

Taxonomical Evaluation of Two Varieties of *Perinereis nuntia*: *P. nuntia* var. *vallata* (Grube 1857) and *P. nuntia* var. *brevicirris* (Grube 1857)

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*Perinereis nuntia*의 2變種의 分類에 關한 研究

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*Perinereis nuntia*의 2變種인 *P. nuntia* var. *vallata*와 *P. nuntia* var. *brevicirris*는 1818年 Savigny가 *Lycor nuntia*로 報告한 種中 1857年 Grube에 依해 吻部의 第5區域에 하나의 小齒를 갖고 第7~8區域에 規則的인 3列의 小齒를 갖는 것을 *L. nuntia* var. *vallata*로 第5區域에 三角形의 小齒가 있고 第7~8區域에 不規則的인 3列의 小齒를 갖는 것을 *L. nuntia* var. *brevicirris*로 나누어 報告되고 屬名으로는 1866年에 Kinberg가 提示한 *Perinereis*가 適用된 以來 오늘에 이르고 있다.

韓國에서는 筆者(1972)에 依해 *P. nuntia* var. *vallata*(한점해안 갯지렁이)와 *P. nuntia* var. *brevicirris*(세점해안갯지렁이)가 報告된 바 있다. 그러나, 忠武와 七川島의 潮干帶에서 採集된 標本을 材料로 하여 分類의 基準이 되는 小齒의 數와 排列狀態를 정리한 結果, 既存 2變種은 中間變異集團으로 密接하게 連結되어 있는 것 중의 一部이기 때문에 變異幅이 混沌된 變異集團의 크기 속에 內包된 狀態이다. 이와같은 部分的인 變異를 바탕으로 하여 種群以下 分類群의 序列을 認定한다는 것은 系統分類學上 分類秩序의 혼돈을 招來시키는 것으로 看做하고 筆者는 갯지렁이科(Nereidae)해 안갯지렁이屬(*Perinereis*)의 2變種 모두를 *Perinereis nuntia* (Savigny, 1818), 눈섭해안갯지렁이의 同物異名으로하여 報告하는 것입니다.

INTRODUCTION

Grube(1857) established two varieties of *Perinereis nuntia*: *P. nuntia* var. *vallata* and *P. nuntia* var. *brevicirris*, on the basis of number of paragnaths and its arrangements on the proboscis.

In Korean waters Paik(1972) adapted the variety of *P. nuntia*(fig. 1). About this species Imajima(1972) reported the cooccurrence of the two varieties.

The purpose of present study is to review the previous works shown below in regards to their morphological features of taxonomical importance

Perinereis Kinberg, 1866 *Lycoris nuntia* Savigny, 1818

L. nuntia var. *vallata* Grube, 1857
P. nuntia var. *vallata*: Fauve, 1932
; Knox, 1951
; Chlebovitsch & Wu, 1962;
; Day, 1967
; Imajima, 1972,
; Paik, 1972.

L. nuntia var. *brevicirris* Grube, 1857
Nereis mictodonta Marenzeller, 1879; Izuka, 1912
P. nuntia var. *brevicirris*: Fauvel, 1932; Okuda,
1938; Knox, 1951; Okuda & Yamada, 1954;
Chlebovitsch & Wn, 1962
P. brevicirris: Imajima and Hartman, 1964
P. nuntia var. *brevicirris*: Imajima, 1972; Paik, 1972.

