

# The Study on coastal tourism resources distribution in Hebei Province

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**Abstract.** In order to study the spatial distribution conditions of coastal resources, this paper took the method both checking back old files and field survey. The results show that there were various types and unusual characters of coastal tourism resources in Hebei province, and as a result of which it was well-known both at home and abroad. There were 4 types, 11 subtypes and 17 base types of coastal tourism resources in Hebei Province. There were 4 types, 9 subtypes and 13 base types in Qinhuangdao City which was the largest city than the other two city. And there were 4 types, 7 subtypes and 7 base types in Tangshan City. Compared with Qinhuangdao City and Tangshan City, there were only 2 types, 4 subtypes and 4 base types in Cangzhou City.

**Keywords:** tourism; resources; distribution; study.

## 1. Introduction

There are 4 kinds of natural tourism resources, geographical landscape, water scenery, biological landscape and climatic landscape, in Hebei Province. There are 4 types and 11 subtypes [1], which is 35% in 31 units of the nationwide. And there are 17 basic types, about 11% in 155 units of the nationwide. Meanwhile, there are 61 units of tourism resources (table 1).

## 2. Geographical landscape (A type)

Synthetic Natural Tourism Site (AA Subtype). Except mangrove coast and coral reef coast, there are all the other type coast such as bedrock coast, sandy coast and muddy coast. There are not only sand islands, made by offshore sand bar, but also coastal dunes and shell ridges and ancient lagoons and wetlands. So they are multiple types and special of geographical landscapes of coastal tourism resources in Hebei Province.

Gravel Typical Tourism Site (AAC base type). The AAC lies in Golden Beach of Changli County, from the north of Luanhe River to Dapuhe River. There are 3 to 4 longitudinal dune chains, 20 degrees north by east and 40 km extend by coastline with 20 to 30 m height and 2 to 4 km width. There are still trees and sands and sea and sky which made up a beautiful coastal landscape [2]. Due to the fine bathing beach and high value of scientific research, it was named Golden Beach by Professor Laixi Guo of Chinese Academy of Sciences, and it has been the national marine nature reserve.

Bottomland Typical Tourism Site (AAD base type). It is the typical AAD with 4 to 5 km width tidal flat which is distinguished into 3 parts, low tidal flat and middle tidal flat and high tidal flat. There is shell ridge with 4 to 5 m height nearby high tidal flat, one of the three coastal shell ridges in the world and the mark of coastline in history.

Remark: Q. is Qinhuangdao City. T. is Tangshan City. C. is Cangzhou City.

Trace of geological and physiognomic process (AC subtype). There are 3 type base types of AC in Hebei province.

Fancy and shapely rock (ACE base type). It is a typical base type, and there are 2 units of this type. One is sea cliff of Jinshanzui, which is the landscape made of abrasion platform and abrasion bridge. Jinshanzui is the bedrock cape with coasts on three sides in the south of Xiaodongshan Mountain in Beidaihe District. Because of the location which looks like the mountain mouse into the sea it is

named Jinshanzui. It had been the port for business in history, and there had been the Jinshanwei fortress in Ming Dynasty. On the top of cape, eroded by waves in history, there are the landscapes of abrasion platform and bridge in the end of south. And another is Yingjiaoshi which is the quartzite wall east extend in the sea of Chitushan Mountain in Beidaihe District. It is eroded by waves into the cliff with 25 m height in east and north and west, and named Yingjiaoshi because it looks like a head of goshawk. There are 3 tier sea caves where the pigeons live in, named the Pigeon Caves.

