

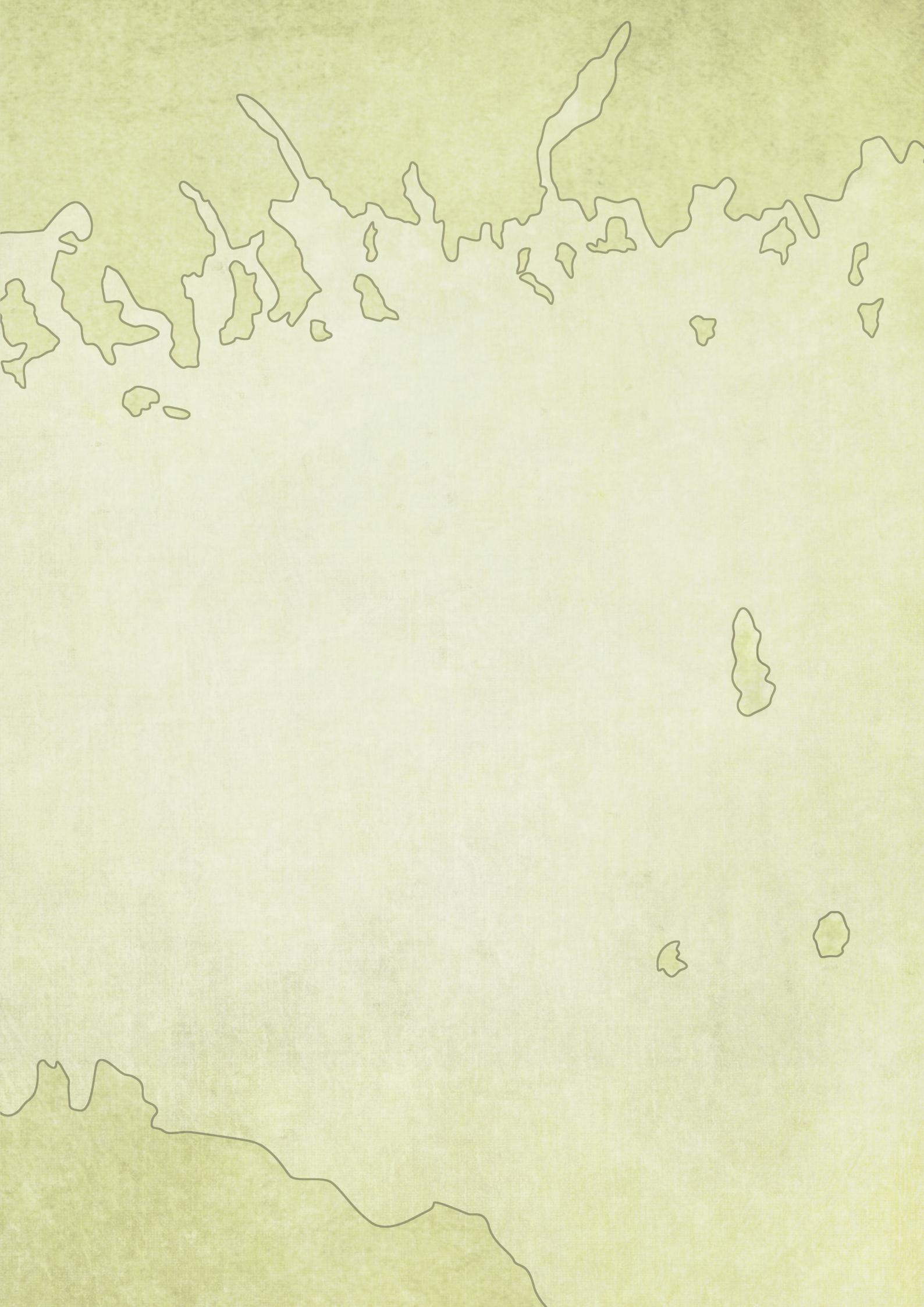
# FLOOR GAME

## „BIOTA OF THE GULF OF FINLAND“

GAME INSTRUCTIONS



I  GULF OF  
FINLAND



## 2014 – Year of the Gulf of Finland

The year 2014 is the international Year of the Gulf of Finland, which aims to improve the marine status of the gulf and maintain the unique qualities of the gulf as a living environment. Some data on the gulf:

- the Gulf of Finland is the easternmost gulf of the Baltic Sea
- the gulf is surrounded by Estonia, Finland and Russia
- area 29 500 km<sup>2</sup>
- average depth 38 m, greatest depth 121 m
- length 420 km, greatest width 125 km
- salinity of seawater is 0,2 – 8,5 parts per mille (increasing toward the west)
- water exchange is slow due to narrow connection to the ocean
- the Gulf of Finland is part of the world's largest brackish water body and has therefore a unique biota

Threats to the Gulf of Finland and its biota:

- dense shipping traffic
- marine pollution, incl. heavy metals, oil pollution, algal blooms, etc.
- invasion of alien species
- declining food base for marine birds, bycatch of birds in fishing nets, birds getting killed by wind turbines along their migration routes
- bycatch of marine mammals in fishing nets; poaching; ice fields broken by ships, which may destroy the dens and breathing holes of seals
- ecological status and damming of the spawning rivers of salmonids



# Floor game „Biota of the Gulf of Finland”

By playing this game you can

- learn to know the small creatures, fishes and mammals living in the gulf
- make acquaintance with the birds, aquatic plants and algae in the gulf
- discover how marine inhabitants are interlinked with one another through food chains
- ponder on how the health of marine communities and welfare of marine species affects humans and how humans, in turn, affect the sea
- angle and fish as much as you can

The game set includes

- a gameboard – Gulf of Finland puzzle (15 puzzle pieces)
- 17 fish figures: 2 Baltic herrings, 2 sprats, and a pike, pikeperch, perch, salmon, brown trout, burbot, roach, flounder, viviparous blenny, turbot, garfish, vimba bream, lumpfish (one of each)
- 15 picture discs with marine plants and animals: zooplankton, phytoplankton, blue mussel, Baltic clam, ragworm, isopod crustacean Saduria entomon, Gammarus amphipod, chironomid larvae, bladderwrack, ringed seal, grey seal, white-tailed eagle, great black-backed gull, long-tailed duck, eider
- 3 fishing rods
- a game instruction
- a set of picture cards
- a game briefcase



## Game implements

The **gameboard** is a coloured plywood map of the Gulf of Finland, which can be assembled as a jigsaw puzzle (15 puzzle pieces). For each country on the Gulf of Finland, the gameboard depicts a characteristic example of architecture and the national animal, bird and fish (brown bear, whooper swan and perch for Finland; brown bear and tundra swan for Russia; and barn swallow and Baltic herring for Estonia). In addition, the map depicts species characteristic of the entire region – razorbill, hare, wolf, tufted duck, goosander, mallard, elk, fox, ringed seal, and grey seal. Seals are shown amidst archipelagos.

In addition to the gameboard and instruction, the game box contains 3 fishing rods, 17 plywood figures of fishes living in the Gulf of Finland, 15 picture discs with other inhabitants of the gulf, and a set of picture cards.

The front side of the **fish figures** shows an image of the species, while the back side shows a number, the name of the species, and data on its length, weight, diet, lifespan, maturity age, etc. The fish figures are used in different games: the fish can be angled from the sea on points, speed or skill, or compiled into food chains.

*Note:* the length shown on the back side of the fish figures is the length of adult specimens from the tip of the snout to the tip of the caudal fin; the figures for maximum length and weight show the maximum length and weight of specimens caught from Estonian waters.

The front side of the **picture discs** shows an image of the species or group of species, while the back side shows a number and interesting data on each species/group. The picture discs with the inhabitants of the Gulf of Finland can also be used in several games: in compiling food chains, or in playing other games as described below.

In the set of **picture cards** you will find the common names and characteristic features of the inhabitants of the Gulf of Finland, as well as information on who eats whom. The cards also contain information on which species are important also for humans as consumers in the food network.

## How to play

The floor game „Biota of the Gulf of Finland” can be played in 8 versions as described below. The common aim of the games is to familiarise players with the biota of the Gulf of Finland. The game introduces a selection of fishes, mammals and birds living in the Gulf of Finland, as well as invertebrates from offshore waters, seaweed beds and the bottom fauna – their different ways of life and unique features, their feeding relationships and relationships with us, humans. The games have different levels of complexity so that each age group will find a manageable option. An overview table on our web page helps to find a suitable game depending on the age of players, the number of participants, and the amount of time available.

## Game descriptions

### 1. Jigsaw puzzle game

**Implements needed:** puzzle pieces of the gameboard



#### Aim of the game

When assembling the puzzle, kids will learn to know the birds and animals depicted in the puzzle and the locations of the countries surrounding the gulf – Finland, Russia and Estonia – in relation to one another and the Gulf of Finland. Assembling the puzzle supports their visual memory and manual development.