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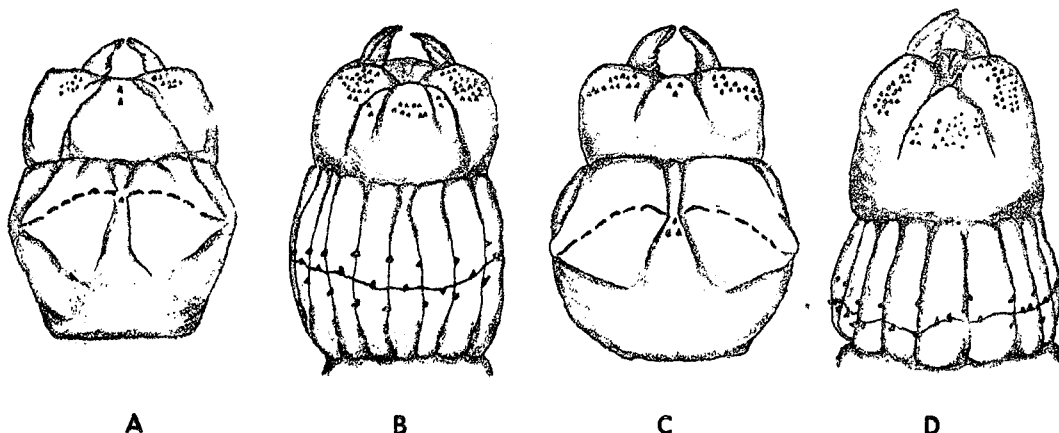


Fig. 1. *Perinereis nuntia* var. *vallata*(Grube); a, proboscis showing paragnaths in dorsal view; b, the same in ventral view. *Perinereis nuntia* var. *brevicirris*(Grube); c, proboscis showing paragnaths, in dorsal view; d, the same, in ventral view.

based on the number and arrangement of paragnaths from a number of specimens collected from Korean waters, suggesting that the two varieties be no more valid.

MATERIALS

The specimens of *P. nuntia* were collected on the tidal flat in Chungmu(34°50'N 128°25'E) and Chilcheondo(35°00'N 128°41'E) on the southern coast of Korea.

RESULTS

The number of paragnath in area V and their arrangement patterns in areas VII and VIII are so much inconsistent that it was difficult to classify them into two varieties of *P. nuntia*. According to the combinations of the number of paragnaths and their arrangement, the specimens can be separated into 19 arbitrary groups (fig. 2.). In regards to these other morphological features are checked, however, no significant difference has been found between these groups.

DISCUSSION

Grube(1857) established *P. nuntia* var. *vallata* and *P. nuntia* var. *brevicirris* based on the number of paragnaths and its arrangement patterns. The former variety bears one paragnath on the area V and three rows of alternating paragnaths on the areas VII and VIII. While, the latter variety bears three paragnaths and three rows of irregular paragnaths on the areas VII and VIII. However, the number of paragnath ranges from 1 to 6, and one specimen bears no paragnath at all. Also there is no consistency in the occurrence of the number of the paragnaths and their arrangement pattern.

If we admit validity of the varieties of *p. nuntia*, more varieties should be admitted base on the 19 groups of their morphological discrepancies. Nevertheless no difference of taxonomical importance are found to support the validity of the varieties of *Perinereis nuntia*.

It is suggest that the two varieties of *P. nuntia* is no longer valid, and thus they are synonym of *P. nuntia* (Savigny, 1818).

Groups	Number of paragnath		Number of specimen	
	Areas of proboscis		Locality	
	V.	VII-VIII	Chungmu	Chilcheondo
A ¹⁾	•	3 A ³⁾	1	19
B	•	3 I ⁴⁾	0	41
C	•	2 A	0	11
D	:	3 A	0	5
E	:	3 I	5	31
F	:	2 A	0	4
G	:	4 I	1	0
H	::	3 A	3	9
I ²⁾	::	3 I	81	27
J	::	4 I	1	0
K	...	3 A	1	2
L	...	3 I	5	0
M	:	3 I	1	3
N	::	3 A	0	3
O	::	3 I	1	3
P	::	3 A	0	1
Q	::	3 I	0	3
R	:::	3 I	0	1
S		3 I	0	1

1) *Perinereis nuntia* var. *vallata*

2) *Perinereis nuntia* var. *brevicirris*

3) alternating row 4) irregular row

Fig. 2. Morphological conditions of 19 arbitrary groups and number of specimens which were collected in the Chungmu and Chilcheondo.

SUMMARY

Taxonomical evaluation of *P. nuntia* var. *vallata* and *P. nuntia* var. *brevicirris* Grube was checked.

On the basis of the number of paragnaths and its arrangement pattern it is suggested that these two varieties are no longer valid, and they are synonym of *Perinereis nuntia* (Savigny, 1818).

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