



Contact Us

College of International Cultural Exchange,
Shanghai Ocean University

Zip Code: 201306

Tel: +86-21-61900763

Fax: +86-21-61900778

E-mail: admissions@shou.edu.cn

Website: <http://admissions.shou.edu.cn>

Address: No.999 Hucheng Ring Road, 201306, Shanghai, China

Capacity Development Activities of Center for Ecological Aquaculture (CEA)

2022 The Lancang - Mekong Rice-Fish Training Program

Shanghai Ocean University

Program Introduction

The Lancang-Mekong River is the third largest river in Asia. It flows through China, Myanmar, Laos, Thailand, Cambodia, and Vietnam for 4,480 km, spanning a basin area of 795,000 km². This region has nearly 326 million people, of which 230 million live in five countries other than China, and many of them have underdeveloped rural areas. Rice is the 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 food safety and help to meet the nutrition demands of local people but also can help increase income and mitigate poverty in those areas. Due to insufficient investment, technologies, and related experts, the rice-fish farming model is developing slowly in those countries except China.



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

The College of Fisheries and Life Science and the College of International Cultural Exchange of SHOU jointly established the “Lancang-Mekong Rice-Fish” Training Program, aiming to help establish 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 educate local experts.





Project Funding Content and Criteria

- ✓ Full tuition waiver



Eligibility

- ✓ Applicant's research interest should be Rice-fish farming in Lancang-Mekong River area.
- ✓ Aquaculture and Hydrobiology related major.
- ✓ Non-Chinese citizen. Nationals of Myanmar, Cambodia, Laos, Thailand or Vietnam are preferable.



Application Deadline

Oct. 28, 2022

How to apply?

Register at

<https://www.wjx.cn/vm/YyasKRB.aspx>

and complete the application form and submit. You will receive a confirmation email before the program begins if your application is accepted.





Program Schedule

TIME (Beijing Time GMT+8.00)	November 5	November 6	November 7
9:00		<ul style="list-style-type: none">● Practical Technology for Rice-fish farming (Xin Chen, Zhejiang University)● Practical Technology for tilapia and common carp aquaculture (Jie Chen, Shanghai Ocean University)	<ul style="list-style-type: none">● Practical Technology for Rice-crayfish farming (Jiayao Li, Shanghai Ocean University)● Scoping study of developing rice-fish systems in South East Asia (Wenbo Zhang, Shanghai Ocean University)
16:00	<ul style="list-style-type: none">● OPENING SESSION● The development pathway of rice-fish farming in Lancang-Mekong region (Matthias Halwart, FAO)● The integrated rice-fish-duck ecosystem in Guizhou (Junjie Yao, Guizhou University)	<ul style="list-style-type: none">● Rice cultivation technology for Rice-fish farming (Hui Gao, Yangzhou University)● Practical Technology for Rice-eel farming (Xiaolin Sun, Shanghai Academy of Agricultural Sciences)	<ul style="list-style-type: none">● Online tour of Shanghai & Online tour of Shanghai Ocean University● CLOSING SESSION

Course Information

1. The development pathway of rice-fish farming in Lancang-Mekong region (Matthias DR. Halwart, FAO)

Dr. Matthias Halwart heads the **AQUACULTURE - Global and Regional Processes Team of the FAO Fisheries and Aquaculture Division and oversees the implementation and development of its work program.**



He serves as Technical Secretary of the intergovernmental FAO Committee on Fisheries (COFI) Sub-Committee on Aquaculture in which FAO Member Countries meet every two years to discuss aquaculture issues of global relevance. Before this, Dr. Halwart worked as Senior Programme Coordinator of FAO's cross-cutting Sustainable Agriculture, Forestry and Fisheries Programme and as Delivery Manager of FAO's corporate Major Area of Work on Efficient Resource Use. His professional achievements include numerous publications as well as coordination of major studies and reviews on topics such as aquaculture in rice-based farming systems, global and regional cage aquaculture, and the State of the World's Aquatic Genetic Resources for Food and Agriculture. He is the aquaculture subject editor of the journal Nature Conservation. For his dedication and commitment to participatory and non-formal education, as in Farmer Field Schools, Dr. Halwart has been awarded the Gold Medal of the Asian Fisheries Society.



2. The integrated rice-fish-duck ecosystem in Guizhou (Junjie Yao, Guizhou University)

Prof. Junjie Yao. Professor of Department of Fisheries, College of Animal Science, Guizhou University.



The director of Guizhou Fishery Society. The major is to carry out research and teaching in the field of fishery resources and environment, has published more than 100 papers and obtained many national patents, also the author of "Biodiversity of Huaxi River", "Practical Breeding Technology Guidance of Giant Salamander", "Water Resources Protection and Biological Management of Aha Reservoir", etc., has won the Guizhou Provincial Science and Technology Progress Award, Guizhou Provincial Science and Technology Achievement Transformation Award, Shanghai Municipal Science and Technology Progress Award, etc.

The integrated rice-fish-duck ecosystem in Guizhou

Abstract: The integrated rice-fish-duck ecosystem in Congjiang County is the outcome of the co-evolution of man and nature for thousands of years. It is a typical example of man living in harmony with nature. In this ecosystem, rice, fish and duck provide food for human beings, for the rice field, it provides foraging places for fish and duck, and then, fish and duck manures can fertilize the rice fields. In this ecosystem, all the things are interdependent and mutually beneficial. The course will introduce the system of rice, fish and duck farming, construction of the rice field, breeding technology, breeding management, harvest and market.





3. Practical Technology for Rice-fish farming (Xin Chen, Zhejiang University)

Xin Chen, Ph.D., Professor of ecology at Zhejiang University.

