



THE  
**"LANCANG-  
 MEKONG  
 RICE-FISH"**  
 SCHOLARSHIP OF  
 SHANGHAI OCEAN  
 UNIVERSITY



SHOU

RICE-FISH

APPLY

S U P E R V I S O R



WWW.SHOU.EDU.CN



**College of International Cultural Exchange  
Shanghai Ocean University (SHOU)**

**Address:** 999 Hu Cheng Ring Road, Pudong  
New Area, Shanghai, China

**Telephone:** +86-21-6190-0763

**Email:** [admissions@shou.edu.cn](mailto:admissions@shou.edu.cn)

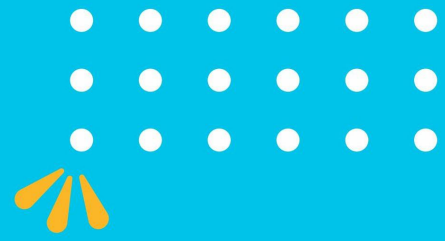


# SHANGHAI OCEAN UNIVERSITY - SHOU 01

Shanghai Ocean University (SHOU) is one of the center of rice-fish research and education. Rice-crab model (Panjin), Crab-rice model (Chongming) and rich-carp model (Qintian) models have been developed in Shanghai Ocean University and applied in many areas of China since then, which has made great economic and social success.



The College of International Cultural Exchange and the College of Fisheries and Life Science of SHOU established jointly the “Lancang-Mekong Rice-Fish” program. It is aimed to help in establishing local-adapted rice-fish models in Lancang-Mekong countries through collaboration, to mitigate poverty, provide food security, meet the nutrition demands of the locals, and to educate experts.



SHOU

RICE-FISH

APPLY

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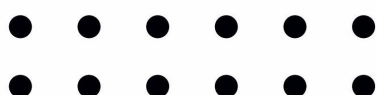




## 02 LANCANG - MEKONG RIVER

The Lancang-Mekong River is the third largest river of Asia. It flows through China, Myanmar, Laos, Thailand, Cambodia and Vietnam for 4,480 km, spanning a basin area of 795,000 km<sup>2</sup>. This region has nearly 326 million people, of which 230 million live in the five countries other than China, and many of them have underdeveloped rural area.

Rice is a main crop of this region and fish is the main source of protein for people living there. To carry out Rice-fish farming not only can secure the food safety and help to meet nutrition demands of local people, but also can help in increasing income and mitigating poverty in those area. Due to insufficient investment, technologies and not enough related experts, rice-fish model is developing slowly in those countries except for China.





## APPLICANT ELIGIBILITY

1. Applicant must be a national of Myanmar, Cambodia, Laos, Thailand or Vietnam and in good health.
2. Age and education background:  
Applicant applying for master degree programs should have a bachelor degree or above with academic research ability, be no more than 35 years old. Applicant applying for PhD programs should have a master's degree or above with academic research ability, be no more than 40 years old.
3. Outstanding in academic performance.
4. Applicable Major:  
Aquaculture and Hydrobiology related major. Applicant's research interest should be Rice-fish farming in Lancang-Mekong River area.



International  
Students



In a Good  
health

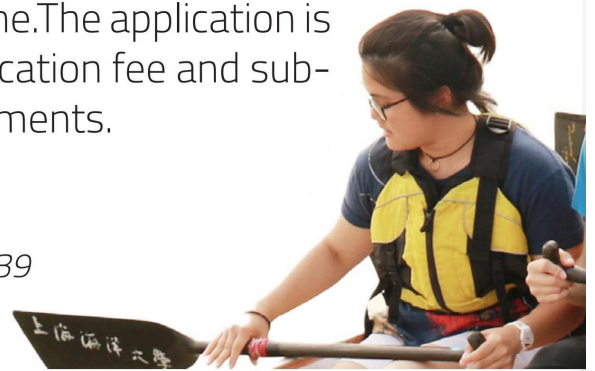


Outstanding academic  
performance

## APPLICATION PROCEDURE

- Step 1: Contact the supervisor of "Lancang-Mekong Rice-Fish" program directly (see below).
- Step 2: Register at [admissions.shou.edu.cn](https://admissions.shou.edu.cn), complete the application form, and submit all required application documents.
- Step 3: Pay application fee of RMB 400 online. The application is not complete until you pay the application fee and submit all the required application documents.

