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First Records of the Blenniid Fishes, *Petroscirtes springeri* and *Petroscirtes variabilis*, from Japan

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Petroscirtes (Blenniidae, tribe Nemophini), comprising ten species, is widely distributed over the tropical and subtropical Indo-Pacific Region from the Red Sea and southern Africa to the Society and the Line islands (Smith-Vaniz, 1976). *Petroscirtes mitratus* (a senior synonym of *P. elatus*) and *P. breviceps* (syn. *Dasson trossulus*) have previously been reported from Japan. Arai and Ida (1975) illustrated a single specimen of *P. breviceps* (NSMT-P 18406), identified as *Dasson* (=*Petroscirtes*) sp., from Tanegashima Island, Japan. Arai and Ida (1975) noted that except for its color pattern, which closely matched that of *Meiacanthus kamoharai*, the specimen agreed well with *P. breviceps*. *Petroscirtes breviceps* has been reported as a possible mimic of *Meiacanthus grammistes*, and establishment of a second mimetic relationship with the closely related and allopatric *M. kamoharai* might be expected (Smith-Vaniz, 1976 and personal communication). Recently, four specimens of *P. springeri* Smith-Vaniz, 1976 and one specimen of *P. valiabilis* Cantor, 1850 were collected from southern Japan. These records represent northern range extentions from Taiwan to Japan for both species, and the second record of *P. springeri*.

The methods of Smith-Vaniz (1976) were used for counts, measurements and definitions of cephalic sensory pores and cirri. Vertebral counts include precaudal + caudal number. Radiographs were used to count vertebrae, ribs, and dorsal and anal rays. Color pattern descriptions are from preserved specimens. Sex was determined by the shape of urogenital opening.

Petroscirtes springeri Smith-Vaniz, 1976

(New Japanese name: Futahoshi-nijiginpo)
(Fig. 1)

Material. HUMZ (Laboratory of Marine Zoology, Hokkaido University) 92522, male, 76.5 mm in standard length (SL), collected from Tsunoshima, Nishi Umi, Ehime Pref., Japan, at depth of 25 m, on September 24, 1981, by Akihisa Iwata. HUMZ 97082, male, 76.3 mm SL, collected from the same locality as preceding specimen on September 25, 1981, by Akihisa Iwata. HUMZ 97083, sex unidentified, 51.7 mm SL, collecting data are the same as HUMZ 97082. NSMT-P (National Science Museum, Tokyo) 21488, male, 74.1 mm SL, collected from Futo, Izu Peninsula, Shizuoka Pref., Japan, at depth of 45 m, on December 25, 1981, by Atsushi Ono.

Description. Table 1 shows the selected characters of the holotype, USNM (United States National Museum) 203279, and present material. Number of pores of cephalic sensory canals are invariable except for the left infraorbital series of HUMZ 97083 which has 8. Number of each sensory pore series are: nasal 2, interorbital 4, supraorbital 2, infraorbital 7, mandibular 3, preopercular 6, supratemporal 3, lateraltemporal 3. Urogenital opening small and not pocket-like. Padlike structure not developed at the tip of anal spines. Anal-fin tabs were present in three specimens (HUMZ 97083 without anal-fin tabs). Outer lobes of caudal fin elongate in NSMT-P 21488, HUMZ 92522 and HUMZ 97082, but not in HUMZ 97083 (Fig. 1).

Color pattern. A stripe extends from snout through eye and opercular spot and ends as a dark basicaudal spot. This stripe became indistinct after preservation in larger specimens. Distal one-third of dorsal fin slightly dark. A dark stripe along proximal one-third of dorsal fin except for holotype and HUMZ 97083. In HUMZ 97083, this stripe is interrupted to form a series of elongate blotches (Fig. 1). Although Smith-Vaniz (1976) did not mention this series of blotches on the dorsal fin, his Fig. 105 shows the trait.

Comparison with original description (Smith-Vaniz, 1976). Most of characters of the present material agree with the original description which was based on only one small male. Several differences were noticed in color pattern (see above), cirri and caudal fin length (Table 1). Since these characters often tend to change with growth or by sex in Nemophini (Smith-Vaniz, 1976: 10), we regard the differences as individual variation.

