

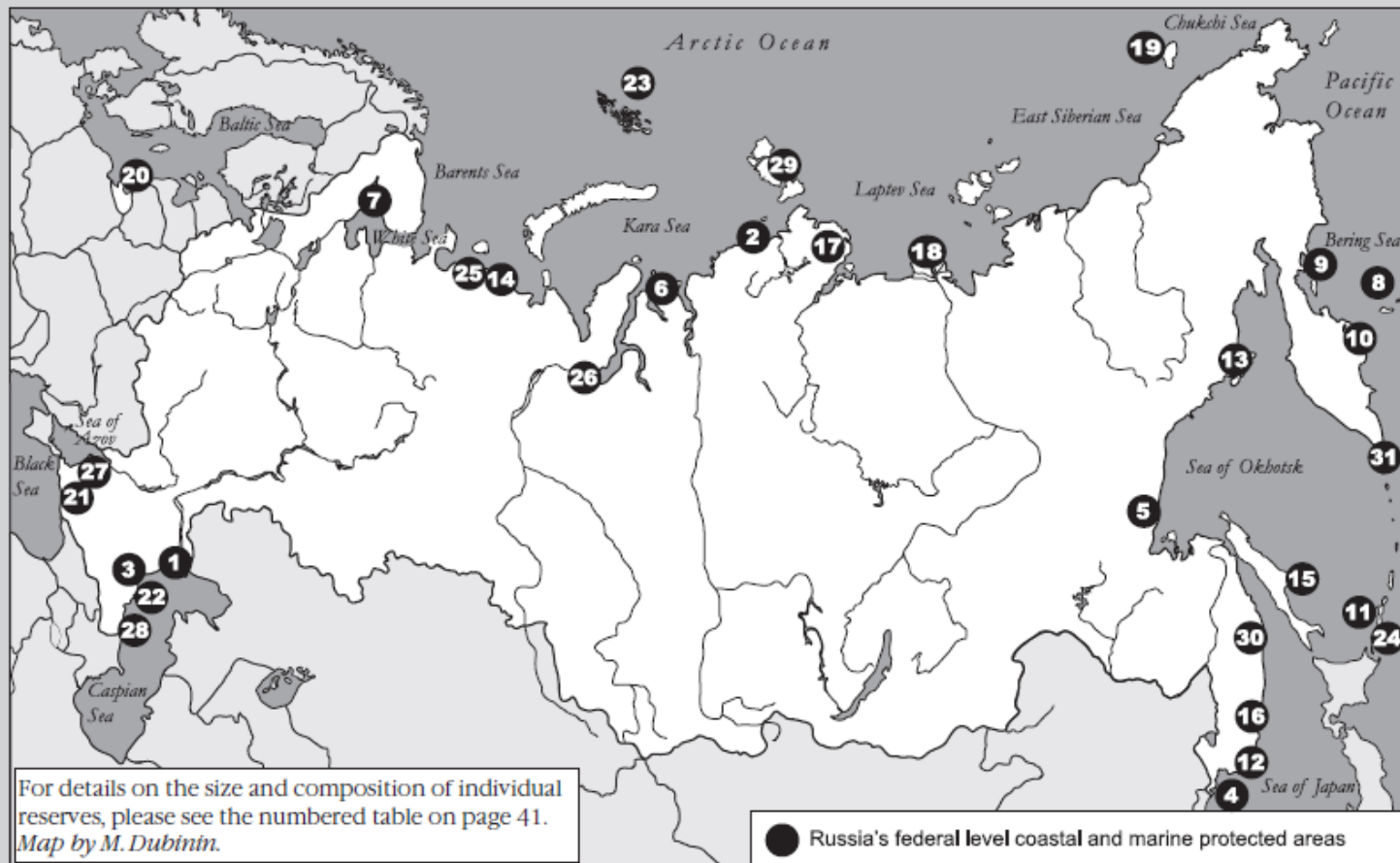
*Key features and management of the NEAMPAN sites of  
Russian Far East in light of the outline of the MPA study*

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- Main tasks of MPA should be support of natural processes of self-regeneration of marine ecosystems, prevention and reduction of new anthropogenic impacts, studying of condition and features of their functioning, as well as monitoring and forecast of natural regeneration processes and reaction to the character and intensity of external impacts, including anthropogenic.