Table 1 the statistical table of coastal tourism resource types in Hebei Province

Type	Subtype	Base type	Subtotal	Area		
				Q.	T.	C.
geographical landscape	Synthetic natural tourism site	Gravel typical tourism site	1	1	0	0
		Bottomland typical tourism site	1	0	0	1
	Trace of geological and physiognomic process	Fancy and shapely rock	2	2	0	0
		Cliff and crack	2	2	0	0
		Dune landscape	1	1	0	0
	Natural change relic	Volcano	1	0	0	1
	Island	Insular area	5	1	4	0
		Ledge	4	4	0	0
	Subtotal		17	11	4	2
	Water landscape	Natural lake and pond	Sightseeing leisure lakes	1	1	0
Bog and wetland			2	0	1	1
Geothermal and spring		Spring	2	0	1	1
		River and sea	Sea district for sightseeing	28	23	5
Subtotal		33	24	7	2	
Biological landscape	Trees	Forest land	5	3	2	0
	Wildlife habitat	Aquatic animal habitat	1	1	0	0
		Bird habitat	2	1	1	0
	Subtotal		8	5	3	0
Climatic scenery	Light phenomenon	Observatory of sun and moon and star	2	1	1	0
	Weather and climate landscape	Summer climate	1	1	0	0
		Subtotal		3	2	1
Total			61	42	15	4

Cliff and crack (ACF base type). There are sea cliffs with 20 to 40 m height in 3 side of Jinshanzui, the east and the north and the west. Especially in the east, there are rock coast with 4.6 km length from Yingjiaoshi to the top of Jinshanzui, which are mostly the steep sea cliffs except some size bay. For example there are sea cliffs with 25 to 30 m height in the south of the Biluota Tower where are rocks and small gravelly beaches. And there are still some wave-cut platforms above the gravelly beaches eroded by waves.

Dune landscape (ACM base type). There are typical longitude extend dune range in the Golden Beach of Changli County. And there is the highest sand dune, named Dayuding, with 44 m height elevation in the south core part of Changli Golden Beach National Ocean Nature Reserve where is the south of Xinkaikou River. The longitude extend dune range, with 20 degrees north by east, is made up of Dayuding and south to north trend sand dune. The main part of dune range is bare sand with clear ripple, and the sands can be moved with the wind on windward slope.

Natural change relic (AD subtype). There is only one subtype which is the coastal plain Xiaoshan volcano, made up of several crater and tephra with 35 m height, in Haixing County of Cangzhou City. And it is the only one quaternary volcano on the plan of North China erupted 2000 to 3000 years ago.

Island (AE subtype). There are 2 base types of AE subtype in Hebei province.

Insular area (AEA base type). There are 72 islands in Hebei Province, and 4 natural islands, named Shijiutuo Island and Dawanggang Island and Yuetuo Island and Caofeidian Island, that can be developed into the scenic spot. Except that, there is also an artificial island named Xianluodao Island in Nandaihe coast.

Ledge (AEB base type). The ledges, lie in rock cape in Qinhuangdao City coast, are the eroded rocks by waves. And there are some famous ledge landscapes such as Tiger Stone, Geziwo Ledge, Laolongtou Ledge, Jiangnvyanzhen Ledge and so on.

### **3. Water landscape (B type)**

There are 3 subtypes and 4 base types of water landscapes of coastal tourism resources in Hebei Province.

Natural lake and pond (BB subtype).

Sightseeing leisure lakes (BBA base type). Qilihai lagoon, lies in the west of the south part of Changli Golden Beach, is a sightseeing leisure lake and a typical coastal lagoon lake with 8 square km area. It, connected with sea by tidal creek, is the largest lagoon at home. In 1977 a water gate has been built to control the sea water into the Qilihai lagoon in Xinkaikou [3]. Because of reclaiming land from lake and building aquaculture ponds the area of has been smaller and smaller in Qilihai lagoon. Meanwhile, rains flow into the lagoon during the rainy season, which made the lagoon into the freshwater lake. There are many kind of birds due to the migratory position of birds.

Bog and wetland (BBB base type). The coastal plain lie in the end of rivers with low topography and detention of flow. There are 2 place to develop the fine tourism resources.

Geothermal and spring (BD subtype). The spring landscapes mainly lie in geothermal wells of Tanghai County and Luannan County in Tangshan City and Cangzhou City. There is a well with 100 to 140 cubic meters per hour hot water auto yield and it is the thermal mineral water with 58 degree water temperature and 1200 m depth. It has been used to be the public bathroom and supply heating to port office in winter.

