



# **Biodiversity and living resources conservation in marine protected areas (MPAs) of the Russian Far East: problems and perspectives**

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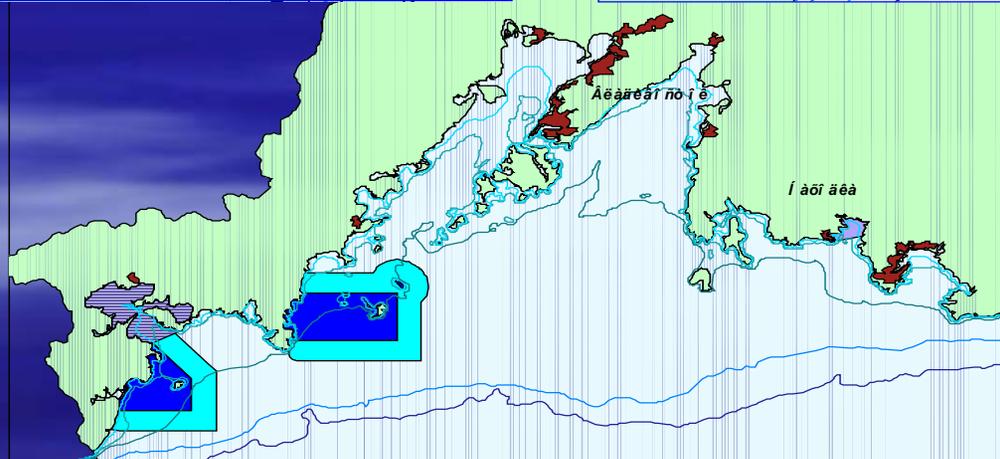
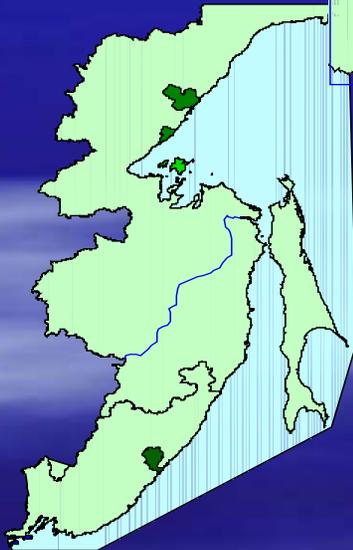
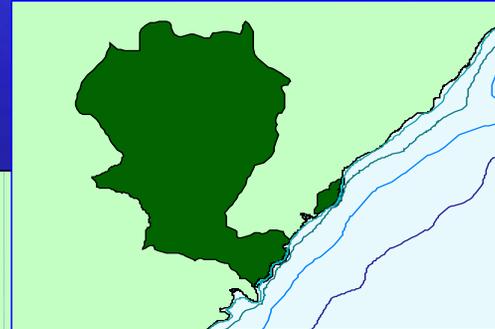
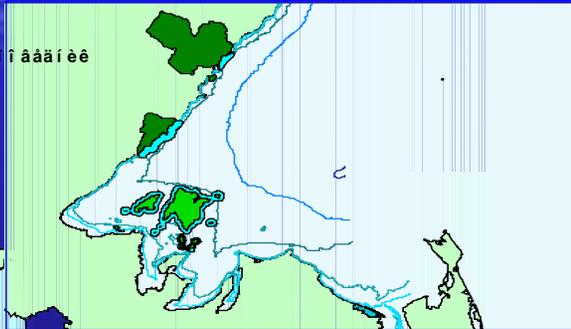
**Andrey Malyutin,  
Far East State Marine Biosphere Reserve**



# Existing and planned MPAs and buffer zones of coastal reserves in the Far East ecoregion:

Legend text in a non-standard script, likely representing a mix of languages or a specific dialect.

