## Whitepaper - Jumping Fish

White paper on how fish jump out of open aquariums

26-2-2017 BANANAQUARIUM



# BANANAQUARIUM

### To serve and protect

#### Index

Introduction	2
1. What causes fish to jump?	3
2. How does a fish jump out of the aquarium?	4
3. Solution and advice	5
4. Conclusion	6

#### Introduction

With the hype of the open aquariums (rimless tanks) came a problem which has yet to be solved elegantly. The rimless tank has got a high standard of design and aesthetics, we aim to preserve this whilst solving the problem of fish jumping from the water.

First we will explore what causes the fish to jump, after which we will look at how a fish jumps out of the aquarium (with a bad ending). At last we will give advice on how to prevent this the best way possible.





#### 1. What causes fish to jump?

There are a lot of causes to be considered, any of which could result in a fish jumping out of the aquarium. Some of the common causes could include but will not be limited to:

- Stress
- Mating rituals
- Territorial drift
- Startle response
- Fighting or bullying
- Poor living conditions
- Traits of the fish
- Parasite infection
- Feeding the fish

We always try to minimize these causes although we have to understand that all causes cannot be fully eliminated. Therefore we must make sure the fish cannot escape the aquarium.





BANANAQUARIUM

## BANANAQUARIUM

AHH

#### 2. How does a fish jump out of the aquarium?

It is a question we must ask before covering up the entire aquarium with a cover or a lid. It might be too much protection!

Now how does a fish jump out of the aquarium? It mostly happens due to stress inside of its habitat, which will mostly include bullying, fighting, territorial drift from another fish, or a startle response. This will cause the fish to flee the area where the cause is located in a horizontal manner. Meaning that it will at one point, hit the glass. When the fish hits the glass, there is only one way to go: Up. Now the fish is launching itself from the water near the glass side of the aquarium. This mostly results in the fish ending up on the floor, outside of the tank. For a great illustration about how this happens, please see the following cartoon:

2







1. How does a fish jump out of the aquarium?

#### 3. Solution and advice

Now there are countless solutions thought up during the past years. Most of these solutions made sure the rimless (and open) aquarium was covered with a lid or a cover screen of sorts. Obviously not the reason why an open aquarium is bought in the first place.

Therefore Bananaquarium has developed a solution which will keep the fish inside the aquarium in the circumstances outlined in chapter 2.



This system, called the Bananaquarium FishGuard, is a system which needs to be installed only once. After that there is not a single reason why it should be removed from the aquarium. The system is compatible with most rimless aquarium setups. Since the mesh is flexible, it can be moved over and around all sorts of obstacles which could be in the path of installation without it limiting the product's functionality

We have great trust in our product. The tests we ran concluded that the FishGuard alone can be effective to keep the fish inside your aquarium! But, for some people we know it is desirable to still cover the entire aquarium with a mesh screen adding extra protection.

Our product can be used in combination with all existing mesh covers! This ensures that you are really covering your entire aquarium, even without removing the existing FishGuard



#### 4. Conclusion

Fish jump out of the water so now and then, they are still animals in the end. This can have multiple causes, which cannot always be prevented. So we require to install products to the aquariums to keep the fish safe when they try to escape. The Bananaquarium FishGuard prevents many of the cases where fish would normally end up on the ground. The FishGuard does it with great elegance. Our product is barely visible, and highly effective. We advice the use of the Bananaquarium FishGuard so you can optimally enjoy your fish, without having the outsight being disrupted by an aquarium cover screen or lid!



2. With the use of the Bananaquarium FishGuard, your fish will stay safely inside the aquarium.