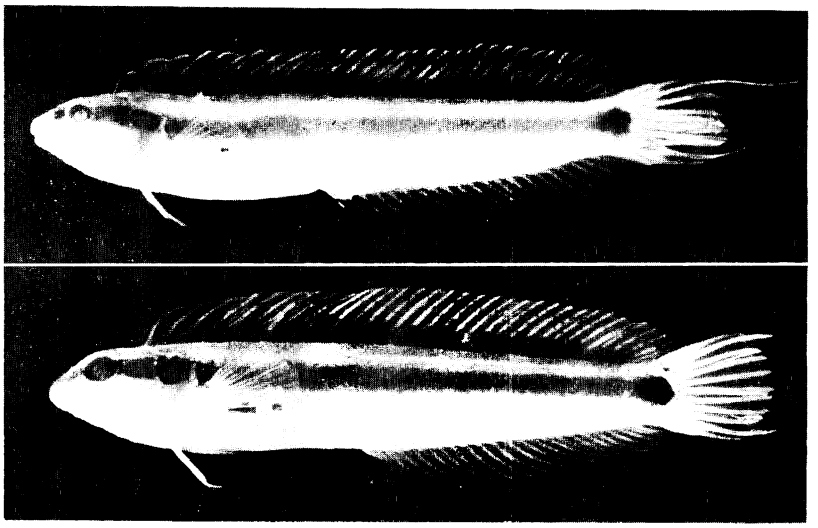

Fig. 1. *Petroscirtes springeri*, NSMT-P 21488 (top), 74.1 mm SL and HUMZ 97083 (bottom), 51.7 mm SL.

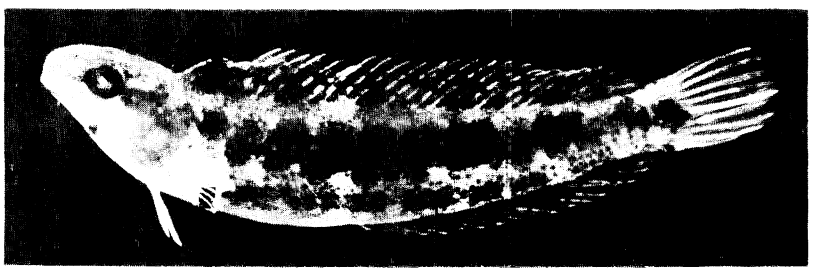

Fig. 2. *Petroscirtes variabilis*, MTUF 23458, 57.0 mm SL.

***Petroscirtes variabilis* Cantor, 1850**
(New Japanese name: Inu-ginpo)
(Fig. 2)

Material. MTUF (Museum, Tokyo University of Fisheries) 23458, male, 57.0 mm SL, collected from Kabira Bay, Ishigaki Island, Okinawa Pref., Japan on November 15, 1977, by Mitsuaki Sato.

Description. D. XI, 17; A. II, 17; P_1. 14; vertebrae 12+21; pleural ribs 9; epipleural ribs 13; upper jaw incisors 32; lower jaw incisors 38. Number of each cephalic sensory pore series are: nasal 2, interorbital 4, supraorbital 2, infraorbital 7, mandibular 3, preopercular 6, supratemporal 3, lateraltemporal 3. All cirri simple. Urogenital opening small and not pocket-like. Tip of the dorsal and anal spines and rays without padlike structure, tabs or flap. Second dorsal-fin spine 11.8% SL, pelvic fin 14.4% SL, caudal fin 21.8% SL. Outer lobes of caudal fin not elongate.

Color pattern. Body with five broad vertical dusky bands on side excluding a dark blotch on caudal peduncle, middle part of each band darker to form a horizontal stripe from eye to caudal fin base. A dark blotch on proximal part of caudal fin. Dorsal and anal fins with a series of dusky blotches on proximal part. Most of head, body, dorsal and anal fins with brown spots.

Notes. The number of vertebrae, total dorsal-fin elements and segmented anal rays of the present specimen agree completely with the modal number of these counts in specimens from the Philippines, New Guinea and other localities except Sri Lanka (see table 10 of Smith-Vaniz (1976)).

Key to species of Japanese *Petroscirtes*
(modified from Smith-Vaniz (1976))

A1. First dorsal-fin spine distinctly longer than fourth giving fin notched appearance in all but smallest juveniles; first dorsal-fin spine always longer than second (occasionally subequal); outer rays of pelvic fin with dark spot (indistinct in juveniles) near base of fin; (widespread Indo-Pacific) .... *P. mitratus*

A2. First dorsal-fin spine subequal or shorter than fourth; first dorsal-fin spine always shorter than second; outer ray of pelvic fin without a dark basal spot.

