





Water Quality and Freshwater Macroinvertebrate Diversity at Kaeng Krachan Dam, Phetchaburi Province.

Students: Punnatud sawasdisarn, Krittameth Nakprasert, Theethada Mueanphetch, Kantinun Thanoi, Thatphong tanarat, Suvapich Mueanritthichoat, Arifinn ruangpach, Jeerapat Ruamsit, paphawin khajonsap, Apiwat Phakdeesaen, Patcharapol Moonchapirom, Phacharaphol Siri, Kritchakorn Emkamol, Sorot Saengkhlai, Theethawat Singprasert, Patinya Limamphai



Chonprathanwittaya School



INTRODUCTION



- Invertebrates play an important role in the ecosystem, food chain, decomposition and cycling of nutrients in water.
- The diversity of invertebrates can indicate the quality of the water in an area.
- The Kaeng Krachan Dam area has a diverse ecosystem.



OBJECTIVE AND HYPOTHESIS

Objective

- 1. To categorise the aquatic insect diversity in Kangkrajan Dam
- 2. To assess the water quality status of Kangkrajan Dam and how this influences aquatic insect diversity and richness.

Hypothesis

Water quality in locations near restaurants would be lower than no restaurant sites resulting in lower insect diversity and richness.



Study site

Study area around Kaeng Krachan Dam Set up sampling stations for invertebrates and water samples at 5 sites.



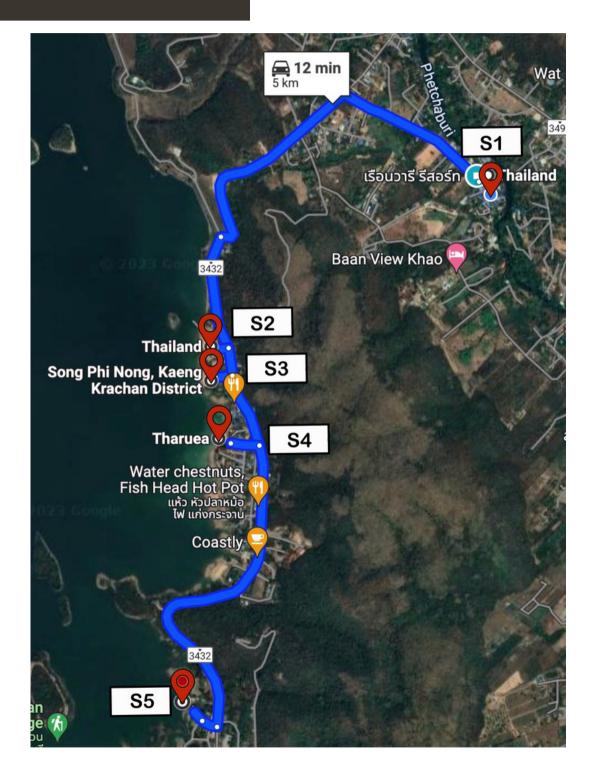


Fig1.A. Map of Thailand B. Kaeng Krachan Dam and study area



1

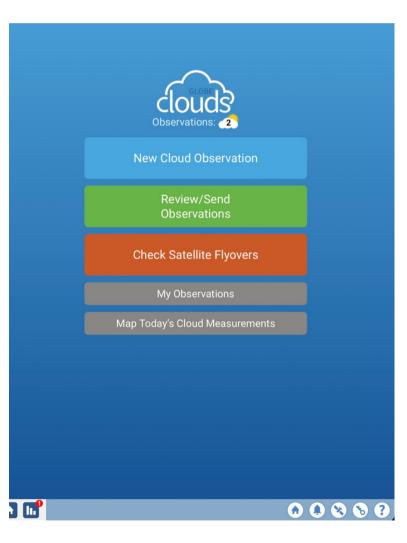
Clouds

Mosquito
Habitat-Mapper

Land-Cover

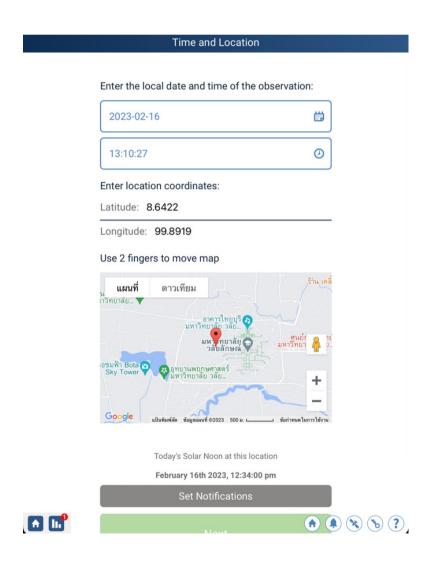
1. choose Cloud App.

