# Research on the Sustainable Development Path of Zhanjiang's Recreational Fisheries from the Perspective of Industrial Integration

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# Man Chen<sup>1,2</sup>

<sup>1.</sup> School of Economics and Finance, Zhanjiang University of Science and Technology, Zhanjiang, Guangdong, 524043, China

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Abstract: Recreational fisheries is one of the five major industries in China's modern fisheries. Through the optimization of resource allocation, it integrates leisure and entertainment, sightseeing tourism, cultural heritage, science popularization, and catering and cuisine with fisheries in an organic manner. Zhanjiang, the Chinese coastal city with the longest coastline, is rich in marine fishery resources and cultural resources, and has a solid foundation for the development of the recreational fisheries industry. This study, based on a SWOT analysis of the development of recreational fisheries in Zhanjiang, constructs new methods and ideas for the development of recreational fisheries in Zhanjiang City by summarizing successful experiences from domestic and international recreational fisheries models and cases, and proposes countermeasures and suggestions to promote the development of recreational fisheries in Zhanjiang City.

#### 1. Introduction

President of CHINA/Chinese president pointed out at the Central Economic Work Conference held in Beijing that it is necessary to vigorously develop the marine economy and build a strong maritime country. The 2024 Guangdong Government Work Report stated, "We should adhere to thriving and becoming strong by relying on the sea, comprehensively build a strong marine province, and create a new maritime Guangdong." As the marine economy has become a new growth point for coastal cities, the development and utilization of marine resources have received increasing extensive attention. Zhanjiang City has been listed as "One of the First Batch of Demonstration Cities for Innovative Development of the Marine Economy in China" and a "National Marine Economy Development Demonstration Zone". The marine industry has become a pillar industry for Zhanjiang's economic development. The gross marine product of the whole city accounts for about one-third of the GDP, and the marine economy has become the "blue engine" leading the development of Zhanjiang.

As an emerging industry, recreational fishing integrates traditional fishery resources, natural landscapes, and leisure tourism activities, allowing people to experience fishing activities, immerse themselves in fishing culture, and simultaneously achieve leisure and entertainment purposes. This

<sup>&</sup>lt;sup>2</sup> Institute of Coastal South China Sea Economic Belt, Zhanjiang, Guangdong, 524043, China

innovative approach to fishery development better meets market demands o

### 2. Current Status of Recreational Fisheries Development

As the largest developing country in the world, China plays a significant role in the global economy and the world's fisheries and aquaculture industries. In 2011, recreational fishing was included in the fisheries and aquaculture development plan by the Ministry of Agriculture and Rural Affairs, marking its official recognition as one of China's five major fisheries industries[1]. Additionally, from 2003 to 2019, the average annual economic output growth rate of recreational fishing was 19.56%[2]. In 2023, the number of recreational fishing business entities reached 140,400, a year-on-year increase of 1.51%; the number of employees reached 823,800, a year-on-year increase of 7.95%; and the number of visitors reached 272 million, a year-on-year increase of 15% [3].

In 2023, the national output value of China's recreational fisheries reached 93.147 billion yuan, a year-on-year increase of 10.99%, approaching the level of 2019. Among them, Shandong Province had the highest total output value of recreational fisheries, amounting to 20.393 billion yuan, accounting for 21.89% of the national total, and has been ranked first in the country for several consecutive years [4]. Hubei Province ranked second in the national total output value of recreational fisheries, with 13.537 billion yuan. As an inland province, Hubei relies on its abundant freshwater fishery resources to develop recreational fishery activities mainly including angling, water parks, and fishing village tours. Guangdong Province ranked third in the economic output value of recreational fisheries, reaching 12.836 billion yuan.

The development of China's recreational fisheries started relatively late. At present, the sector faces a number of challenges, including low public awareness, insufficient exploration of cultural connotations in products, and a lack of innovation. However, the recreational fisheries industry has gradually begun to emerge as a key growth point for the transformation and upgrading of the fisheries sector [5]. The central and local governments have introduced a series of policies to encourage the continuous transformation and upgrading of fisheries and to provide a favorable policy environment for the development of recreational fisheries. These policies have driven the development of recreational fisheries from multiple aspects.

