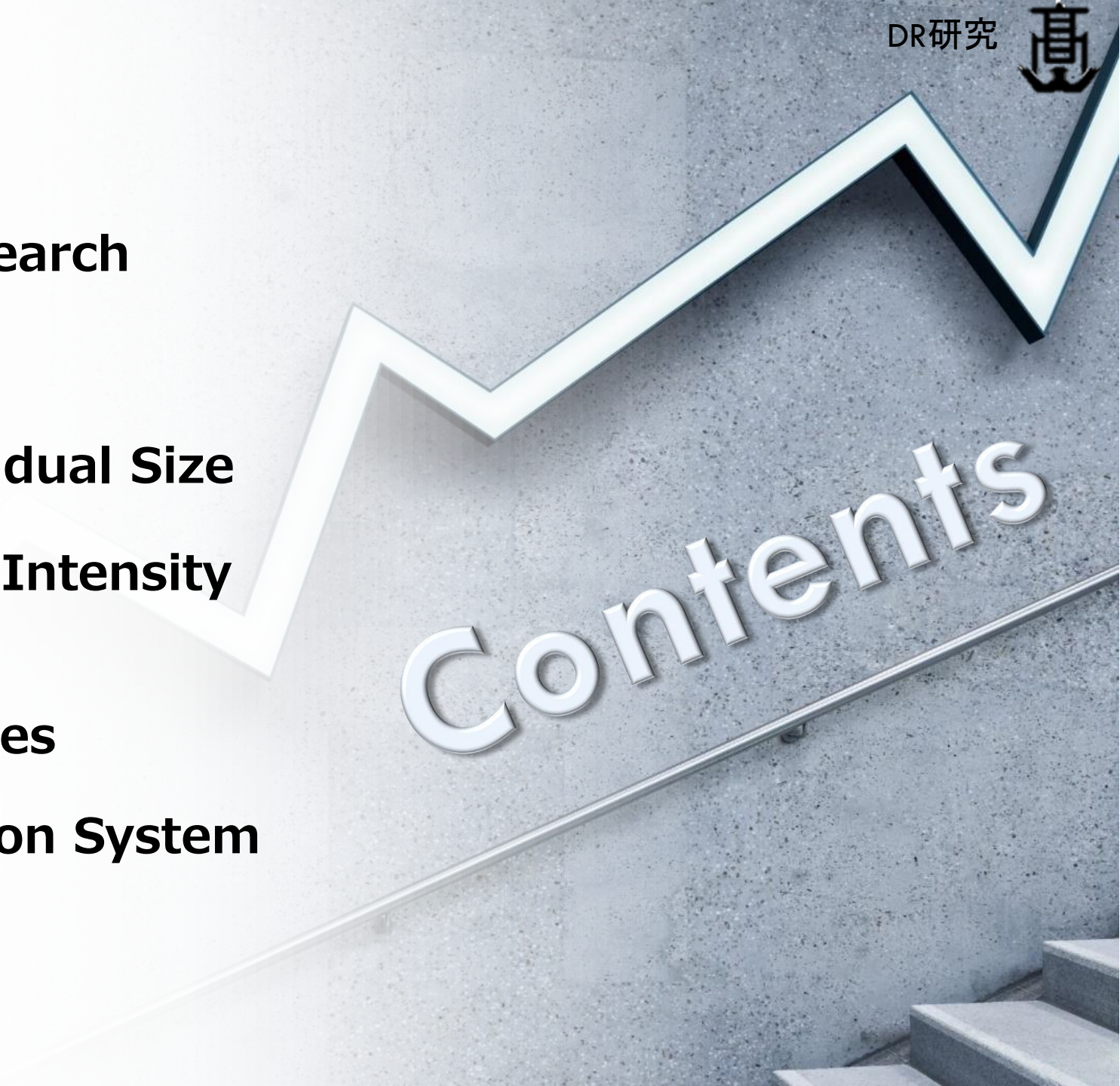

THE SAVIOR OF PLASTIC PROBLEMS !



- 
- 1.Motivation and Goal of Research**
 - 2.Contents and Preparations**
 - 3.Experimental result1 Individual Size**
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 - 5.Experimental result3
Presence or Absence of Holes**
 - 6.Proposal of a New Circulation System**
 - 7.Future Outlook**

Contents



Motivation and Goal For this Research



画像 海洋ごみによる生き物たちへの被害は深刻化している。Rich Carey/shutterstock.com

https://img.huffingtonpost.com/asset/60dd617d2600002741521d99.jpeg?ops=scalefit_720_noupscale