2

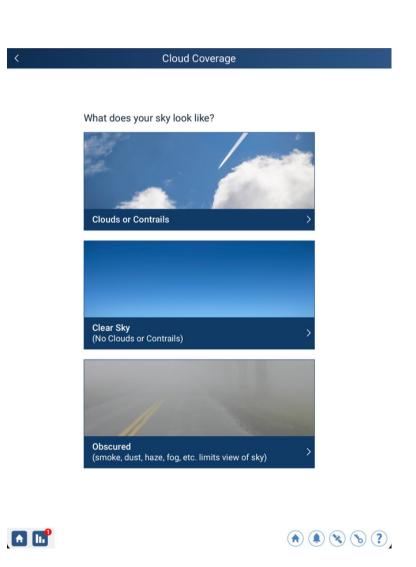


2. choose New cloud observation.

3



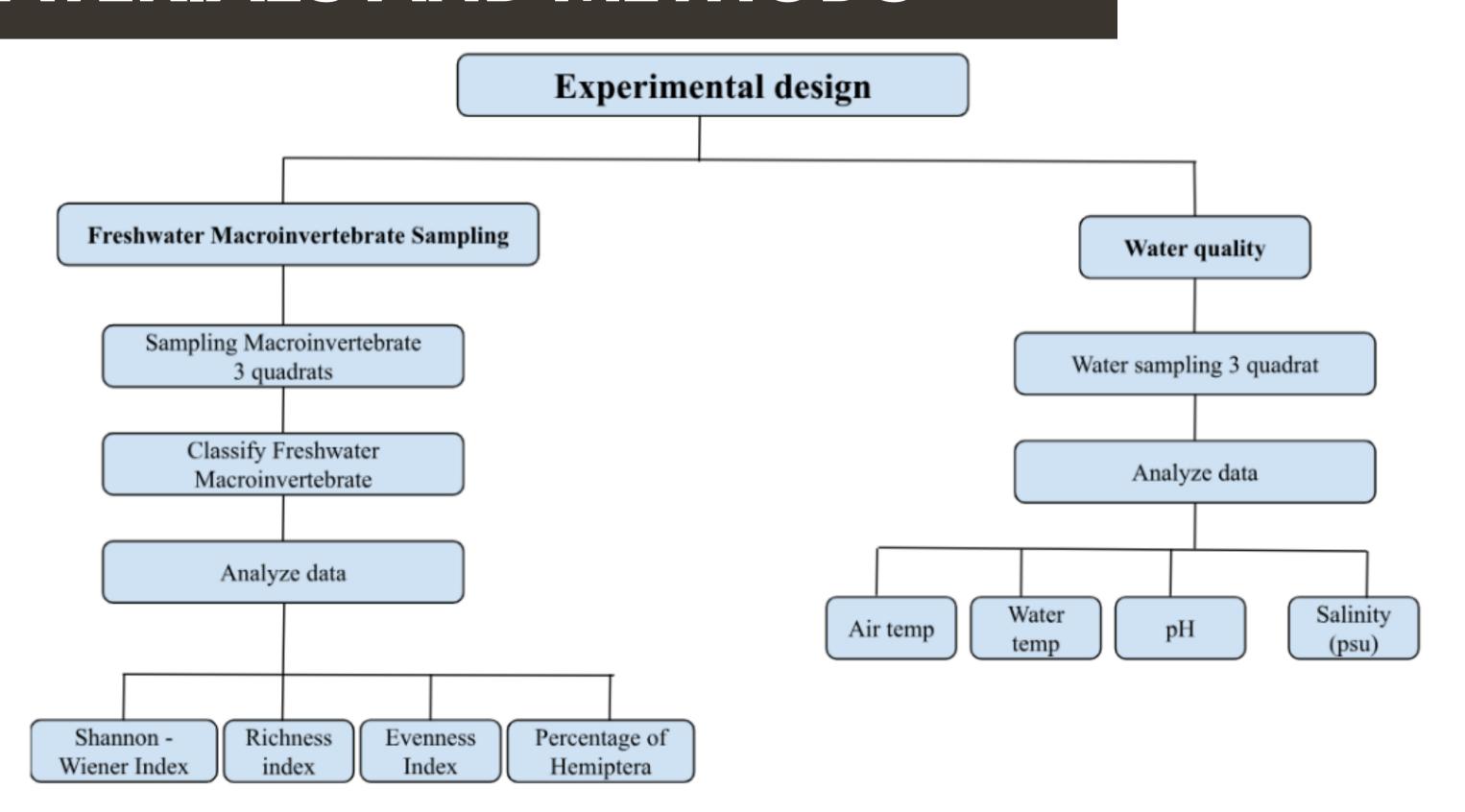
4



