廖正信 教授 沿近海漁業研究室

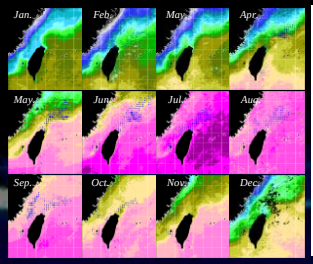
學　　歷：國立台灣海洋大學 漁業科學學系 理學博士

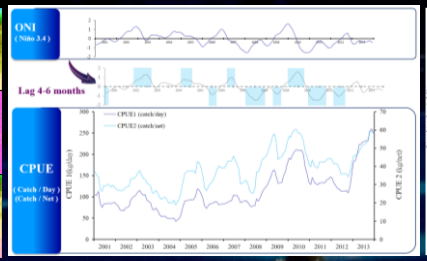
經　　歷：國立臺灣海洋大學 環境生物與漁業科學系 主任
國立臺灣海洋大學 研究發展處 研究船船務中心 主任
國立台灣海洋大學 環境生物與漁業科學學系 副教授
國立台灣海洋大學 環境生物與漁業科學學系 助教

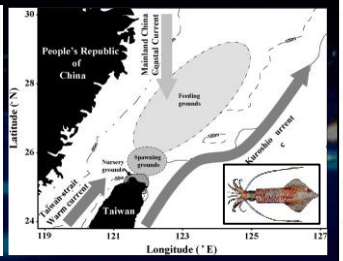
研究領域：漁業科學、海洋學、環境生物學、海洋環境保全

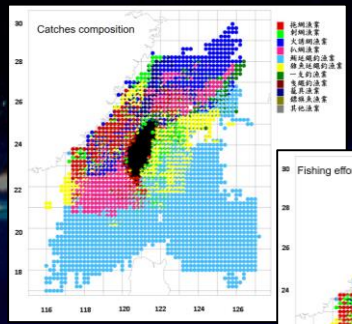
研究內容：

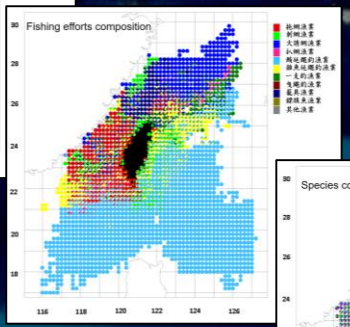
- 主要針對台灣沿近海燈火漁業之漁海況變動特性，以及燈火漁業主要漁獲物種「鎖管」之年齡成長、生殖生物學與族群動態等漁業生物學進行研究。
- 近年來，亦大規模收集臺灣沿近海作業漁船之卸魚查報資料，同時結合漁船航程記錄器(Voyage Data Recorder，VDR)之船位動態資訊，以解析臺灣沿近海重要漁業活動之時空分布結構，以及其作業漁場與主要漁獲物種之漁海況變動特性，並藉以做為臺灣沿近海漁業管理政策之基礎資料。

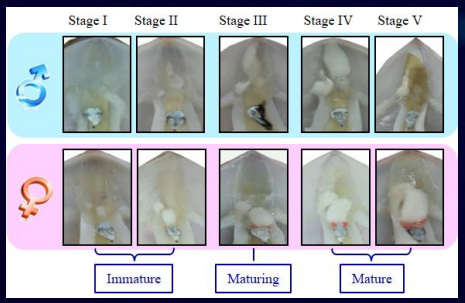


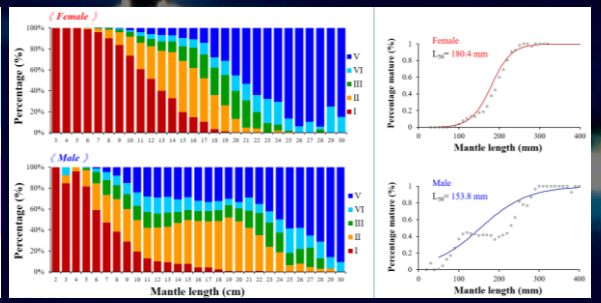


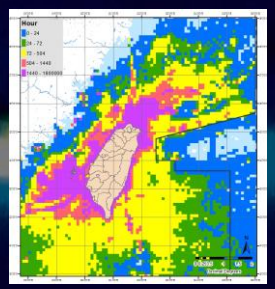


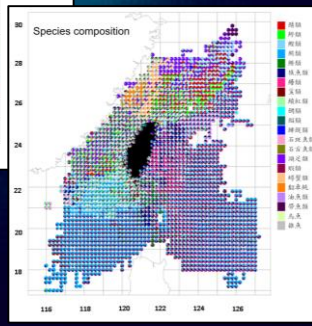












Cheng-Hsin Liao, Professor

Laboratory of Coastal Fisheries Research

Education :

- Department of Fishery Science, National Taiwan Ocean University (Ph.D.)

