Does the temperature of a habitat affect the reflex behaviour of woodlice?

Bishop Douglass School

- Taxis response – a directional movement of an organism in response to a stimulus.
- Kinesis response – a non-directional movement in response to a stimulus.

Hypothesis

The cooler the temperature the more woodlice will choose that area.

Methodology

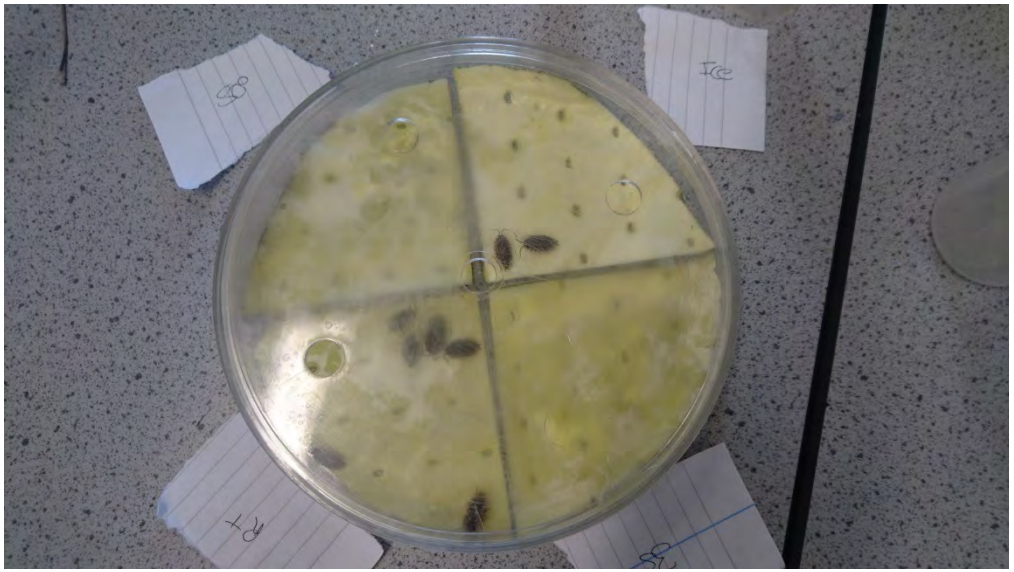
- Choice chamber – taxis response
- Kinesis response

Living Organisms

- We collected organisms from around the science department.
- Over 50 woodlice were collected to reduce the need to use individuals more than once.

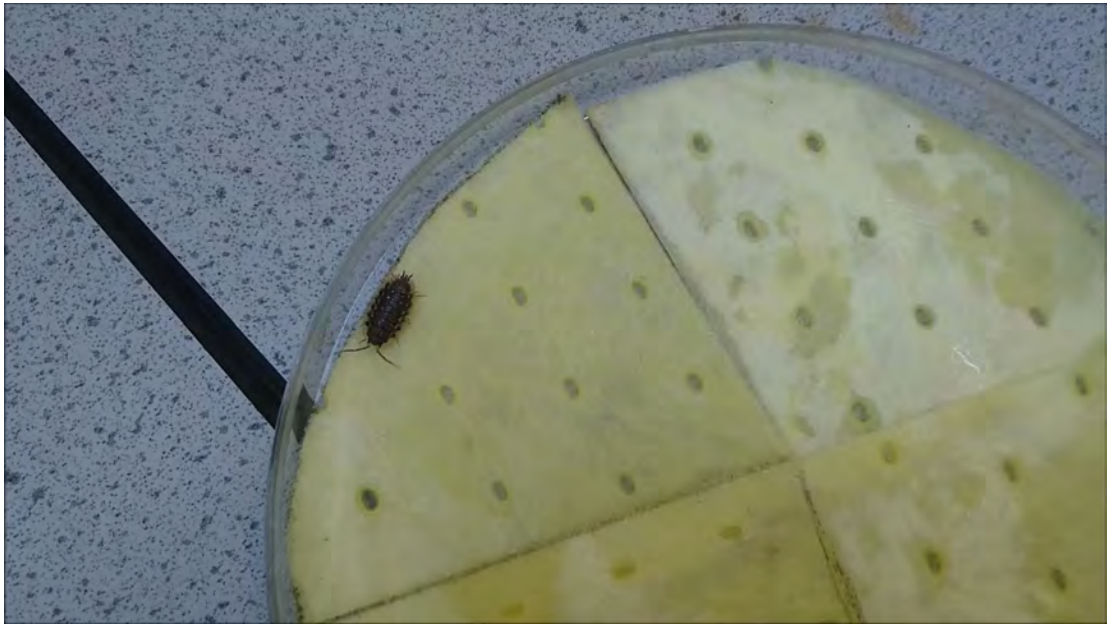
Taxis Response

- A choice chamber with 4 different sections.
- 4 different temperatures were used – 5ºC, 20ºC, 35ºC, 50ºC.
- 10 woodlice were added and left for 3 minutes.
- Counted which section they chose.