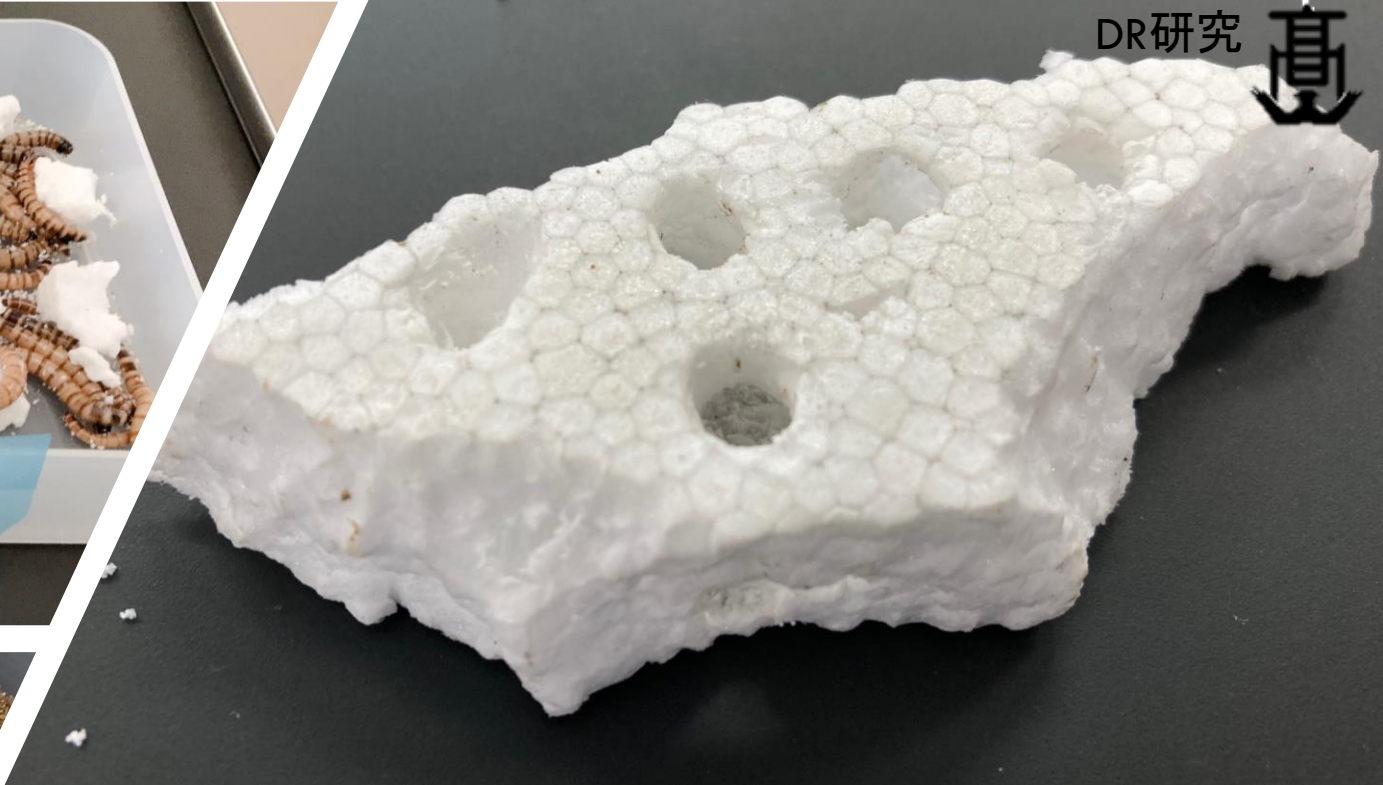


Mealworm

Breeding Animals

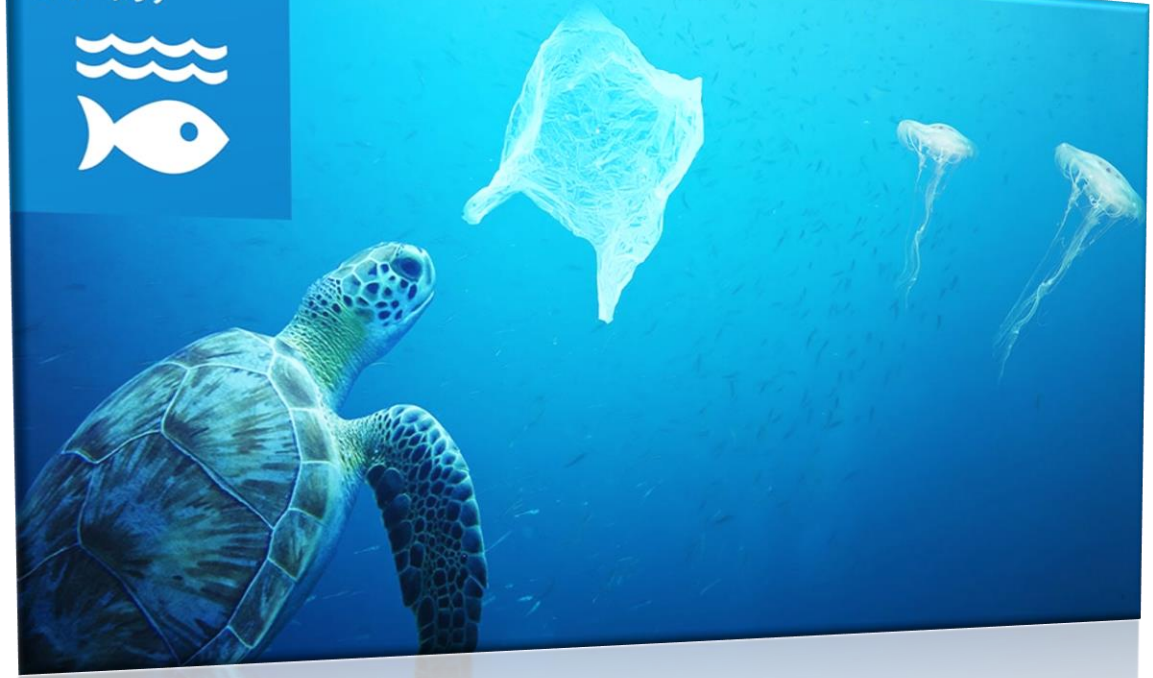


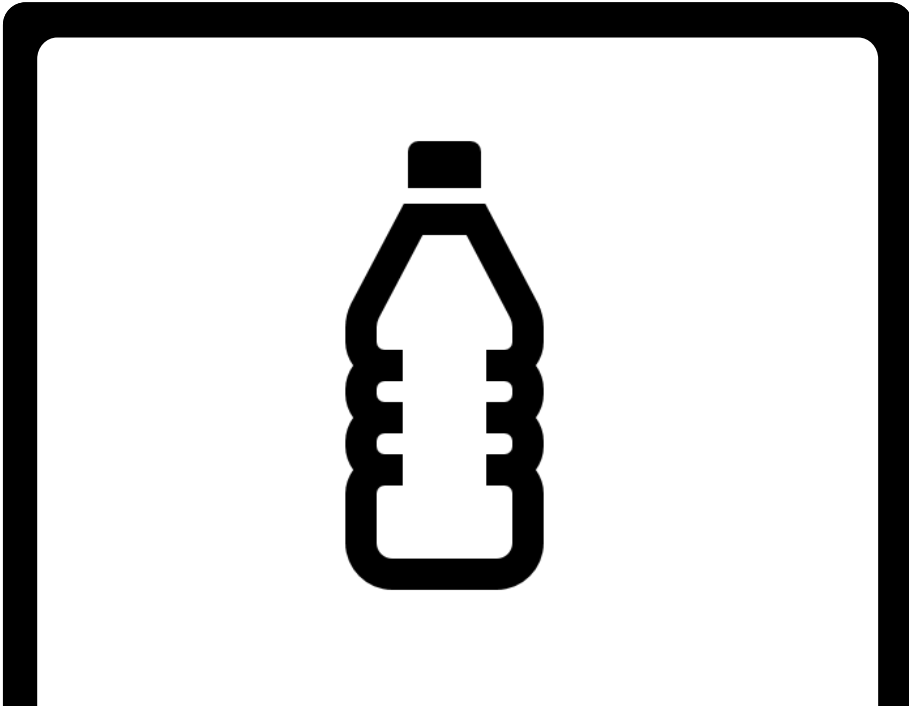
