Ukrainian Scientific Center of Ecology of the Sea (UkrSCES)

SeaDataCloud Kick-Off meeting

30 November 2016

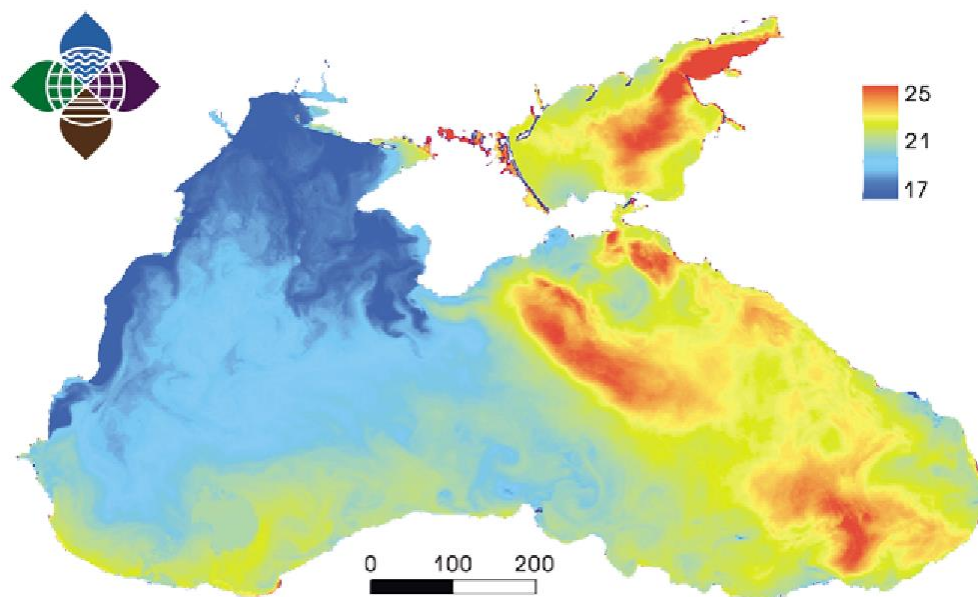*V. Komorin, O. Neprokin, Y. Ivchenko*

Main goals

- General information about UkrSCES
- Scientific and technical activities for protection and rehabilitation of the Black Sea
- Educational activities
- Regional Activity Centre on Pollution Monitoring and Assessment
- Information support of Monitoring System