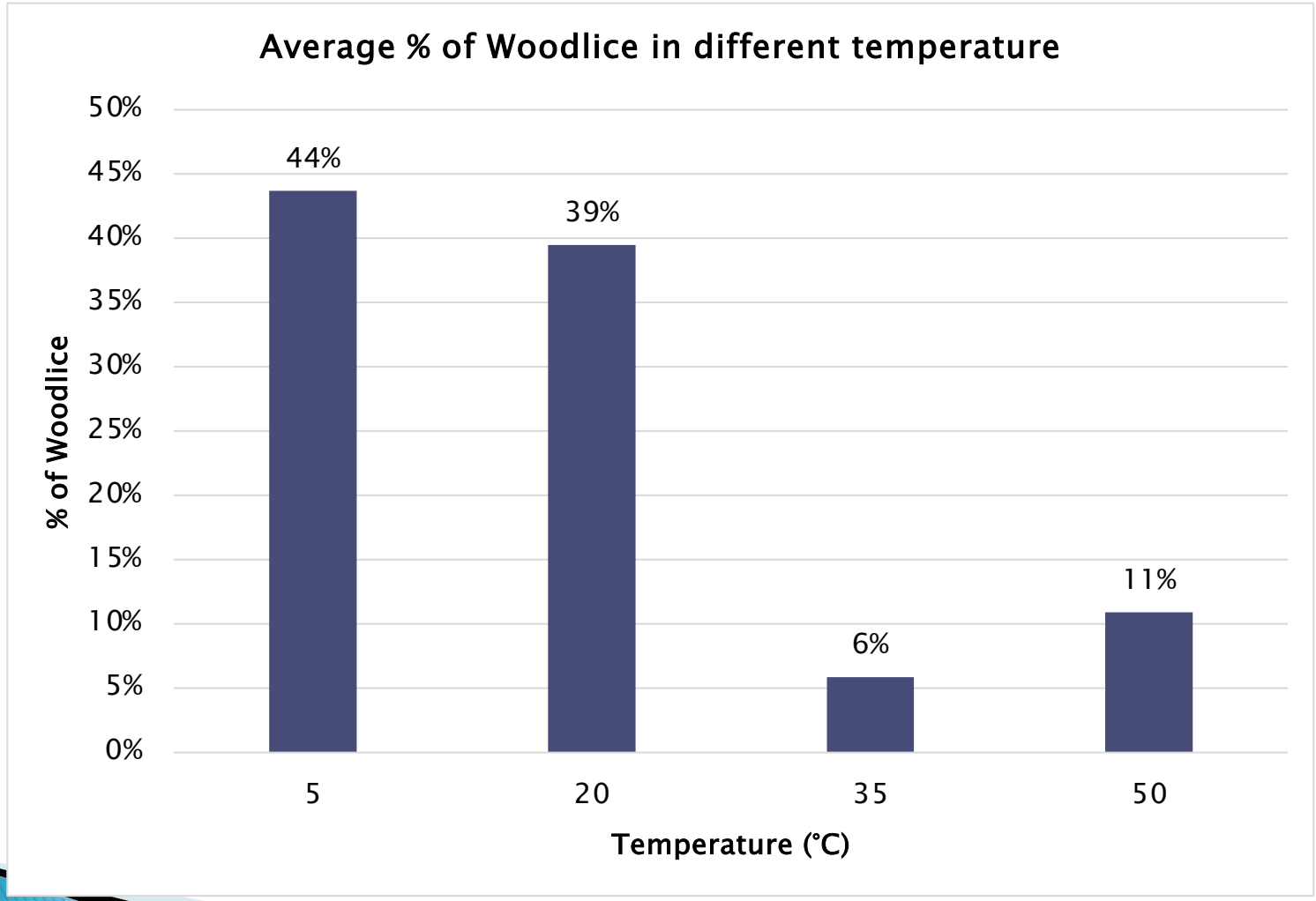


Kinesis Response

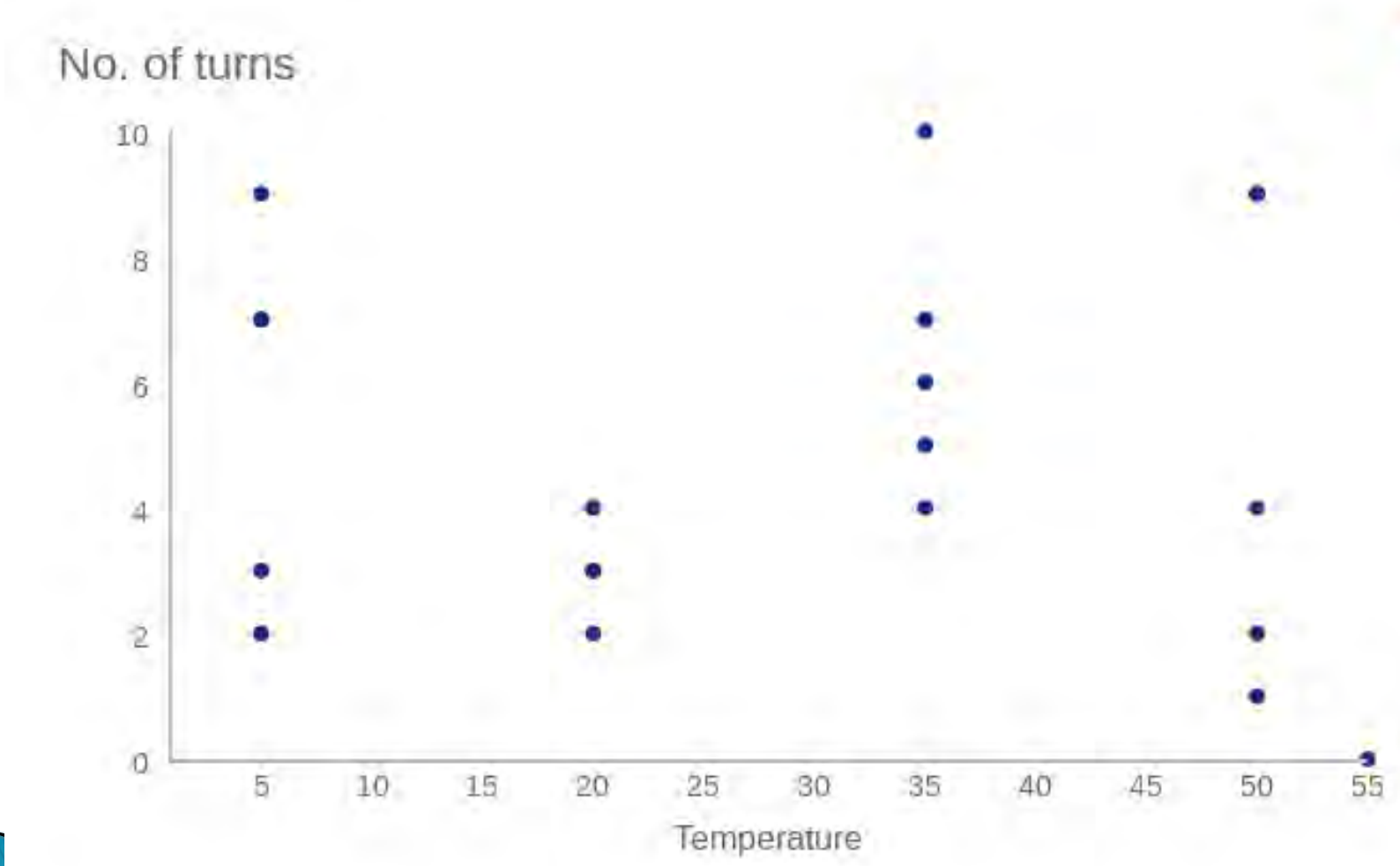
- A large petri dish.
- A woodlouse was added at a particular temperature.
- Counted how many turns made in one minute.
- Experiment repeated at 4 different temperatures – 5ºC, 20ºC, 35ºC, 50ºC.



Results – Taxis response



Results – Kinesis response



Evaluation

- Larger sample size
- Different woodlice from different places
- Issues with equipment

Global Warming

- How might insects be affected as the world gets warmer?