### 3. Characteristics of Domestic and International Recreational Fisheries Demonstration Bases

Domestic and international recreational fisheries demonstration bases each have unique characteristics. International recreational fisheries place greater emphasis on the integration of ecotourism and marine ranching. In contrast, domestic bases often combine local ecological and cultural resources to develop comprehensive recreational fisheries. These bases are typically large in scale, with beautiful environments and convenient transportation. They integrate multiple functions such as leisure, vacation, sightseeing, entertainment, and science popularization, meeting the diverse needs of tourists. These bases not only drive the development of the fisheries economy but also provide rich leisure experiences for visitors. For example, in Yantai Changdao, the "marine ranch + homestay cluster" model has led to over 500 homestays across the county, with an average annual tourism revenue exceeding 1.5 billion yuan and a 30% increase in the per capita annual income of fishermen. Typical domestic and international recreational fisheries demonstration bases are shown in Table 1.

Table 1: Typical Domestic and International Recreational Fisheries Demonstration Bases/Projects

	1 _	
Country/ Region	Recreational Fisheries Base/Project	Characteristics
Japan	Kobe Artificial Reef Project	Diving Tourism Landscapes Created by Underwater Reef Groups: The reefs have been developed into underwater landscapes for diving tourism.  Fishermen Turned Tourist Guides Offering Experiential Courses: Fishermen have transitioned into tour guides, providing experiential courses for tourists.  Transition from Traditional Fisheries to Experiential Economy with a Fivefold Increase in Added Value: The shift from traditional fisheries to an experiential economy has led to a fivefold increase in added value.
	Okinawa Marine Ranch	Integration of Marine Ranching and Ecotourism: The development of recreational fisheries by combining marine ranching with ecotourism.  Experiences for Tourists: Visitors can enjoy diving, sea fishing, marine life watching, and ecological education.[6]
Norway	Bergen Marine Ranching	Core: Focuses on deep-sea farming and ecotourism to develop recreational fisheries.  Functions: Offers deep-sea fishing, marine ranch sightseeing, and seafood tasting[7].
	Salmon Farming Tourist Park	Open deep-sea fish farms for visits, combined with fjord cruises and aurora tours.
America	Key West Marine Ranch in Florida	Core: Focuses on coral reef ecology and recreational fishing culture to develop recreational fisheries.  Highlights: Offers recreational fishing, diving, coral reef sightseeing, and ecological education[8].
Liaoming	Panjin Liaohe Green Water Bay Recreational Fisheries Demonstration Base	Integrated with the wetland ecological resources of the Liaohe River Estuary, base has developed recreational fishing, sightseeing tourism, and seafood culinary experiences.  As a national-level recreational fisheries demonstration base, Panjin Liaohe Green Water Bay has enhanced the brand influence of recreational fisheries by hosting seafood festivals and other activities.[9]
Shandong	Weihai Xigang Recreational Fisheries Demonstration Base Yantai Changdao Marine Ranch + Homestay Cluster	Integrated with the construction of marine ranches, the base has developed recreational fishing, sightseeing tourism, and science popularization education.  Equipped with modern fishery facilities, it provides recreational fishing boats, offshore fishing platforms, and marine science popularization halls. The base has created the "Fisherman's Fishing" brand to enhance its brand influence.  Combining Marine Ranch Construction with Homestay Development: Yantai Changdao integrates marine ranch construction with homestay development to create a unique recreational fishery experience.  Recreational Fishing, Sightseeing Tourism, and Seafood Culinary Experiences: The base offers recreational fishing, sightseeing tourism, and seafood culinary experiences.[10]
Zhejiang	Ranch+Tourism" Demonstration Zone	Artificial Reefs for Ecosystem Restoration: Utilizing artificial reefs to repair marine ecosystems.  Integrated with Recreational Fishing, Island Homestays, and Fishery Cultural Experiences: Combining recreational fishing, island homestays, and experiences of fishery culture.
Jiangsu	Wujin Jiangsu Taihu Xueyan Recreational Fisheries	Based on the ecological resources of Lake Taihu, the base integrates multiple functions such as aquaculture, recreational fishing, sightseeing tourism, and science popularization education.  Highlights: It has developed an eco-friendly recreational fishery model, promoting

