



**Comparison of Water Quality in Natural Pools in Wang Wiset District and Nayong
District, Trang Province , Thailand**

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Research : Comparison of water quality in natural ponds in Wang Wiset District and

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Abstract

This comparative study of water quality in natural ponds in Wang Wiset District and Na Yong District, Trang Province aims to (1) study and compare the water quality at O-TOP Center, Wang Wiset District; and Phru Lampeng Peat Pool, Nayong District. The water samples were collected in 2 areas for a period of 2 months from January 2023 to February 2023. The water samples were taken for analysis of oxygen content. temperature check Acidity-base (pH) and averaged to compare the analysis results with the quality standards of water sources in Wang Wiset District and Na Yong. The study found that the average oxygen content at the O-TOP center was high. than at Phru Lampeng Peat Pool The temperature at the O-TOP center was higher than the Phru Lampeng Peat Pool and the pH at the Phru Lampeng Peat Pool was higher than the O-TOP center.

Keywords: quality, comparison, oxygen content, temperature, acid-base

The purpose of the work

1. To study and compare the water quality of O-TOP Center, Wongwet District and Phru Lampeng Peat Pool, Nayong District, Trang Province.

Research questions

1. Water quality in the area of O-TOP Center, Wua Weet District and Phru Lampeng Peat Pool. Is Nayong District different?

Hypothesis

1. The quality of water in the natural pools in Wang Wiset District and Nayong District were different.

Introduction

Due to present Water is very important to the life of flora and fauna, including humans, as it is an infinitely renewable resource. In order to know the condition of water quality at present which, if able to measure accurately and quickly, will inform the problem or trend of problems that may occur in the future, resulting in the ability to find guidelines or methods for planning to deal with water quality problems appropriately

This study has The purpose of this study was to study the quality of water from the O-TOP Center, Wang Wiset District and, Phru Lampeng Peat Pool Na Yong District. If there is an abnormality found in the water quality, there will be an action to fix the problem found in the area, which will be implemented for a period of 2 months from January 2023 to February. 2023. For example, water will be analyzed for oxygen content, temperature measurement, and acidity-base value (pH) in order to compare the analysis results with the quality standards of water sources in Wang Wiset District. and Na Yong District

Material-equipment

Method of conducting research

- 1 . Sample water
2. Dissolved Oxygen (DO) test kit
3. Thermometer
4. Universal Indicator
5. Storage bottles
6. 500 ml beakers
7. Syringe

Experimental method

2.1 Check the temperature with the following steps.

2.1.1 Put the water from source 1 and source 2 into a 500 cubic centimeter beaker and then immerse the thermometer into the water about 1 centimeter deep for 3-5 minutes.

2.1.2 Read the thermometer at eye level, with the thermometer bulb in the water.

2.1.3 Immerse the thermometer for another 1 minute for measurement. 2nd and 3rd time by changing person to read thermometer

2.1.4 Read the temperature in degrees Celsius (C), take a total of 3 measurements.

2.1.5 Record the result.

2.2 Measure the amount of oxygen, the steps are as follows:

2.2.1 Water from source 1 and source 2 put a beaker of 500 cubic cm. When DO1 and DO2 are added, the sediment is yellowish brown, indicating that there is oxygen in the water.

2.2.2 DO3 drops will turn yellow. There is oxygen in the water

2.2.3 Drop DO4 until it becomes pale yellow.

2.2.4 Drops DO5 provided blue pattern

2.2.5 How many drops of DO4 were added from item 3 until it was colorless? Compare the amount. oxygen as mg/L

2.2.6 Record the results of the inspection 3 times

2.3 Check that the acid-base (pH) value of the water is as follows.

2.3.1 Fill the sample with water into a 500 cubic centimeter beaker.

2.3.2 Dip the paper. The universal indicator reads and records the results.

Experimental results and analysis

Table 1 shows the amount of oxygen from water sources in Wang Wi Weet District and Na Yong District.

