

โครงการหนึ่งอาจารย์หนึ่งผลงาน ประจำปี 2547

ชื่อโครงการ

"การตีพิมพ์และเผยแพร่งานวิจัยในการประชุมวิชาการ
ระดับชาติหรือนานาชาติหรือในวารสารวิชาการระดับชาติ
หรือนานาชาติ"

ผู้ช่วยศาสตราจารย์ ดร. พาณี วรรณนิติกุล
สาขาวิชาชีววิทยา สำนักวิชาวิทยาศาสตร์
มหาวิทยาลัยเทคโนโลยีสุรนารี

Poster Presentation

Sagitta Morphology of *Channa* spp. from Southern Area of Thailand

Porn-uma Krainara^{1*} and Panee Wunnitikul²

¹ Environmental Biology Program, School of Biology, Institute of Science, Suranaree University of Technology, Nakhon Ratchasima, 30000, Thailand

* Corresponding author, e-mail: d4410096@ccs.sut.ac.th

² School of Biology, Institute of Science, Suranaree University of Technology, Nakhon Ratchasima, 30000, Thailand. e-mail: panee@ccs.sut.ac.th

Channa are freshwater fish in order Perciformes, family Channidae, which distribute in tropical Africa and Asia. Sagittae or earstones of fish have been used for identification of fish family and species from 1960s until present. The main objective of this study is to investigate sagitta morphology of 4 species of *Channa* (*C. limbata*, *C. lucius*, *C. micropeltes* and *C. striata*) from southern area of Thailand, in order to use as a tool for examination and identification of fish species from recovered otoliths in stomach contents of piscivorous predators, fish carrions and archaeological fossils. The sagittae from 4 species of *Channa* show five different characters, i.e. shape, sculpturing margin, excisura, ostium and cauda (Fig. 1-4). The similarity of sagitta morphology of these fish is sulcus type, ostial and heterosulcoid, however, the ostium and cauda of sulcus of these sagittae are clearly different. The results of this work reveal that sagitta of freshwater fish is species-specific morphology. Therefore, it will be a new method to use sagitta morphology for identification of Thai freshwater fish. Moreover, sagittal otoliths of fish will be a source of information for studies, in the future, on the entire lifetime of each species such as growth rate, age, population and environment.

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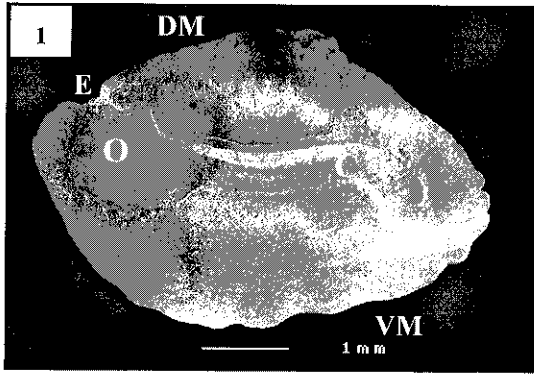


Fig. 1 Sagitta of *Channa limbata*,
bar = 1 mm.

Shape: oval

Sculpturing margin:

Dorsal margin (DM): sinuate

Ventral margin (VM): lobed

Excisura (E): wide moderately and shallow notched

Ostium (O): oval and depressed end

Cauda (C): straight then leaned down at posterior

Fig. 2 Sagitta of *Channa lucius*,
bar = 1 mm.

Shape: ovate

Sculpturing margin:

Dorsal margin (DM): crenate

Ventral margin (VM): sinuate

Excisura (E): wide and shallow

Ostium (O): rhomboidal

Cauda (C): straight then slightly flexed at posterior

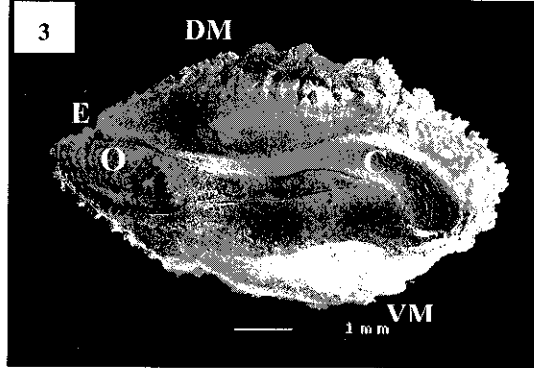
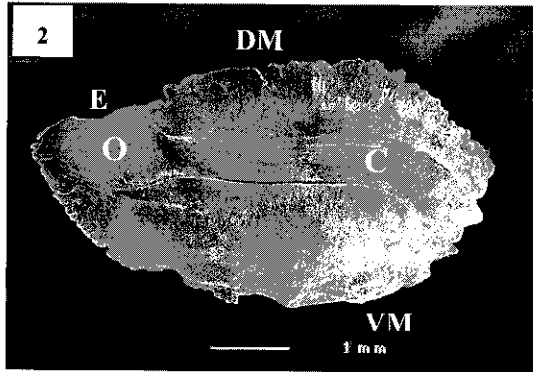


Fig. 3 Sagitta of *Channa micropeltes*,
bar = 1 mm.

Shape: elliptic

Sculpturing margin:

Dorsal margin (DM): dentate

Ventral margin (VM): serrate

Excisura (E): narrow and shallow notched

Ostium (O): tear-drop

Cauda (C): slightly curved up then strongly flexed at posterior and rounded tip

Fig. 4 Sagitta of *Channa striata*,
bar = 1 mm.

Shape: oblong

Sculpturing margin:

Dorsal margin (DM): crenate

Ventral margin (VM): crenate

Excisura (E): narrow and notched acute angle

Ostium (O): oblong

Cauda (C): straight then flexed in posterior and angle tip