	Demonstration Base	the sustainable use of Lake Taihu's fishery resources and serving as a typical example of recreational fisheries in Jiangsu Province.
	Sihong Hongze	example of recreational fisheries in Hangsu Province.
	Lake Mudun Island Recreational Fisheries Demonstration Base	Integrated with the wetland ecological resources of Hongze Lake, the base has developed recreational fishing and ecotourism.  Enhanced sustainability of recreational fisheries through ecological restoration and resource protection.
	2400	Located in Mawei District, Fuzhou City, the base leverages local fishery
Fujian	Mawei District "Red Crab	resources to develop recreational fishing, seafood culinary experiences, and displays of fishing village culture.
	Community"	As a demonstration base for "Aquatic and Fishing Villages" recreational
	Recreational Fisheries Base	<b>fisheries in Fujian Province</b> , the base enhances visitor experiences and promotes local fishery economic development through the hosting of characteristic fishery
		activities  Wind-Powered Offshore Fishing Platforms: The base features wind-powered
		offshore fishing platforms, which utilize renewable energy to support recreational
Guangdong	Zhuhai	fishing activities.
	Wanshan	<b>Integration of Fishery Port Economy and Seafood Festival</b> : It links the fishery
	Islands	port economy with seafood festivals, creating a vibrant and interactive experience
	"Zero-Carbon	for visitors
	Recreational Fisheries" Base	Benchmark for Blue Economy in the Greater Bay Area: Serving as a benchmark for the "blue economy" in the Guangdong-Hong Kong-Macao Greater Bay Area, this base exemplifies sustainable development and innovative approaches in the fishery sector
		Diverse Recreational Fisheries Functions: The company has developed a variety
	Huizhou	of recreational fishery functions, including sea fishing in Daya Bay, island
	Chaoyun	sightseeing, island transfer services, demonstrative fishing demonstrations, and
	Marine Figheries	yacht wedding photography, creating a diversified recreational fishery experience.
	Fisheries Development	<b>Refurbished Old Fishing Boats and Added Safety Facilities</b> : The company has renovated old fishing boats and added safety facilities, built new material
	Co., Ltd.	recreational fishing boats and lifeboats, enhancing the safety and comfort of
	Co., Ltu.	recreational fisheries

### 4. SWOT Analysis of the Development of Recreational Fisheries in Zhanjiang

This section conducts an analysis of the development of the recreational fisheries industry in Zhanjiang from four aspects: strengths, weaknesses, opportunities, and threats. By systematically examining the internal and external environments of the current industry, targeted development strategies are proposed.

### 4.1 Strengths Analysis

# **4.1.1** Geographic Location Advantage and Abundant Marine Resources

Zhanjiang is a coastal city with the longest coastline in China, surrounded by the sea on three sides. It boasts vast maritime areas and an extensive coastline, with a mainland coastline of 1,243.7 kilometers, ranking first among prefecture-level cities nationwide. It serves as a crucial gateway for the southwestern region of China to access the sea. Zhanjiang Port is the largest natural deep-water harbor in South China and offers the shortest maritime route from Chinese mainland to Southeast Asia, the Middle East, Africa, Europe, and Oceania. The well-developed transportation network, including high-speed rail, highways, and an international airport, significantly enhances the convenience for tourists visiting Zhanjiang.

Located in the transitional zone between tropical and subtropical regions, Zhanjiang is endowed with rich marine fishery resources. It features 101 harbors, 8 bays, 134 islands, and over 2,000 coastal species. Additionally, it is home to three of the best-preserved marine ecosystems in the province and even the entire country: mangroves, coral reefs, and seagrass beds. These abundant marine natural resources provide Zhanjiang with unparalleled conditions for developing coastal recreational fisheries.