Professional experience :

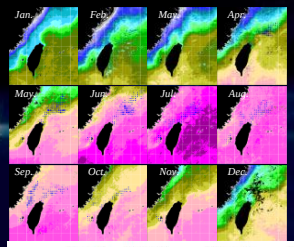
- Chairman, Department of Environmental Biology and Fisheries Science, NTOU
- Director, Center for Research Vessel Management, NTOU
- Associate Professor., Department of Environmental Biology and Fisheries Science, NTOU
- Assistant Teacher, Department of Environmental Biology and Fisheries Science, NTOU

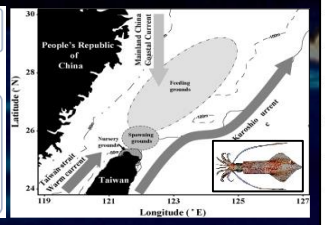
Expertise :

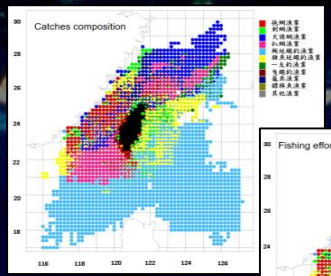
Fisheries Science, Oceanography, Environmental Biology, Conservation of Marine Environment

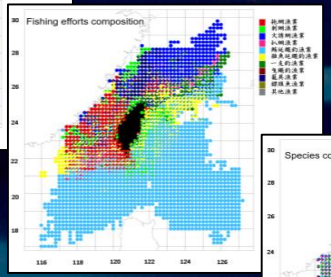
Research interest :

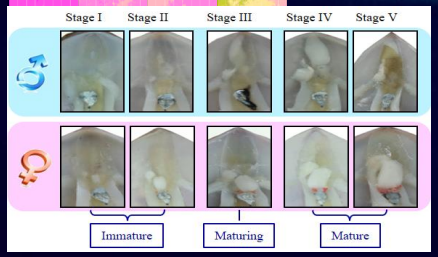
- The major research theme of our lab is to explore fishing conditions of coastal fisheries in the water off Taiwan in relation to oceanic condition with particular emphasis on loliginidae squids, one of major targeted species for lighted fisheries. Fishery biology of loliginidae squids are investigated in many aspects, including age and growth, reproductive biology, and population dynamics.
- Recently, we also start to collect a large amount of catch landing data and further integrate them with dynamic fishing vessels position data sourced from Voyage Data Recorder. These data can be used to analyze spatial and temporal distribution of coastal fisheries activities in the water off Taiwan, including dynamic characteristics of the fishing and oceanic conditions, fishing grounds and target species for coastal fisheries in Taiwan. These results are expected to provide fundamental information for decision-making and management of coastal fisheries in Taiwan.

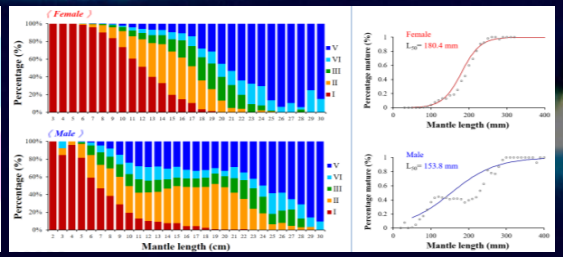


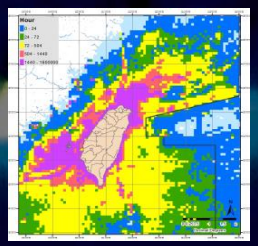


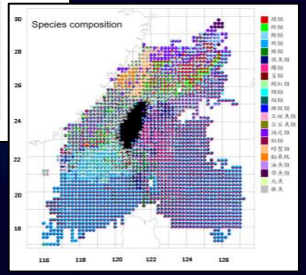












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Journal of *Marine Science and Engineering*

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Article

Application of Métier-Based Approaches for Spatial Planning and Management: A Case Study on a Mixed Trawl Fishery in Taiwan

Yi-Jou Lee [1], Nan-Jay Su [1,2,3], Hung-Tai Lee [1], William Wei-Yuan Hsu [4] and Cheng-Hsin Liao [1,2,*]

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屬性導向法於漁業空間管理之應用-以臺灣拖網漁業為例

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2. 國立臺灣海洋大學海洋中心
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重要研究成果

- 拖網漁業之漁獲物種多樣性高，且隨季節漁獲目標魚種之不同，衍生多種漁撈策略。本研究以屬性導向法解析沿近海域拖網漁獲紀錄資料，共歸納出18種漁撈物種組成型態(漁撈屬性)，除可提供不同目標魚種的漁期與捕撈漁法特性外，並於結合漁船活動航跡後，亦可有效掌握拖網主要目標魚種資源的熱點漁場分布資訊。
- 本研究透過切分漁業的屬性資料群，除有助於掌握拖網漁撈活動策略外，亦可做為多漁獲與多漁撈型態拖網，在漁業管理上提供更精確的資訊。

Table 3. Catch métier characteristics by fishing season and the main fishing gear, from the results of two-step clustering analysis. The fishing season is presented as the frequency of the trips in each catch métier. The trip percentage (%) indicates the main fishing gear used for the trawl fishery.

