# North-East Asian Marine Protected Areas Network (NEAMPAN)







**Oceans** cover over 70 percent of the Earth's surface area and are the major storehouse for heat from the sun, various kinds of minerals and living organisms, and food resources. However, the world's oceans are, according to the Millennium Ecosystem Assessment, highly threatened due to pollution, eutrophication, overfishing and climate change.

Marine Protected Areas (MPAs) is defined as "any area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment (IUCN)". Most countries in North-East Asia have in general supported for creating MPAs, while each country has different terms, purposes, regulations, and management capacities. Regional MPA networks, thus, can support countries by filling science and policy gaps in MPA management, and fulfilling ecological and social aims of MPAs more effectively and comprehensively.



## North-East Asian Marine Protected Areas Network

**(NEAMPAN)** was established as the most effective way to further improve the management of various Marine Protected Areas (MPAs) in the North-East Asia in 2013. It aims to establish an effective, functional and representative network of MPAs for conservation of marine and coastal biodiversity and more efficient MPA management through network meetings, joint research, training, and information sharing, etc.



NEAMPAN covers the seas of North-East Asia, where MPAs of the five NEASPEC member countries (i.e. China, Democratic People's Republic of Korea, Japan, Republic of Korea and the Russian Federation) are located.

Target MPAs shall be selected by each member State in accordance with the Network's objectives. As of August 2020, member States have nominated a total of 12 sites, including six from China, one from Japan, three from the Republic of Korea and two from the Russian Federation.



First NEAMPAN study project "Strengthening the subregional cooperation through knowledge sharing on sustainable management of MPAs"





	Name	Location	Area (km²)	Designation	International network
CHINA	Beilun Estuary National Marine Nature Reserve	Fangchenggang, Guangxi	300	2000	Ramsar site
	Changyi National Marine Ecology Special Protected Area	Changyi, Shandong	29.29	2007	
	Nanji Islands National Marine Nature Reserve	Pingyang, Zhejiang	201.06	1990	UNESCO-MAB Biosphere Reserve
	National Nature Reserve of Dazhou Island Marine Ecosystems	Wanning, Hainan	70	1990	
	Sanya Coral Reef National Nature Reserve	Sanya, Hainan	85	1990	
	Shankou Mangrove National Marine Nature Reserve	Hepu, Guangxi	80	1990	UNESCO-MAB Biosphere Reserve; and Ramsar site
JAPAN	Shiretoko National Park	Hokkaido	711	1964	UNESCO World Natural Heritage Site
REPUBLIC OF KOREA	Muan Tidal Flat Wetland Protected Area	Muan-gun, Jeollanam-do	42	2001	Ramsar site
	Suncheon Bay Wetland Protected Area	Suncheon-si, Jeollanam-do	28	2003	UNESCO-MAB Biosphere Reserve; Ramsar site
	Gochang Tidal Flat Wetland Protected Area	Gochang-gun, Jeollabuk-do	64.66	2007	UNESCO-MAB Biosphere Reserve; Ramsar site
RUSSIAN FEDERATION	Far-Eastern State Marine Biosphere Reserve	Primorsky Krai	641.363	1978	UNESCO-MAB Biosphere Reserve
	Sikhote-Alin State Natural Biosphere Reserve	Primorsky Krai	4,016	1935	UNESCO-MAB Biosphere Reserve; and UNESCO World Natural Heritage Site



## Beilun Estuary National Marine Nature Reserve 广西北仑河口国家级自然保护区



Located in the north of Beilun River, a transboundary river between China and Viet Nam, the Reserve is represented by the largest contiguous stretch of mangrove forest in coastal China, with a relatively higher diversity of halobios and birds. Semi-closed bays, open estuary coasts, sandy beaches with mangrove vegetation act as an important stopover site for migratory birds, including IUCN Red List Vulnerable and Endangered species such as black-faced spoonbill, Chinese egret and Saunders's Gull. It is also an important habitat in China for relic marine animals such as tri-spine horseshoe crab and mangrove horseshoe crab.





