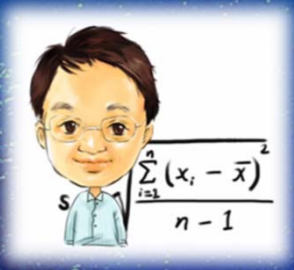
王勝平 教授　資源動態解析研究室

學　　歷：國立台灣大學 海洋研究所 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 環境生物與漁業科學系 教授
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 助理教授

研究領域：族群動態學、漁業生物學、統計學

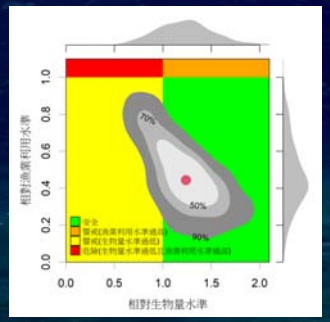


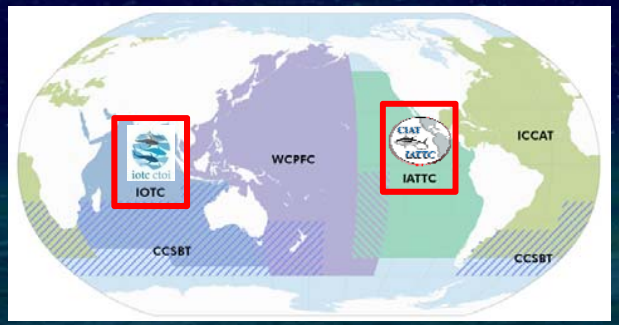
研究內容：

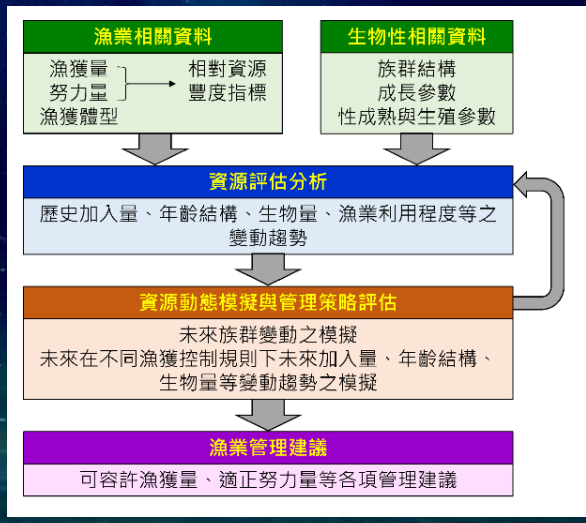
- 研究方向主要是在於漁業生物資源之族群動態與資源評估的研究，透過各項漁業統計資料及生物性調查研究資訊之匯整與分析，進而利用各種不同的數理模式並配合統計分析的方法進行資源量變動及漁業利用率之評估，以期能在合理的漁業開發下達到生物資源永續利用之目的。
- 另外也透過合作研究進行部分之漁業生物學的研究，例如魚類的年齡與成長研究、生殖生物學、攝食生態以及洄游移動行為等研究。

目前代表我國參與之國際漁業管理組織

- 印度洋鮪類委員會 (Indian Ocean Tuna Commission, IOTC)
- 美洲熱帶鮪魚委員會 (Inter-American Tropical Tuna Commission, IATTC)

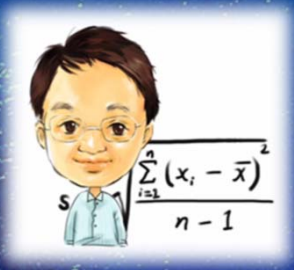






Sheng-Ping Wang, Professor

Laboratory of Population Dynamics



Education：
- Institute of Oceanography, National Taiwan University (Ph.D.)