- Blue: Aaeui aai noi -i u e i i dnei e cai i aaai ee
- Light Blue: caeaci ee Ai noi e
- Green: Neoi oy-Aeeri neee cai i aaai ee
- Light Green: Aaeoaa oonnee cai i aaai ee
- Dark Green: O ai oadnee caeaci ee
- Light Cyan: caeaa N+anooy
- Dark Cyan: aooa cae i i nuua
- Light Blue-Cyan: i i dneea i oai i u a cai u





## Existing MPAs:

- **Far East Marine State Biosphere Reserve**
- **Commander Islands State Biosphere Reserve**
- **Kurilsky State Reserve**
- **No fishing zone off the North West Kamchatka**



# Far East Marine State Biosphere Reserve (FEMSBR)



- Established - March, 1978;
  - Occupies – 63000 ha of water
  - 1316 ha of 11 islands' territory;
- Obtained biosphere status in 2003



# Map of the FEMSBR:



- It is situated in the south part of Primorye, near China and North Korea borders;
- 5-6 hours by boat from Vladivostok



# Commercial & valuable species inhabit and breed there:



- Kamchatka king crab  
(*Paralithodes kamschaticus*)



- Giant octopus  
(*Octopus dofleini*)



# Commercial & valuable species (continued):



- Sea cucumber - trepang (*Stichopus japonicus*)
- Sea urchins (*Strongylocentrotus nudus*, *S. intermedius*)



# Commercial & valuable species (continued):



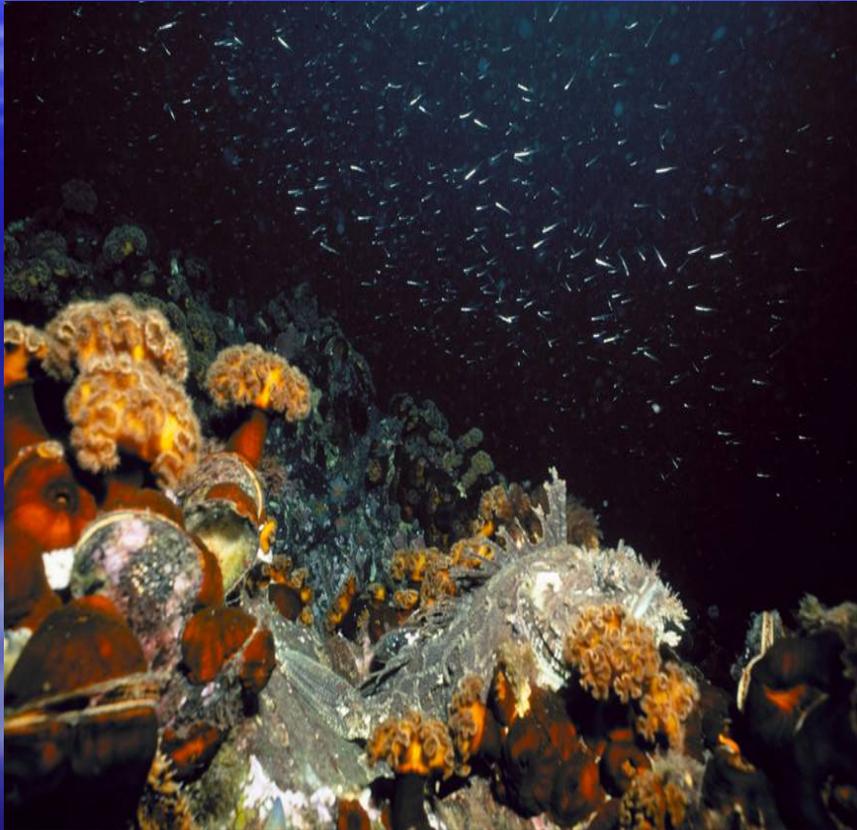
- Scallop  
(*Mezuropecten yessoensis*)



- Largha seal (*Phoca largha*)



# Valuable habitats: rich epifauna and pure pelagic waters





## Valuable habitats (continued):



- **Brown & green seaweeds - kelp (*Laminaria marina*, etc) -**
- **Epifauna –**
  - important shelters for commercial species' juveniles



