

## Curriculum Vitae

### Personal data:

Name: HSU, Te-Hua (徐 德華)  
 Citizenship: Taiwan  
 Birth Details: 1984  
 Work Address: Department of Aquaculture  
 National Taiwan Ocean University  
 Keelung 20224, Taiwan

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### Education:

Ph.D. National Taiwan Ocean University Department of Aquaculture 2009-2014  
 M.S. National Taiwan Ocean University Department of Aquaculture 2007-2009  
 B.S. National Taiwan Ocean University Department of Aquaculture 2003-2007

### Experience:

2004-2005	President	Aquarium club, National Taiwan Ocean University, Keelung, Taiwan
2003-2005	Assistant	National Museum of Marine Science and Technology (NMMST) - Provisional Office, Keelung, Taiwan
2005-2008	Adviser	Aquarium club, National Taiwan Ocean University, Keelung, Taiwan
2006	Exchange Student	Fisheries College, Jimei University, Xiamen, China
2008-2009	Exchange Student	The University of Tokyo, Tokyo, Japan
2011	Invited Researcher	Fisheries Research Institute of Fujian, Xiamen, China
2012	Research Fellowship	University of Tasmania, Australia
2012	Program designer	Oceanus Group Limited (Abalone farm in China)
2013-present	founder	Private hatchery for bivalve in Taiwan (Aquaculture)
2014-present	Project-Appointed Assistant Researcher	National Taiwan Ocean University

### Research Interest:

Genetic management of aquatic organisms by using molecular markers - (1) Natural Resources : Taxonomy, Molecular identification, Population genetics and Phylogeny. (2) Aquaculture : Breeding and Cryopreservation.

- ① *Oncorhynchus formosanus* (Formosa landlocked salmon)  
 - Freshwater fish, Endangered, [Conservation Genetics](#)
- ② Genus *Acanthopagrus* (Black seabream)  
 - Marine fish, Cultured & economic, [Species Identification & Phylogeny](#)
- ③ *Siganus fuscescens* (Rabbit fish)  
 - Marine fish, Cultured & economic, [Taxonomy & Population Genetics](#)
- ④ *Haliotis diversicolor* (Small abalone)  
 - Marine shellfish, Cultured & economic, [Stock Identification & Population Genetics](#)
- ⑤ *Sipunculus nudus* (Peanut worm)  
 - Marine Invertebrate, Cultured & economic, [Cryptic & Genetic Diversity](#)
- ⑥ Genus *Corbicula* (Asian clam)  
 - Freshwater shellfish, Cultured & economic, [Breeding & Genetic Diversity](#)



## Publications:

### **(A) SCI Journal Papers (ISI Journal Citation Reports © 2011)**

1. GWO, J.-C., **HSU, T.-H.**, LIN, K.-H. and CHOU, Y.-C. 2008. Genetic relationship among four subspecies of cherry salmon (*Oncorhynchus masou*) inferred using AFLP. *Molecular Phylogenetics and Evolution* 48:776-781. (IF=4.066, Category: Genetics & Heredity, Ranking: 40/161, Q1)
2. **HSU, T.-H.**, LIN, K.-H. and GWO, J.-C. 2008. Genetic integrity of black sea bream (*Acanthopagrus schlegelii*) sperm following cryopreservation? *Journal of Applied Ichthyology* 24:456-459. (IF=0.902, Category: Fisheries, Ranking: 32/49, Q3)
3. **HSU, T.-H.**, WANG, Z.-Y., TAKATA K., ONOZATO, H., HARA, T. and GWO, J.-C. 2010. Use of microsatellite DNA and AFLP for cherry salmon (*Oncorhynchus masou*) complex identification. *Aquaculture Research* 41:e316-e325. (IF=1.422, Category: Fisheries, Ranking: 23/49, Q2)
4. **HSU, T.-H.** and GWO, J.-C. 2010. A rapid PCR-based method for sex identification of critically endangered Formosa landlocked salmon and cherry salmon complex. *Fisheries Science* 76:613-618. (IF=0.897, Category: Fisheries, Ranking: 33/49, Q3)
5. **HSU, T.-H.**, ADIPUTRA, Y. T., OHTA, H. and GWO, J.-C. 2011. Species and sex identification of critically endangered Formosa landlocked salmon by loop-mediated isothermal amplification. *Molecular Ecology Resources* 11:802-807. (IF=7.432, Category: Evolutionary Biology, Ranking: 7/136, Q1)
6. **HSU, T.-H.**, GUILLEN MADRID, A.G., BURRIDGE, C. P., CHENG, H.-Y. and GWO, J.-C. 2011. Resolution of *Acanthopagrus* black seabream complex based on mitochondrial and AFLP analyses. *Journal of Fish Biology* 79:1182-1192. (IF=1.834, Category: Fisheries, Ranking: 14/49, Q2)
7. **HSU, T.-H.**, ADIPUTRA, Y. T., BURRIDGE, C. P. and GWO, J.-C. 2011. Two spinefoot colour morphs mottled spinefoot *Siganus fuscescens* and white-spotted spinefoot *Siganus canaliculatus* are synonyms. *Journal of Fish Biology* 79:1350-1355. (IF=1.834, Category: Fisheries, Ranking: 14/49, Q2)
8. **HSU, T.-H.**, GWO, J.-C. and LIN K.-H. 2012. Rapid sex identification of papaya (*Carica papaya* L.) using multiplex Loop-mediated isothermal amplification (mLAMP). *Planta* 236:1239-1246. (IF=3.347, Category: Plant Sciences, Ranking: 28/195, Q1)
9. **HSU, T.-H.**, NING, Y., GWO, J.-C. and ZENG, Z.-N. 2013. DNA barcoding reveals cryptic diversity in the peanut worm *Sipunculus nudus*. *Molecular Ecology Resources* 13:596-606. (IF=7.432, Category: Evolutionary Biology, Ranking: 7/136, Q1)