Professional experience：
- Chairman, Department of Environmental Biology and Fisheries Science, NTOU
- Professor, Department of Environmental Biology and Fisheries Science, NTOU
- Associate Professor, Department of Environmental Biology and Fisheries Science, NTOU
- Assistant Professor, Department of Environmental Biology and Fisheries Science, NTOU

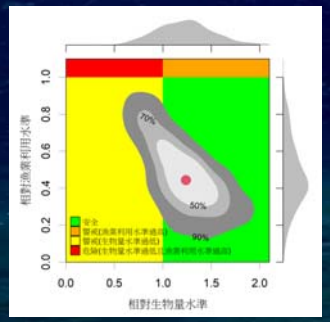
Expertise：
Population Dynamics, Fisheries Biology, Statistics

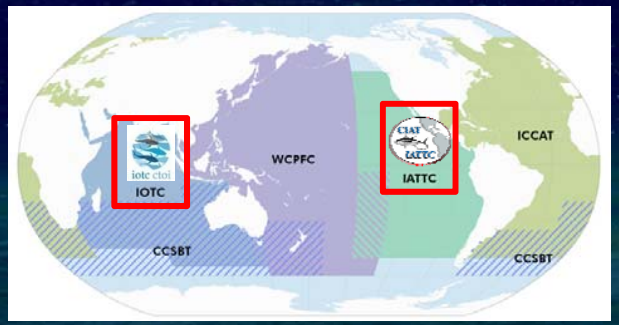
Research interests：

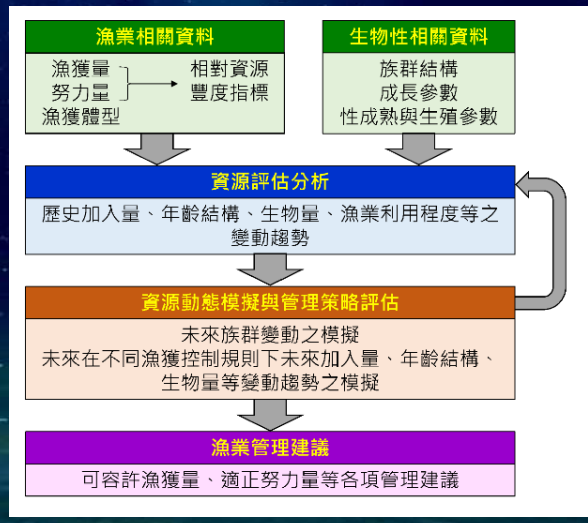
- The research interests of this lab mainly focus on population dynamics and stock assessments of fishery resources. To achieve the objective of sustainable fisheries under appropriate fisheries exploitation, the variations of biomass with the impacts of fishing operations are evaluated using various mathematical models and statistical analysis approaches based on the fisheries statistics data and the information of biological surveys and studies.
- In addition, parts of fisheries biology, such as age and growth, reproductive biology, diet ecology and migration and movement behaviors, are implemented through cooperation researches.

Regional fisheries management organizations involved representing Taiwan

- Indian Ocean Tuna Commission (IOTC)
- Inter-American Tropical Tuna Commission (IATTC)







Marine and Freshwater Behaviour and Physiology **2021**, 54, 1-11; doi: 10.1080/10236244.2020.1852878

MARINE AND FRESHWATER BEHAVIOUR AND PHYSIOLOGY
https://doi.org/10.1080/10236244.2020.1852878

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Vertical and horizontal movements of bigeye tuna (*Thunnus obesus*) in southeastern Taiwan

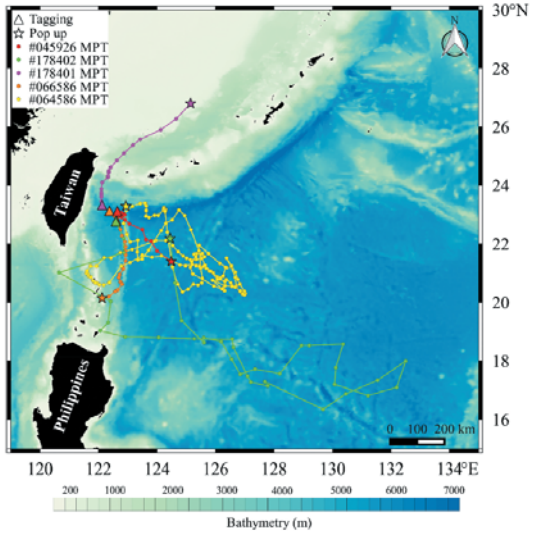
Shian-Jhong Lin[a,b], Michael K. Musyl[c], Wei-Chuan Chiang[a], Sheng-Ping Wang[b], Nan-Jay Su[b], Ching-Tsun Chang[a], Qi-Xuan Chang[a], Yuan-Shing Ho[a], Ryo Kawabe[d], Hsin-Ming Yeh[e] and Chen-Te Tseng[e]

