*, 1999), Taiwan (Shen *et al.*, 1993), Philippines, and Indonesia (Günther, 1880).

**Remarks.** The counts and measurements of the present specimens are almost consistent with those of previous description of Yamada *et al.* (1995), but some differences are found, especially in number of vertebrae (37 vs. 45 ~ 48 in the latter) (Table 3). It may be due to misprint by Yamada *et al.* (1995), because same authors already reported its number of vertebrae as 36 ~ 37 (Yamada, 1986).

*A. kaianus* is similar to *A. kobensis* in having the pectoral fin absent on both sides, anterior nasal tube short, and dorsal and anal fins rays simple (Nakabo, 2002b). However, the former is easily distinguished from the latter in having some blackish-brown reticulations on ocular side of body (vs. absent for *A. kobensis*).

We follow "Geu-mul-dong-seo-dae" provided by Yamada *et al.* (1995) for a Korean name of *A.*

*kaianus*.

## Acknowledgements

This work was funded by the National Fisheries Research and Development Institute (NFRDI) of Korea. We express our thanks to the captain and crews of RV Tamgu-1.

## References

- Cooper, J.A., K. Graham and F. Chapleau. 1994. New record of the tongue flatfish, *Plagiopsetta glossa* (Samaridae, Pleuronectiformes) from Australia. *Jpn. J. Ichthyol.*, 41 : 215 ~ 218.
- Franz, V. 1910. Die Japanischen Knochenfische der Sammlungen Haberer und Doflein (Beiträge zur Naturgeschichte Ostasiens.). *Abh. Akad. Wiss. Munchen Math.-Phys. Kl.*, pp. 1 ~ 135.
- Fukui, A. and T. Ozawa. 1988. *Arnoglossus yamanakai*. In: Okiyama, M. (ed.), An atlas of the early stage of fishes in Japan. Tokai University