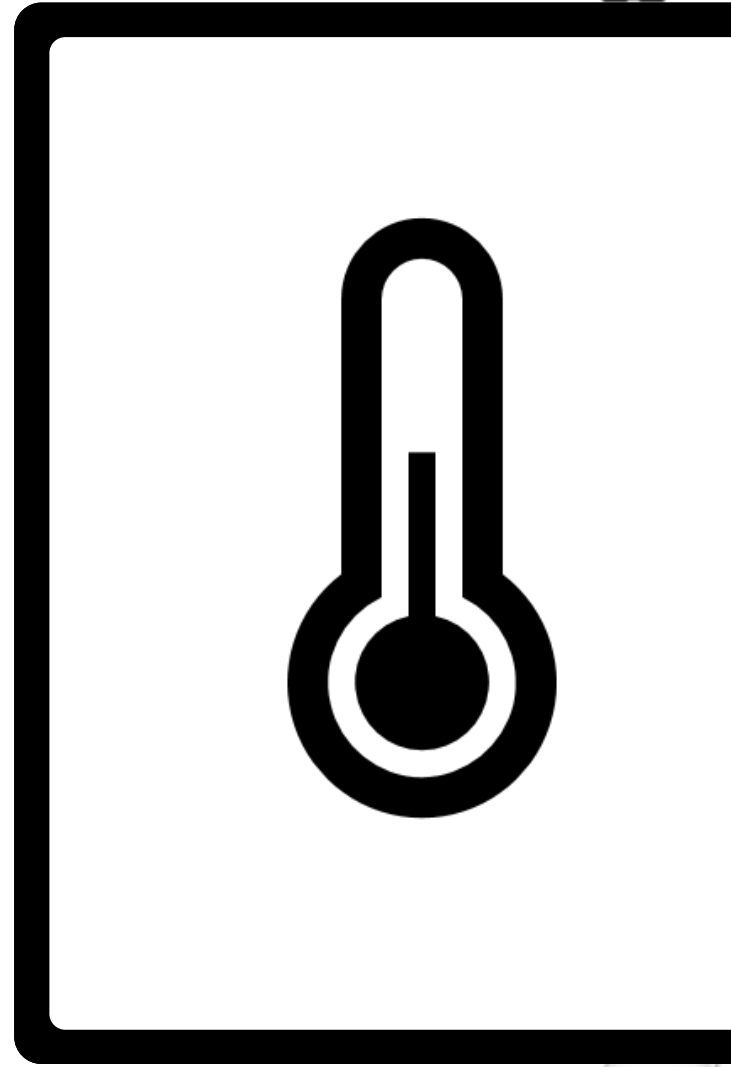
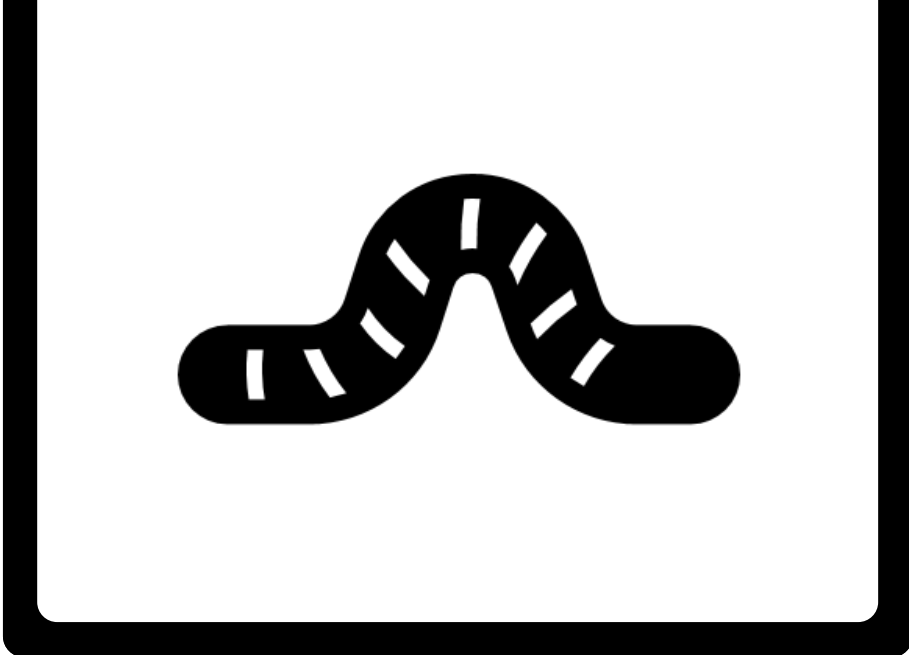
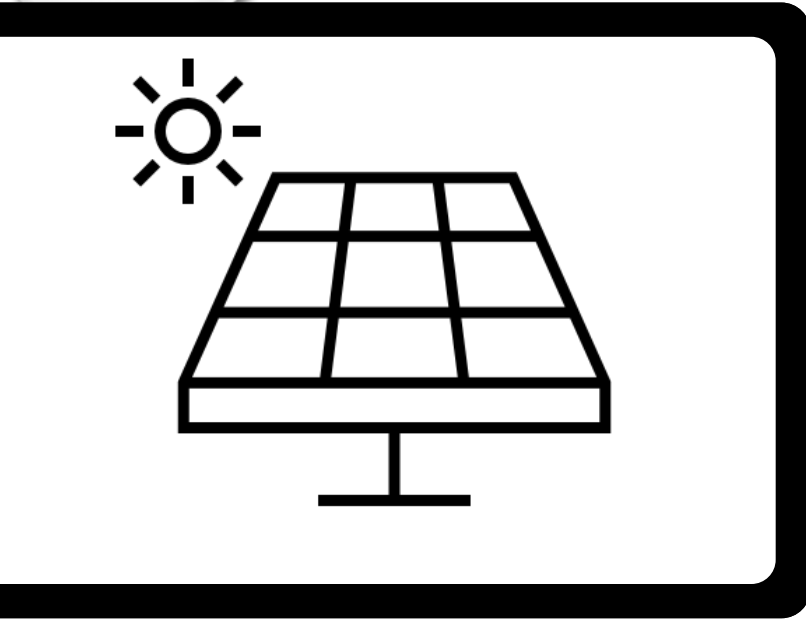
Fishing Feed