Summary

◆ The Centre has been established in 1969 as the Odessa branch State Oceanographic Institute and in 28 January 1992 renamed as Ukrainian Scientific Centre of Ecology of the Sea to provide scientific support of the state policy of Ukraine in the field of environmental protection, usage and renewal of natural resources of the Black Sea and the Sea of Azov, and to ensure fulfilment of the international engagements of Ukraine that arise out of the signed conventions, treaties and agreements.
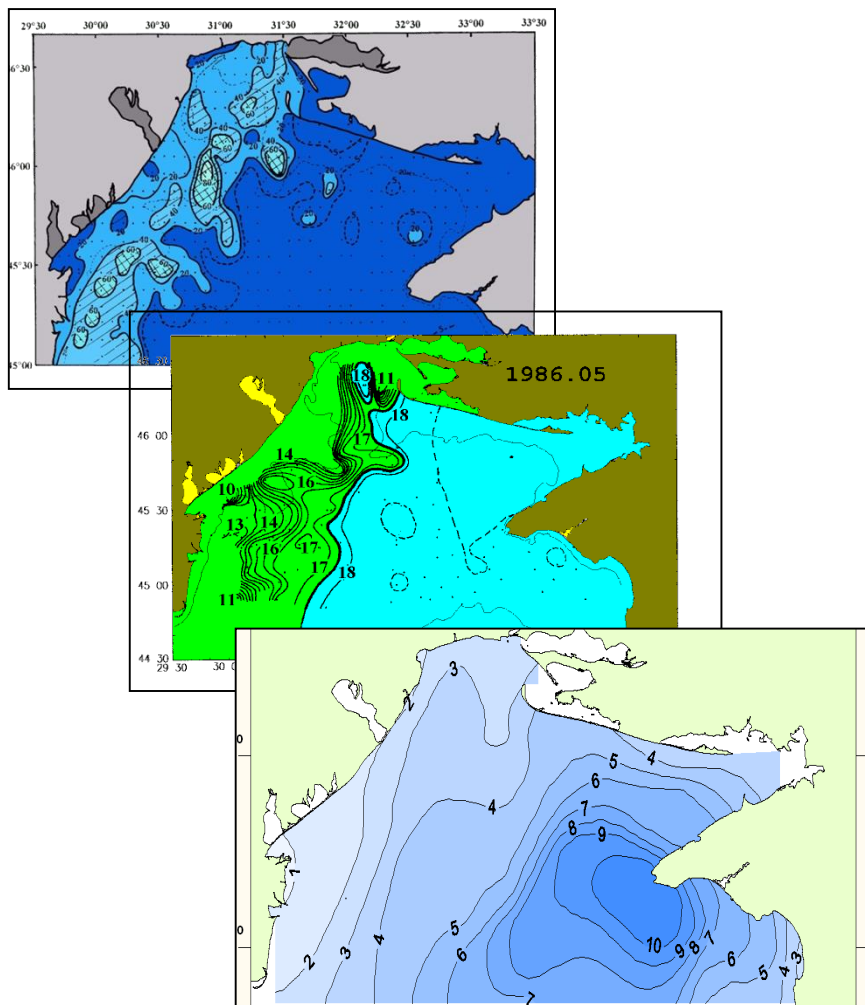
Scientific and technical activity for protection and rehabilitation of the Black Sea
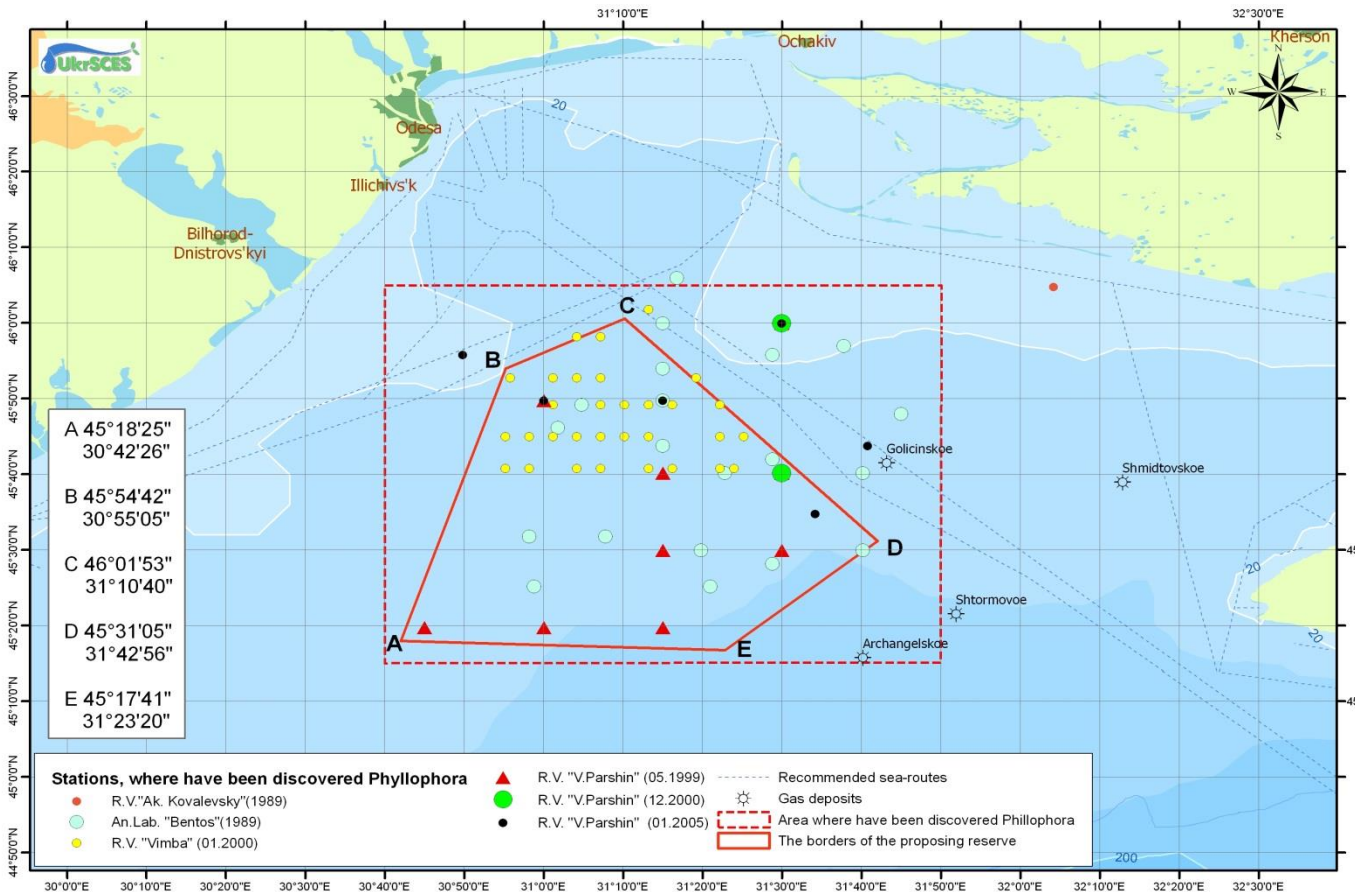