**Documents Required:** Check details on [admissions.shou.edu.cn/en/?c=content&a=list&catid=539](https://admissions.shou.edu.cn/en/?c=content&a=list&catid=539)



# PROJECT FUNDING CONTENT AND CRITERIA

1. Full tuition waiver;
2. International Student Apartment No.1 or No. 2 Double room accommodation covered;
3. Monthly living allowance :
  - Master CNY 1600 /month;
  - Doctor CNY 2000/month;
4. Medical Insurance Covered.

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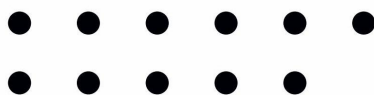
## REMARKS:



*Students who leave China for more than 15 days due to personal reasons during their study period (excluding normal holidays) will not be entitled to the living allowance during their absence from China.*

## APPLICATION DEADLINE

May 30, 2021







## SUPER-VISORS

Applicants should contact the **supervisor** of "Lancang-Mekong Rice-Fish" program directly (see below).



**吴旭干** (Xugan Wu)

✉ [xgwu@shou.edu.cn](mailto:xgwu@shou.edu.cn);  
[wuxugan@hotmail.com](mailto:wuxugan@hotmail.com)

*Crustacean nutrition and feed.*



**成永旭** (Yongxu Cheng)

✉ [yxcheng@shou.edu.cn](mailto:yxcheng@shou.edu.cn)

*Ecological farming of freshwater decapod crustaceans & rice-fish co-culture system.*



**刘其根** (Qigen Liu)

✉ [qgliu@shou.edu.cn](mailto:qgliu@shou.edu.cn)

*Aquatic Ecology; Aquacultural Ecology; Ecology, Evolution and Aquaculture of diadromous fish systems.*



**李晨虹** (Chenhong Li)

✉ [chli@shou.edu.cn](mailto:chli@shou.edu.cn)

*Genetic resource of aquatic animals, molecular systematics.*



**黄旭雄** (Xuxiong Huang)

✉ [xxhuang@shou.edu.cn](mailto:xxhuang@shou.edu.cn)

*Aquaculture and marine biology, focus on nutrition and immunity of crustacean.*



**李嘉尧** (Jiayao Li)

✉ [jy-li@shou.edu.cn](mailto:jy-li@shou.edu.cn)

*Aquacultural Ecology, especially sustainable development and environmental construction of rice-fish systems.*



**刘利平** (Liping Liu)

✉ [lp-liu@shou.edu.cn](mailto:lp-liu@shou.edu.cn)

*Green technology and engineering in pond culture, fish reproductive biology.*



**张文博** (Wenbo Zhang)

✉ [wb-zhang@shou.edu.cn](mailto:wb-zhang@shou.edu.cn)

*Specializing in sustainability of aquaculture development, with over 10 years of experience in interdisciplinary research and education.*





**吴旭干** (*Xugan Wu*)

✉ [xgwu@shou.edu.cn](mailto:xgwu@shou.edu.cn);  
[wuxugan@hotmail.com](mailto:wuxugan@hotmail.com)

*Crustacean nutrition and feed.*



**Position:**

Professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

1. Crustacean nutrition and feed, focused on lipid nutrition, functional feeds, nutrition requirement and feeding for different culture modes, i.e. rice-crustacean co-culture, intensive culture and mono-sex culture.
2. Mechanism of crustacean ovarian development and endocrinology, particularly for the deposition of lipids and carotenoids, the metabolism and function of sex steroids and prostaglandins;
3. Fish oil and fishmeal replacement in crustacean feeds;
4. Genetic resource and breeding of Chinese mitten crab;
5. Hatchery and culture technology of mitten crab and swimming crab.