14 海の豊かさを
守ろう







Experimental Method



PREPARATIONS

- ▶ Mealworm
- ▶ Styrofoam
- ▶ Container
- ▶ Electronic Balance
- ▶ Constant Temperature Machine (Incubator)





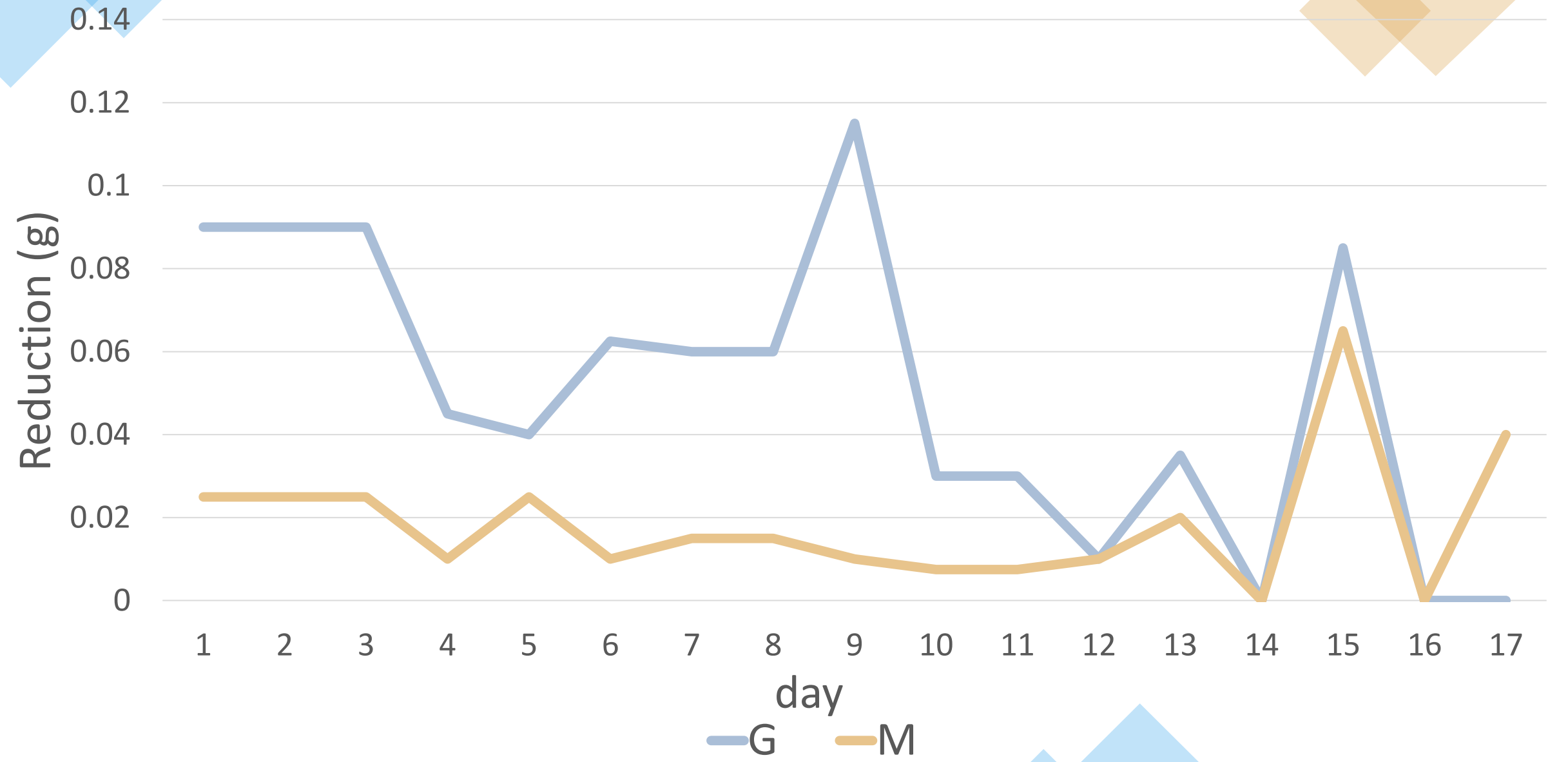
Experimental Result I Individual Size



<https://bestlifeonline.com/wp-content/uploads/sites/3/2019/01/big-vs-small-house.jpg?fit=1200%2C800&ssl=1>