#### Course of the game

A jigsaw puzzle depicting the map of the Gulf of Finland is assembled.

### 2. Greatest catch or angling on points

**Implements needed:** fishing rods, fish figures



#### Aim of the game

By playing the angling game, kids will learn to know the fishes living in the Gulf of Finland. The game develops their concentration and skill, helps them learn numbers, and adding up the points develops their calculating skills.

#### Course of the game

The fish are placed either on the preassembled gameboard or on the floor. Players take turns to try and hook them. Three fishermen can do this at a time, trying to direct the fish hook into a loop near the fish's eye and drag the fish over. On the back side of the fish caught, the player will find the number of points obtained for it. When all fish have been caught, the catch will be checked over and each player will name the fishes they caught. The points are then added up, and the player with the highest score is the winner.



### 3. Fast fishing or angling on speed

**Implements needed:** fishing rods, fish figures, a stopwatch or watch, paper and pencil for marking down the angling times



#### Aim of the game

By playing the angling game, kids will learn to know the fishes living in the Gulf of Finland. The game develops their concentration and skill, and using a stopwatch or watch teaches them to discern and add up seconds and minutes.

#### Course of the game

The fish are placed either on the preassembled gameboard or on the floor. One of the players will try to catch an agreed number of fish as fast as possible. Another player measures the time spent. If the angler tells the correct name of the fish caught, he gets some bonus for it – three seconds for each fish named correctly will be subtracted from the total time. The players then change places and the angling time of another player is measured. This is done for all players. The one who caught the fish fastest wins. The game can also be played in teams.



## 4. The longest dining table or compiling food chains

**Implements needed:** fish figures, picture discs, set of picture cards



### Aim of the game

The game teaches kids to know the species living in the Gulf of Finland and their feeding relationships. It develops their functional reading skills and concentration and helps them understand an ecosystem as a whole.

### Course of the game

In this game, the fish figures and picture discs are used to compile as long food chains as possible. On the back side of each fish figure the players will find the diet of the fish, and similar diets are presented on the back side of each plant and animal disc. Using the obtained knowledge, the players will try and line up the discs and fishes so that each previous one is food for the next one. The set of picture cards can also be used. For instance, a player takes a picture disc of bladderwrack and learns from it that seaweed beds provide habitat and food for Gammarus amphipods. He adds the picture disc of Gammarus amphipods as the second disc next to the one of bladderwrack. From the disc of Gammarus amphipods, he learns that they are food for viviparous blenny, and adds the viviparous blenny disc as the third one in the line. The player then looks for a mammal feeding on viviparous blenny, identifies it as ringed seal, and adds the picture of ringed seal as the fourth link in the chain. Finally, he adds white-tailed eagle, who feeds on seal carrion, as the fifth link. The player now has a food chain consisting of five links. The one who compiles the longest chain is the winner.



The game can also be played with some preparation time, in which case e.g. 10 minutes are spent on making acquaintance with the species and their descriptions and preparing the food chains (with the help of paper and pencil). The players then present their food chains: using the information obtained from the fish figures, discs and cards, they introduce their food chains in the form of a story or narrative. In this version of the game, not just the length of the food chain but also the expressiveness and precision of the presentation counts as part of the competition. The best presentation can be selected by voting.

## 5. Guessing game

**Implements needed:** fish figures, picture discs, game briefcase, sitting pad



### Aim of the game

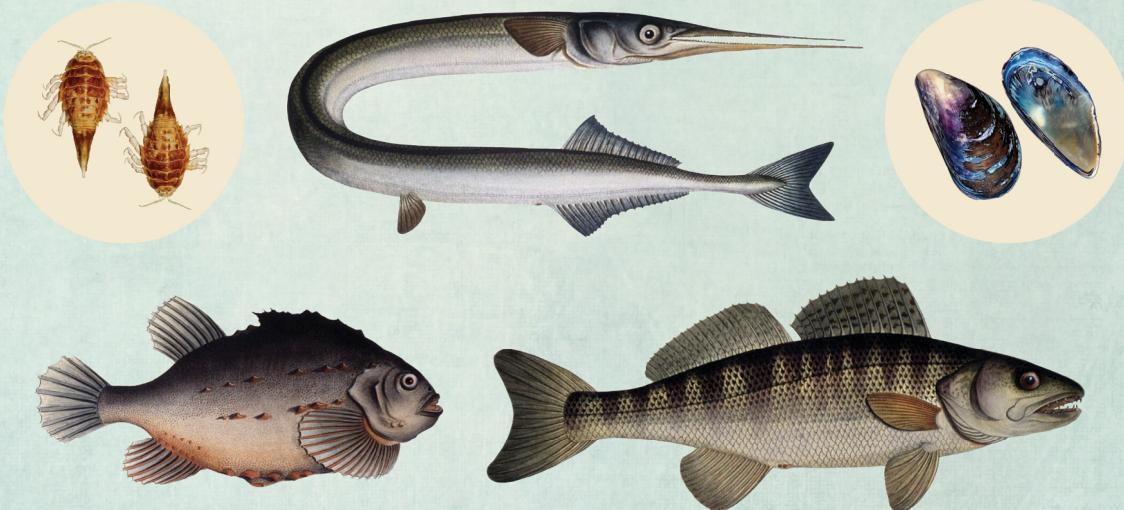
By playing the game, kids will learn to know the species living in the Gulf of Finland by their specific features and develop their describing skills.