The sea surface temperature, typical for mid-summer

Task 1: Reduction of the pollution level and anthropogenic loading at the Black Sea
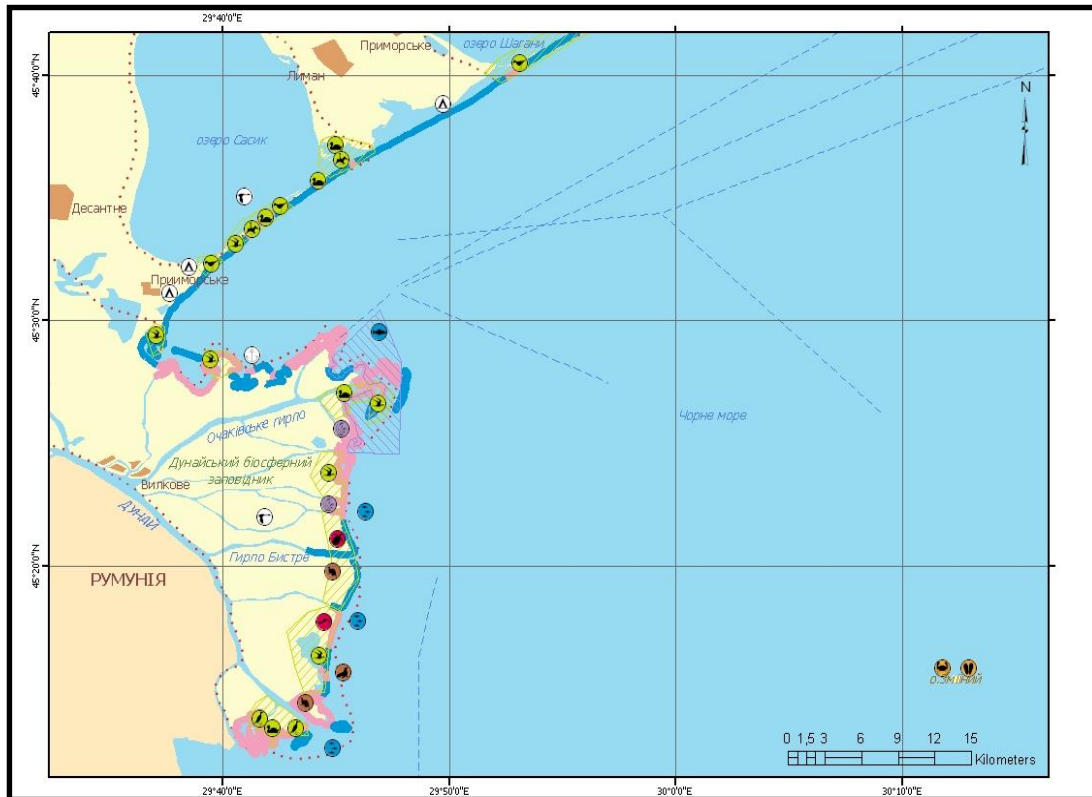