### **(B) Other Journal Papers**

#### **In English**

1. ADIPUTRA, Y. T., **HSU, T.-H.** and GWO, J.-C. 2009. Use of AFLP to reveal genetic variation and distinguish cultured Asian sea bass (*Lates calcarifer*) stocks. *Journal of International Cooperation* 4(2):101-112.
2. GWO, J.-C. and **HSU, T.-H.** 2010. Drastic Changes in the Genetic Feature of Endangered Formosa Landlocked Salmon (*Oncorhynchus masou formosanus*) during two Consecutive years. *National Taiwan Museum Special Publication No. 14*:149-163.
3. **HSU, T.-H.**, Ning, Y. and GWO, J.-C. 2014. AFLP-SSCP : A useful AFLP-based method for informative SNPs discovery in non-model organisms. *Advances in Biological Chemistry*. 4:376-381.

#### **In Chinese with English abstract**

4. **HSU, T.-H.** and GWO, J.-C. 2007. The genetic diversity of Formosa landlocked salmon (*Oncorhynchus masou formosanus*). *Journal of the National Taiwan Museum* 60(4):39-58.
5. **HSU, T.-H.**, NING, Y., WANG, Z.-Y., LEE, Y.-C., CHIOU, C.-C., LIN, K.-H. and GWO, J.-C. 2008. The utilization of molecular marker to identify wild and cultured black sea bream (*Acanthopagrus schlegelii*)-a preliminary study. *Journal of Ecology and Environmental Sciences* 1:31-46.
6. GWO, J.-C., WANG, Z.-Y., **HSU, T.-H.**, LIAO, L.-Y. and LIN, C. 2008. The genetic structure of the Formosa landlocked salmon (*Oncorhynchus masou formosanus*) in Taiwan. *Journal of National Park* 18(1):1-10.

7. **HSU, T.-H.**, CHANG, H.-M., CHANG, G.-L., NING, Y. and GWO, J.-C. 2010. Analysis of development potential of ivory shell (*Babylonia* spp.) industry in Taiwan. *Journal of the National Taiwan Museum* 63(2): 67-84.
8. **HSU, T.-H.** and GWO, J.-C. 2011. Conservation of Formosa landlocked salmon using loop-mediated isothermal amplification. *Journal of the National Taiwan Museum* 64(3): 1-14.
9. **HSU, T.-H.**, Chang Y.-C., Chang H.-M. and GWO, J.-C. 2011. Monitoring water temperature of small abalone intertidal poolfarming in the coastal waters of northeastern Taiwan. *Journal of the National Taiwan Museum* 65(1): 29-44.
10. NING, Y., WU, Q., **HSU, T.-H.**, GWO, J.-C., ZENG, Z. and LIN, X. 2012. Genetic structure and population differentiation of *Sipunculus nudus* in China based on sequence analyses of mitochondrial COI gene. *Journal of Fujian Fisheries* 34(2): 91-98.