Location	Oxygen content (mg/L)			
	The time 1	The time 2	The time 3	Average
O-TOP	11	15	8.5	11.5
Phru Lampeng	10.5	9	9.5	9.6

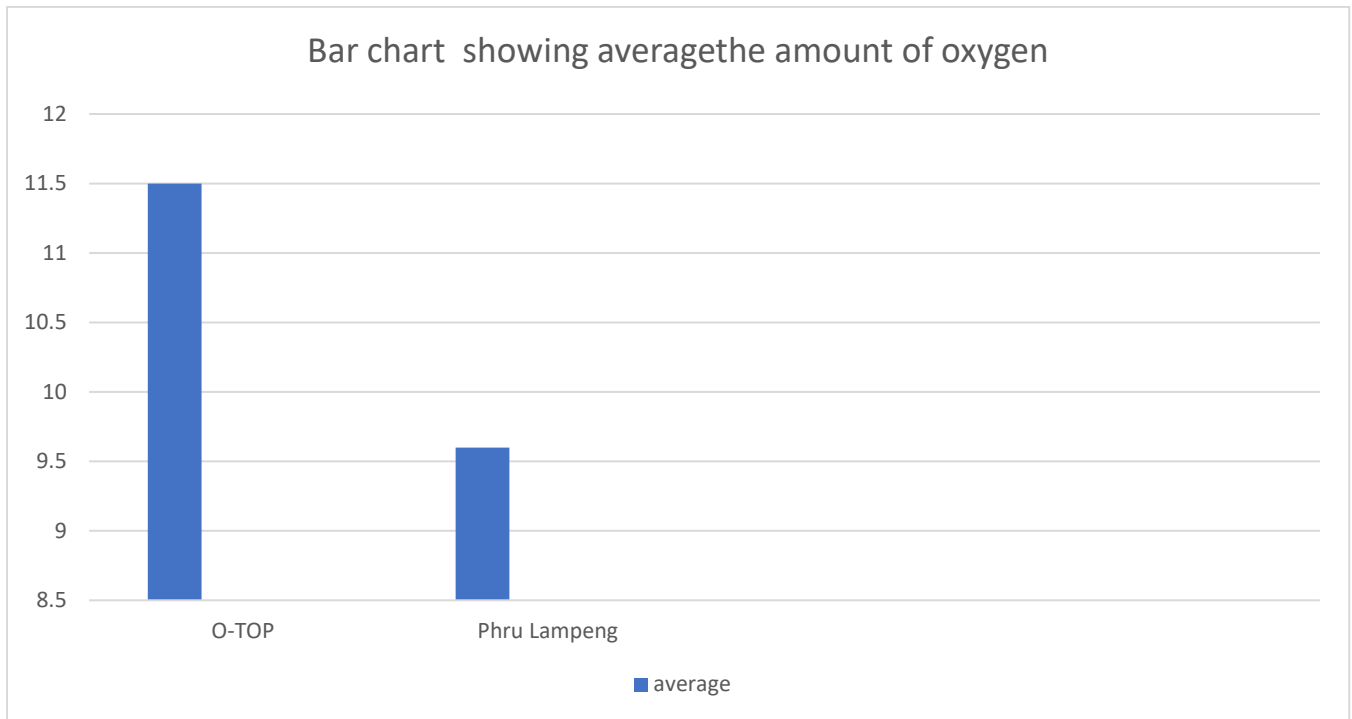


Table 2 shows the temperature from water sources in Wang Wiset District and Nayong District.

Location	Temperature (° C)			Average
	The time 1	The time 2	The time 3	
O-TOP	28	28	28.5	28.17
Phru Lampeng	28	28	28.25	28.08

From Table 2, it was found that the O-TOP center temperature was higher than that of the Lam Phru Lampeng Peat Pool.