## Russia's Federal Level Coastal and Marine Protected Areas



### Zapovedniks

1. Astrakhansky
2. Bolshoi Arktichesky
3. Dagestansky
4. Dalnevostochny Morskoi
5. Dzhugdzhursky
6. Gydansky
7. Kandalakshsky
8. Komandorsky
9. Koryaksky
10. Kronotsky
11. Kurilsky

12. Lazovsky
13. Magadansky
14. Nenetsky
15. Poronaisky
16. Sikhote-Alinsky
17. Taimyrsky
18. Ust-Lensky
19. Wrangel Island

### National Parks

20. Kurshskaya Kosa
21. Sochinsky

### Zakazniks

22. Agrakhansky
23. Franz Josef Land
24. Maliye Kurily
25. Nenetsky
26. Nizhne-Obsky
27. Priazovsky
28. Samursky
29. Severozemelsky
30. Tumnsky
31. Yuzhno-Kamchatsky

## Russia's Federal Level Coastal and Marine Protected Areas

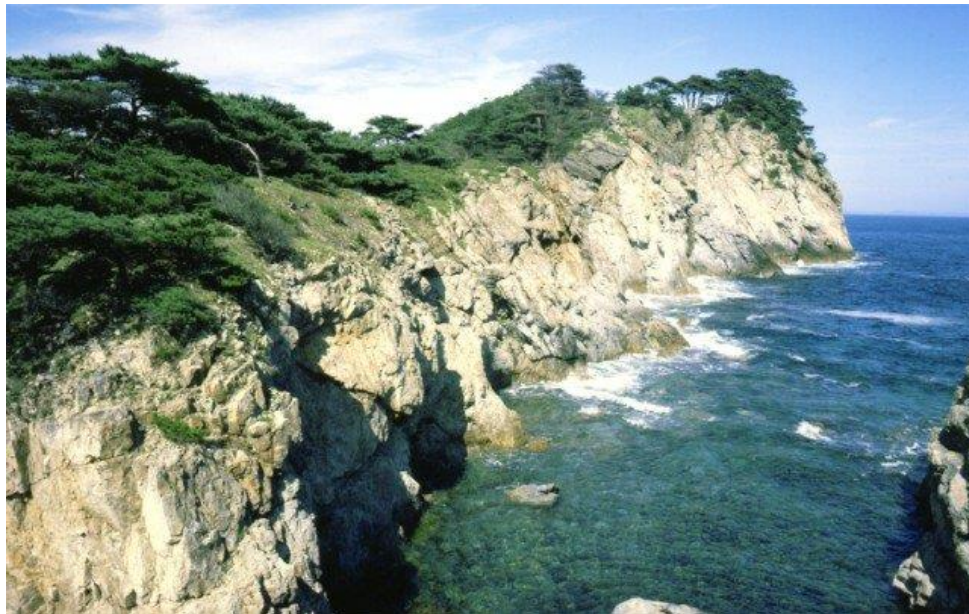
Protected Area			Total Area Protected (hectares)			Buffer Zone (hectares)			
Name of Reserve	Int'l Status	Ocean, Sea, or Seas	Terrestrial/ Coastal Habitats	Marine	Total	Terrestrial/ Coastal Habitats	Marine	Total	
<b>Zapovedniks</b>									
1.	Astrakhansky	BR, RW	Caspian	56,619	11,298	67,917	10,000	21,000	31,000
2.	Bolshoi Arktichesky		Kara, Laptev	3,188,288	980,934	4,169,222	9,550	0	9,550
3.	Dagestansky		Caspian	576	18,485	19,061	1,175	19,890	21,065
4.	Dalnevostochny Morskoi	BR	Japan	1,316	63,000	64,316	1,831	86,350	88,181
5.	Dzhugdzhursky		Okhotsk	806,256	53,700	859,956	252,600	0	252,600
6.	Gytiansky		Kara	878,174	0	878,174	90,000	60,000	150,000
7.	Kandalakshsky	RW	Barents, White	20,947	49,583	70,530	0	0	0
8.	Komandorsky	BR	Bering, Pacific	185,379	3,463,300	3,648,679	64,498	2,112,900	2,177,398
9.	Koryaksky	RW	Bering	244,156	83,000	327,156	676,062	0	676,062
10.	Kronotsky	BR, WH	Pacific	1,007,134	135,000	1,142,134	0	0	0
11.	Kurilsky		Pacific, Okhotsk	65,365	0	65,365	41,475	32,000	73,475
12.	Lazovsky		Japan	120,998	0	120,998	15,978	0	15,978
13.	Magadansky		Okhotsk	883,817	0	883,817	55,600	38,100	93,700
14.	Nenetsky		Barents	131,500	181,900	313,400	26,400	242,800	269,200
15.	Poronaisky		Okhotsk	56,695	0	56,695	0	0	0
16.	Sikhote-Alinsky	BR, WH	Japan	398,528	2,900	401,428	62,550	5,110	67,660
17.	Taimyrsky	BR	Laptev	1,744,910	37,018	1,781,928	937,760	0	937,760
18.	Ust-Lensky		Laptev	1,433,000	0	1,433,000	0	1,050,000	1,050,000
19.	Wrangel Island	WH	Chukchi, East Siberian	795,650	1,430,000	2,225,650	0	3,240,000	3,240,000
<b>National Parks</b>									
20.	Kurshskaya Kosa	WH	Baltic	6,621	0	6,621	0	0	0
21.	Sochinsky		Black	193,737	0	193,737	0	0	0
<b>Zakazniks</b>									
22.	Agrakhansky		Caspian	27,180	11,820	39,000	0	0	0
23.	Franz Josef Land		Barents	1,600,000	2,600,000	4,200,000	0	0	0
24.	Maliye Kurily		Pacific, Okhotsk	19,800	25,200	45,000	0	0	0
25.	Nenetsky		Barents	188,500	120,000	308,500	0	0	0
26.	Nizhne-Obnsky	RW	Barents	128,000	0	128,000	0	0	0
27.	Prizovnsky		Azov	42,200	0	42,200	0	0	0
28.	Samursky		Caspian	11,200	0	11,200	0	0	0
29.	Severozemelsky		Kara, Laptev	421,701	0	421,701	0	0	0
30.	Tumninsky		Okhotsk	143,100	0	143,100	0	0	0
31.	Yuzhno-Kamchatsky	WH	Pacific, Okhotsk	225,000	0	225,000	0	0	0
<b>Total</b>				<b>15,026,347</b>	<b>9,267,138</b>	<b>24,293,485</b>	<b>2,245,479</b>	<b>6,908,150</b>	<b>9,153,629</b>