### 4.1.2 Solid Fishery Industry Foundation and Developed Marine Economy

With its unique marine resources and robust industrial base, Zhanjiang has become a significant hub for China's marine aquaculture industry. As a vital fishery base in China, the aquaculture industry is a pillar of Zhanjiang's economy. Known as the "Capital of Shrimp in China," Zhanjiang accounts for 60% of the national sales of processed shrimp products and 25% of the national export volume. As the "Capital of Golden Pomfret in China," it boasts the largest golden pomfret farming base in the country, with an annual output of nearly 100,000 tons, representing 40% of the national total. Recognized as the "Hometown of Oysters," Zhanjiang produces 400,000 tons of oysters annually, accounting for 10% of the national output and 35% of the provincial output.

By 2024, Zhanjiang had been approved for four national marine ranch demonstration zones, representing 25% of Guangdong Province's total. It has also been recognized by the National Development and Reform Commission as a "National Marine High-Tech Industry Base," one of only eight such bases in the country. The marine economy has become a crucial pillar of Zhanjiang's economy, with a marine production value of 128.602 billion yuan, accounting for one-third of the city's GDP. The total output value of the fishery economy and aquatic products has ranked first in Guangdong Province for over 20 consecutive years. The abundant fishery resources and well-developed industrial chain provide a solid foundation for the development of Zhanjiang's recreational fisheries.

### 4.1.3 Abundant Tourism Resources and Cultural Connotations

Zhanjiang is endowed with diverse natural landscapes such as white sandy beaches, coral reefs, and mangrove forests. The ecological environment is beautiful, and the marine cultural resources are rich and distinctive. Centered around the Leizhou Peninsula, Zhanjiang has formed a unique cultural exchange belt between the north and south. The Leizhou Culture, one of the four major cultures in Guangdong, integrates the cultures of Central Plains and Lingnan, reflecting Zhanjiang's profound historical heritage. There are hundreds of folk art forms in the region, among which the Suixi Lion Dance, Renlong Dance of Donghai Island, the Banzhou Lighthouse, Shigou Culture, and fishing culture are renowned both domestically and internationally. These cultural elements not only add cultural depth to recreational fisheries but also provide abundant materials for the integration of recreational fisheries with tourism and culture, offering visitors opportunities for educational and cultural experiences.

### 4.2 Weaknesses Analysis

In recent years, Zhanjiang has encouraged and promoted the development of the recreational fisheries economy. However, as an emerging industry, recreational fisheries is still in its infancy. The main weaknesses in developing recreational fisheries are as follows:

Weak Infrastructure: Facilities such as roads, water and electricity supply, and sewage treatment are incomplete. Poor accommodation quality, inconvenient transportation, and inadequate tourism facilities significantly affect tourists' experience and satisfaction.

Fragmented Government Management: Recreational fisheries involve multiple fields, including

fisheries, tourism, and environmental protection, which are managed by different departments such as the Fisheries Bureau, the Culture and Tourism Bureau, and the Maritime Bureau. The fragmented management model prevents effective communication and coordination among these departments, making it difficult to form a unified effort.

Monotonous Tourism Products and Insufficient Cultural Connotation: The current recreational fisheries products lack diversity and in-depth experiential projects, making it hard to maintain long-term attractiveness. The types of fishery cultural products are limited, with insufficient development of cultural and creative products and tourism souvenirs, and a low degree of industrial integration.

Insufficient Service Awareness and Management Level: Operators are mostly small-scale fishermen who lack experience in business management. The cultural literacy of relevant practitioners is relatively low, leading to poor service quality in tourist areas and lower tourist satisfaction.

Inadequate Service Awareness and Management Level: Operators are mostly small-scale fishermen who lack experience in business management. The low cultural literacy of related practitioners and poor service quality in scenic areas lead to low tourist satisfaction.

These weaknesses highlight the challenges Zhanjiang faces in developing its recreational fishery industry and the need for targeted improvements to enhance its competitiveness and appeal.