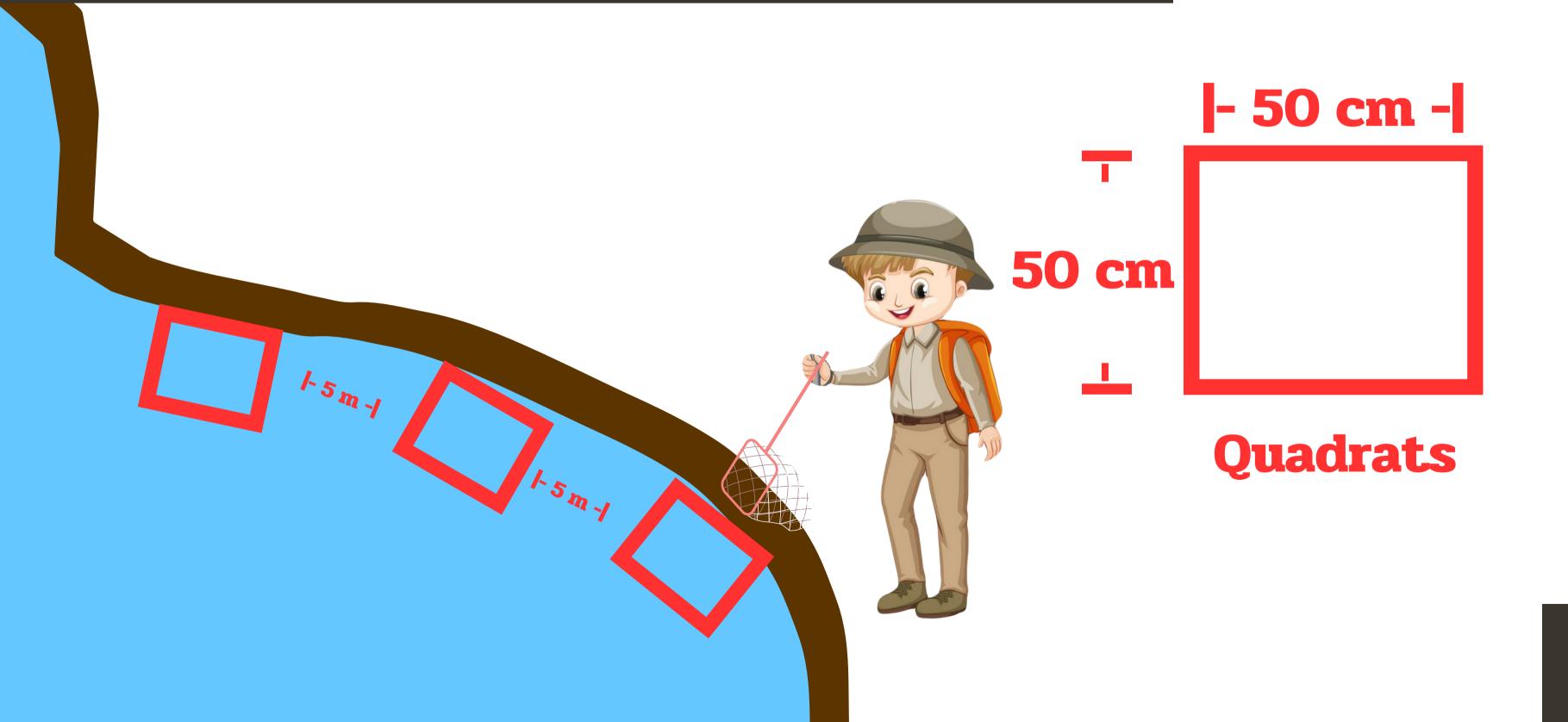
ICI

3,4 Observe the sky, the clouds, and don't forget the clouds at the edge of the clouds.