Individual Size



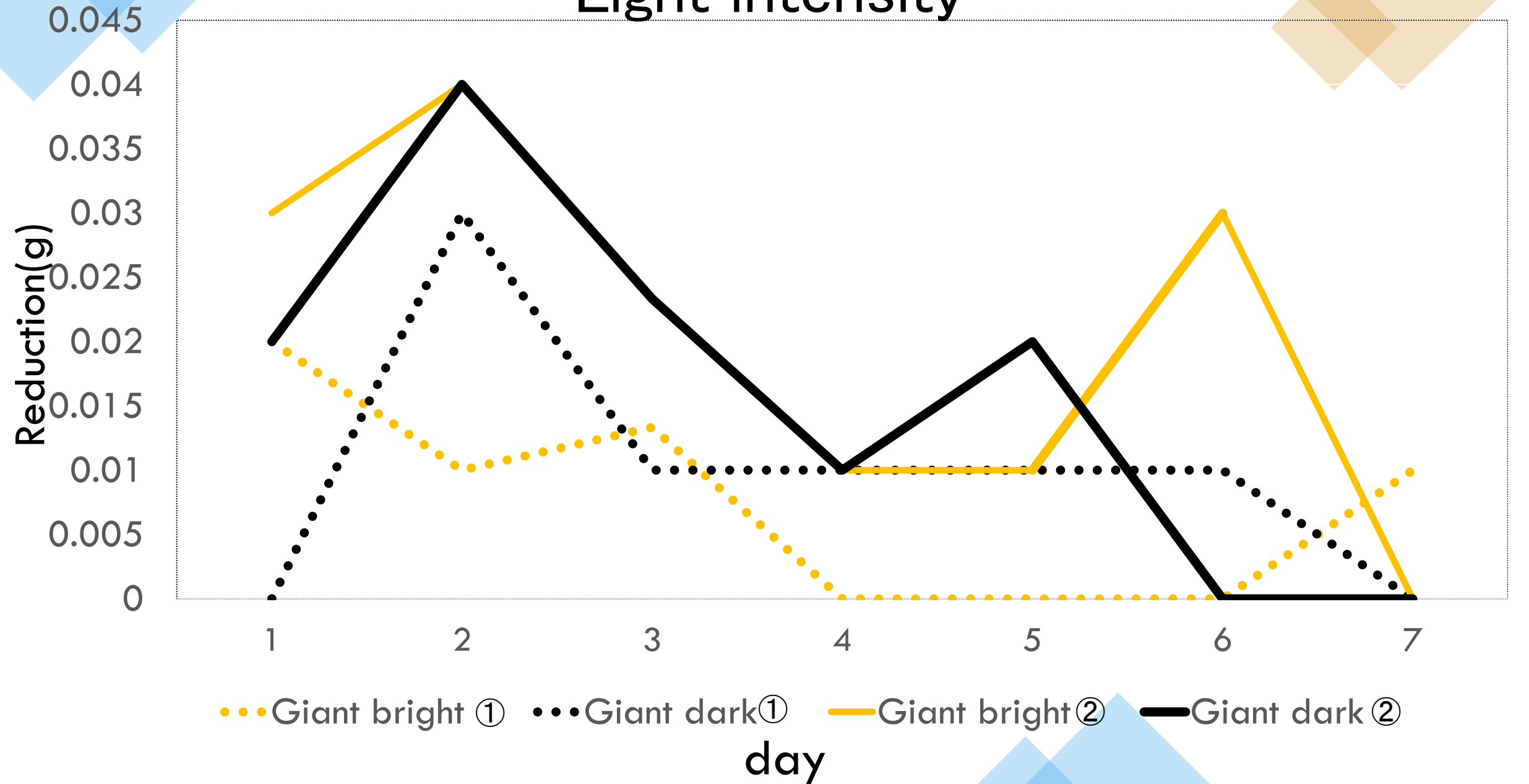
Experimental Result II

Light Intensity



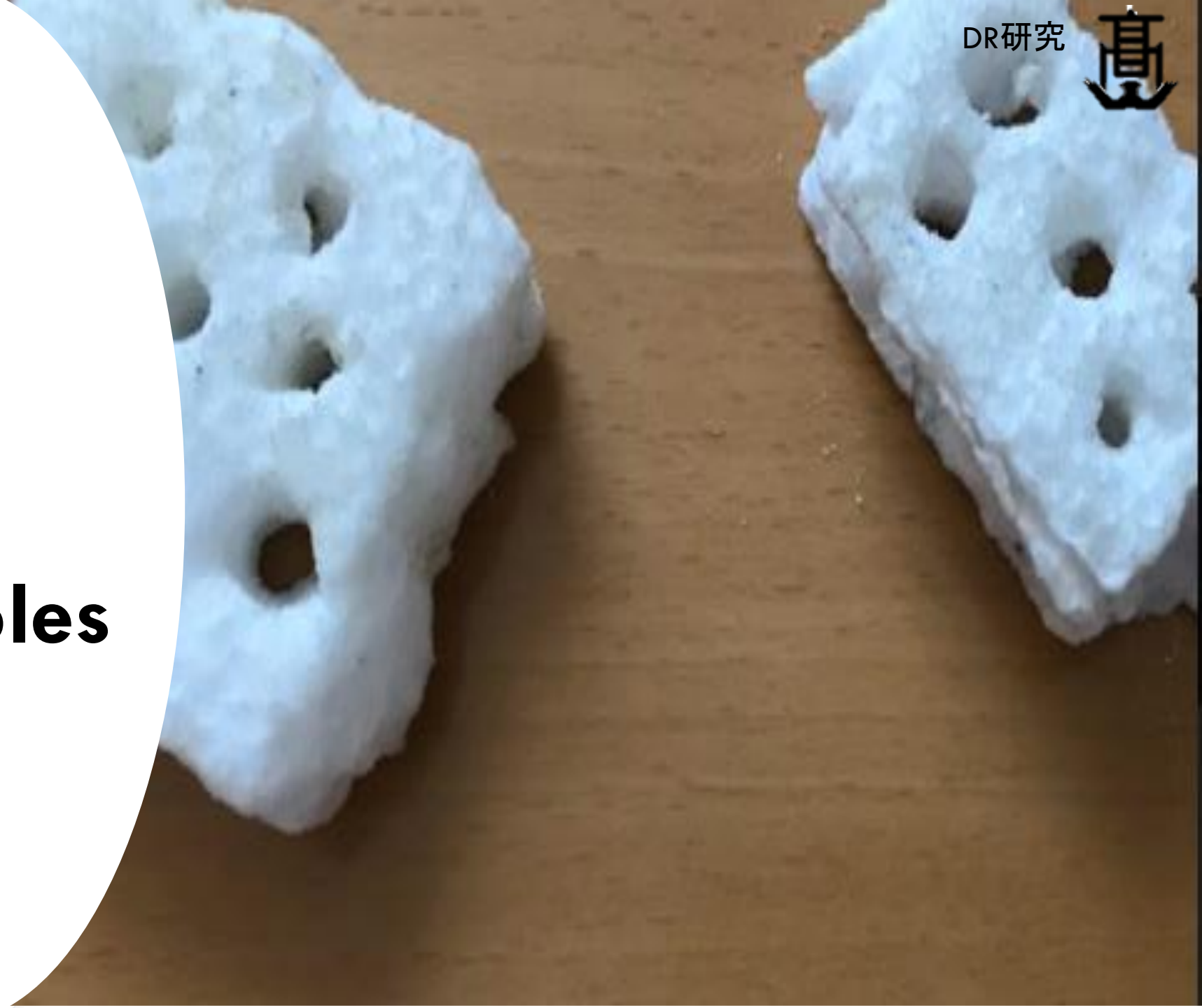


