



# Fisheries Environments and Ecophysiology Laboratory

Group Leader: Dr. Hung-Tai Lee (Email: [htlee@ntou.edu.tw](mailto:htlee@ntou.edu.tw))



## Education

- Ph.D., University of St Andrews
- B.Sc., National Taiwan Ocean University
- M.Sc., National Taiwan Ocean University

## Expertise

- Fish Physiology and Ecology
- Fry Release and its Benefit Assessment
- Application of Next Generation Sequencing in Fisheries

## Research interest

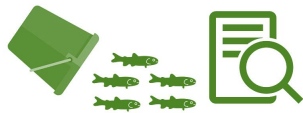
Our lab mainly focus on Ecophysiology and Next-Generation Sequencing (NGS)-based Studies on Biodiversity and Conservation in Fisheries with emphasis on Sustainable Utilization of Fisheries Resources subjected to environmental changes. Currently, we are particularly interested in three research themes covering 6 topics as the follows:



### **Diversity of Fish Physiology, Behavior, and Ecology**

Topic 1: Fish muscles and their responses to environmental changes

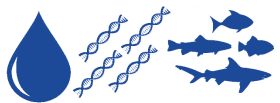
Topic 2: Specialized muscles and their ecological and fisheries significances



### **Hatchery Fry Release and its Benefit Assessment**

Topic 3 : Large-scale identification of hatchery-produced species in the wild

Topic 4 : Mechanism underlying the acclimation of hatchery fingerling in the wild



### **Toward Precise Survey and Utilization of Fisheries Resources**

Topic 5 : eDNA as fingerprints to trace the species composition of fisheries landings

Topic 6 : DNA metabarcoding of species composition in seafood



# 漁業環境與生態生理學研究室

實驗室主持人: 李宏泰 博士 (Email: [hlee@ntou.edu.tw](mailto:hlee@ntou.edu.tw))



## 學歷

- 英國聖安德魯斯大學生物系博士
- 國立臺灣海洋大學環境生物與漁業科學系碩士
- 國立臺灣海洋大學環境生物與漁業科學系學士

## 專長

- 魚類生理學、魚類生態學
- 放流效益評估
- 次世代定序漁業應用

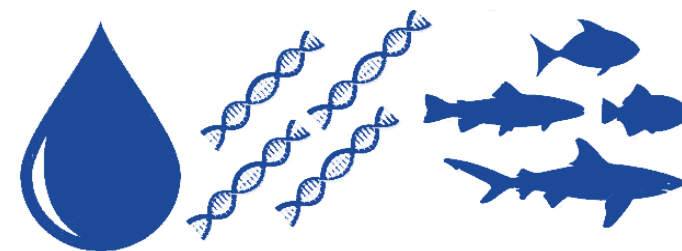
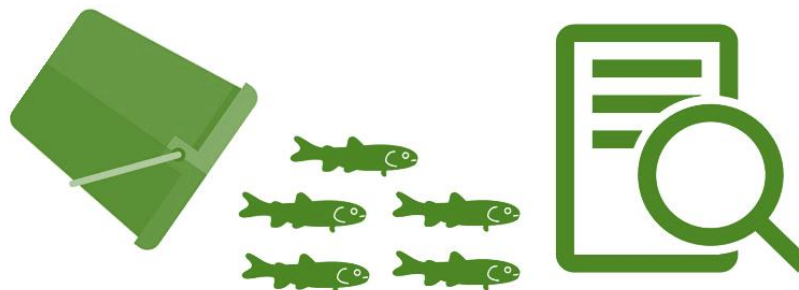
## 研究方向

本研究室主要是以生態生理學與次世代定序來探討漁業多樣性與保育，特別著重環境變遷下漁業資源的永續利用。目前對於以下的3項研究主題所涵蓋的6個研究課題特別感到興趣：

1. 魚類生理、行為及生態的多樣性

2. 種苗放流效益評估

3. 精準化漁業資源調查及利用



- 魚類肌肉特性及環境變遷的反應
- 魚類特化肌肉特性及生態與漁業上重要性

- 大規模鑑別野外環境中來自放流物種
- 放流種苗於野外環境適應機制

- 環境DNA作為監測漁獲物種組成指紋
- 高通量分子條碼鑑別海鮮物種組成