

A new Cyprinid fish, *Pseudopungtungia tenuicorpus*
from Korea.

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韓國產 잉어科 魚類의 1新種,
*Pseudopungtungia tenuicorpus*에 關하여

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(Received January 18, 1980)

適 要

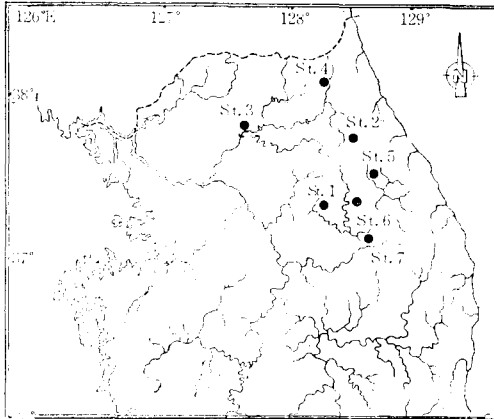
우리나라 西海岸으로 流入되는 漢江의 上流에서 筆者等에 依하여 發見된 잉어科의 魚類가 지금까지 發見된 돌고기 *Pungtungia herzi*, 감돌고기 *Pseudopungtungia nigra*, 쉬리 *Coreoleuciscus splendidus* 등과 體形, 頭部의 形態, 口술과 수염의 構造等에 顯著한 差異를 보이므로 本種을 *Pseudopungtungia tenuicorpus*로 記載하고 韓國名을 가는돌고기로 提唱한다.

The authors have collected an unknown Cyprinid fishes from upper streams of Han River. In our recent observations, it has been shown that the species has also some distinct characteristics from *Pungtungia herzi* Herzenstein (Uchida, 1939; Okada, 1959—1960), *Pseudopungtungia nigra* Mori (Mori, 1935; Uchida, 1939) and *Coreoleuciscus splendidus* Mori (Mori, 1935; Uchida, 1939) in view of color pattern on body sides and ratio of body length to width of body. For these reasons the species is described as a new species. All specimens have been preserved in 5 to 10% formalin at the Korean Institute of Freshwater Biology, Seoul, Korea.

MATERIALS

Holotype: KIFB (Korean Institute of Freshwater Biology) 7801, male of 78 mm

in standard length, collected in the tributary of South Han River at Anheung Myeon, Heongseong Gun, Gangwon Do, on June 10, 1978.



- St. 1 Anheung Myeon, Heongseong Gun, Gangwon Do.
- St. 2 Nae Myeon, Hongcheon Gun, Gangwon Do.
- St. 3 Gapyeong Eub, Gapyeong Gun Gyeonggi Do.
- St. 4 Buk Myeon, Inje Gun, Gangwon Do.
- St. 5 Wangsan Myeon, Myeongju Gun, Gangwon Do.
- St. 6 Pyeongchang Myeon, Pyeongchang Gun, Gangwon Do.
- St. 7 Yeongwol Eub, Yeongwol Myeon, Gangwon Do.

Fig. 1. Distribution of *Pseudopungtungia tenuicorpus* in South Korea.

Paratype: KIFB 7802, male of 72.5 mm in standard length, collected in the tributary of North Han River at Gapyeong Eub, Gapyeong Gun, Gyeonggi Do, on September 12, 1978; KIFB 7803, female of 72.5 mm in standard length, collected at the same locality as the KIFB 7802, on September 30, 1978; KIFB 7804, male of 64.5 mm in standard length, collected in the tributary of South Han River at Nae Myeon, Hongcheon Gun, Gangwon Do, on June 10, 1978; KIFB 7805, female of 61.5 mm in standard length, collected at the same locality and date as the KIFB 7804; KIFB 7806 male of 77 mm in standard length, collected at the length, same locality and date as the Holotype; KIFB 7807, female of 82 mm in standard length, collected at the same locality and date as the Holotype; KIFB 7808, male of 88.5 mm in standard length, collected at the same locality and date as the KIFB 7804; KIFB 7809, female of 76.5 mm in standard length, collected at the same locality and date as the Holotype.

Diagnosis: A very slender Cyprinid fishes, with triangulated and pointed small head with one pair of very small barbels, and dark brown band over the lateral line in color.