[a]Eastern Marine Biology Research Center, Fisheries Research Institute, Taitung, Taitung; [b]Department of Environmental Biology and Fishery Science, National Taiwan Ocean University, Keelung, Taiwan; [c]Pelagic Research Group LLC, Honolulu, HI, USA; [d]Institute for East China Sea Research, Organization for Marine Science and Technology, Nagasaki University, Nagasaki, Japan; [e]Fisheries Research Institute, Keelung, Taiwan

臺灣東南海域大目鮪之垂直與水平移動

重要研究成果

- 為了解台灣東部大目的移動行為，本研究在5條魚體上結附彈出式衛星檔案標識器，並提供了完整的47天和132天之精細資料。
- 所記錄的最深下降深度為1,292m和最冷的棲地溫度為2.7°C。白天大部分時間都棲息在400m以上且溫10至25°C的水域，夜間則大多侷限於混合層表面至100m之水域。
- 白天穿越溫躍層的垂直運動是基於生理限制和/或有利於快速方向變化增加遭遇餌料生物機會的搜索策略，大目鮪似乎跟隨構成深聲散射層的餌料生物的垂直運動。



Regional Studies in Marine Science **2021**, 44, 101691; doi:10.1016/j.rsma.2021.101691

Regional Studies in Marine Science 44 (2021) 101691

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Regional Studies in Marine Science

journal homepage: www.elsevier.com/locate/rsma

Distribution patterns and relative abundance of shortfin mako shark caught by the Taiwanese large-scale longline fishery in the Indian Ocean

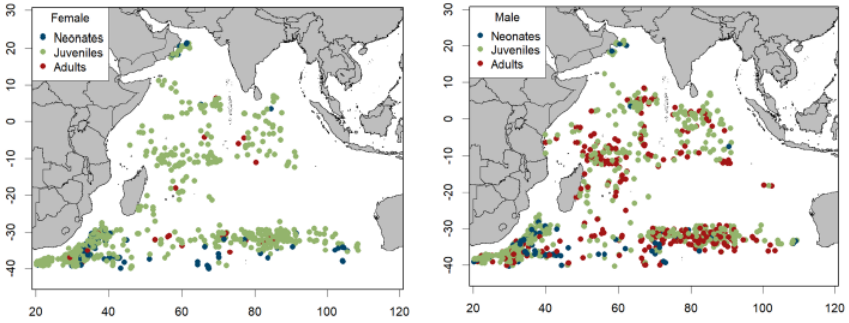
Xing-Han Wu [a], Shang Yin Vanson Liu [c], Sheng-Ping Wang [d], Wen-Pei Tsai [b,*]

[a] National Sun Yat-sen University, Department of Oceanography, Kaohsiung, Taiwan
[b] National Kaohsiung University of Science and Technology, Department of Fisheries Production and Management, Kaohsiung, Taiwan
[c] National Sun Yat-sen University, Department of Marin Biotechnology and Resources, Kaohsiung, Taiwan
[d] Department of Environmental Biology and Fisheries Science, National Taiwan Ocean University, Keelung, Taiwan

台灣印度洋大型延繩釣漁業之灰鯖鮫分布與相對豐度

重要研究成果

- 本研究採用2005-2018年期間的觀察員記錄和漁業作業日誌資料估計印度洋灰鯖鮫的分布和相對豐度指數。為了處理大量零漁獲記錄 (90%)，單位努力捕撈量 (CPUE) 使用零膨脹負二項式模型 (ZINB) 進行標準化。聚類分析用於判別與不同目標魚種之作業漁撈策略，並將與目標物種相關的因素納入ZINB。
- 印度洋不同地區和季節之體型大小分佈存在相當大的差異，較大的灰鯖鯊（雌性和雄性分別年齡 >15 歲和年齡>7 歲）通常出現在赤道和熱帶地區，而較小的樣本則出現在溫帶水域的高緯度地區。
- 台灣延繩釣漁業所漁獲之灰鯖鮫標準化相對資源豐度近年來呈穩定上升趨勢。



Sustainability **2021**, 12, 5793; doi:10.3390/su12145793

sustainability

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Article

Movements and Habitat Use of Dolphinfish (*Coryphaena hippurus*) in the East China Sea

