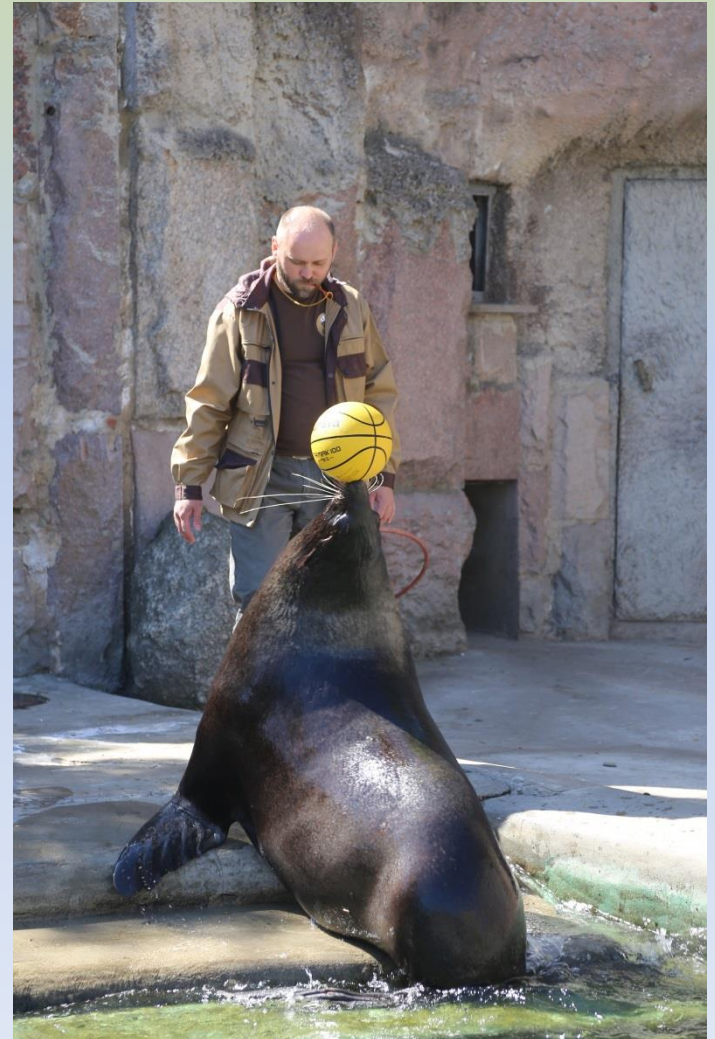


Marine animals welfare in captivity



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The question of the welfare of animals in captivity attracts more attention both from zoological workers and simply lovers of keeping pets. Two main questions: how to provide animals in captivity welfare and how to measure it.

Measuring the welfare can be from the opposite: by the absence of physical abnormalities and behavioral disorders.

For good welfare animals need physical well-being. But this is not enough. It is necessary to allow the animal to realize a typical social behavior, to provide the necessary environment of conspecific. But this is not enough. Animals need new developments and opportunities to control the environment. If the novelty and control is small, the animal in captivity is threatened with boredom. If there is a lot of novelty, but there is no possibility of control - the animal experiences extreme stress. The best option is a lot of novelty and a great opportunity to control the environment.

Welfare



How to ensure?

- *Not to cause suffering*
- *Meet basic needs*

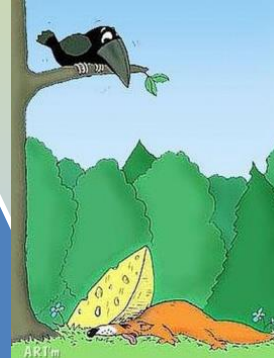
How to measure?

From the opposite:

- *There are no physical deviations*
- *No pathological behavior*

Animals welfare

*Novelty@
control*



Social welfare

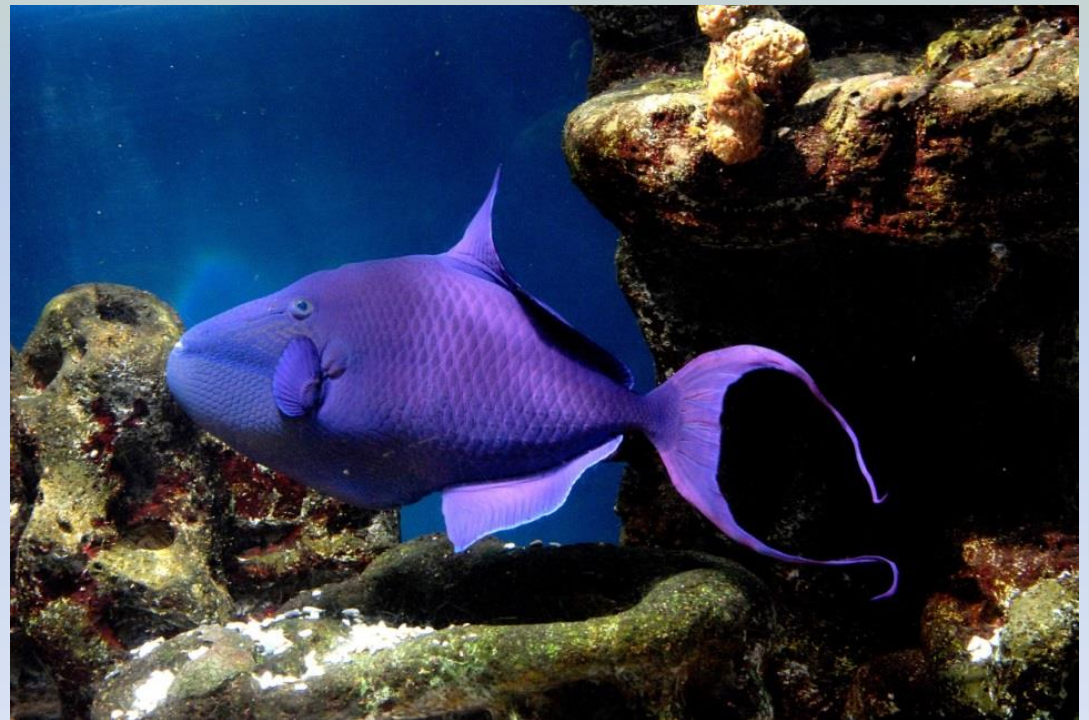


Physical well-being



Physical well-being

- Lives long
- looks good
- Not sick



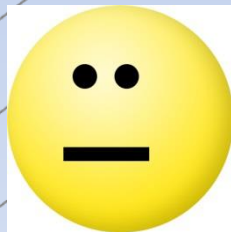
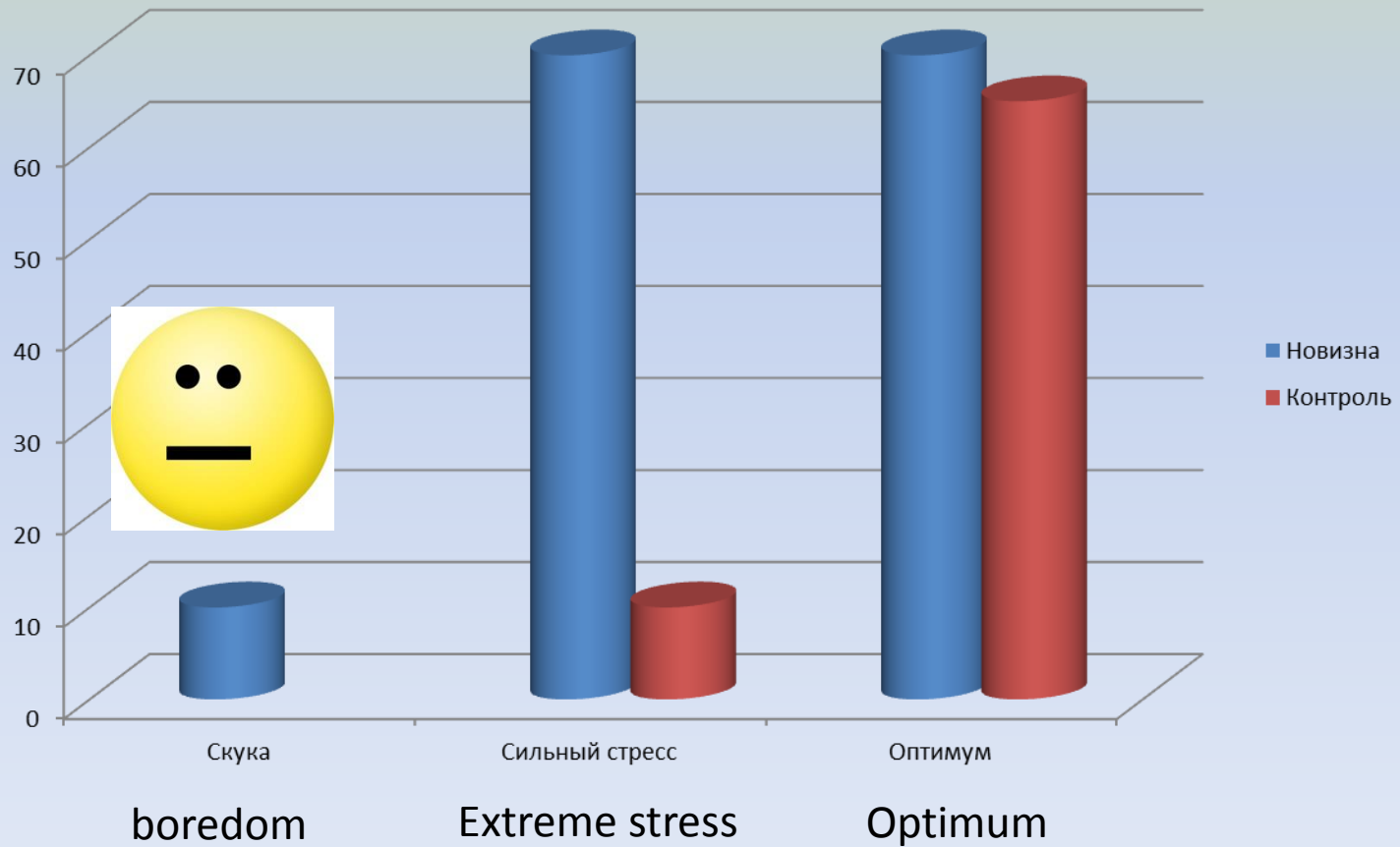
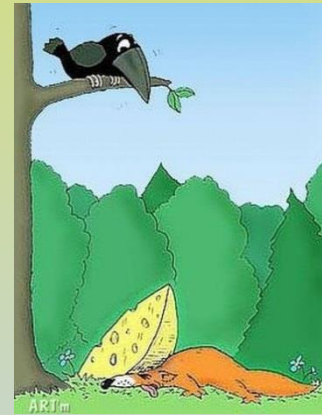
Social welfare

- Optimal contact density with conspecific
- Signal biological field
- Keeper as a partial replacement of conspecific



- Adequately communicates with conspecific
- Realizes a full range of social behavior
- Reproduces
- Cares for the offspring

Novelty and control



Novelty

Enrichment of the environment

Communication with conspecific

Other animal species, including humans

Training



Control

Choice

Transformation of the surrounding space

Influence on conspecific and human

life experience