# Activity around reserve: Aquaculture





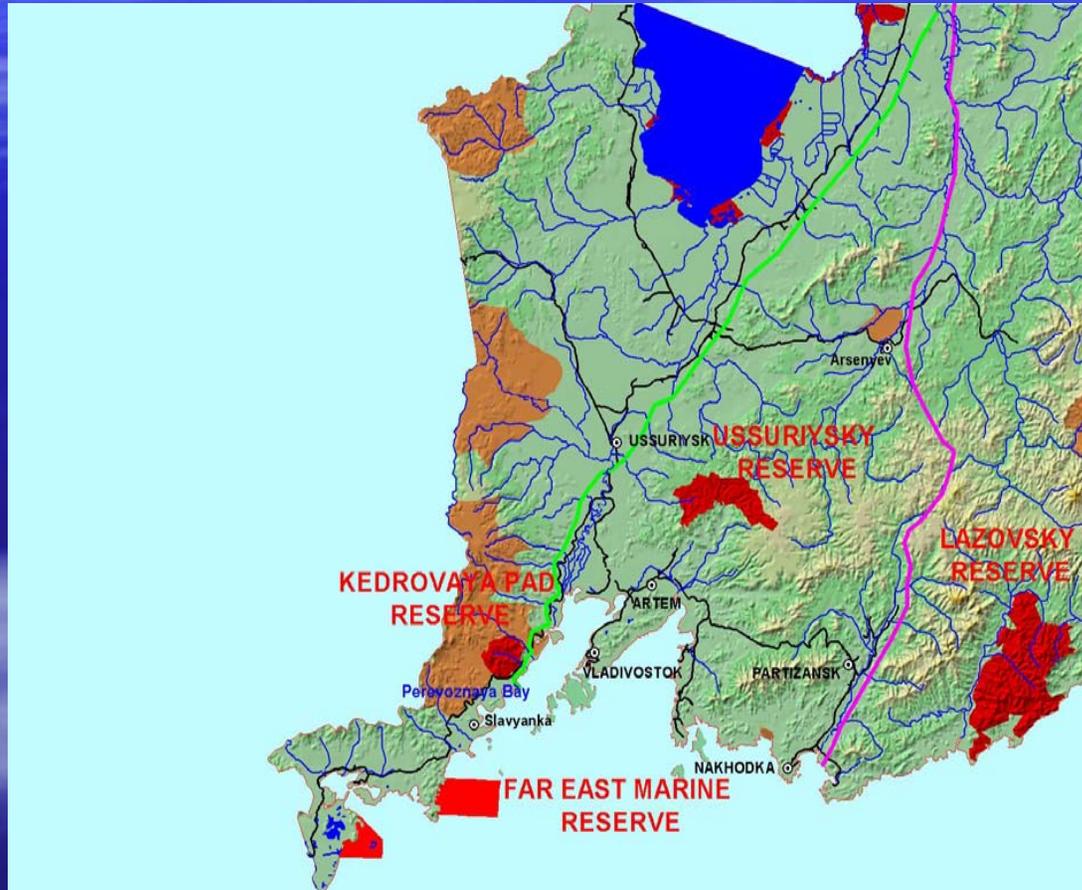
# Activity around reserve (continued):



- Fishery for bottom fishes, crabs, whelks
- Poaching for sea cucumbers & scallops
- Diving tourism



# Threats to biodiversity & resources:



- Pipeline & oil processing plant construction (Perevoznaya Bay)





# Threats to biodiversity & resources:



- **Poaching in reserve and around and over-fishing (annual turnover illegal trade of sea cucumber is USD 1,5 millions);**



- **Water Pollution by untreated sewage of Vladivostok and other cities;**



# Commander State Biosphere Reserve (CSBR)



- Established - 1993;
- Occupies –  
3648679 ha;  
Water buffer zone -  
3463300 ha;  
Land - 185379 ha;  
Obtained biosphere  
status in 2003



# CBMR - marine mammals' paradise:



- 3000000 fur seals, sea otters, Steller sea lions inhabit Commander Islands;



# Commander State Biosphere Reserve (continued):



- Besides marine mammals protection, CSBR protected 30-miles zone is breeding area for many important commercial species:
- Thorny heads (*Sebastolobus macrochir* and *S. alaskanus*),
- P. Cod (*Gadus marhua macrocephala*),
- Sablefish (*Anaplopoma* sp.),
- Golden king crab (*Lithodes aequispina*),
- Bering squid (*Berytheutis magister*), etc.