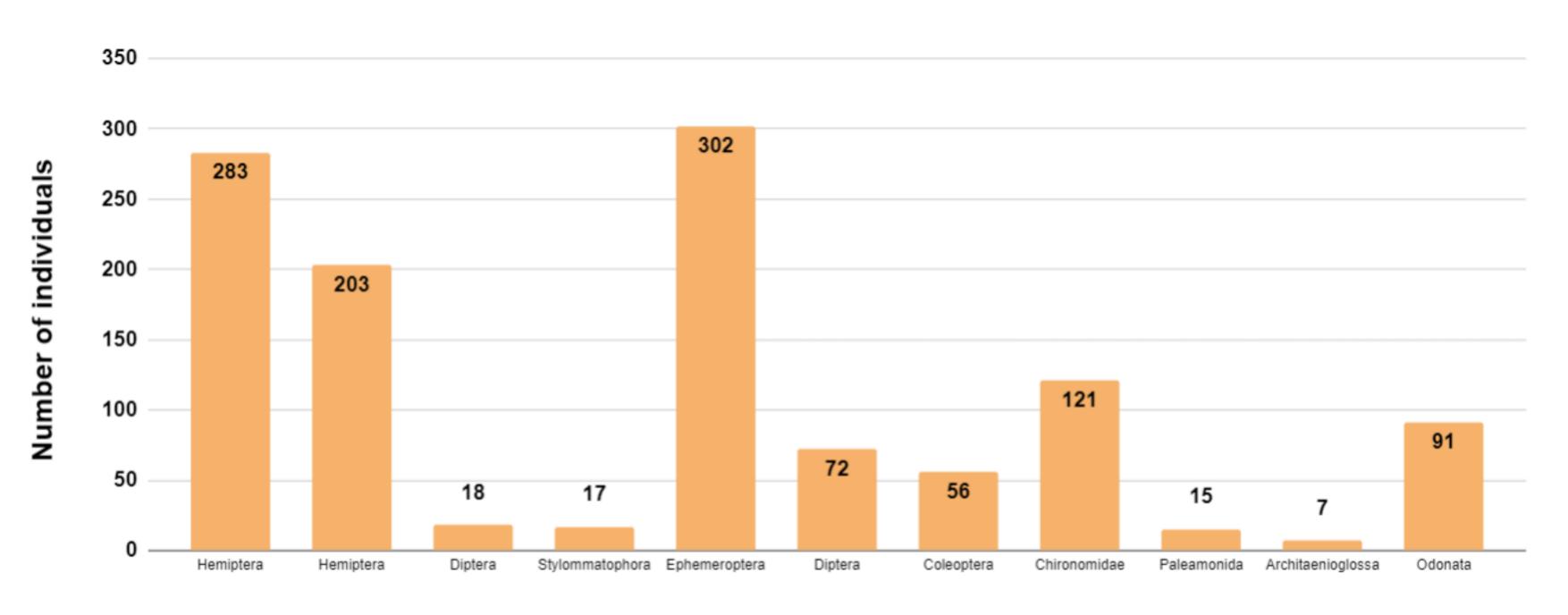








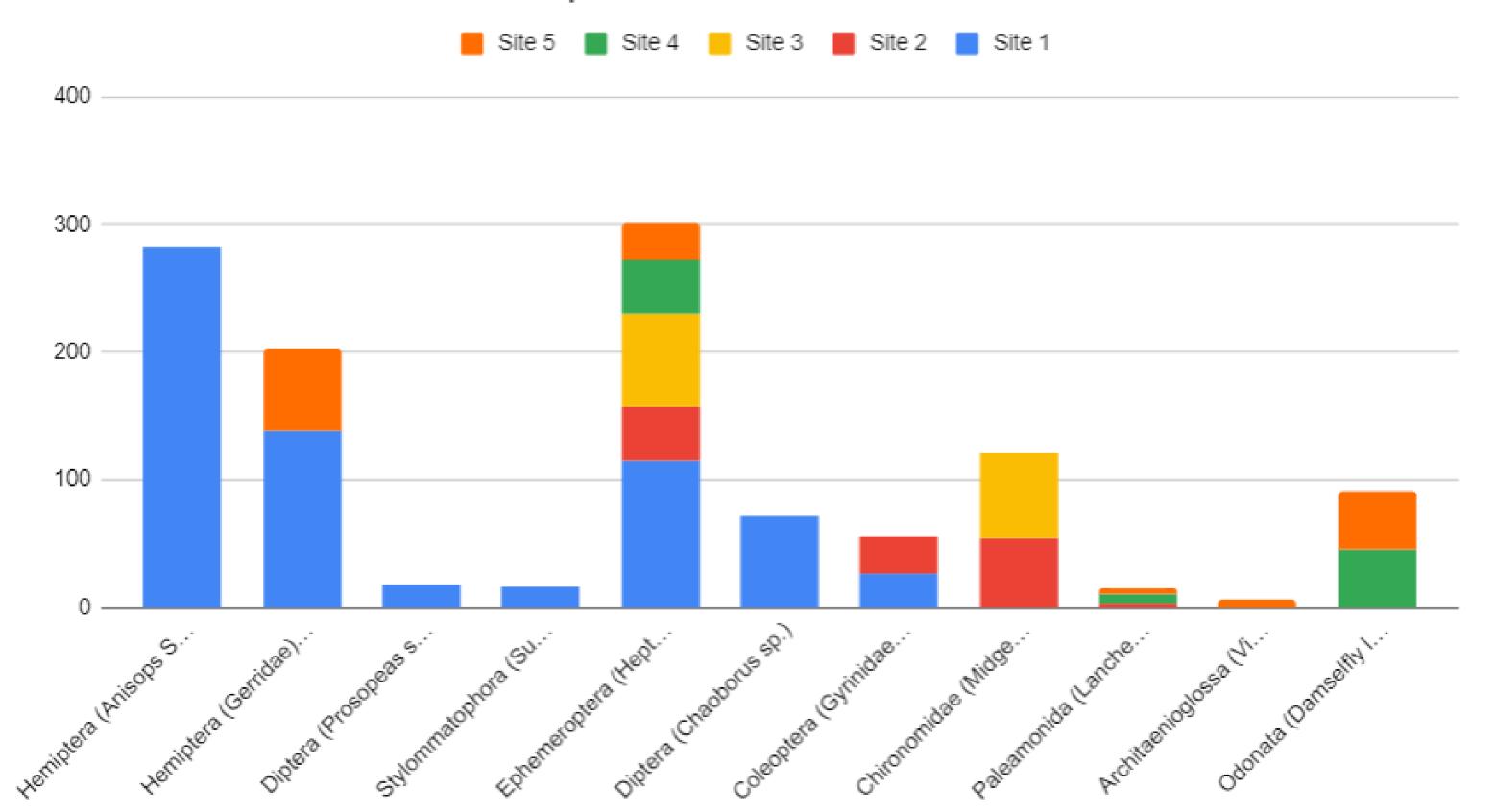




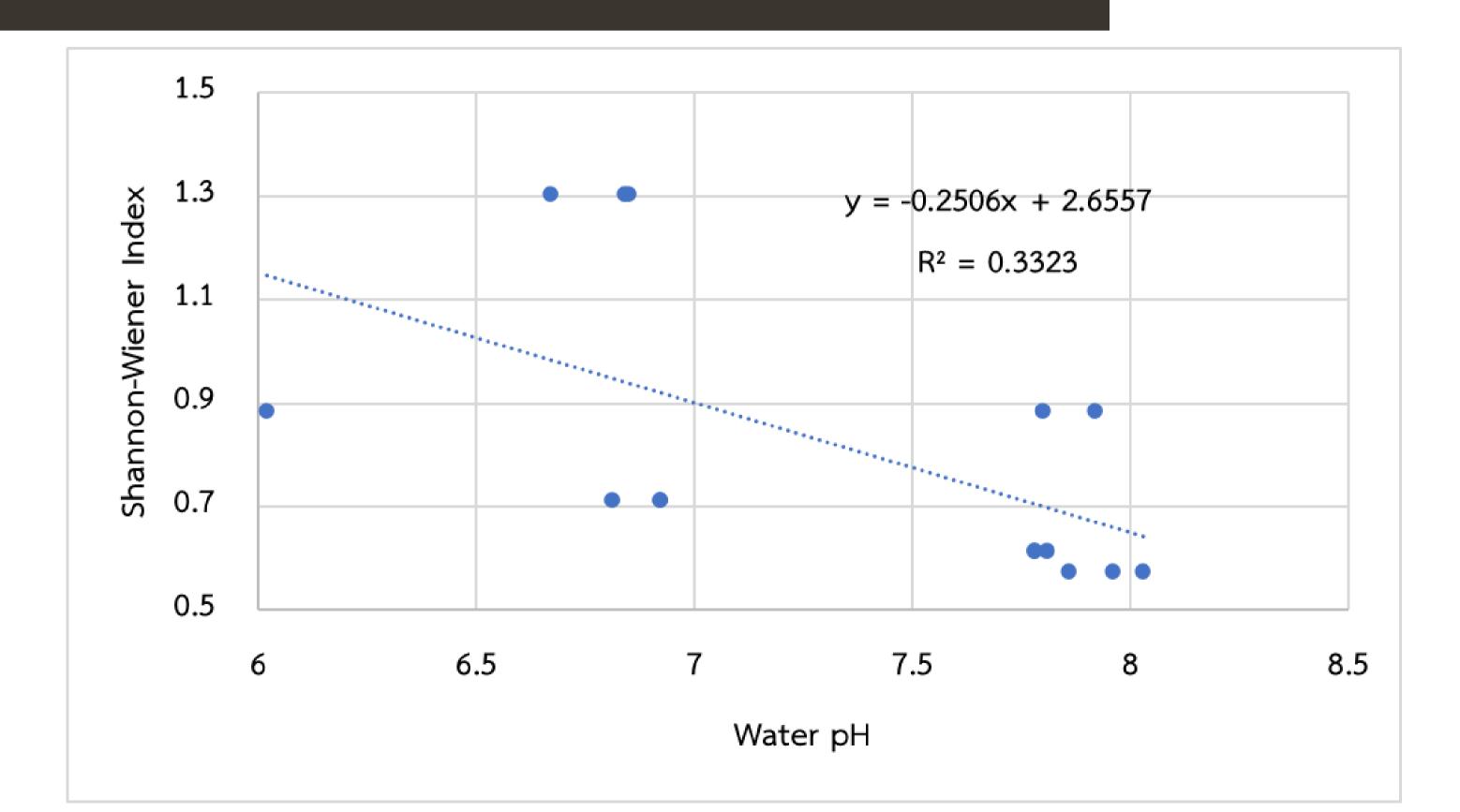
Macroinvertebrate



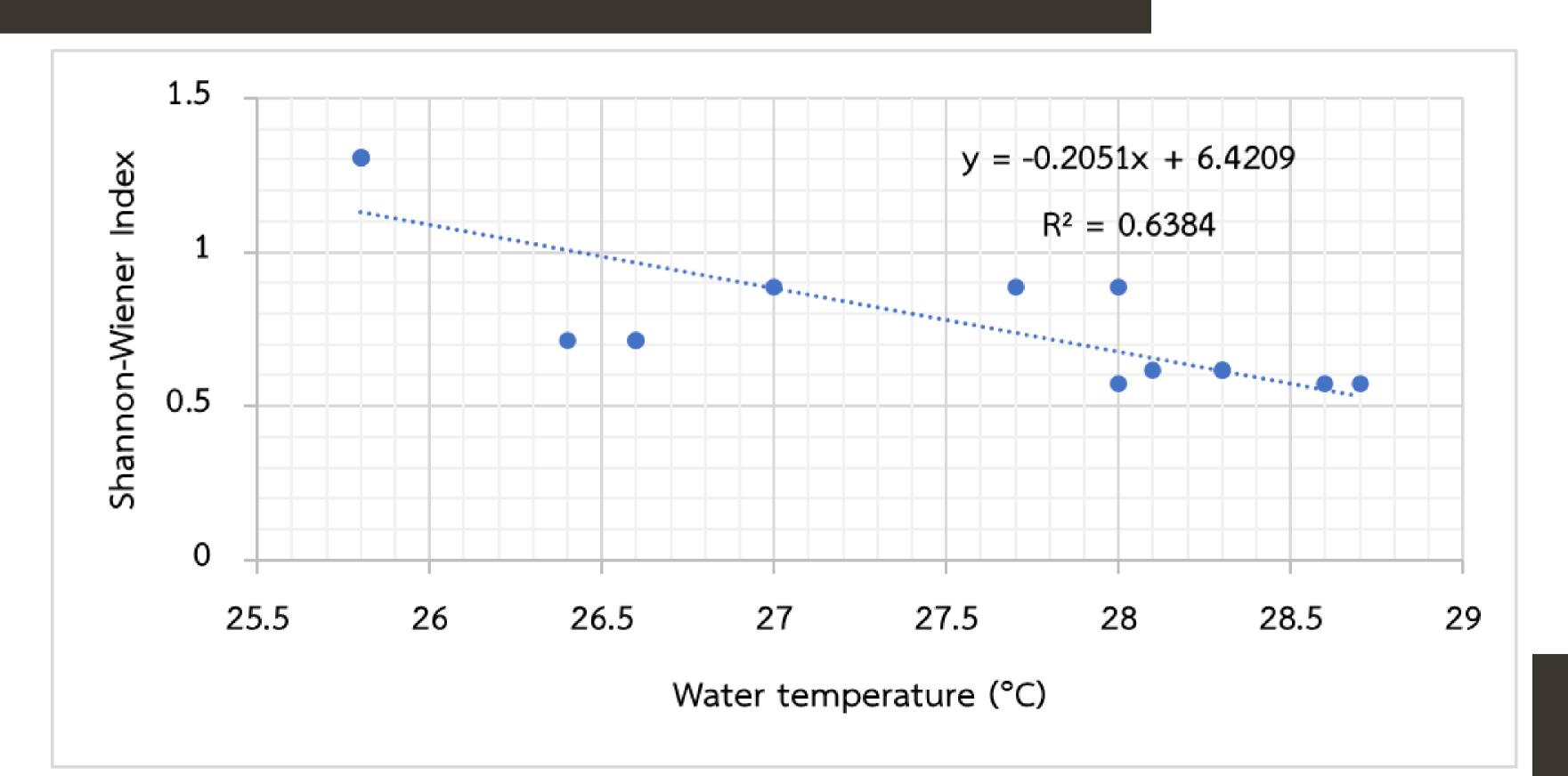
The chart shows the relationship between Macroinvertebrate Taxa and 5 stations















CONCLUSION

S5

S4

S3

S2

S1

- WaterBoatmen
- Water Striders
- Prosopeas
- Amber snail
- Mayflies
- Chaoborus
- True water beetle

- Mayflies
- True water beetle
- Chironomids

- Mayflies
- Chironomids
- Mayflies
- LanchesterFreshwaterPrawn
- River skimmer

- Water Striders
- Mayflies
- LanchesterFreshwaterPrawn
- Pond snail
- River skimmer







CONCLUSION



Cloud App.

Due to Kaeng Krachan Dam, Phetchaburi Province during November-December It is the period between the rainy season and winter. This causes the discovery of nimbostratus clouds, which indicate the occurrence of light rain. And because there is little rain, the water temperature will be in the range between 28.62 - 29.61 °C, making it possible to encounter 9 aquatic macroinvertebrates.



ACKNOWLEDGMENTS

We thank Assoc. Prof. Dr. Krisanadej Jaroensutasinee, Assoc. and Prof. Dr. Mullica Jaroensutasinee, Miss Thunwarut Sutthipun and Miss Khatthariya Saeli for helping with experimental design, field work, data analysis and manuscript preparation. This work was supported in part by Chonprathanwittaya School and Center of Excellence for Ecoinformatics, Walailak University.