Light intensity





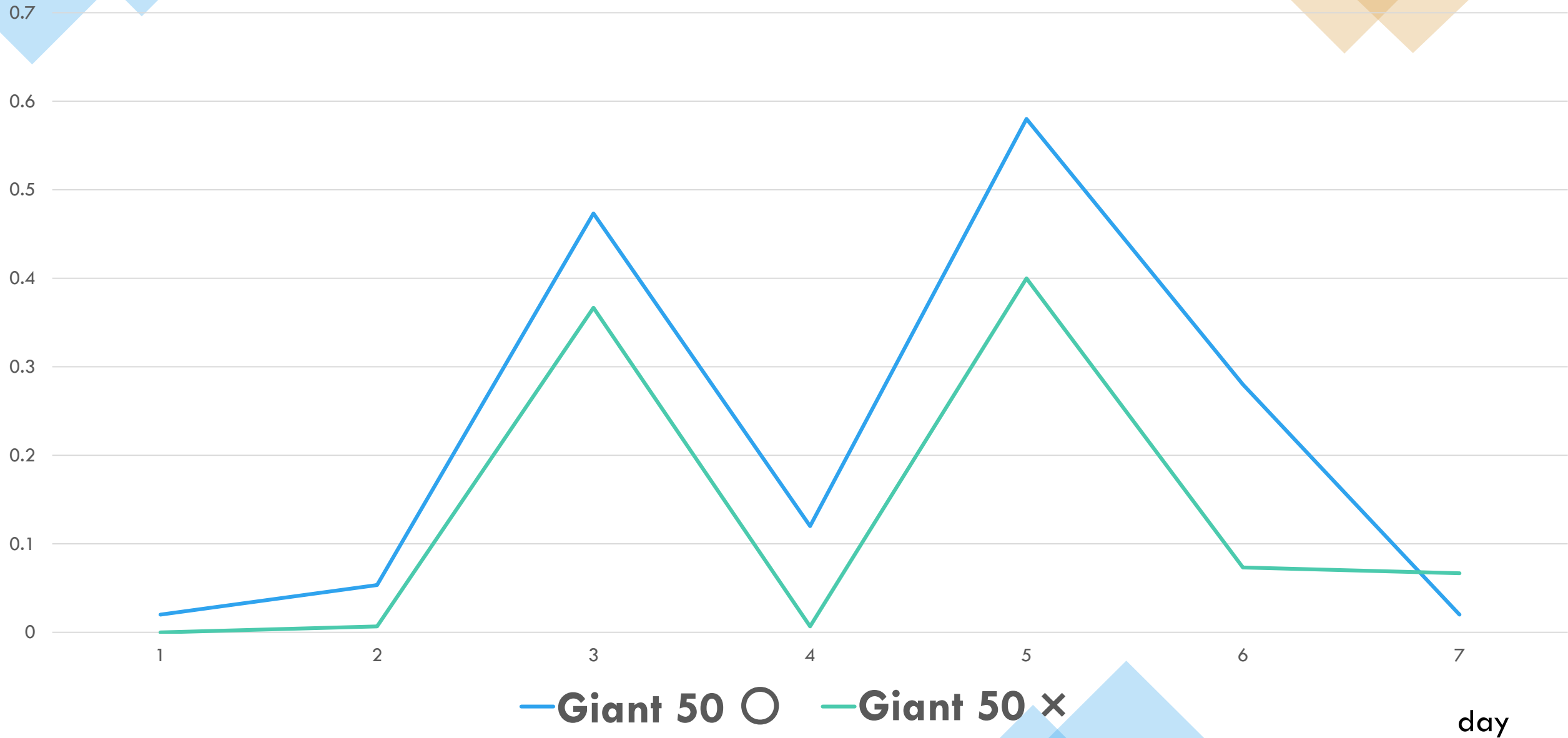
**Experimental
Result III**
**Presence or
Absence of Holes**