Discription: Body proportional measurement and counts for the holotype are as follows: D. with 1 spine and 7 branched rays; A. with 1 spine and 6 branched rays; P. with 13 branched, 2 principal rays; V. with 6 branched, 2 principal rays; C. with 16 branched 2 principal rays. Measurement expressed in hundreds of standard length; wide of body 16.7, head length 20.5, length of caudal peduncle 29.5, snout length 37.5 in head length, eye diameter 18.8, 1 pair of very small barbels. Body elongated slenderly. Head triangulated and pointed; snout short.

bruntly rounded; eye large, middle, lateral, and intermediate between tip of snout and the gill opening; mouth small, inferior, and with hard and thick lips; barbels 1 pairs, very small of 8.4 in head length; nostrils intermediate between eye and tip of snout, seperated at edge of triangulated headlines.

Origin of dorsal nearer tip of snout than base of caudal, and same of ventrals; predorsal length 47.3 and preanal length 65.7. Caudal peduncle longer than head and compressed. Body covered by large round scales. Lateral line extend to the end of caudal peduncle. Color in formalin pale brown all over the body and a dark brown band over the lateral line, dorsal have a black spot in the upper part.

Measurements of other specimens: In addition to the above described holotype, a number of specimens were obtained from three localities in the Han River. Body measurements of 8 individuals (paratype) are shown in Table 1.

Table 1. Body proportional measurements of *Pseudopungtungia tenuicorpus*.

Item	Holotype					Paratype				
	KIFB	KIFB	KIFB	KIFB	KIFB	KIFB	KIFB	KIFB	KIFB	KIFB
Catalogue number	7801	7802	7803	7804	7805	7806	7807	7808	7809	
sex	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
Total length in mm	94.5	84.0	85.0	68.0	72.0	90.0	95.0	101.0	84.0	
Standard length in mm	78.0	72.5	72.5	64.5	61.5	77.0	82.0	88.5	76.5	
Head length in mm	16.0	13.0	13.0	12.0	12.0	16.0	16.5	18.0	16.0	
Greatest body depth in mm	13.0	10.0	12.0	10.0	9.0	12.5	13.5	14.0	12.0	
Snout length in mm	6.0	5.0	5.5	5.5	5.5	7.0	7.0	7.5	7.0	
Eye diameter in mm	3.0	3.5	4.0	3.0	3.0	4.0	4.0	4.0	3.5	
Length of caudal peduncle in mm	23.0	20.0	20.5	15.0	18.0	22.0	23.5	22.5	22.0	
Depth of caudal peduncle in mm	9.0	8.0	9.0	7.0	7.0	8.0	11.0	10.5	9.0	
Number of dorsal fin ray	I-7	I-7	I-7	I-7	I-7	I-7	I-7	I-7	I-7	
Number of anal fin ray	I-6	I-6	I-6	I-6	I-6	I-6	I-6	I-6	I-6	
Scale Number	43	42	42	43	43	45	43	43	43	

* KIFB: Korean Institute of Fresh-water Biology.

Sexual dimorphism: In this species it was impossible to find any Sexual dimorphisms between male and female.

Habitat: This species is living in the clear, stony bottom at the upper and tributary streams which have rapid flowing and stony pools.

Distribution: The present species seems to be distributed only in the South and North Han River flowing into the West Sea (Yellow Sea) in Korea (Fig. 1). The collected localities of *Pseudopungtungia tenuicorpus* are as follows: Anheung Myeon,.

Hoengseong Gun; Nae Myeon Hongcheon Gun; Buck Myeon, Inje Gun; Wangsan Myeon, Myeongju Gun; Pyeongchang Myeon, Pyeongchang Gun; Yeongwol Eub, Yeongwol Gun; Gapyeong Eub, Gapyeong Gun.

Remarks: *Pseudopungtungia tenuicorpus* resembles both *Pseudopungtungia nigra* and *Pungtungia herzi* in Korea, but the former is clearly distinguished from the others by the body proportionals (Table 2). In young *Pungtungia herzi* the color resembles very much to the *Pseudopungtungia tenuicorpus*, but the dark brown band over the lateral line is more clear in *Pseudopungtungia tenuicorpus*. Furthermore, the black spot of upper dorsal part in *Pseudopungtungia tenuicorpus* is not remained in *Pungtungia herzi*. In *Pseudopungtungia nigra* the color is clearly distinguishable from that of *Pseudopungtungia tenuicorpus*. The *Pseudopungtungia nigra* have two black bands on the dorsal, ventral, anal and caudals. But *Pseudopungtungia tenuicorpus* has only one black spot on the upper dorsal part.

Table 2. Comparative body ratio of *Pseudopungtungia tenuicorpus* with other species.