Shian-Jhong Lin [1,2], Wei-Chuan Chiang [1,*], Michael K. Musyl [3], Sheng-Ping Wang [2], Nan-Jay Su [2], Qi-Xuan Chang [1], Yuan-Shing Ho [1], Itsumi Nakamura [4], Chen-Te Tseng [5] and Ryo Kawabe [4]

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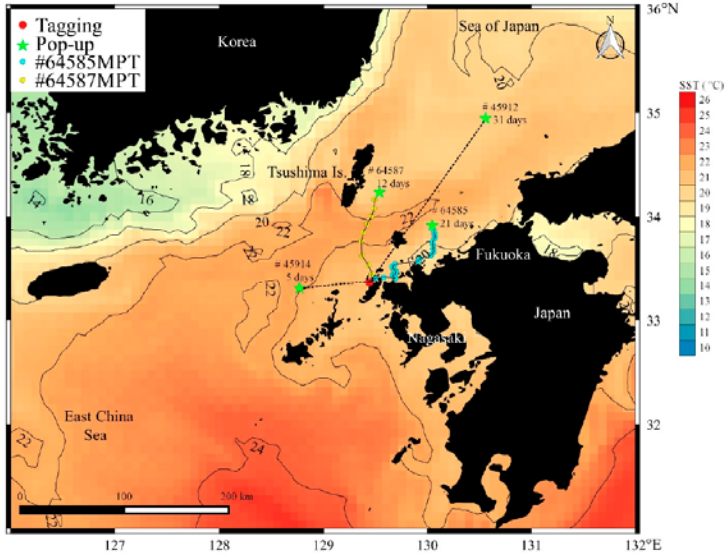
東海海域鬼頭刀之移動與棲地利用

重要研究成果

- 本研究於東海北部海域之鬼頭刀魚體結附了彈出式衛星檔案標識器，以記錄該物種在該水域之運動模式和棲息地利用情況。
- 標識樣本主要向北移動，到達約94 m的深度，且環境溫度為17.8 至 23度C的水域。
- 運動似乎受到相對於海面溫度(SST)的3度C變化的限制，並且僅限於混合層。
- 白天在表水層附近棲息時間超過80%，夜間則為40%，垂直移動模式在黎明和黃昏期間顯示出明顯的變化。



Fisheries Management and Ecology **2020**, 27, 345-356; doi: 10.1111/fme.12417

ORIGINAL ARTICLE

Fisheries Management and Ecology WILEY

Ecological risk assessment of species impacted by fisheries in waters off eastern Taiwan

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Funding information
Ministry of Science and Technology, Taiwan, Grant/Award Number: MOST 105-2611-M-019-004 and MOST 106-2611-M-019-005

Abstract

An ecological risk assessment was undertaken using productivity-susceptibility analysis (PSA) to determine the relative vulnerability of 52 species caught by fisheries in the waters off eastern Taiwan. Overall, eight and 20 species were classified as having high and moderate vulnerability, respectively, and the remaining 24 species were classified as having low vulnerability. The species with the highest vulnerability scores were caught mainly by longline and gillnet fisheries, highlighting the need for improved data collection to facilitate a more detailed investigation using more quantitative methods. The data quality analysis indicated that the quality of data was classified as "moderate" for economically important species. However, many species were considered data-limited and thus collecting high-resolution catch and effort information and conducting biological studies, especially relating to age, growth and reproduction, are recommended to improve the reliability of outputs from data-limited assessments such as PSA.

KEYWORDS

data quality, management, productivity-susceptibility analysis, semi-quantitative analysis, sustainability, vulnerability

臺灣東部海域漁業影響之生態風險評估

重要研究成果

- 本研究使用生產力敏感性分析(PSA)進行生態風險評估，以確定台灣東部海域漁業捕獲的52個物種的相對脆弱性。
- 總體而言，8個和20個物種分別被歸類為高度和中度脆弱性，其餘24個物種被歸類為低脆弱性。
- 脆弱性得分最高的物種主要由延繩釣和刺網漁業捕獲，需要改進資料收集以促使用更多定量方法進行更詳細的調查
- 建議收集高解析度的獵獲量和努力量資料並進行生物學研究，特別是與年齡、生長和生殖相關之研究，以提高資料受限評估分析的可靠性。