River and sea (BE subtype). There is one base type, named BEA, and 29 tourism resources, and 28 bathing beach are important coastal tourism resources.

### **4. Biological landscape (C type)**

Trees (CA subtype). There is one base type of CA subtype. Because of the small area and without characters the type of grass and flower has not been the tourism unit in Hebei Province.

Forest land. There have been 5 forest lands after several decades planting which are mainly the coastal protection forests in Qinhuangdao City and Tangshan City. The forest land of the south of Dashihe River, mainly as growing well black pines, is in the south island of Dashihe River in Shanhaiguan District with the area of 127 ha. The coastal national forest park of Qinhuangdao City is in coastal zone between Haigang District and Beidaihe District. It was the sand of Nandasi on the top of Qinhuangdao Bay. Since the '60s, there have been more and more forests, and because of which the sand dunes were fixed. In 1991 it was as a national forest park, and built an animal zoom in 1995. The forest land of the Bohai Bay, mainly as growing well locust and elm and willow, is in coastal zone between Yanghe River and Renzaohe River in Funing County. And now it has been the part of coastal protection forests. The forest land of the Jianggezhuang Town, mainly as growing well poplar and acacia, lies in Jianggezhuang Town of Laoting County. The forest land of the Xiangyun Island lies in the coast of Wangtan Town in Laoting County, and there are some trees and gardens.

Wildlife habitat (CD subtype). There are 2 base types of AE subtype in Hebei province.

Aquatic animal habitat (CDA base type). Aquatic animal habitat is mainly the habitat of precious amphioxus. The amphioxus had been found by professional marine organisms nearby Changli County in the early 1980 s comprehensive investigation of coastal zone resources in Hebei Province. The amphioxus is the Level 2 protect animals with high economic values and scientific values. Therefore, this habitat and the Golden Beach have been the marine natural reserves together.

Bird habitat (CCD base type). The ecological environment of coast has been improved better and better because of the emphasis on tree planting and growing well in recent years. There are more and more birds due to the rich food in muddy tidal flat and marsh wetland [4]. Some of beaches and islands are the bird habitats for the route of bird migration.

## **5. Climatic landscape (D type)**

Light phenomenon (DA subtype). There is only one base type, which is observatory of sun and moon and star, and 2 units of tourism resources.

Observatory of sun and moon and star (DAA base type). Sea cliff of watching sunrise in Xiaodongshan Mountain, such as Yingjiaoting, is the perfect place to watch sunrise and sea with 25 to 30 m sea cliff height nearby the east of the Bohai Sea. 3 suns rise place in same time lies in the east coast of Shijiutuo Island in Laoting County, where the sun rise in sea and muddy tidal flat and sky with sunrise in sunny day and ebb tides.

Weather and climate landscape (DB subtype). There is only one base type of Weather and climate landscape, which is summer climate (DBB).

Due to the affection of climate factors such as regulation of sea water and sea breeze waft at night, the average temperature of coast in Qinhuangdao City and Laoting County is 24 degrees centigrade in July, 2 to 3 degrees centigrade lower than Beijing. There is almost no more than 35 degrees centigrade of daily highest temperature, and only about 10 days above 30 degrees centigrade of daily highest temperature. And summer climate of Beidaihe District is better than Dalian City and Qingdao City.

## **6. Summary**

After study spatial distribution of coastal tourism resources in Hebei Province, the results as following:

Firstly, there were 4 types, 11 subtypes and 17 base types of coastal tourism resources in Hebei Province.

Secondly, there were 4 types, 9 subtypes and 13 base types in Qinhuangdao City which was the largest city than the other two city.

Thirdly, there were 4 types, 7 subtypes and 7 base types in Tangshan City.

Fourthly, compared with Qinhuangdao City and Tangshan City, there were only 2 types, 4 subtypes and 4 base types in Cangzhou City.

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