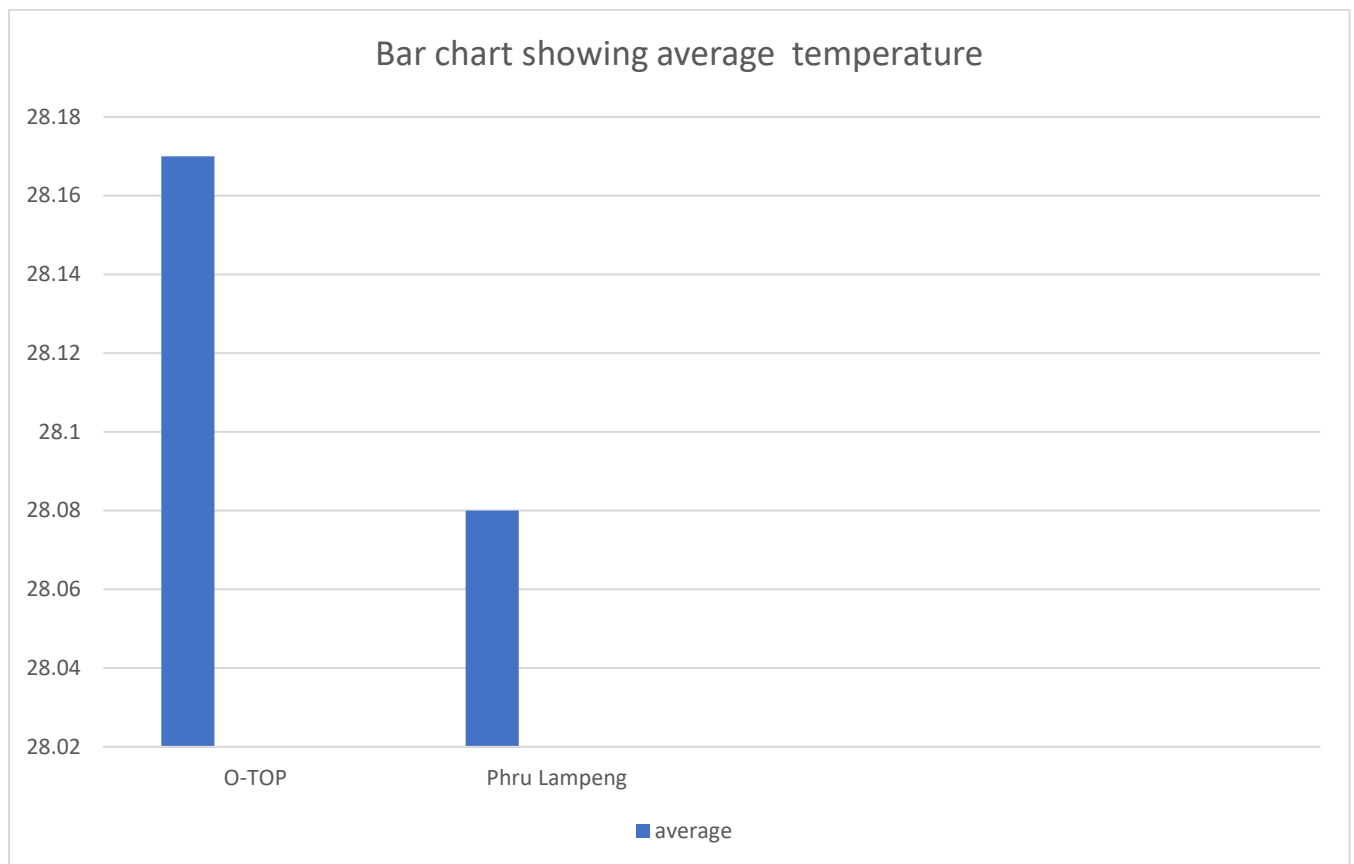
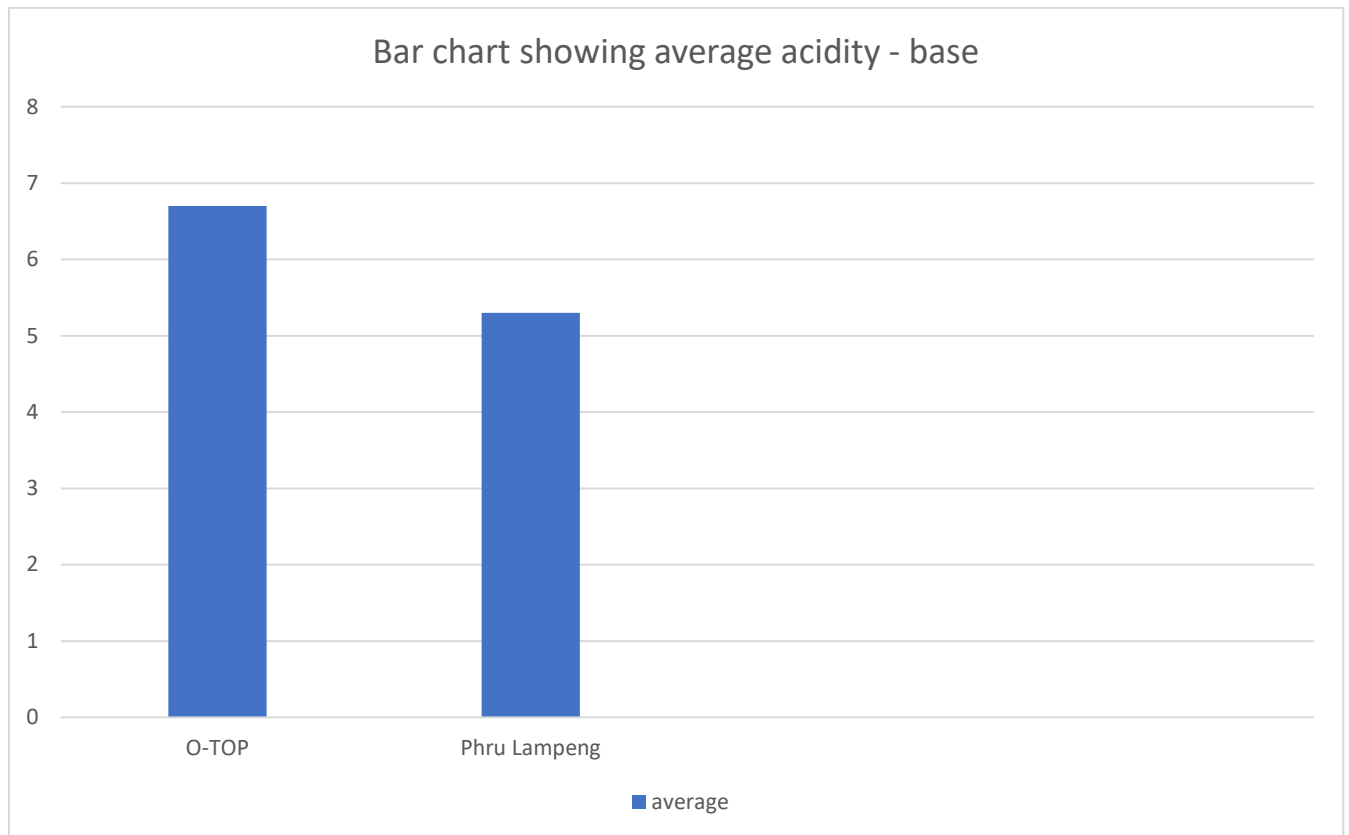