**(C) International Conference Presentation**

1. **HSU, T.-H.**, LIN, K.-R. and GWO, J.-C. 2007. Genetic fidelity of black sea bream (*Acanthopagrus schlegelii*) sperm following cryopreservation. The 1<sup>st</sup> International Workshop on the Biology of Fish Sperm. 29-31 August, 2007, at Vodnany, Czech Republic. (Poster)
2. GWO, J.-C., **HSU, T.-H.**, LIN, K.-H. and CHOU, Y.-C. 2007. Genetic relationship among four subspecies of cherry salmon (*Oncorhynchus masou*) inferred using AFLP. Second International Barcode of Life Conference ° 17~20 September, 2007, at Taipei, Taiwan. (Poster)
3. **HSU, T.-H.**, TAKATA, K., ONOZATO, H., LIN, C. and GWO, J.-C. 2008. Use of microsatellite DNA and AFLP for cherry salmon (*Oncorhynchus masou*) complex identification. International Conference of Advanced Research on Marine Bioresources. 8-9 May, 2008, at Keelung, Taiwan. (Poster)
4. **HSU, T.-H.**, HUANG, Y.-S., CHEN, M.-L., CHOU, C.-C. and GWO, J.-C. 2008. What causes the skew sex ratio in wild endangered Formosa landlocked salmon (*Oncorhynchus masou formosanus*)? 5th Conference on Environmental Hormones and POPs. 5-6 December, 2008, at Taipei, Taiwan. (Poster)
5. **HSU, T.-H.**, ONOZATO, H., TAKATA, K. and GWO, J.-C. 2009. Comparison of AFLPs and microsatellites for resolving population genetic structure of endangered Formosa landlocked salmon (*Oncorhynchus masou formosanus*) in Taiwan. 8th IPFC and 2009 ASFB Workshop & Conference. 31 May-5 June, 2009, at Fremantle, Australia. (Oral)
6. **HSU, T.-H.**, GUILLEN MADRID, A.G. and GWO, J.-C. 2009. AFLPs congruent with sperm ultrastructure differentiation of black sea bream complex in Taiwan coastal waters. Second International Workshop on Biology of Fish Gametes. 9-11 September, 2009, at Valencia, Spain. (Oral)
7. **HSU, T.-H.** and GWO, J.-C. 2009. Application of sex marker in masu salmon conservation. International Symposium on Formosa Landlocked Salmon and Masu salmon. 23-26 October, 2009, at Taipei, Taiwan. (Oral)
8. **HSU, T.-H.**, ADIPUTRA, Y. T. and GWO, J.-C. 2010. AFLP-SSCP: A useful method for informative SNPs discovery in non-model organisms. Australasian Aquaculture 2010. 23-26 May, 2010, at Tasmania, Australia. (Oral)
9. GWO, J.-C. and **HSU, T.-H.** 2010. AFLPs congruent with sperm ultrastructure of black sea bream complex. 11th International Symposium on Spermatology. 24-29 June, 2010, at Okinawa, Japan. (Poster)
10. **HSU, T.-H.** and GWO, J.-C. 2010. Rapid and simple sex identification of critically endangered Formosa landlocked salmon by loop-mediated isothermal amplification. Reproductive Biology of Aquatic Organisms -researches from the tropical to temperate zone-. 30 June, 2010, at Okinawa, Japan. (Poster)
11. **HSU, T.-H.** and GWO, J.-C. 2008. Recent advances in conservation genetics of Formosa landlocked salmon. 第15回信州魚類研究会。8月2~3日。野辺山、日本。 (Japan, Oral)
12. **HSU, T.-H.**, ADIPUTRA, Y. T., GWO, J.-C., OHTA, H. and AKIMOTO, Y. 2011. Species and sex identification of Formosa landlocked salmon using loop-mediated isothermal amplification. 日本水産學會春季大會。3月27~31日。東京海洋大学品川キャンパス。東京、日本。 (Japan, Poster; Cancelled due to Tsunami)
13. **HSU, T.-H.**, NING, Y., GWO, J.-C. and ZENG, Z.-N. 2011. DNA barcoding reveals cryptic diversity in the peanut worm *Sipunculus nudus*. Fourth International Barcode of Life Conference. 28 November-3 December, 2011, at Adelaide, Australia. (Oral)
14. ZHOU, M.-H., CHANG, H.-M., **HSU, T.-H.** and GWO, J.-C. 2012. Genetic diversity and stock identification of small abalone

(*Haliotis diversicolor*). 8th International Abalone Symposium. 6-11 May, 2012, at Hobart, Australia. (Oral)

15. HSU, T.-H., GWO, J.-C., LETOUMEUR, Yves and BURRIDGE, C. P. 2013. Phylogenetic analysis and biogeographic history of nearshore fishes that increase in diversity when moving away from the East Indies Triangle (Sparidae: *Acanthopagrus*). 9th Indo-Pacific Fish Conference. 24-28 June, 2013, at Okinawa, Japan. (Oral)

**(D) Other publications**

1. 徐德華、郭金泉 2011. 我們曾經擁有什麼生物？究竟我們失去了什麼？12月19日立報看守台灣專欄。
2. 郭金泉、徐德華、林青、賴伯琦、周晉澄 2008 台灣(陸封)鮭魚起源的探究。大自然 101：92-97。
3. 徐德華、郭金泉 2013. 台灣沿岸魚類—黑鯛屬魚類家族的故事。台灣博物季刊 120：60~71。
4. 郭金泉、徐德華 2013. 台灣九孔產業的下一步？養魚世界。10月：31-38。