- Reinvent of toxic substances contents in the coastal pollution sources of the sea
- Development of the Program reduction of the most dangerous anthropogenous sources influenced to the sea
- Development of the Plan of measures on prevention of marine water pollution
- Creation of the software of the forecast of the oil spills
- Development of Recommendations on optimization of damping areas

Task 2: Preservation and reproduction of the biodiversity and natural landscapes of the shelf

Creation of the reserved area "Zernov's field" and maintenance of its functioning

Creation of the reserved area "Small phyllophora field in the Karkinitsky Bay" and maintenance of its functioning
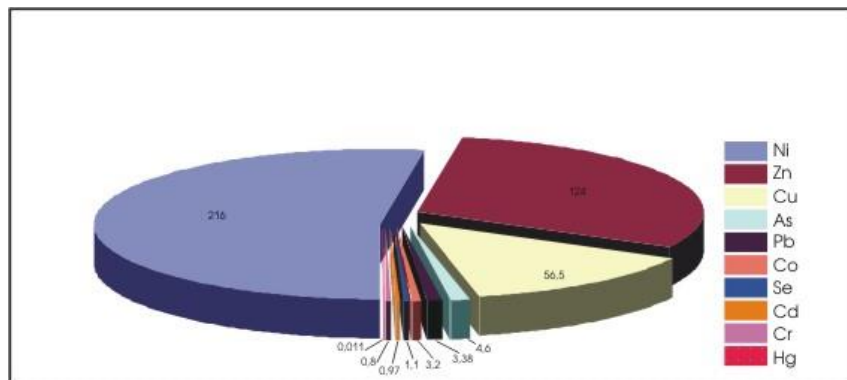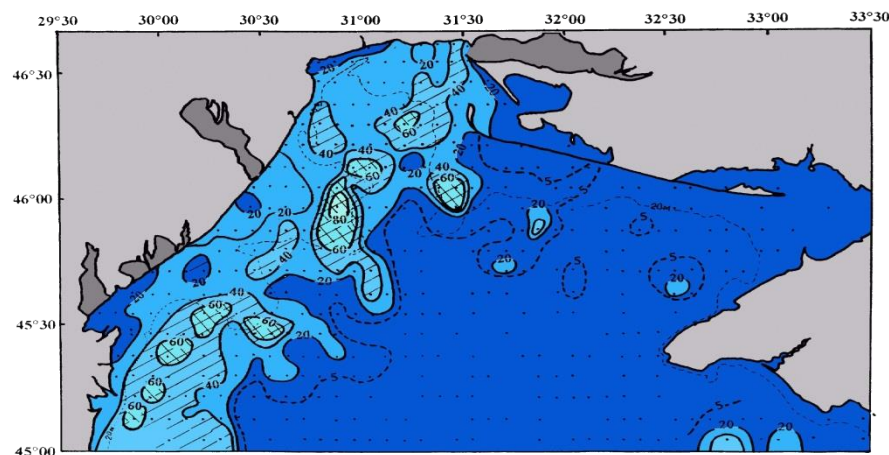
Task 3: Marine and coastal management

- Development of the Marine and coastal strategies according to the natural resources and anthropogenic loading