Presence or Absence of Holes

Reduction(g)



Other Factors

- ▶ Odor (smell)
- ▶ Shape
- ▶ Density





The Presence or Absence of Holes



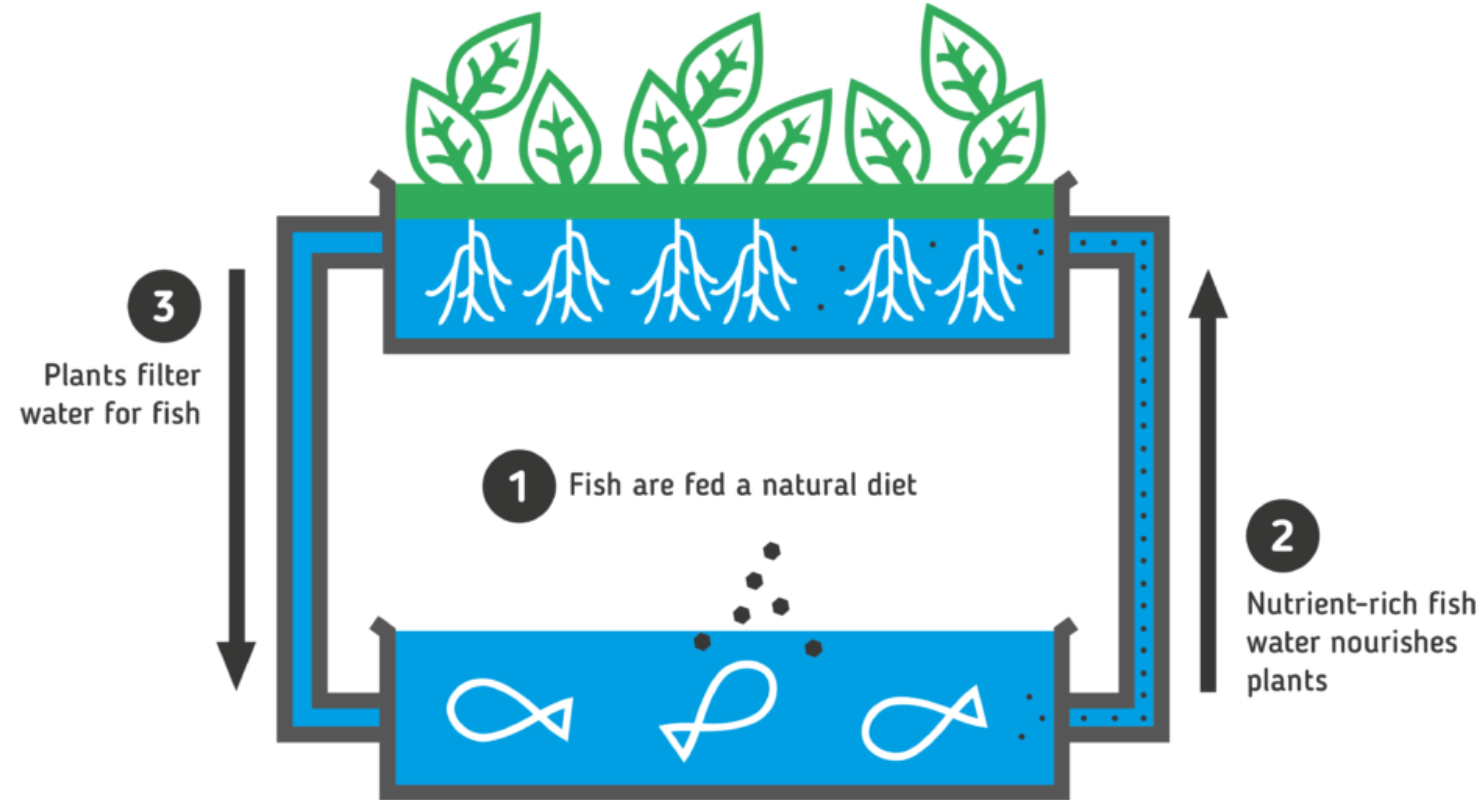
Future Prospects and Research Considerations



Aquaponics is...