### 4.3 Opportunity Analysis

# **4.3.1 Policy Support**

The emphasis placed on the marine economy and recreational fisheries by the national and local governments has provided a strong policy framework for the development of these industries. Zhanjiang has been designated as one of China's first batch of marine economy innovation and development demonstration cities and a national marine economy development demonstration zone, highlighting its growing significance in the country's maritime power strategy. Zhanjiang city government has introduced a series of strategic policies to promote the city's transformation into a marine economic powerhouse. For instance: The"15Measures to Support High-Quality Development of Modern Marine Ranches in Zhanjiang" explicitly endorse the growth of eco-friendly recreational fisheries and the establishment of national recreational fishery demonstration bases. The "Zhanjiang Development Plan for a Distinctive Modern Marine City" proposes initiatives such as enhancing the 'Fresh & Delicious Zhanjiang' brand, advancing marine ranching, promoting mangrove ecotourism, and fostering deeper integration between recreational fisheries, catering, and tourism—all of which provide robust policy support for the sector's expansion.

# **4.3.2** From the Dilemma of Traditional Fisheries to New Opportunities for Transformation and Upgrading

Traditional fisheries in Zhanjiang have achieved significant economic and social benefits during their development. However, with the rapid development of the marine economy, traditional fisheries have also revealed several issues, such as uncontrolled fishing intensity, deteriorating ecological environment, declining fishery resources, and unstable income for fishermen. These problems not only restrict the sustainable development of fisheries but also put pressure on the marine ecological environment.

Developing recreational fisheries and encouraging some fishermen to shift to recreational fishery production can not only boost the overall prosperity of the fishing area economy, expand employment opportunities, and increase fishermen's income, but also address the challenges faced by traditional

fisheries, such as uncontrolled fishing intensity. This shift is conducive to improving the quality and efficiency of fisheries and promoting green development. It holds significant importance for the adjustment of the fishery industry structure and its sustainable development. Therefore, there is an urgent need to promote the development of recreational fisheries so that they can play an important role in the growth and extension of Zhanjiang's fishery economy. Recreational fisheries represent a breakthrough from traditional fisheries, a comprehensive utilization of fishery resources, and a new path for fishery development in the context of dwindling fishery resources.

# 4.3.3 Growing Market Demand

With the improvement of people's living standards, the demand for leisure and ecotourism is continuously increasing, and recreational fisheries, as an emerging form of tourism, hold significant market potential. As the economy develops and living standards rise, the era of leisure has arrived, with leisure becoming an essential process for people to enjoy life, develop themselves, and relieve stress. The fast pace of modern society and increasing pressures in various aspects of life have led people to seek leisure activities to relax and rejuvenate their minds and bodies. Recreational fisheries, as a new mode of fisheries economic development, can meet these personal needs. With the continuous development of marine recreational fisheries and the improvement of infrastructure and other conditions, the market demand for recreational fisheries is also growing day by day.

### **4.4 Threat Analysis**

The threats faced by Zhanjiang in developing recreational fisheries mainly come from several aspects: First, there is intense competition from other coastal cities. With the rapid development of recreational fisheries in surrounding areas, the pressure of diverting tourists has increased. Second, there is ecological and environmental pressure. In recent years, Zhanjiang's marine environment has experienced degradation, and the depletion of fishery resources and environmental pollution pose threats to the development of recreational fisheries. Third, there is insufficient market awareness. Although Zhanjiang boasts unparalleled marine resources and a strong marine fisheries industry, its national profile is relatively low. There is a lack of effective promotion, limiting its market share.

In summary, the SWOT analysis of Zhanjiang's recreational fisheries development shows that the city has advantages such as its geographical location, marine fisheries industry, favorable climate, and government support for the development of recreational fisheries. However, there are also weaknesses, including the lack of overall planning, absence of unified coordination, fragmented operations, insufficient cultural connotations, and the failure to establish well-known recreational fisheries brands. Additionally, there are disadvantages such as the lack of scale in recreational fisheries development, monotonous projects, shortage of talent, and limited content in recreational fisheries projects that cannot meet multi-level demands. Overall, the opportunities for the development of recreational fisheries in Zhanjiang outweigh the challenges, and the city should fully utilize its strengths to promote the development of recreational fisheries.