## Education and Training

BS Aquaculture, Shanghai Fisheries University, Shanghai, China, 2001.

MS Aquaculture, Shanghai Fisheries University, Shanghai, China, 2004.

PhD Aquaculture, James Cook University, Townsville, Australia, 2011.

## Research Description

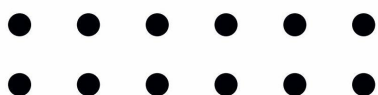
I am working on crustacean nutrition, reproductive biology, genetic diversity and breeding of different species, including crabs and freshwater prawns. My major academic achievements include the pioneering of mitten crab broodstock nutrition, the interactions and modulation between lipid nutrition and hormonal secretion of crustaceans, functional aqua-feeds for crabs, and genetic breeding of *Eriocheir sinensis*. I have several close international collaborations across the World. My team are focusing on these area:

1. Crustacean nutrition and feed;
2. Mechanism of crustacean ovarian development;
3. Carotenoid metabolism and color formulation;
4. Genetic resource and breeding of Chinese mitten crab;
5. Crustacean mono-sex culture and rice-crustacean co-culture.

I have an international collaboration project on rice-crustacean integrated aquaculture with the countries located in Lancang-Mekong River basin. If you are interested in my research topics, please do not hesitate to contact me by e-mail or see my details on:

- <https://smxy.shou.edu.cn/2014/0701/c2054a219582/page.htm>

- [https://www.researchgate.net/profile/Xugan\\_Wu2](https://www.researchgate.net/profile/Xugan_Wu2)





**成永旭** (Yongxu Cheng)

✉ [yxcheng@shou.edu.cn](mailto:yxcheng@shou.edu.cn)

*Ecological farming of freshwater decapod crustaceans & rice-fish co-culture system.*



**Position:**

Professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

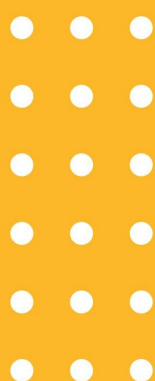
1. Ecological farming of freshwater decapod crustaceans;
2. Rice-fish co-culture system.

## Education and Training

BA Biology, Henan Normal University (1981);

MSc Aquaculture, Shanghai Fisheries University (1986);

PhD Crustaceology, East China Normal University (1996).

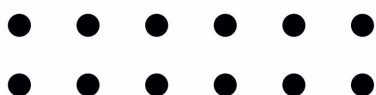


## Research Description



Yongxu Cheng's research interests are in shrimp and crab farming and rice-fish co-culture. Since 2015, he has led the team to publish 168 related papers, including 65 SCI, and obtained 6 related authorized patents. In 2016, the project "R&D and application of high-quality river crab ecological breeding technology based on full-process compound feed and nutrition regulation" won the first prize of Shanghai Science and Technology Progress, the integration and demonstration of high-efficiency ecological agriculture technology in Chongming Island (rice crayfish cultivation) won the third prize of Shanghai Science and Technology Progress (unit 2, ranked 5).

Professor Cheng participated in the formulation of the national aquatic industry standard "General Rules for the Technical Specifications for Integrated Rice-fish cultivation".





**刘其根** (*Qigen Liu*)

✉ [qgliu@shou.edu.cn](mailto:qgliu@shou.edu.cn)

*Aquatic Ecology; Aquacultural Ecology; Ecology, Evolution and Aquaculture of diadromous fish systems.*



**Position:**

Professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

1. Aquatic Ecology, especially on fishery management, aquatic environment management and restoration in lakes and reservoirs;
2. Aquacultural Ecology, especially on rice-fish co-culture systems;
3. Ecology, Evolution and Aquaculture of diadromous fish.

## Education and Training

BS Freshwater Fisheries. Huazhong Agricultural University (1986).

MS Aquaculture. Shanghai Fisheries University (1989).