- Organization of the information-analytical center (IAC) of the ecological parameters and ecological knowledge about Black and Azov seas
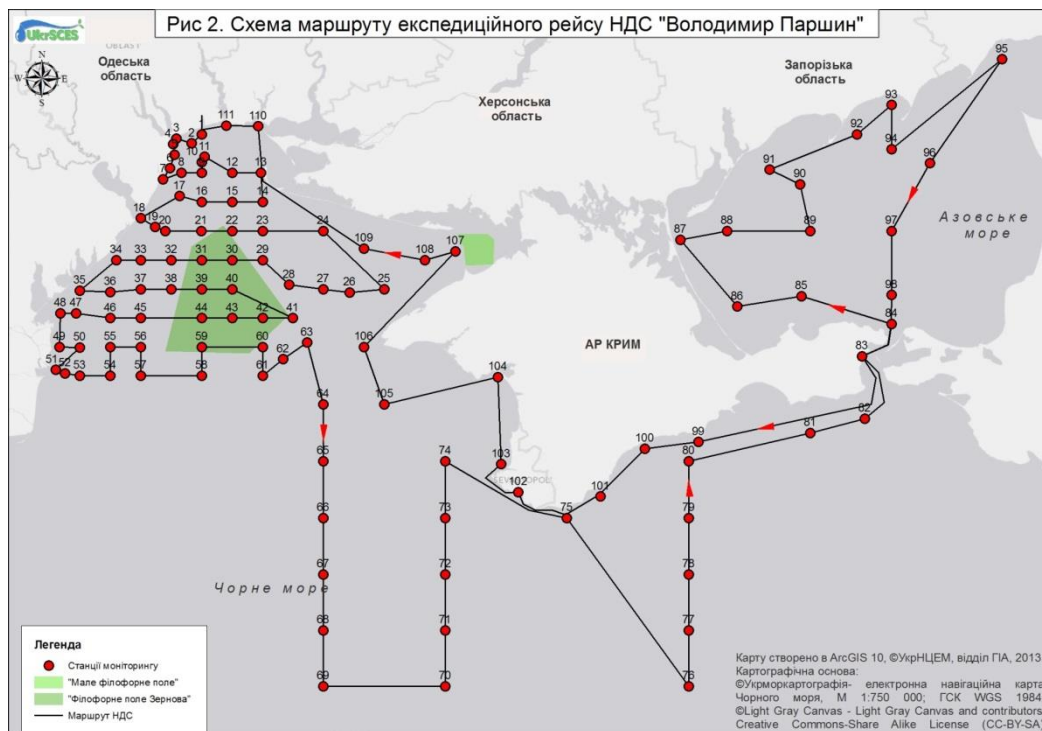
Task 4: The scientific researches focused on the main ecological problems of the Black Sea

1) Eutrophication of seawater and negative ecological effects of this phenomenon

2) Toxic and radioactive pollution of marine environment

Task 5: Improvement of the monitoring system and assessment of Black Sea environment

Рис 2. Схема маршруту експедиційного рейсу НДС "Володимир Паршин"

- Organization and carrying out of the marine ecological monitoring
- Research of the marine ecosystem dynamic
- Research of biological effects of marine pollution
- Organization and carrying out of the special marine ecological monitoring in damping zones and in zones of gas and oil extraction