International status: BR – Biosphere Reserve, RW – Ramsar Wetland of International Importance, WH – World Heritage Site.

Note: The information presented in this table was compiled by RCV editors using materials provided by the Ministry of Natural Resources of the Russian Federation and individual reserves. Data on Dalnevostochny Morskoi Zapovednik's buffer zone was calculated using the Protected Areas GIS database of the Biodiversity Conservation Center/International Socio-Ecological Union.

Protected sea water areas as a part of federal level are available for 12 reserves (**Big Arctic, Far Eastern Marine, Dzhugdzhursky, Kandalaksha, Komandorsky, Koryak, Kronotsky, Nenets**, Wrangel island, **Sihote-Alinsky**, Astrakhan, Dagestan), national park “Russian Arctic” and 6 refuges (**Franz Josef land, Nenets, Severozemelsky, South Kamchatka, Small Kuriles, Agrahansky**), occupying in total 10,21 million hectares that makes about 2 % of the area of the continental shelf being under jurisdiction of the Russian Federation.

Marine security zones are included into **Kuril, Magadan, Botchinsky, Poronajsky and Sihote-Alinsky reserves**. Coastal areas without water areas are a part of **Lazovsky and Gydansky reserves**, as well as Sochi and Kurshskaya Kosa national parks.



## **System of Nature conservation in Russian Far East**

Considering the whole system of SPA in the Russian Far East it is necessary to assess it in comparison with other regions of the country.

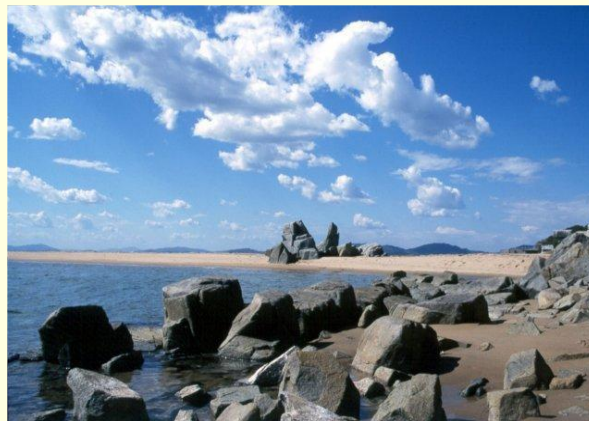
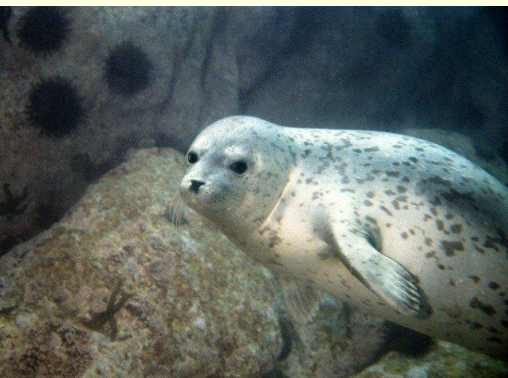
The Far East of the Russian Federation on the whole, and its southern part first of all, is unique among all other regions of Russia by the variety of species of fauna and flora, particularly in coastal areas. There are unique natural objects, many of which are of international or federal importance.