Table 3 shows the acid-base values (pH) from water sources in Wang Wiset District and Nayong District.

Location	The time 1	The time 2	The time 3	Average
O-TOP	pH 7	pH 7	pH 6	pH 6.7
Phru Lampeng	pH 6	pH 5	pH 5	pH 5.3

From Table 3, it was found that The acid-base (pH) of Phru Lampeng Peat Pool water is greater than zero O-TOP.



Discussion

From a comparative study of water quality in natural ponds in Wang Wiset District and Na Yong Chang District, Trang Province, it was found that the mean temperature of this experiment was 28 degrees Celsius. average The average pH of O-TOP Center in Wang Wiset District, Trang Province was equal to 6.7 Compared to The standard criteria are the normal values and the average pH of the Phru Lampeng Peat Pool. Na Yong District, Trang Province 5.3 Compared to the standard criterion, it is an average value that is less than the criterion.

Summarize

Comparative research of water quality in natural ponds in Wang Wiset District and Na Yong District, Trang Province to survey and verify water quality by measuring methods. The oxygen content in the water, the temperature measurement, the acid-base value (pH) and the average oxygen content of the two locations were higher than the quality water standards. The standard of quality water is in the range of DO, approximately 5-8 mg/L. Temperature, where the average temperature of the O-TOP center is higher than the mean pH of the Phru Lampeng Peat Pool, and the average pH of the O-TOP center is less acidic. Phru Lampeng Peat Pool indicates that Phru Lampeng Peat Pool in Nayong District more suitable for the livelihood of aquatic animals.