# 5. Development Paths for Recreational Fisheries in Zhanjiang

# **5.1** Increased Government Guidance and Support to Promote Diversified Industrial Development

The government should organize and coordinate relevant functional departments related to recreational fisheries, such as the Fisheries Bureau and the Tourism Bureau, to work together and develop comprehensive planning documents. Define clear jurisdictional boundaries among agencies

to avoid regulatory overlap. Establish an information-sharing platform and joint enforcement mechanisms to enhance coordination. For example, fisheries departments in Australia have also established permit databases to obtain data on catch volumes and fishing locations, which helps better track and manage the development of recreational fisheries. It is recommended that the government establish special funds, subsidies, or tax exemptions to support the development of recreational fishery infrastructure and the creation of public information platforms, thereby encouraging the growth of the recreational fishery industry. Additionally, policies should be utilized to guide the diversified development of the recreational fishery industry, explore new forms of recreational fishery, and develop a comprehensive digital platform encompassing the entire recreational fisheries value chain to enable effective resource sharing and seamless information exchange.

# 5.2 Accelerate the Construction of Infrastructure and Supporting Facilities in Fishing Villages

To achieve sustainable development in fishing villages, it is crucial to focus on the construction and improvement of infrastructure and supporting facilities. Specific measures should be taken in the following areas:

- (1)Infrastructure and Transportation Upgrades. The municipal government should prioritize infrastructure development by optimizing transportation networks to improve connectivity between fishing villages and urban centers. This includes upgrading key facilities at Zhanjiang Port's fishery zone and other critical transportation nodes. Simultaneously, accommodation and tourism facilities require enhancement through investment in graded homestays, rural hotels, and improved village amenities like visitor centers, parking lots, and navigation systems to elevate the tourist experience.
- (2)Advance Smart Port Development. Modernizing fishing ports through smart technology implementation is essential. This involves upgrading the marine ranch management platform for real-time monitoring of water quality, fish growth, and visitor flows. The integration of big data analytics and intelligent management systems will optimize operations, while digital trading platforms will streamline fisheries resource management and transactions.
- (3)Resilience and Leisure Fisheries Development. Significant investment should be directed toward upgrading fishing port facilities and strengthening disaster prevention measures to withstand typhoons and other natural calamities. Artificial fishing grounds require infrastructure improvements to transform them into comprehensive leisure destinations combining sightseeing, interactive experiences, and marine education.

### 5.3 Integrate Resources and Develop Zhanjiang Special Leisure Fisheries

Zhanjiang should leverage its local marine and cultural resources to develop distinctive leisure fisheries. Based on different geographical locations and characteristics, various development strategies have been adopted (see Table 2 for details). For example, Zhanjiang has created an integrated model of "fisheries + tourism" by combining fishery and tourism resources. Islands such as Banzhou Island and Donghai Island rely on their unique island scenery and fishery culture to build leisure fishery towns and tourist attractions. By developing marine sports such as sea fishing, surfing, and sailing, as well as constructing characteristic scenic spots like fishermen's Folklore Resort Bays and lighthouse cultural leisure bays, these areas attract tourists to experience the fisherman's life and marine culture. In addition, Suixi County is also exploring the "leisure fishery +" model, integrating fisheries with culture, entertainment, science popularization, and catering industries. Activities such as the Golden Pomfret Tourism Festival have been organized

Table 2: Exploration of Diversified Recreational Fisheries Industry Models in Zhanjiang