## Activity around CSBR:



- **Hunting for fur seals (annual quota is about 25 000 animals);**
- **Small scale fishery in 5-miles zone;**
- **Poaching (domestic and international);**
- **Ecotourism.**



## Kurilsky State Reserve (KSR):



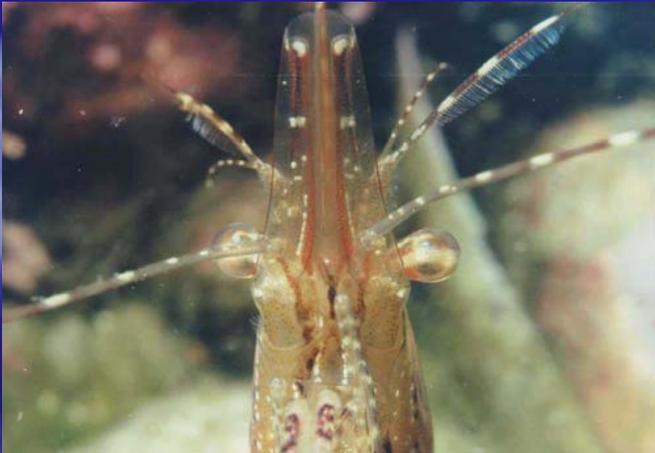
- Established - in 1984
- Occupies – 65364 ha (land) + ;
- Plus Federal refuge “Malye Kurily”, 45000 ha, incl. marine territory 25 200 ha



## KSR rear and valuable species:



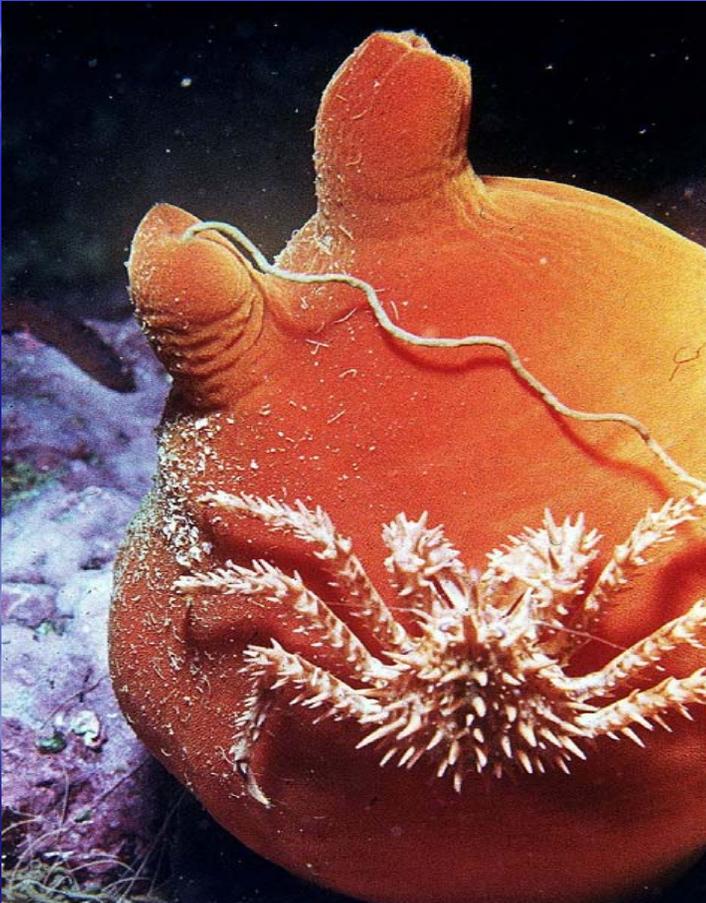
- **Sea birds:** White-tailed (*Haliacetus albicilla*) and white-shouldered (*H. pelagicus*) eagles, fish owl (*Ketupa blakistoni*), Hornbilled Auklet, Tufted Puffin, etc;



- **Shellfish:** sea cucumber (*S. japonicus*), scallops, sea urchins, etc;
- **Sea mammals:** Steller sea lions, Harbor seals.