PhD Zoology. East China Normal University (2005).



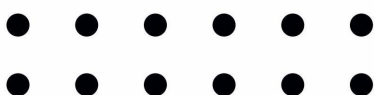


## Research Description

In the recent 20 years, I have been studying on the relationship between fishery development and lake environment management (or protection). I am especially interested in exploring the effects of stocking silver carp and bighead carp on the nutrient recycling and the succession of phytoplankton community. I am also studying and developing technologies towards the improve of water quality and control of cyanobacterial blooms in lakes and reservoirs, and developing technologies for the conservation and restoration of fishery resources in lakes and reservoirs.

I also study on the ecology of rice-fish coculture. We are especially interested in the Qingtian rice-fish coculture system, which was designated as one of the first GIAHS projects by FAO in 2005. We are studying the adaptive or evolutionary ecology of this specific paddy field carp, developing technology for the conservation of the domesticated fish and doing selective breeding, and optimizing rice-fish coculture modes etc.

We are studying the biology and the evolutionary ecology of the diadromous fish in order to develop technology for diadromous fish farming.







**李晨虹** (*Chenhong Li*)

✉ [chli@shou.edu.cn](mailto:chli@shou.edu.cn)

*Genetic resource of aquatic animals,  
molecular systematics.*



**Position:**

Professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

1. Genetic resource of aquatic animals;
2. Molecular systematics.

## Education and Training

BS Hydrobiology. Shanghai Fisheries University (1993).

MS Aquaculture. Shanghai Fisheries University (1996).

PhD student Marine Biology. Florida Institute of Technology, (2001-2002).

PhD Life Science. University of Nebraska – Lincoln (2007).



## Research Description



My research involve three themes:

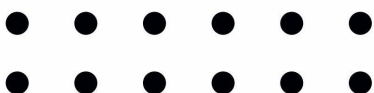
1. Molecular systematics and conservation genetics of fishes and other organisms. We have been working on a method integrating single-copy conserved gene markers, target enrichment and the next-generation sequencing techniques to collect sequences of interest across several hundred organisms and thousand of genes simultaneously. We apply this method in studying genetic diversity of fishes and other animals, including reptiles and birds.

2. Comparative genomics. We are working on new techniques of library preparation, genome assembling, and applying these on studying adaptive evolution of fish species, particularly on interesting traits for aquaculture species.

3. Developing novel methods for species identification and quantification using environment DNA.

More information about our lab can be found at:

*<http://www.lmse.org>*





**黄旭雄** (*Xuxiong Huang*)

✉ [xxhuang@shou.edu.cn](mailto:xxhuang@shou.edu.cn)

*Aquaculture and marine biology,  
focus on nutrition and immunity  
of crustacean.*



**Position:**

Professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

Aquaculture and marine biology.

## Education and Training

BA Aquaculture, Shanghai  
Fisheries University (1993).

MA Aquaculture, Shanghai  
Fisheries University (1999).

PhD Aquaculture, Shanghai  
Fisheries University (2005)..



## Research Description



Aquaculture and marine biology, focus on:

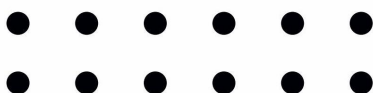
1. Nutrition and immunity of crustacean. Especially the effects of dietary nutrients on immune activity, stress resistance, and immune related genes expressions of shrimp;

2. Live feed and larvae nutrition requirement., especially:

1) high efficient production and nutrition regulation of microalgae,

2) application of plankton in larviculture,

3) nutrition enrichment of live feed and application in larviculture.





**李嘉尧** (*Jiayao Li*)

✉ [jy-li@shou.edu.cn](mailto:jy-li@shou.edu.cn)

*Aquacultural Ecology & Crustacean nutrition.*



**Position:**

Associate professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

1. Aquacultural Ecology, especially sustainable development and environmental construction of rice-fish systems;
2. Crustacean nutrition, especially sustainable diets for rice-crayfish systems.