### Course of the game

The players sit in a circle and select from among themselves a guesser, who turns his back to the others. The companions select a fish figure or picture disc and place it in the middle of the circle. The player sitting backwards to the others has to guess, by asking questions from the others, which species or group of species was selected. The questions must be posed so that they can only be answered with "yes" or "no". When the player reaches the right answer, another player will turn his back and the game starts again.

The game can also be played so that the youngest player chooses one of the fish figures or picture discs, turns backwards to the others and starts giving clues about the chosen plant or animal – e.g. what it eats or who eats it, what it looks like, etc. The others will try to guess the plant or animal in question by the clues. The one who guesses the right answer gets the disc or fish figure and is the next one to give clues. The game continues until all fish figures and pictures have been divided. The one who has collected the most figures or discs wins.

The game can also be played with fish figures only, or so that the points shown on them are added up at the end of the game and the one who got the most points is the winner.



## 6. Pictures lined up or arranging species by their features

**Implements needed:** fish figures, picture discs



### Aim of the game

Through the game, kids will learn to know the species living in the Gulf of Finland by their features and attributes. The game develops their ability to notice small details and comprehend relationships.

### Course of the game

Younger players can play the game with the assistance of an instructor and simpler features can be used.

The players will line up (or group) fishes and discs by their various features, for example:

- by the size of the fishes, starting from the biggest/smallest
- by dietary features: non-predatory and predatory fishes
- by the spawning time of the fishes
- by features chosen using the player's own fantasy on the condition that the player is able to justify the connections
- by the numbers on the back side of the picture discs and fishes (the 32 fish figures/picture discs are marked with numbers 1–8 – thus, each number occurs on four different discs or figures). For example, the players look up all discs/figures marked with number four and try to find out what connects them.

## 7. Hot figures

**Implements needed:** picture discs, fish figures, a device for playing music (singing will also do)



### Aim of the game

By playing the game, kids will learn to know and describe the species living in the Gulf of Finland.

### Course of the game

The players sit in a circle, with a fish or picture disc in front of each of them with the information side against the floor. As music starts playing, they will start pushing them counter-clockwise along the floor to the next player. When music pauses, everyone looks what fish or picture disc they have got in front of them. The players have to describe the disc or fish they have got; smaller players just name them. The music then starts again and the images are moved on.

From 12 years on, the game can also be played so that one player has no fish or picture disc at the start of the game. The one who is left with no fish or picture disc when the music pauses leaves the game, taking along the fish of another player to his right. The music then starts again and the fishes are moved on. The last one to remain in the circle wins..

## 8. Fish towers

**Implements needed:** fish figures



### Aim of the game

The players will learn to know various fishes living in the Gulf of Finland by their characteristic features and develop their reading and conversion skills.

### Course of the game

The game is played using the numeric data on the back side of the fish figures (length, weight, lifespan, maturity age, etc.) or the number of letters in the fish's name. All data are converted to numbers: for example, the 1st, 2nd, 3rd, etc. month of the year. The fish figures are divided between players so that they all have the same number of them. All players stack their fish on top of one another as a tower. The player to start the game is selected by e.g. who ate fish last. The starting player chooses a data category, e.g. the lifespan of fishes. All players tell the lifespan of the uppermost fish in their towers. The one who has got the fish with the longest lifespan is given all the uppermost fishes of the others, puts them underneath his fish tower and is the next one to choose the category – e.g. the weight of the fishes. The player who has got the heaviest fish gets the uppermost fishes of the others. The one who collects the fishes of all other players wins.



# **Floor game „Biota of the Gulf of Finland”**

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