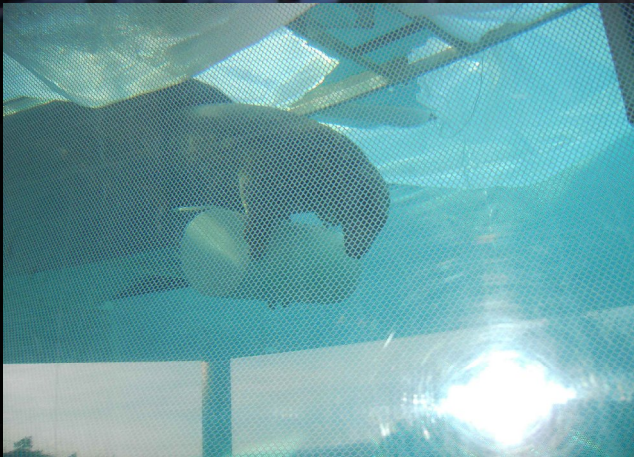


## Conclusion

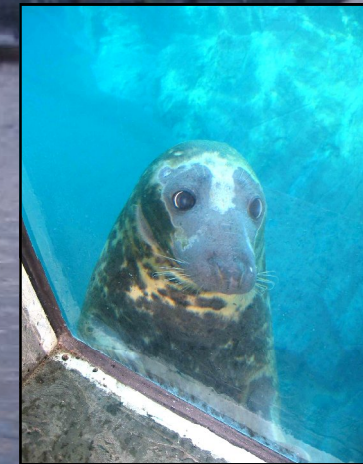
Liivi paid 10kg for the artificial kelp, suggesting that her motivation was weak. However, the circumstances outside the experiment (reproductive period) indicate that the result was not reliable.

Are seals willing to pay for access to artificial kelp and live fish?

Final thesis  
**Jenny Ruotimaa**



Liivi swimming through the entrance gate into the net cage.



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## Background



**To make an animal pay a price** is a way of establishing what kinds of resources the animal wants to have access to and

how strong its motivation is. The price is in the form of time or energy spent e.g. when pushing through a weighted door.

**Comparing the resource** of interest with a resource of a known value is useful when measuring motivation. If motivation for the resource of interest is equal or higher than motivation for a resource that is known to be valuable, the resource of interest is said to be important.

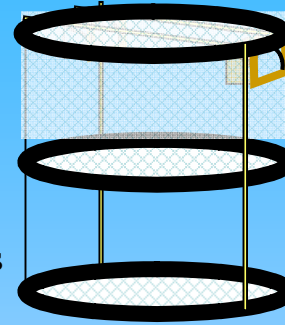
**The maximum price paid approach** measures the highest price an animal is willing to pay for one visit to a resource. The price is gradually increased until the animal stops paying.

### **Aim**

Was the seal, Liivi, willing to pay for access to artificial kelp and live fish, and how much was she willing to pay?

## Method

A female grey seal (*Halichoerus grypus*), Liivi, was the test subject. A large cylindrical net cage, with an entrance and exit gate at the top, was used as the test arena.

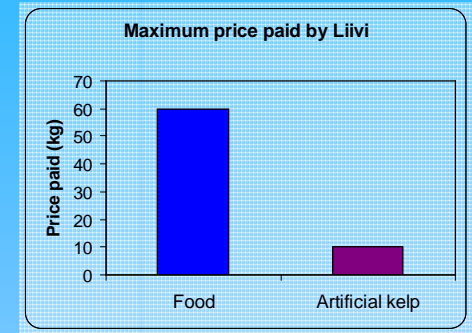


The entrance gate had a float that could be filled with air making it difficult to open. Liivi was introduced to a live fish before the experiment, but did not like it and therefore the experiment with live fish had to be aborted. The weight schedule was: 0, 10, 20, 30, 40, 45, 50, 55, 60 and 65kg. Dead fish (food) was the comparator i.e. was compared to artificial kelp. Liivi had been without food for 6 hours at the time of testing with food and was therefore expected to be hungry. The experiment was carried out between February 16<sup>th</sup> and March 23<sup>rd</sup>.

Max. price kelp  
————— = % willingness to pay for kelp  
Max. Price food

## Results

In the experiment with food Liivi managed 60kg, and with artificial kelp she pushed 10kg. The maximum price paid for kelp was hence 17% of the maximum price paid for food.



The maximum price paid the grey seal Liivi was willing to pay for food and artificial kelp.

## Discussion

The result shows that artificial kelp was not an attractive resource. This result can not, however, be applied to every grey seal since Liivi was the only seal participating in the experiment. There are two possible reasons why Liivi was not that interested in the artificial kelp.

1. She had come into heat after giving birth to a stillborn in the beginning of the experiment with artificial kelp. Because of this, she seemed to have lost all interest in almost everything except the male grey seal
2. There was a 10 days break in the experiment after she had given birth. During this break, she might have forgotten what to expect in the cage and might therefore have been unwilling to pay a higher price for an unknown resource.