## Education and Training

BS Biology. East China Normal University (2001 - 2005).

MS Zoology. East China Normal University (2005 - 2008).

PhD Zoology. East China Normal University (2008 - 2011).

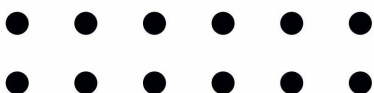




## Research Description

At present, the research work mainly focuses on integrated rice-fish system, including the research of soil carbon and nitrogen change dynamics, fertility characteristics, straw utilization technology, natural bait cultivation and special feed formulation for rice-fish farming. The purpose is to build a more environmentally friendly and sustainable integrated rice-fish system. Traditional rice-fish co-culture is dominated by conventional fish species, mainly common carp. With the rapid development in recent years, one batch of species such as crabs, crayfish, loach, rice field eel, soft turtle with high economic value have become the main farming species. These new models can better meet market demand and improve farmers' income than traditional rice-fish model, but they also bring many new challenges on water and fertilizer management, field engineering, pest and weeds control, stubbles joint and so on. Now we are working on:

1. How to make the most of biodiversity to build suitable environment for the growth of aquatic animals, and to improve the utilization level of natural food in rice field.
2. How to improve the utilization efficiency of nitrogen, phosphorus and other substances in this system.
3. The development of special feed for aquatic animals under paddy field environment, from the perspective of sustainable development and quality improvement.





**刘利平** (*Liping Liu*)

✉ [lp-liu@shou.edu.cn](mailto:lp-liu@shou.edu.cn)

*Green technology and engineering in pond culture, fish reproductive biology.*



**Position:**

Professor

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

1. Green technology and engineering in pond culture,
2. Fish reproductive biology.

## Education and Training

BA Aquaculture, Hunan Agriculture University (1995).

MSc Aquaculture, Shanghai Fisheries University (2002).

PhD Marine Biology, Chinese Academy of Sciences (2005).



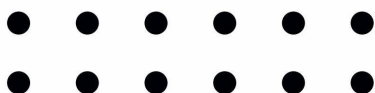
## Research Description



My research interests are in green technology and engineering in pond culture to improve fish quality and reduce water pollution, as well as fish reproductive biology with focus on eels.

I have about 20 years of experience on aquaculture and have been an active researcher on international cooperation with over 20 partner institutes and NGOs in Asia, EU, USA and Africa. Recently I coordinated research projects between the Shanghai Ocean University and a range of partners in UK, South and Southeast Asia, with both EU FP7 and NSFC funding.

Currently, I am acting as PI for the project "China-ASEAN Joint Center for Research and Promotion of Marine Aquaculture Technology" which is funded by the China-ASEAN Marinetime Silk Road Fund on behalf of Shanghai Ocean University.







**张文博** (Wenbo Zhang)

✉ [wb-zhang@shou.edu.cn](mailto:wb-zhang@shou.edu.cn)

*Specializing in sustainability of aquaculture development.*



**Position:**

Lecturer

**Affiliation:**

College of Fisheries and Life Science,  
Shanghai Ocean University

**Research interests &  
Specialties:**

Specializing in sustainability of aquaculture development, with over 10 years of experience in interdisciplinary research and education (h index 10; 500 citations).

## Education and Training

BS Mariculture. Laiyang Agriculture University (2002).

MS Aquaculture. Shanghai Fisheries University (2005).

PhD Aquaculture. University of Stirling (2014).



## Research Description



Focus on social, economic, environmental issues related to aquaculture development in China and the world, including: development trends and prospects of global mariculture and freshwater aquaculture; environmental impacts of the global aquaculture and fisheries value chains; food safety status and trends of global aquatic food products; utilizing of marine fishery resources by aquaculture industry; sustainable consumption of aquatic products in China; and sustainable intensification of aquaculture in China.

Please find my recent works at:

[https://www.researchgate.net/profile/Wenbo\\_Zhang13](https://www.researchgate.net/profile/Wenbo_Zhang13)