Research interests are (i) the utilization of biodiversity in modern agriculture to achieve sustainability. (ii) Ecological effects of plant-animal interactions. In the past years, Dr. Chen focuses on the ecological principle and ecosystem functions of rice-fish co-culture. She also focuses on technology for the development of a sustainable rice-fish system.



Practical Technology for Rice-fish farming

Abstract: The topic "Practical technology for Rice-fish farming" introduces why we need to develop a rice-fish farming system and what we benefit from the rice-fish farming system (e.g. rice yield enhancement, fertilizer, and pesticide reduction, soil fertility maintenance, and rural income improvement). The topic focuses on the technology for developing or improving rice-fish farming. This technical package includes (i) installation of temporary physical structures such as trenches and pits to protect the fish during field operations and to prevent them from escaping; (ii) rice and fish varieties that are better adapted to the rice-fish co-culture system, (iii) culture of rice and fish (e.g. planting patterns), and (iv) daily field management procedures, including the coordination of irrigation, fertilization, pest control, and fish feeding.

4. Practical Technology for tilapia and common carp aquaculture (Jie Chen, Shanghai Ocean University)

Jie Chen, Ph.D., is currently working at the College of Fisheries and Life Science of Shanghai Ocean University.

At present, the research work mainly focuses on genetic breeding of cyprinids, especially on the traits of fast-growing and anti-hypoxia, research interests are: (1)How to operate the family selection to breed high quality strains, and to improve the utilization level of food in ponds. (2) The development of traditional and genetic protocol for the generation of fast-growing and anti-hypoxia strains, from the perspective of environment friendly and safely.



Practical Technology for tilapia and common carp aquaculture

Abstract: The topic "Practical technology for tilapia and common carp aquaculture" focuses on the technology for tilapia and common carp production and successful cases. This technical package includes: (i) introduction; (ii) tilapia and common carp biology; (iii) water and pond management; (iv) broodstock management; (v) food utilization; (vi) disease prevention; (vii) fry management; (viii)markets and marketing.



5. Rice cultivation technology for Rice-fish farming (Hui Gao, Yangzhou University)

Hui Gao, Ph.D., associate professor, standing vice president (in charge of work) of Agricultural College of Yangzhou University, member of the party committee of Agricultural College, and secretary of cultivation committee of the crop science society of China.



Presided over 25 national key research and development projects, national grain yield science and technology engineering projects in Jiangsu Province, etc. Published more than 30 academic papers and won 21 computer software Copyrights of the National Copyright Administration.

Rice cultivation technology for Rice-fish farming

Abstract: The report summarizes the current situation of rice production, rice-fish farming, and rice high-yield cultivation techniques in Jiangsu Province. It focuses on the research progress of rice variety selection, rice pot seedling and rice carpet seedling mechanical planting techniques, green techniques of glutinous rice-crayfish, and green prevention and control techniques of diseases, pests, and weeds in the rice-fish farming system. In addition, the rice planting technology in the future of rice-fish farming was forecasted and prospected.

6. Practical Technology for Rice-eel farming (Xiaolin Sun, Shanghai Academy of Agricultural Sciences)

Xiaolin Sun, agronomist of Shanghai Academy of Agricultural Sciences. The research work mainly focuses on the rice-eel system, research interests are: (i) Explore the change of rice quality and eel quality in rice-eel farming system. (ii) Effects of nitrogen application on growth and yield in rice-eel farming system.



Practical Technology for Rice-eel farming

Abstract: The topic "Practical Technology for Rice-eel farming" focuses on the technology for developing rice-eel farming. This technical package includes: (i) paddy field project construction; (ii) stocking; (iii) feeding; (iv) moisture and fertilization management of rice; (v) sickness-worm-grass-harm of rice; (vi) eel disease control and treatment; (vii) fishing.



7. Practical Technology for Rice-crayfish farming (Jiayao Li, SHOU)

Jiayao Li, Ph.D., associate professor, master tutor of College of Fisheries and Life Science of Shanghai Ocean University.

At present, the research work mainly focuses on the integrated rice-crayfish system, research interests are: 1. How to make the most of biodiversity to build a suitable environment for the growth of aquatic animals, and to improve the utilization level of natural food in the rice field. 2. The development of special feed for aquatic animals under paddy field environment, from the perspective of sustainable development and quality improvement.



Practical Technology for Rice-crayfish farming

Abstract:The topic "Practical technology for Rice-crayfish farming" focus on the technology for rice-crayfish farming and share successful cases. This technical package includes (i) introduction; (ii) crayfish biology; (iii) rice-crayfish farming system (location, design, and construction); (iv) forages and forage management; (v) stocking; (vi) harvest; (vii) other management; (viii)markets and marketing.



8. Scoping study of developing rice-fish systems in South East Asia (Wenbo Zhang, Shanghai Ocean University)

Wenbo Zhang, Ph.D., associate professor at Shanghai Ocean University.

His research area is aquaculture sustainable development. He is a member of the Chinese delegation to the FAO Committee on Fisheries (COFI) and COFI Sub-Committee on Aquaculture. He works as FAO/NACA consultant expert and the leading author of the White Paper on the Aquaculture transformation: innovations and investment for sustainable intensification and expansion of aquaculture in Asia and the Pacific region. He has published high-impact research papers as leading author and coauthor in Nature, Science, PNAS, Fish and Fisheries, Reviews in Aquaculture, Nature Communications, Nature Food, Marine Policy, including two ESI highly cited papers (top 1%).



Scoping study of developing rice-fish systems in South East Asia

Abstract: Integrated rice-fish farming can play an important role in increasing food production globally. Rice is the most important crop in South East Asia. This study evaluates the feasibility of developing Rice-Fish systems in South East Asia, starting from the socio-economic background to the status and development trends of agriculture and fisheries in South East Asia.