Educational activities

- Scientists of the UkrSCES give the lectures in OSENU and ONU
- Scientific employees support course papers and master works of students
- There are exercising, training and practices for students on the base of UkrSCES
- The informational materials about the methodology and research results of the ecological state of the marine environment have been prepared
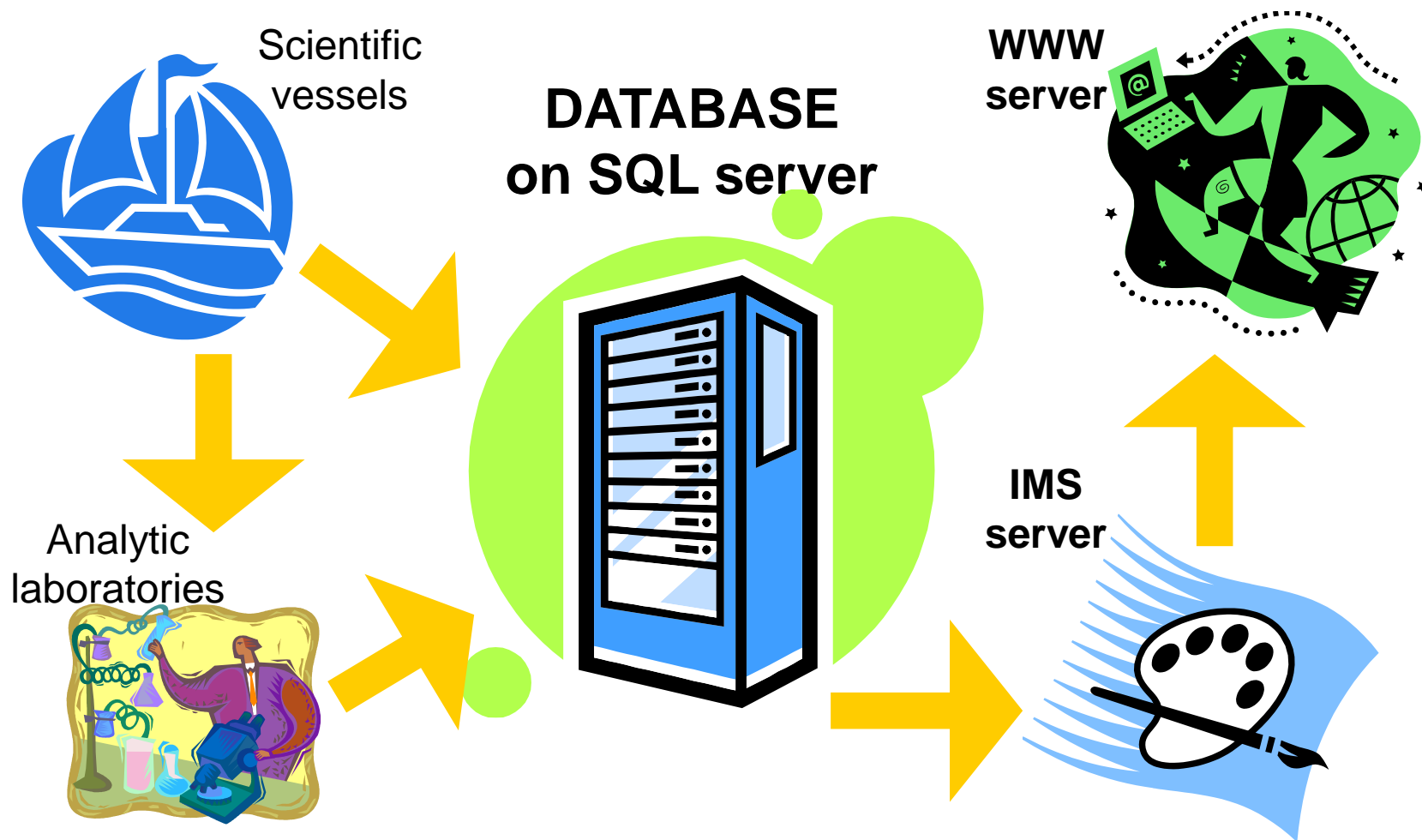
Main International Activities

✓ UkrSCES is involved in the Project 'Improving Environmental Monitoring in the Black Sea" (EMBLAS-Phase 2). The overall objective of the project is to help improve the protection of the Black Sea environment:

✓ Improve availability and quality of Black Sea environmental data in line with the MSFD and Black Sea Strategic Action Plan (2009) needs;

✓ Improve partner countries' ability to perform marine environmental monitoring along MSFD principles, taking into account the Black Sea Diagnostic Report II recommendations on capacity building.

In accordance to the Strategic Action Plan for Rehabilitation and Protection of the Black Sea the Centre has been accredited as the Regional Activity Centre on Pollution Monitoring and Assessment (1996)

Information support

Scientific vessels

Analytic laboratories

DATABASE on SQL server

WWW server

IMS server

Server software

- ✓ Microsoft Windows Server 2012 (trial)
- ✓ Microsoft SQL Server 2008 (trial)
- ✓ ESRI ArcGIS Desktop 10.x
- ✓ ESRI ArcGIS Server 10.x
- ✓ ERDAS Imagine 2015
- ✓ Canonical Ubuntu Server 14.x
- ✓ pfSense firewall & routing 2.x
- ✓ Other software (MapServer, SDN DM, MySQL etc.)

UkrSCES International Data Exchange

The following International Projects from 2006:

BlackSea SCENE, PlanCoast, Upgrade Black Sea Scene, Baltic2Black, CoCoNet, EMODNET Chemistry, etc.

✓ UkrSCES has been designated as an IODE Associate Data Unit (ADU) on 15 July 2014.

✓ From February 2016, UkrSCES is accredited as the Black Sea OBIS node.

Thank you very much for your attention!!!