Category	Characteristics
	eep-Sea Cage and Aquaculture Platform Sightseeing: Utilizing the 5,000 large deep-sea
	cages and 5–10 large intelligent offshore aquaculture platforms constructed in Zhanjiang,
	develop maritime sightseeing and fishing projects.
Ranching and	
21001011011111	Marine Ranch Ecotourism: In combination with the construction of four national-level
Fisheries	marine ranch demonstration zones, create ecological tourism routes to allow visitors to
	experience the operations of marine ranches.
	Seafood Sales and Culinary Street: Plan to build a Zhanjiang seafood sales and culinary
Coastal Tourism and	street to further enhance the reputation of "China's Seafood Capital."
Seafood Culinary	Constal Sania Tanna Davalan acceptal sania tanna hu anastina magnatianal fishamu sania
	Coastal Scenic Tour: Develop coastal scenic tours by creating recreational fishery scenic
	areas such as Suixi Jiaotousha and Jianghong Xiaokoutan.
	<b>Fishing Village Tour:</b> Develop the fishing village tour of characteristic fishing islands such
	as Banzhou Island and Techeng Island, where visitors can experience traditional fishing
Fishery-Tourism	village life and participate in fishery activities.
Integration Model	Fishing Family Fun and Homestays: Integrate fishing village culture to develop fishing
	family fun and distinctive homestays, offering services such as seafood processing and fishing
	village experiences.
	Fishing Festival and Seafood Harvest Festival: Organize events such as the Fishing
	Festival and Seafood Harvest Festival to develop festival economy and enhance the brand
	influence of recreational fisheries.
and Brand-Driven	
Model	Golden Pomfret Harvest Season: In combination with the construction of the golden
	pomfret industry cluster, hold the Golden Pomfret Harvest Season activities to increase the
	visibility of local specialty aquatic products.
	Stock Enhancement and Ecological Farming Experience: In combination with the annual
Ecological	investment of no less than 600,000 yuan by the municipal fisheries authorities for the stock
Recreational Fishery	enhancement of aquatic organisms, conduct ecological farming experience activities.
and Science	
Popularization	Marine Science Popularization and Education Base: Utilize modern marine ranches and
<b>Education Model</b>	fisheries big data centers to create marine science popularization and education bases,
	enhancing the public's awareness of marine conservation.
	Smart Fishery Platform Experience: Support the construction of a fisheries big data
_	platform by Zhanjiang Bay Laboratory and develop smart fishery experience projects to allow
Fishery and	visitors to experience the technological charm of modern fisheries.
	Intelligent Aquaculture Facility Sightseeing: In combination with the construction of the
	deep-sea aquaculture equipment industrial park, develop sightseeing projects for intelligent
	aquaculture facilities.
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### 5.4 Multi-Channel Promotion to Create Local Leisure Fisheries Brands

Enhance the visibility of Zhanjiang's recreational fisheries through new media and tourism platforms. By organizing festival events centered on fishery culture, such as Fishing Culture Festivals and Fishing Season Opening Ceremonies, the social awareness of recreational fishery can be elevated. Local governments and businesses can draw on the successful influence of celebrities like Quan Hongchan and Liang Wenfeng to create local leisure fisheries brands. For example, initiatives like the "Seafood Tour in Quan Hongchan's Hometown" or the "Technology and Culture Tour of Liang Wenfeng" could attract more visitors.

### 6. Conclusion

Zhanjiang should leverage its coastal and aquaculture advantages, rely on fisheries breeding

enterprises, and build recreational fishery projects in a location-specific manner to form integrated recreational fishery tourism bases that combine sightseeing, science popularization, and fishery experience. Meanwhile, by holding marine fishery cultural festivals irregularly, such as characteristic events like the "Fishing Season Opening Festival," "Seafood Festival," water sports competitions, and cultural exhibitions, local economic development can be promoted. Drawing on the experience of international recreational fishery development, we need to improve laws and regulations, formulate unified management methods for recreational fisheries, and clarify catch limits and ownership restrictions. We should also promote industrial integration by combining fishery culture and tourism resources to develop diversified recreational fishery products. Additionally, it is crucial to strengthen ecological protection by constructing marine ranches and artificial fish reefs to ensure the sustainable use of fishery resources and achieve a win-win situation for ecology and economy.

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