#### Changyi National Marine Ecology Special Protected Area 昌邑国家级海洋生态特别保护区

Composed of shallow sea, tideland, saltmasrsh, wetland and five rivers flowing to the sea, it shows flat topography and accumulated coastal plain, with irregular and mixed semidiurnal tide. As a representative marine ecosystem in Laizhou Bay of the Bohai Sea, Changyi protected area is the only national MPA in China that protects mainly tamarisk (*Tamarix chinensis*) of coastal wetland. Thus, the prior goal is to protect the variety of coastal wetland ecosystems and marine organisms, especially tamarisk which is occupying about 70% of the area.

Major economic activity is fishing in subtidal. However, widespread tamarisk attracts tourists and brings economic benefits to the protected area.





Nanji Islands National Marine Nature Reserve 南麂列岛国家海洋自然保护区



As one of the first five national marine nature reserve designated in China, Nanji Islands are known as "the kingdom of shellfish and algae" and "the museum and gene bank of marine organisms in the north and south China". About 15% of the total shellfish species and 25% of the total algae species identified in China, are found in the Reserve, and they altogether account for about 80% of the total number in Zhejiang province. The Shellfish and algae are intermittently distributed in the tropical and temperate marine realms, which make this species-rich site even more important for conservation and scientific research. The main activities are fish production, trade and scientific research, while tourism has become more important.



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### National Nature Reserve of Dazhou Island Marine Ecosystems 大洲岛海洋生态国家级自然保护区

Dazhou Island is based on the continental shelf and belongs to the continental island away from the coast. Most of the seabed is reef and sandy floor which provides good conditions for coral and reef. It has typical island ecosystem with abundant plant resources, rich animal resources and marine organisms with high biodiversity.

The main protected targets are Swiftlets, its habitat and the marine ecological system. Swiftlets have been categorized as an endangered species since their nests are regarded as Eastern curiosity and rare medicine. The Reserve, thus, plans to gradually expand its population by artificial breeding and release to the wild.





#### Sanya Coral Reef National Nature Reserve 三亚珊瑚礁国家级自然保护区

Located in southern China, the Reserve is regarded as an important area to protect the diversity of marine organisms with high primary productivity and abundant biological resources. Differences in geomorphology are evident: the eastern and western parts with typical islands, while the middle part with lots of capes and bays.

Key protected targets are coral reef and the marine ecological system. Good quality of seawater, water transparency, colorful coral reefs and various fishes create good conditions for eco-tourism. The Reserve also serves as a scientific base for protecting coral reef ecological system.





#### Shankou Mangrove National Marine Nature Reserve 广西山口国家级红树林生态自然保护区





The Reserve is an important wetland with abundant biodiversity. Consisting of two areas on either side of the Shatian Peninsula, it includes mangroves, salt marshes and seagrass habitats.



Such combination of three coastal habitats in a single location is rare along the coast of China.

Key protected targets are mangrove ecosystem, rare seagrass species and the sea mammals. 16 mangrove species are reported, including five dominant communities in the mangrove forests such as *Rhizophora stylosa* and *Bruguiera gymnorrhiza*. Many endangered marine animals also occur, such as Dugong, Chinese dolphin and Horseshoe crab.





Located in the most northeastern point of Japan, which is at the lowest latitude among the world's seasonal sea ice in the northern hemisphere, Shiretoko National Park has rich nutrient salts with low temperature. Interaction between sea and land greatly contributes to the dense wildlife population. The waters surrounding Shiretoko have high productivity, and for many years, fishery activities have been conducted in harmony with the marine life as the main industry. Marine and coastal environment, as well as living resources and human activities have been managed well to maintain balance between the conservation of the site's marine ecosystem and its appropriate use for human activities. In recent years, new recreational activities such as sea kayaking and scuba diving become more popular in addition to the conventional sightseeing and leisure cruise.