AQUAPONICS CLOSED LOOP

Symbiosis between plants and fish

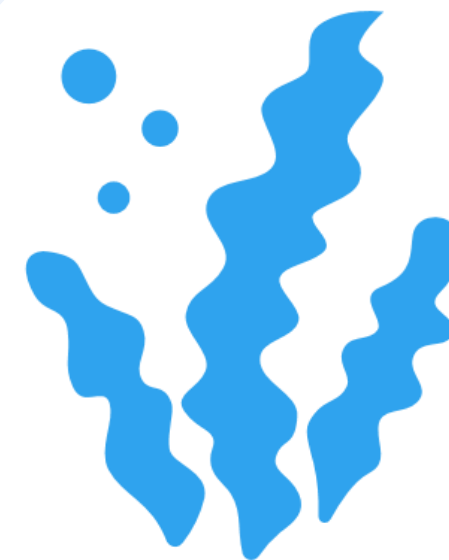


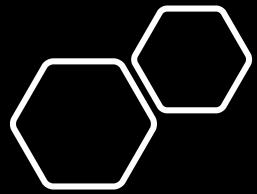


Decomposing Plastics by Mealworm



Growth of Seaweed
➔ **Collect Microplastics**





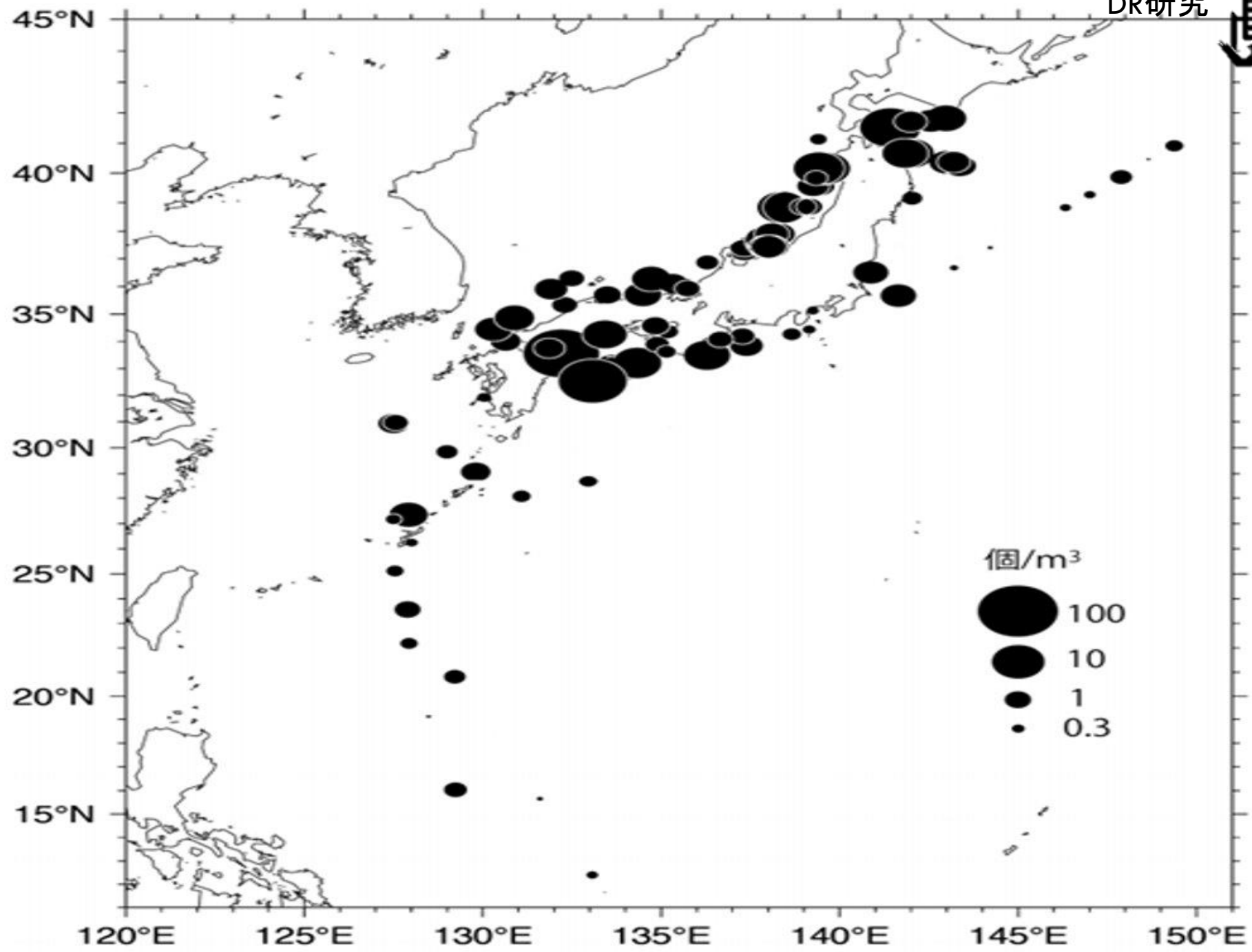
Where

Should we
Utilize this
Mechanism ?





Spatial Distribution Of Microplastic Floating Density





The Researchers acknowledge that
Mealworm-excreted HBCD
Still Poses a Hazard

[Stanford researchers show that mealworms can safely consume toxic additive-containing plastic](#)

**THANK YOU FOR
LISTENING!!**