Item	<i>Pseudopungtungia tenuicorpus</i>	<i>Pseudopungtungia nigra</i>	<i>Pungtungia herzi</i>
S.L./G.D.	5.6—7.3	4.4—4.9	3.8—4.9
S.L./H.L.	4.3—5.6	4.4—4.7	2.7—4.1
H.L./Sn.L.	2.2—3.3	2.1—2.3	2.1—2.6
H.L./E.D.	2.0—2.7	2.6—2.8	2.3—2.6
L.C.P./D.C.P.	2.1—3.0	1.5—1.6	1.2—1.7
H.L./D.C.P.	1.3—2.0	1.7—1.8	1.6—2.3
Scale number	40—46	38—40	37—41
* S.L.: Standard length	G.D.: Greatest depth		
H.L.: Head length	Sn.L.: Snout length		
E.D.: Eye diameter	L.C.P.: Length of caudal peduncle		
D.C.P.: Depth of caudal peduncle			

Table 3. Comparative body length of *Pseudopungtungia tenuicorpus* with other species.

Item	<i>Pseudopungtungia tenuicorpus</i>	<i>Pseudopungtungia nigra</i>	<i>Pungtungia herzi</i>
The largest total length of adult fishes collected by authors.	109 mm	124 mm	145 mm

The head length and barbel are relatively large in both *Pseudopungtungia nigra* and *Pungtungia herzi*, but *Pseudopungtungia tenuicorpus* has a short head and very small barbels. In the total length composition, *Pseudopungtungia tenuicorpus* seems to be relatively smaller in the ratio of body size compared to that of

Pseudopungtungia nigra and *Pungtungia herzi* (Table 3). In most cases, the body size of *Pseudopungtungia tenuicorpus* was from 60 to 80 mm in adult fishes and the largest size was 109 mm in its total length.

Etymology: From Latin, *tenuis* (slender) *corpus* (body) refer to the characteristic slender body of the new species.

SUMMARY

A new species of Cyprinid fish, *Pseudopungtungia tenuicorpus* is described, based upon many specimens collected from several tributaries of the Han River situated in the central part of Korea. This species is distributed in the Han River and characterized by the distinctive body proportionals.

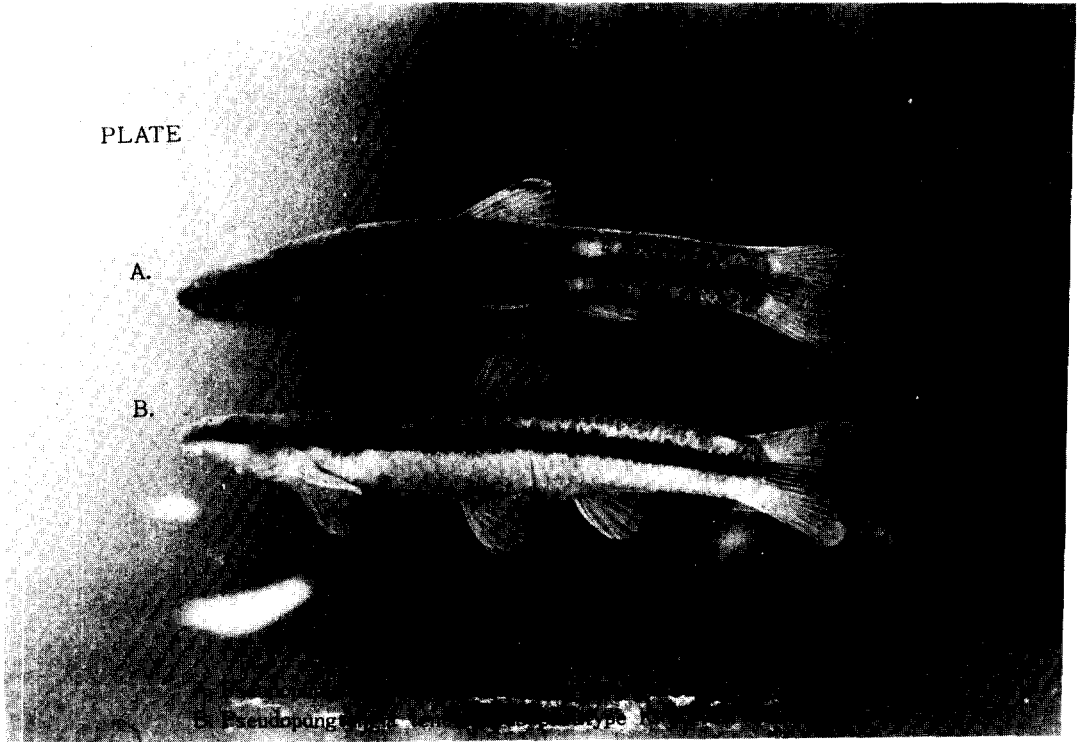
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PLATE

A.

B.



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