# No fishing zone off north west Kamchatka



- It was established in end of 50<sup>th</sup> as a king crab “kinder garden”;
- Heavy poaching & plans for drilling on the shelf of west Kamchatka – main threats to biodiversity and living resources;
- Requires stricter protection and stock restoration.

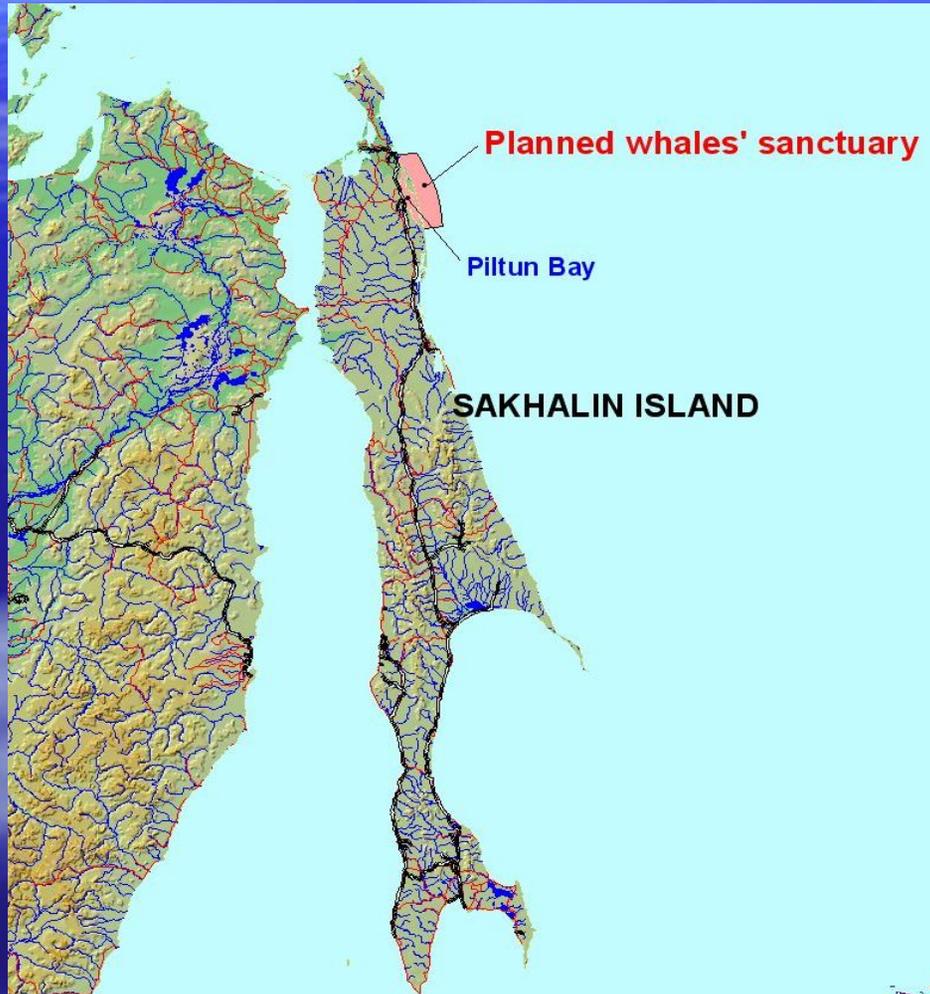


# Planned MPAs:

- **Sakhalin whales' sanctuary;**
- **Shantar Islands National park;**
- **Askold & Putyatin Islands Nature park;**



# Sakhalin whales' sanctuary



- Korean-Okhotsk grey whales population feed & breed off the Piltun Bay, oil & gas companies activity area.