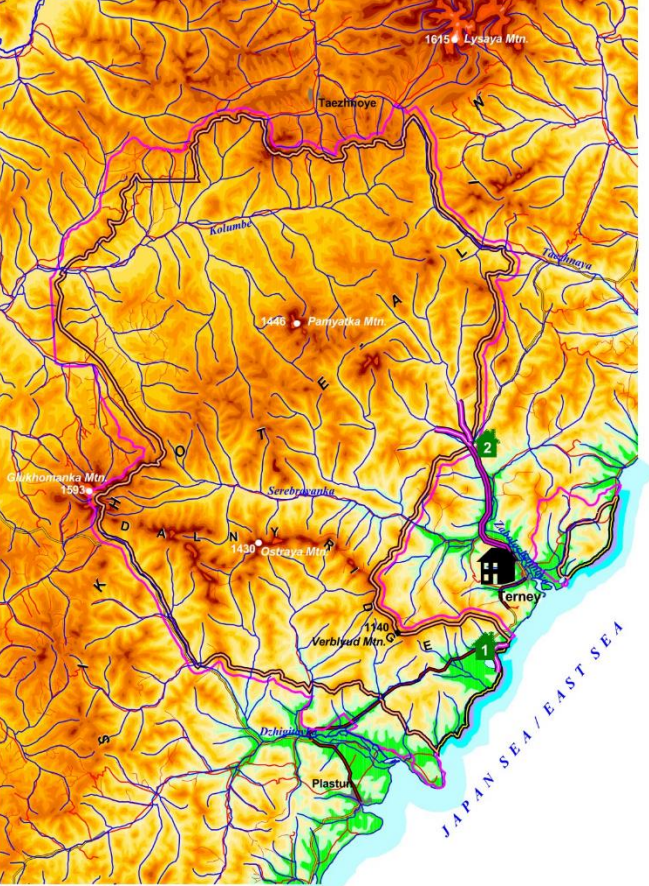
## Marine specially protected natural areas of the Russian Far East

According to the Constitution of the Russian Federation internal marine resources, territorial waters, exclusive economic zones and the continental shelf are under the federal jurisdiction.

Conservation of biota in the World Ocean as a basis of stability of global ecosystem and the major source of renewed resources according to «UNEP Marine and Coastal Strategy» is among the major problems of the world nature protection activity and completely meets the priorities of the national environmental policy of the Russian Federation as a sea power.

**The Far East of the Russian Federation** as a whole, and its south area first of all, is unrivalled among all regions of Russia in diversity of fauna and flora species, including in the coastal zones





# SIKHOTE-ALIN RESERVE



Sikhote-Alin Reserve was founded in 1935 within the protected territory of **1 000 000** hectares



In 1979 designated as **Biosphere Reserve**

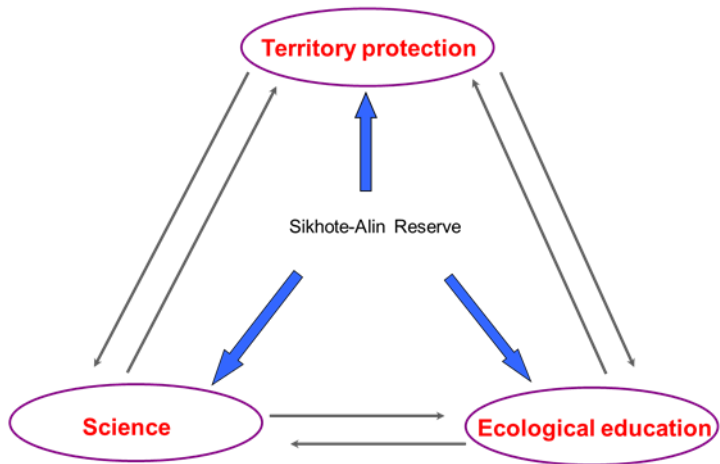
In 2001 was entitle as a part of the **World Natural Heritage Site**

Purpose of creation:

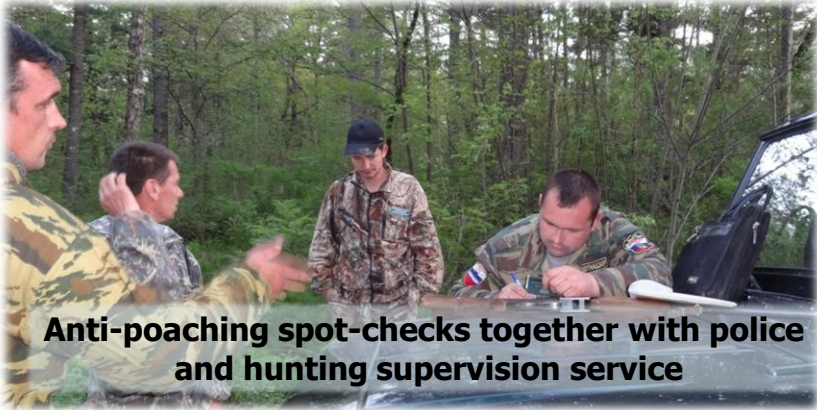
The organization and implementation of the protection of natural areas in order to preserve biological diversity and the maintenance in natural state of protected natural complexes and objects of Central Sikhote Alin.