B1. Symphyseal mandibular cirrus usually multifid or bifurcate; total dorsal-fin rays 33～34; segmented anal-fin rays 21～22; (Japan and Taiwan)..... *P. springeri*

B2. Symphyseal mandibular cirrus simple; total dorsal-fin rays less than 32; segmented anal-fin rays less than 20 (*P. breviceps* rarely with 21 rays).

C1. Broad dark stripe along entire base of dorsal fin; segmented dorsal-fin rays 17～21, usually 19; segmented anal-fin rays 17～21, usually 19; (Indian and western Pacific oceans, excluding eastern Australia) ..... *P. breviceps*

C2. A series of 5 or 6 dark blotches along dorsal fin base; segmented dorsal-fin rays 16～19, usually 17; segmented anal-fin rays 16～19, usually 17; (eastern Indian and Pacific oceans) ..... *P. variabilis*

Acknowledgments

We wish to express our gratitude to Dr. Teruya Uyeno (NSMT) and Messrs. Hajime

Table 1. Selected characters of holotype and present material of *Petroscirtes springeri*. Data of holotype, USNM 203279, were taken from Smith-Vaniz (1976). L, left side; R, right side.

Catalogue number	USNM 203279	HUMZ 97083	NSMT-P 21488	HUMZ 97082	HUMZ 92522
Sex	male	unidentified	male	male	male
SL in mm	49.7	51.7	74.1	76.3	76.5
Measurements (%SL)					
Body depth	16.0	17.2	17.1	16.3	17.5
2nd dorsal-fin spine	9.5	13.3	9.9	12.2	8.9
Pelvic fin length	12.1	11.2	12.0	12.9	15.8
Caudal fin length	25.9	19.3	30.5	27.8	30.7
Counts					
Dorsal fin	XII, 21	XII, 22	XII, 21	XII, 21	XII, 21
Anal fin	II, 21	II, 22	II, 21	II, 21	II, 21
Pectoral fin	14	14(L), 13(R)	14	14	14
Vertebrae	12+25	13+24	12+25	13+24	12+25
Preural ribs	11	11	10	10	11
Epipreural ribs	15	16	15	15	15
Upper jaw incisors	24	25	27	26	27
Lower jaw incisors	30	30	33	32	32
Number of cirri					
Mandibular	3	3	3	3	3
Preopercular	3(L), 4(R)	4(L)	4(L), 3(R)	3(L)	4(L)
Interorbital	one paired	0	0	0	0
Postorbital	2	1	2	1	1
Predorsal	1	0	0	0	0
Nuchal	1	0	0	0	0
Posttemporal	1	1	1	1	1
Shape of mandibular cirri*					
Symphyseal	multifid	simple	multifid	bifurcate	bifurcate
Middle	multifid	simple	bifurcate	simple	bifurcate
Rear	bifurcate?	simple	simple	simple	simple

* This character of the holotype was taken from original description or fig. 13 of Smith-Vaniz (1976).

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(AY: Japan Marine Fishery Resource Research Center, 3–27 Kioi-cho, Chiyoda-ku, Tokyo 102, Japan; AI: Laboratory of Embryology and Genetics, Faculty of Fisheries, Hokkaido University, 3–1–1 Minato-cho, Hakodate 041, Japan; MS: Japan NUS Co., Ltd., 2–7–1 Nishishinjuku, Shinjuku-ku, Tokyo 160, Japan)

日本初記録のイソギンポ科の2種，フタホシニジギンポ（新称）とイヌギンポ（新称）

谷津明彦・岩田明久・佐藤光昭

フタホシニジギンポ *Petroscirtes springeri* Smith-Vaniz, 1976 が愛媛県西海および静岡県富戸から，また，イヌギンポ *P. variabilis* Cantor, 1850 が沖縄県石垣島から得られた．両種とも従来の報告による北限は台湾であり，日本では初記録となるので，両種を記載し，新和名を提唱し，日本産ニジギンポ属 *Petroscirtes* 4種の検索表を付した．本報告は，フタホシニジギンポの世界で2番目の記録でもある．

(谷津：102 東京都千代田区紀尾井町 3-27 海洋水産資源開発センター；岩田：041 函館市港町 3-1-1 北海道大学発生学遺伝学講座；佐藤：160 東京都新宿区西新宿 2-7-1 日本エヌ・ユー・エス株式会社)