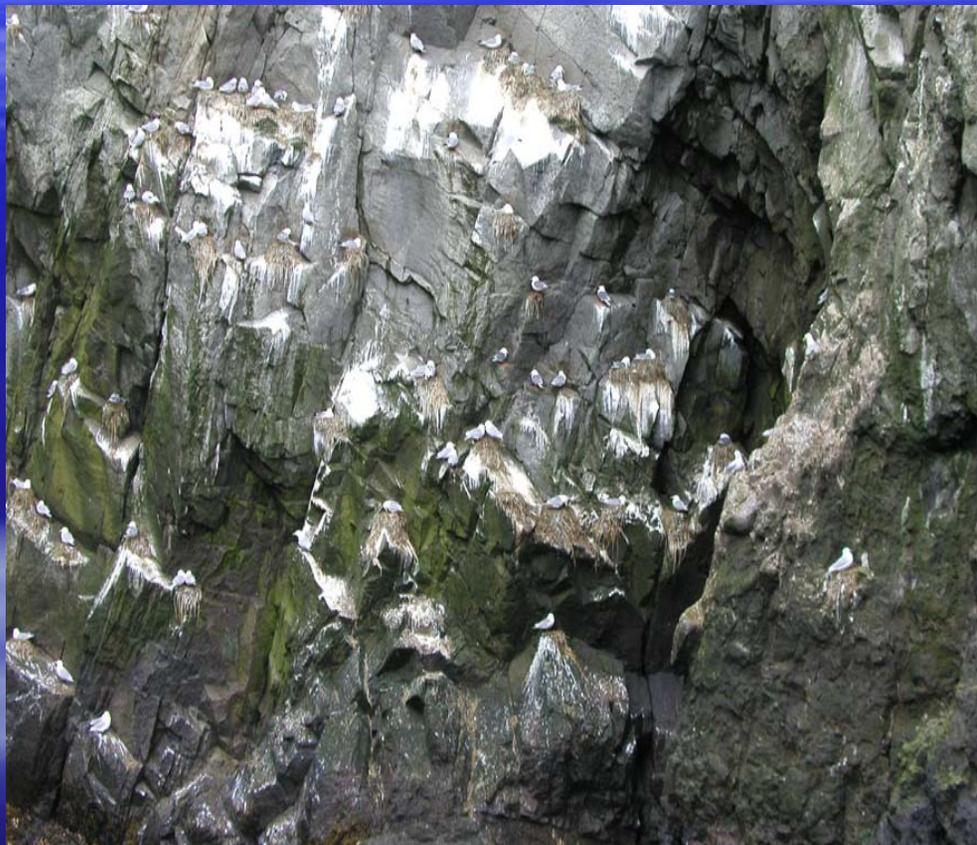
# Shantar Islands National Park (SINP):



- **SINP should be created to protect:**
- **Steel-head salmon (Mikis);**
- **Bow-head whales' feeding and breeding grounds;**
- **Seals' & seabirds rockeries**



# Present & potential activity around SINP:



- Park should be a focal point for multiple usage zone around it with:
- Sustainable fishery for crabs, shrimps, salmon;
- Tourism, including whales observation.



# Threats to biodiversity & resources:



**Plans for oil drilling and oil transportation on the shelf;**

- **Silver & platinum mining on the islands.**



# Putyatin & Askold Islands' Nature park (PANP):



- PANP should be a model for marine nature park creation, representing multiple usage zone, including:
- Protection,
- Small scale-off-shore fishery,
- Tourism, deer farming, etc.



## What WWF-Russia does & proposes:

- **Create new marine protected areas (in Australia – 403 MPAs, in our country – less then 10 more or less preserved marine territories);**
- **Improve regime of protection and management of existent MPAs;**
- **Execute strategy planning & zoning of MPAs, defining areas with different regimes of protection;**
- **Organize partnership between MPAs, fishermen and tour operators for bioresources protection & sustainable usage.**



# What WWF-Russia does & proposes (continued):



- A new study, published by WWF shows that marine reserves help depleted stocks of commercially important fish make a quick recovery (In: “Benefits beyond boundaries: the fishery effect of marine reserves” by Fiona R. Gell & Callum M. Roberts, in press). Similar data exist for Russian MPAs, but more detailed analysis required;



## **What WWF-Russia does & proposes (continued):**

- **Marine reserves will not solve fishery problems on their own.**
- **They will be most effective when they are used in conjunction with other limits on fishing fleet sizes, fishing gear and the quantity and size of fish catches, all of which are measures being discussed here, in Seoul.**



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children!*



**We invite you to be our partner  
in this noble mission!**