Organization and conduct of research and work, including the maintenance of the Annals of Nature. Implementation of environmental monitoring. Environmental education and awareness. Assistance in the training of scientific personnel and specialists in the field of environmental protection.

At present size of the Reserve is **401, 600** ha and protected marine zone of Sea of Japan 2900 ha. Buffer zone size is 62550 ha



# TERRITORY PROTECTION



**Anti-poaching spot-checks together with police and hunting supervision service**



**Installation of a camera-trap for monitoring of the territory**



**Inspectors of the Reserve are extinguishing the forest fire**



**Protection of marine area together with frontier guards**

## **Areas of activity of the scientific department of the reserve**

- Priority areas in the research work of the Sikhote-Alin Nature Reserve were and remain perennial integrated studies of ecosystems and their components on stationary, designated on the ground sites and routes.
- The work on the Chronicle of Nature (monitoring of natural systems) started in the reserve in 1936 is still being carried out. The reserve has 460 km of winter animal registration routes, snow shooting routes, 6 topoecological profiles.
- On the territory of the reserve, in 16 different formations, 45 permanent sample plots (FDP) were laid, occupying almost 15 hectares.

- Since 1953, the dynamics of indigenous and derivative forest communities has been monitored, which includes conducting regular audits with full consideration of stand, undergrowth, undergrowth and grass cover, accounting for the renewal of trees.
- Monitoring of animal populations has been conducted on the territory of the reserve since 1946.
- Since 1971, on the picketing permanent routes covering the entire territory of the reserve, winter route surveys of the relative numbers of animals have been carried out according to standard methods. Currently, the total length of the routes in the reserve is about 460 km, in the adjacent territory, about 120 km.
- In the reserve there is a file of meetings with animals, which has been conducted since the mid-50s (for a tiger - since 1940) and has more than 70 thousand cards.
- There are several botanical and zoological collections that are of great scientific interest. Among them are the herbarium of plants of the reserve (more than 4.5 thousand sheets), a collection of amphibiotic insects (about 1.5 thousand copies of caddisflies, mayflies, spring fowls and large-winged at different stages of development).

Since 1993, work has been done on the transfer of scientific archives to electronic databases. Work continues on the formation of a Geographical Information System (GIS). It currently contains 14 catalogs, 82 layers and 421 fields. Virtually all forest management materials on the territory of the reserve are converted into electronic form and are included in the GIS of the reserve.

The results of research are used in the organization of the main activity of the reserve and the preparation of documents sent to the authorities for their decision-making on the implementation of environmental measures, such as the protection of rare plant and animal species, the creation of new protected areas, environmental assessments, and economic projects.