- Press, Tokyo, pp. 923~924. (in Japanese)
- Gilbert, C.H. 1905. II. The deep-sea fishes of the Hawaiian Islands. *In: The aquatic resources of the Hawaiian Islands*. Bull. U.S. Fish Comm., 23 : 577~713, pls. 66~101.
- Gray, J.E. 1831. Description of three new species of fish, including two undescribed genera, discovered by John Reeves, Esq., in China. *Zool. Misc.*, 1831 : 4~5.
- Günther, A. 1880. Report on the shore fishes procured during the voyage of H.M.S. Challenger in the years 1873~1876. *In: Report of the scientific results of the voyage of H.M.S. Challenger during the years 1873~76*. *Zoology*, 6 : 1~82, pls. 1~32.
- Hamilton, F. 1822. An account of the fishes found in the river Ganges and its branches. Edinburgh & London. *Fishes Ganges*, pp. 1~405, pls. 1~39.
- Hubbs, C.L. and K.F. Lagler. 1964. Fishes of the Great Lake Region. *Bull. Cranbrook Inst. Sci.*, 26 : 19~27.
- Jordan, D.S. and E.C. Starks. 1904. List of fishes dredged by the steamer Albatross off the coast of Japan in the summer of 1900, with descriptions of new species and a review of the Japanese Macrouridae. *Bull. U.S. Fish Comm.*, 22 : 577~630, pls. 1~8.
- Kamohara, T. 1936. On two new species of fishes found in Japan. *Zool. Mag.*, 48 : 1006~1008.
- Kim, I.S. and C.H. Youn. 1994. Taxonomic revision of the flounders (Pisces: Pleuronectiformes) from Korea. *Korean J. Ichthyol.*, 6 : 99~131. (in Korean)
- Kim, I.S., Y. Choi, C.L. Lee, Y.J. Lee, B.J. Kim and J.H. Kim. 2005. *Illustrated Book of Korean Fishes*. Kyohak Publishing, Seoul, pp. 1~615. (in Korean)
- Masuda, H. and Y. Kobayashi. 1994. *Grand atlas of fish lifes modes*. Tokai University Press, Tokyo, pp. 1~465. (in Japanese)
- Matsubara, K. and H. Takamuki. 1951. The Japanese flatfishes of the genus *Samariscus*. *Jpn. J. Ichthyol.*, 1 : 361~367. (in Japanese)
- Matsuura, K. 1985. Family Pleuronectidae. *In: Okamura, O., Y. Machida, T. Yamakawa, K. Matsuura and T. Yatou (eds.)*, *Fishes of the Okinawa trough and the adjacent waters*. II. The intensive research of unexploited fishery resources on continental slopes. Japan Fisheries Resource Conservation Association, Tokyo, pp. 618~623.
- Mihara, E. and K. Amaoka. 1995. *Samariscus fasciatus* Fowler, 1934, a junior synonym of *Plagiopsetta glossa* Franz, 1910 (Pleuronectiformes: Pleuronectidae). *Jpn. J. Ichthyol.*, 42 : 208~211.
- Nakabo, T. 2002a. Introduction of Ichthyology. *In: Nakabo, T (ed.)*, *Fishes of Japan with pictorial keys to the species*, English ed. Tokai University Press, Tokyo, pp. xxi~xlii.
- Nakabo, T. 2002b. Families Samaridae and Soleidae. *In: Nakabo, T (ed.)*, *Fishes of Japan with pictorial keys to the species*, English ed. Tokai University Press, Tokyo, pp. 1381~1387.
- Nelson, J.S. 2006. *Fishes of the world*, 4th ed. John Wiley & Sons, New York, pp. 1~601.
- Ochiai, A. 1984. Family Soleidae. *In: Masuda, H., K. Amaoka, C. Araga, T. Uyeno and T. Yoshino (eds.)*, *The fishes of the Japanese archipelago*. Tokai University Press, Tokyo, pp. 354~355.
- Ochiai, A. and K. Amaoka. 1962. Review of the Japanese flatfishes of the genus *Samariscus*, with the description of a new species from Tonkin Bay. *Ann. Mag. Nat. Hist.*, (Ser. 13) 5 : 83~91.
- Randall, J.E. and K.K.P. Lim. 2000. A checklist of the fishes of the South China Sea. *Raffles Bull. Zool.*, Suppl. 8 : 569~667.
- Sakamoto, K. 1984. Family Pleuronectidae. *In: Masuda, H., K. Amaoka, C. Araga, T. Uyeno and T. Yoshino (eds.)*, *The fishes of the Japanese archipelago*. Tokai University Press, Tokyo, pp. 351~354.
- Sakamoto, K. 1997. Families Pleuronectidae and Soleidae. *In: Okamura, O. and K. Amaoka (eds.)*, *Sea fishes of Japan*. Yama-kei Publishers, Tokyo, pp. 672~682. (in Japanese)
- Sasaki, K. and S. Uyeda. 2002. A pelagic larva of *Plagiopsetta glossa* (Pleuronectiformes, Samaridae), characterized by a trailing gut and S-shaped pelvic bone: description and phylogenetic considerations. *Ichthyol. Res.*, 49 : 389~391.
- Shen, S.C., K.T. Shao, C.T. Chen, C.H. Chen, S.C. Lee and H.K. Mok. 1993. *Fishes of Taiwan*. Department of Zoology, National Taiwan University, Taipei, pp. 1~960. (in Chinese)
- Shinohara, G., H. Endo, K. Matsuura, Y. Machida and H. Honda. 2001. Annotated checklist of the deepwater fishes from Tosa Bay, Japan. *Natl. Sci. Mus. Monogr.*, 20 : 283~343.
- Shinohara, G., T. Sato, Y. Aonuma, H. Horikawa, K. Matsuura, T. Nakabo and K. Sato. 2005. Annotated checklist of the waters around the Ryukyu Islands, Japan. *Natl. Sci. Mus. Monogr.*, 29 : 385~452.
- Steindachner, F. 1896. Bericht über die während der Reise Sr. Maj. Schiff "Aurora" von Dr. C. Ritter v. Microszewski in den Jahren 1895 und 1896, gesammelten Fische. *Ann. Naturh. Hofmus. Wien*, 11 : 197~230, pls. 1~4.
- Wu, H.L., K.T. Shao and C.F. Lai. 1999. *Latin-Chinese dictionary of fishes names*. Sueichan Press, Keelung, pp. 1~1028.
- Yamada, U. 1986. Families Pleuronectidae and Soleidae. *In: Okamura, O (ed.)*, *Fishes of the East China Sea and the Yellow Sea*. Seikai Regional Fisheries Research Laboratory, Nagasaki, pp. 378~408. (in Japanese)

Yamada, U., S. Shirai, T. Irie, M. Tokimura, S. Deng, Y. Zheng, C. Li, Y.U. Kim and Y.S. Kim. 1995. Names and Illustrations of Fishes from

the East China Sea and the Yellow Sea. Overseas Fishery Cooperation Foundation, Tokyo, pp. 1~288.

Received : January 23, 2007

Accepted : March 5, 2007

### 한국산 가자미목 어류 3종의 재기재 박정호 · 김진구\* · 최정화 · 장대수

국립수산과학원 자원연구팀

한국 남해안에서 저층 트롤로 채집된 가자미목 어류 3종을 표본에 근거하여 재기재하였다. Samaridae(국명신칭: 신월가자미과)에 속하는 *Samariscus japonicus*(표준체장 73.4 mm 1개체)는 유안측에 5개의 가슴지느러미 연조를 가지고 무안측에는 가슴지느러미가 없다. 같은 과의 *Plagiopsetta glossa*(표준체장 53.6~125.8 mm 20개체)는 유안측은 흑갈색이고 가슴지느러미 연조가 8~10개이며, 6개의 고리 모양의 검은 반점이 있다. 또한 남서대과에 속하는 *Aseraggodes kaianus*(표준체장 74.1~83.4 mm 3개체)는 유안측의 몸과 지느러미에 흑갈색 그물무늬가 있는 것이 특징이다.