Cluster and Catch Métier	Fishing Season (Month) Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Fishing Gear (Trips %) OT	PT	LA	ST	SKT	TMT
Cluster I													**85.2**	14.0	0.6	0.2	-	-
Japanese Jack Mackerel																		
Cluster II													**88.0**	2.4	-	9.6	0.1	-
Neritic Squid																		
Cluster III													21.2	**77.0**	0.6	0.2	0.8	0.1
Hairtails																		
Cluster IV													59.9	11.4	16.7	11.9	0.0	-
Larval Anchovy													0.3	2.5	**97.2**	-	-	-
Black Croaker													**99.1**	0.7	-	0.2	0.1	-
Pacific Rudderfish													**93.5**	6.3	-	0.2	-	-
Red Bigeye													**97.6**	2.3	-	0.1	-	-
Crabs													12.7	0.4	-	**86.9**	-	-
Misc._1													**71.3**	18.9	0.4	9.4	-	-
Cluster V													31.1	1.0	-	33.7	22.0	12.5
Shrimps													**48.5**	0.8	-	**48.0**	2.6	0.2
Thick-Shell Shrimp													**32.5**	2.6	-	**59.4**	5.5	-
Spear Shrimp													**53.4**	0.1	-	**46.6**	-	-
Taiwan Mauxia Shrimp													3.0	1.1	-	-	0.1	**95.9**
Sakura Shrimp													4.7	0.1	-	-	**95.2**	0.1
Cluster VI													54.9	9.2	0.1	7.2	28.3	0.1
Sakura Shrimp_2													13.3	5.2	-	-	**81.5**	-
Lizardfishes													**88.3**	6.3	0.5	4.8	0.1	0.1
Misc._2													**55.6**	15.8	0.3	27.7	0.5	0.2
Misc._3													**70.2**	9.9	-	3.4	16.2	0.2

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remote sensing

MDPI

Article

Association of Environmental Factors in the Taiwan Strait with Distributions and Habitat Characteristics of Three Swimming Crabs

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台灣海峽三種梭子蟹科的分佈及棲地與環境因子間之關係

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2. 國立臺灣海洋大學海洋中心

重要研究成果

- 紅星梭子蟹(*Portunus sanguinolentus*)、鏽斑蟳(*Charybdis feriatus*)和遠海梭子蟹(*Portunus pelagicus*) 是台灣海峽重要的蟹類資源，本研究透過大數據漁船動態與漁業活動獲資料之收集與分析顯示，鏽斑蟳與紅星梭子蟹之分佈與捕獲率，主要受葉綠素a濃度所影響，而遠海梭子蟹則與底層海水溫度有顯著關係。
- 本研究結果除可做為臺灣梭子蟹科漁海況預報之資訊外，亦可做為梭子蟹科資源管理政策擬訂時之重要參考資料。

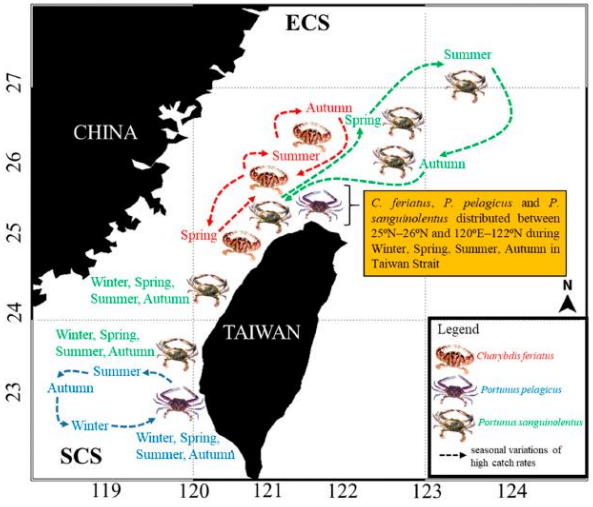

Figure 7. Illustration of the seasonal spatial distribution variations in high catch rates of *C. feriatus*, *P. pelagicus*, and *P. sanguinolentus* in the TS.