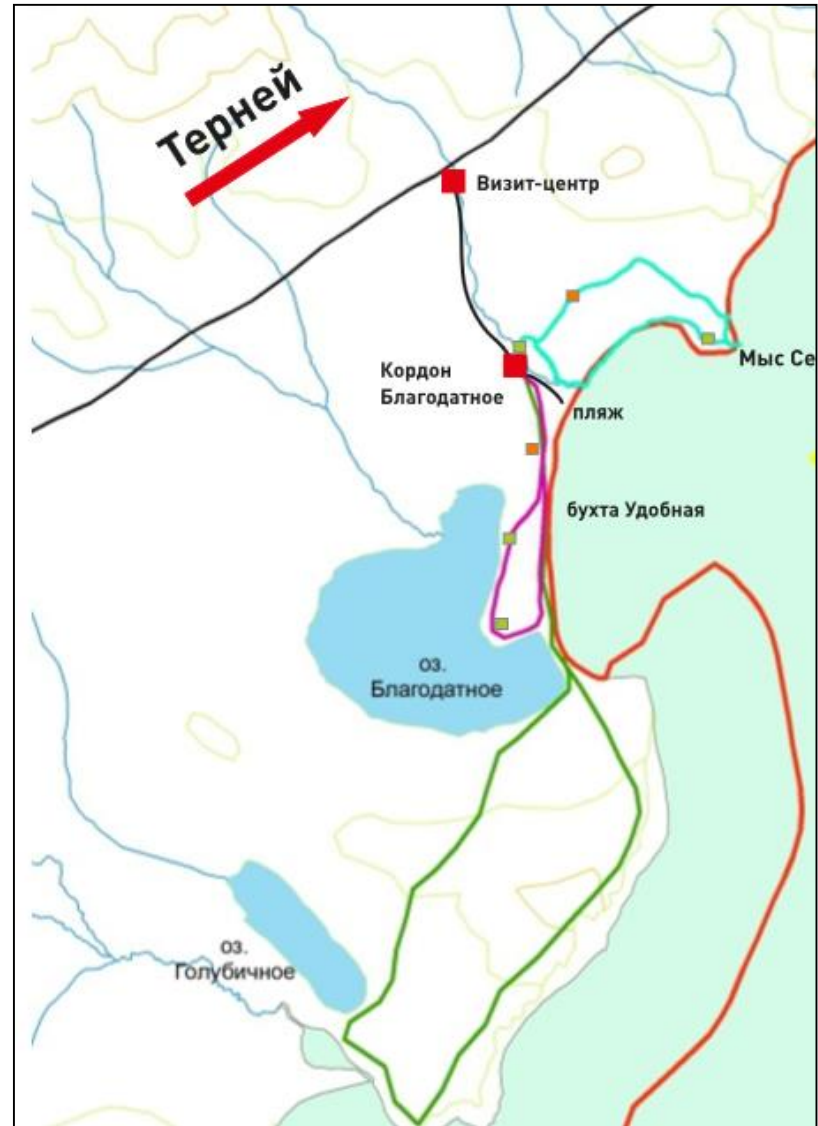


## **The main long-term scientific investigations in the Reserve:**

- **Climate changing;**
- **Vegetation transformations;**
- **Natural dynamic of the primary and secondary communities;**
- **Biodiversity and its transformation;**
- **Plant and animal phenology;**
- **Dynamic of Rare species populations;**
- **Dynamic of main animal species population;**
- **Freshwater fauna and bioindication;**
- **Marine ecosystems.**