#### Muan Tidal Flat Wetland Protected Area 무안갯벌 습지보호지역

Located in the southwestern part of the Republic of Korea, Muan tidal flat is the first wetland protected area designated in ROK by recognizing its geological primitiveness and high biodiversity. It is a great place to observe cycle of creation and destruction of tidal flats with geological preservation.

With high biodiversity, it is a key spawning and fishing ground. While the most dominant species is mud mussel, this tidal flat is a wintering place for endangered and rare bird species, including Saunders's gull, Black-faced spoonbill and Chinese egret.







#### Suncheon Bay Tidal Flat Wetland Protected Area 순천만갯벌 습지보호지역

Suncheon Bay is located in the center of southern coast the Korean Peninsula and regarded as one of the most biologically diverse area in the Republic of Korea. As a typical semi-enclosed bay with a narrow entrance to be widened toward the middle bay, it has over 5 km<sup>2</sup> of reed bed and extensive areas of *Suaeda Japonica* salt marsh. Tidal flats, largely muddy, shallow salt mashes and rice fields support a large number of birds and benthos. It is the only site in the Republic of Korea where Hooded Crane arrives regularly.

Used to be an abandoned land with waste dumping, Suncheon Bay turned into an eco-friendly area with effective collaboration among administration, experts and civil society. It is an interesting example of how MPAs can generate wide socio-economic benefits in combination of nature conservation.









#### Gochang Tidal Flat Wetland Protected Area 고창갯벌 습지보호지역





Characterized as typical open-bay with wide entrance, Gochang Tidal Flat has eight islands and reefs on the tidal flat. Rare sandy sedimentation, called Chenier, is independently formed and observed on the upside of mudflat. Consisted of gravel, coarse sand and seashell, the Chenier does not sink under the water even at high tide.

The area is not influenced much by freshwater inflow, the salinity level is stable, thereby forming a stable benthic ecosystem. It is also one of the important tidal flat for migratory birds along the west cost of the Republic of Korea, such as Oriental White Stork, Saunders's gull, Far Eastern curlew and Chinese egret. Fishery is one of the key income sources for local people.



Far-Eastern State Marine Biosphere Reserve Дальневосточный государственный морской биосферный заповедник



FEMBR is located in the western part of the Far Eastern Seas of the Russian Federation, where boreal and subtropical currents meet. Occupying about 10% of the Peter the Great Gulf, the Reserve shows a wide range of water temperatures from the Arctic in winter to subtropical in summer.

As the first and only nature reserve as an exclusive marine protected area in the Russian Federation, it is home for more than 5,000 species of fauna and flora, including IUCN Red List such as Chinese egrets and Black-faced spoonbill, as well as marine mammals such as Spotted seal.





Sikhote-Alin State Natural Biosphere Reserve Сихотэ-Алинский государственный природный биосферный заповедник

Situated in the eastern and central watershed parts of the Sikhote-Alin ridge, this Reserve is located in the "landsea" contact zone, determinded by interaction of terrestrial and marine ecosystems. As its territory extends to both the eastern and the western slopes of Sikhote-Alin, significantly different in their natural conditions, the Reserve has rich and diverse ecosystems with a high proportion of rare and endemic species.

While the marine area of the Reserve occupies only 5% of the total area, it is characterized by the largest range of habitats and high diversity of ecosystem and species. Brackish waters at the junction of the mixing of saline sea and fresh continental waters serve as a place for commercial anadromous fishes, such as salmon and sturgeon.





# North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC)

Since 1993, NEASPEC has served as a comprehensive intergovernmental cooperation framework in North-East Asia with membership of six countries: China, Democratic People's Republic of Korea, Japan, Mongolia, Republic of Korea and the Russian Federation. NEASPEC has pursued a multi-disciplinary and multi-sectoral approach to address subregional environmental challenges.

Five programmatic areas of NEASPEC: (a) Transboundary Air Pollution; (b) Biodiversity and Nature Conservation; (c) Marine Protected Areas; (d) Low Carbon Cities; and (e) Desertification and Land Degradation



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