



Quality of tap water in the areas of ang kep nam Ban Krasang, ang kep nam Ban Kratel, and ang kep nam Ban Huai San Phatthana

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Abstract

This study aimed to assess the tap water quality of ang kep nam Ban Krasang ,ang kep nam Ban Kratel, and ang kep nam Ban Huai San Phatthana. Water samples were collected from three locations and analyzed for pH, water temperature, nitrate concentration, and dissolved oxygen (DO). The results indicated that all reservoirs had the same pH value of 6.2, which reflects slightly acidic conditions, while water temperatures ranged from 29.2 to 29.7°C. No nitrate was detected in any of the samples. Additionally, the dissolved oxygen levels in ang kep nam Ban Krasang ,ang kep nam Ban Kratel were higher than those in ang kep nam Ban Huai San Phatthana. Based on standard water quality criteria, the water quality of Ban Krasang and Ban Kratel reservoirs was considered relatively good; however, the pH values were slightly below the recommended standard for general use.

Research Question

Is there a difference in water quality between ang kep nam Ban Krasang and ang kep nam Ban Kratel?

Hypothesis

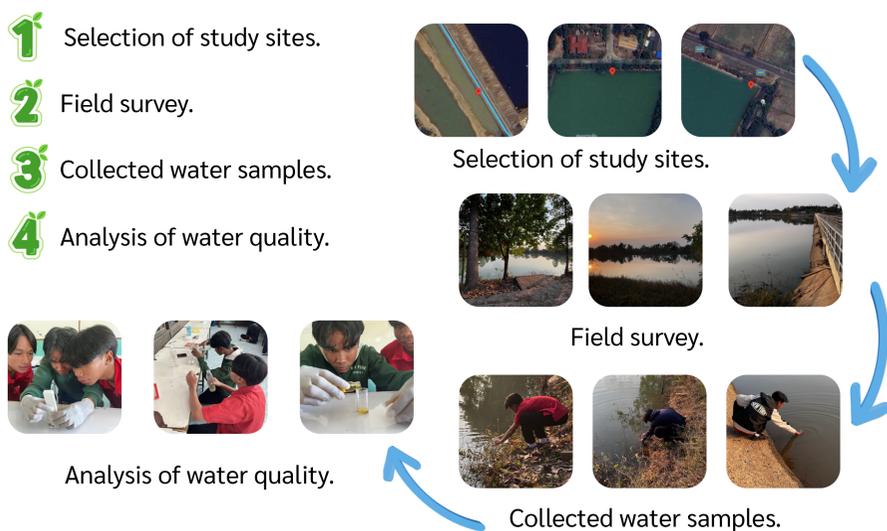
The water quality of Ban Krasang Reservoir and Ban Kratel Reservoir is different.

Introduction

Tap water is essential for human life and is widely used for daily activities such as domestic use, consumption, agriculture, and industry, especially in communities with water supply systems. Therefore, tap water quality directly affects public health. Poor water quality may result from chemical contamination, wastewater discharge, sediment accumulation, or inadequate treatment systems, which can lead to health problems such as gastrointestinal and skin diseases.

This study investigates the tap water quality of ang kep nam Ban Krasang ,ang kep nam Ban Kratel, and ang kep nam Ban Huai San Phatthana. in order to identify existing problems and provide information for improving water quality and supporting sustainable water resource management.

Research Methods



Baged



I AM A GLOBE RESEARCHER



I AM A DATA SCIENTIST



I MAKE AN IMPACT

Results

Study site	Quality of water				
	pH	DO (mg/L)	EC	Nitrate	Temperature (°C)
ang kep nam ban krasang	6.2	6.5	78	0	29.7
ang kep nam ban kratel	6.2	6.5	156	0	29.4
ang kep nam ban huai san phatthana	6.2	4.5	106	0	30.2

Table 1 shows the water temperature, EC, DO, nitrate, and pH values of water in ang kep nam Ban Krasang ,ang kep nam Ban Kratel, and ang kep nam Ban Huai San Phatthana areas.

Discussion and Conclusion

Based on the study of water quality at three sampling sites—ang kep nam Ban Krasang ,ang kep nam Ban Kratel, and ang kep nam Ban Huai San Phatthana.—water samples were collected from all locations for analysis. The results showed that the pH values at all three sites were the same, with a value of 6.2, which is classified as slightly acidic. No nitrate was detected in any of the samples. The water temperatures at the three sites were similar, ranging from 29.2 to 29.7°C.

The dissolved oxygen (DO) levels at Ban Krasang Reservoir and Ban Kratel Reservoir were 6.5 mg/L, while the DO level at Ban Huai San Phatthana Reservoir was 4.5 mg/L. Therefore, it can be concluded that the water quality at the three sites differed, particularly in terms of dissolved oxygen, which is an important indicator of suitability for aquatic life. Ban Krasang Reservoir and Ban Kratel Reservoir showed better water quality than Ban Huai San Phatthana Reservoir.

When the water quality at the three sites was evaluated against standard criteria, the results indicated that the dissolved oxygen (DO) levels at Ban Krasang Reservoir and Ban Kratel Reservoir were within a good range, whereas the DO level at Ban Huai San Phatthana Reservoir was relatively low. Additionally, the pH values at all three sites were below the standard level, indicating slightly acidic conditions. This may affect users with sensitive skin; therefore, regular monitoring of pH levels is recommended to prevent potential long term impacts.

Materials



Bibliography

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