# ECOLOGICAL EDUCATION AND TOURISM



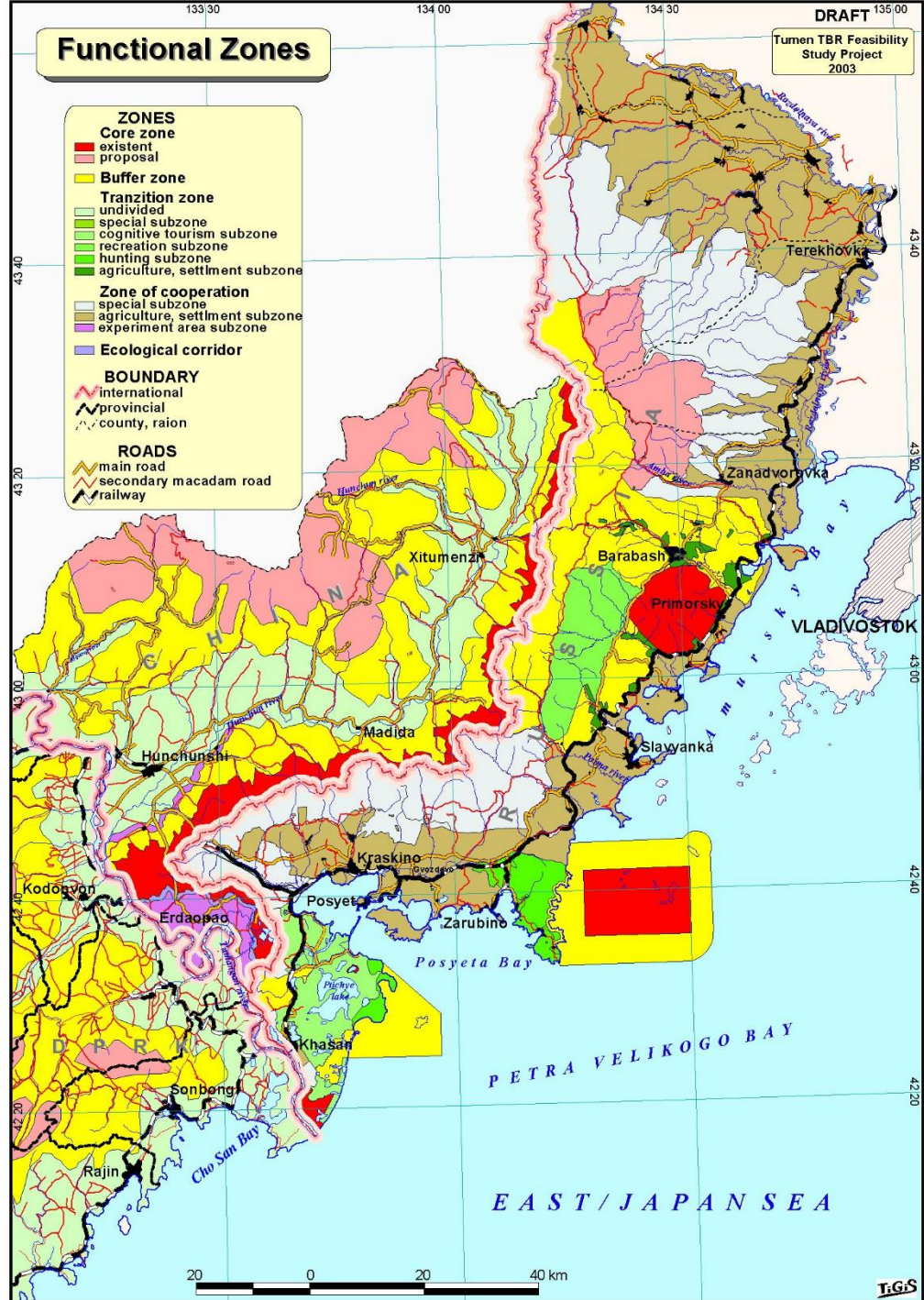


# Functional Zones

DRAFT  
Tumen TBR Feasibility  
Study Project  
2003

- ZONES**
- Core zone**
    - existing
    - proposal
  - Buffer zone**
  - Tranzition zone**
    - undivided
    - special subzone
    - cognitive tourism subzone
    - recreation subzone
    - hunting subzone
    - agriculture, settliment subzone
  - Zone of cooperation**
    - special subzone
    - agriculture, settliment subzone
    - experiment area subzone
  - Ecological corridor**
- BOUNDARY**
- international
  - provincial
  - county, raion
- ROADS**
- main road
  - secondary macadam road
  - railway

# Far Eastern State Marine Biosphere reserve



## **Criteria to define the functional importance of MPA condition**

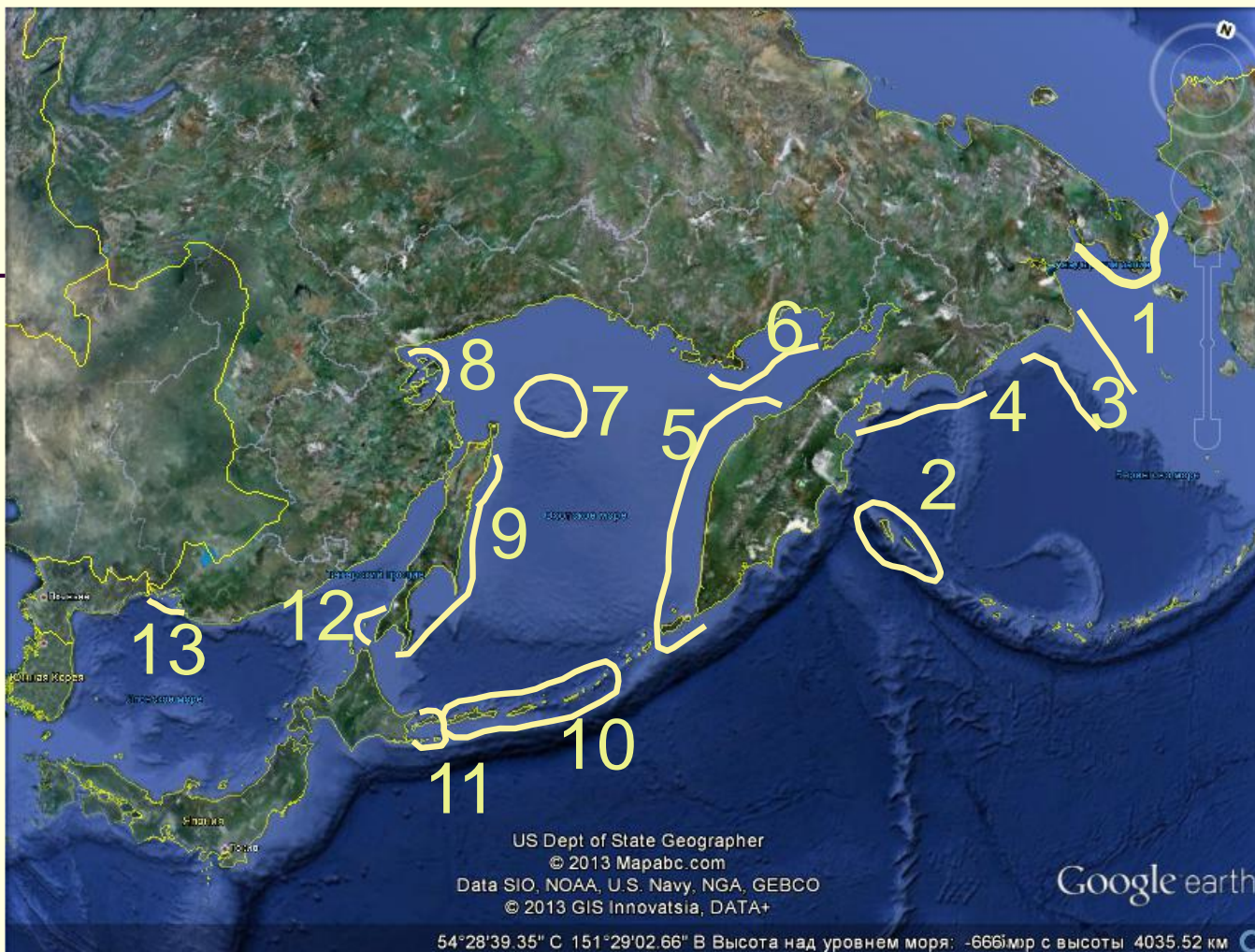
- **value of biodiversity indicators**, number and condition of taxons in the Red Book, representation of flora and fauna (local, regional, global), index for maintenance of steady populations of marine biota species, assessment of spatial effect of the protection, defined by presence in biota structure of distant and near migrants and the species of seasonal and other regular migration in and out of the MPA borders;
- **the area, territorial structure**, character of borders;
- **presence of the list of performed and potential ecological functions**, including ecological services at the local and regional levels;
- **estimation of ecological risk and its forecast**, dynamics of number of the factors limiting performance of those or other MPA functions, including estimation of degree of hazards from various types of wildlife management;
- **estimation of position and value of MPA in the structure of network**;
- **estimation of size of anthropogenic load on protected ecosystems**, including quantity of alien and synanthropic species, degree of their introduction in natural coastal and sea ecosystems;
- **estimation of economic infrastructure development degree** (road network, settlements, industrial objects, etc.) and population density in the borders and in adjacent territory;
- **degree of MPA staffing**, educational level and qualifications of the employees;
- **competence assessment of the MPA personnel** in decision-making concerning environmental conservation, wildlife management and ecological education on the regional level;
- **participation in scientific programs of the Russian Academy of Sciences, Federal and regional target programs, nature protection programs on national and international NGOs.**

## Principles of formation of national network of MPA

- **Representation.** MPA system should reflect an adequate structure of natural biological landscape (biotopic) diversity;
- **Diversity of forms.** MPA system includes various traditional specific categories and types forming in an ideal multifunctional hierarchical system;
- **Conformity and advancing development.** Growing impact to the water area and coastal zone should be corresponded by adequate development of its MPA system. Designing and long-term development of MPA system considers dynamics of time and spatial regularities of potential threats to the biological diversity and habitats;
- **Social efficiency. MCSPNA system is a national property;** it is organized and supported nationally in the interests of the society with a view of steady social and economic development. Using economic and political mechanisms, the state provides a long-term social and economic acceptability of MPA system;
- **Institutional integrity.** MPA system is an integral and independent part of economic and social sphere of the state, regulated by the special legislation. MPA system represents special economic form of wildlife management with a set of specific ecological, social, economic and information functions;
- **Inter-regional associativity.** The organization of MPA system in Russia is being established taking into account necessity of coordination of efforts on conservation of migrating objects of the biological diversity which area covers several MPAs, that is caused by absence of formal borders between separate water areas and their parts, and also an ability of some migrants to pass overland boundaries between the isolated water areas. It involves the necessity of inclusion of national MPA system into the international system of protection of the biodiversity, regulated by the international legislation in this area.

This MPA development concept is based on the following positions:

- The ecological doctrine of the Russian Federation (approved by the order of the Government of the Russian Federation of 31.08.2002),
- Concepts of long-term social and economic development of the Russian Federation before 2020 (approved by the order of the Government of the Russian Federation of 17.11.2008 ),
- The Climatic Doctrine (2009),
- The Maritime Doctrine of the Russian Federation before 2020 (approved in 2001),
- Water Strategy of the Russian Federation before 2020 (2009),
- The Water Code of the Russian Federation (edition of 27.12.2009),
- The Federal Law «On Conservation of the Environment» (edition of 27.12.2009),
- The Federal Law «On Specially Protected Natural Areas» (edition of 27.12.2009),
- The Federal Law «On Domestic Sea Waters, Territorial Sea and Adjoining Zone of the Russian Federation» (edition of 27.12.2009)



**Summary of proposed ecologically and biologically significant areas in the North-west Pacific (waters under Russia's jurisdiction) (Spiridonov V.)**



A large flock of seagulls is captured in flight over a sandy beach. The birds are scattered across the frame, with many in the foreground and others filling the sky. In the background, a green, rocky cliff rises from the beach, and the ocean is visible beyond it. The sky is a clear, bright blue. The overall scene is vibrant and dynamic.

**Thank You Very Much for your  
attention**