

# Background and rationale

Bueng Khong Long is the world's 1,098th most important international wetland with an area of 13,800, located in Bueng Khong Long and Seka districts. Bueng Kan Province

Way of life in Bueng Khong Long, most of the people work in animal husbandry, rice farming, various crops, rubber plantations, and various agricultural activities.





Currently, Spirogyra algae is very rare because the water at Bueng Khong Long. There is a very poor water quality. This is a great result of the use of chemicals to grow many kinds of plants.



# Research question

- 1. How does spirogyra tell the water quality?
- 2. PH value, relative humidity, water level, temperature of the found area is different from the one not found?

# Research objectives

- 1. To compare the quality of water found, how did spirogyra differ from the area that was not found?
- 2. To Research PH value Relative humidity, water level, temperature, where the spirogyra was found and where it was not found.

## Terminology definition

- 1. Spirogyra (Tao Nam) has the scientific name spirogyra and its common name is "Tao Nam Tao Kai or Pak Tao" and we can find spirogyra in natural fresh water sources such as canals. In which the water will be still clean and clear
- 2. Survey area Bueng Khong Long Weir Bueng Khong Long District, Bueng Kan Province

### **Expected benefits**

- 1. To study the formation of spirogira algae.
- 2. To be used to indicate the quality of clean water.
- 3. To develop spirogira algae can be used to raise additional income.



#### Related documents

#### Spirogyra documentation

Spirogyra algae are green freshwater algae belonging to the Division Chlorophy scientific name spirogyra and the common name "Tao Nam Tao Kai or pak tao".

#### Documents related to the survey tools

#### Related tools include

- 1.An instrument to measure the PH value of water.
- 2. Relative humidity measuring instrument
- 3. Water level measurement tool
- 4. Temperature measuring tool

#### Related research

Study on high-yield algae cultivation (T.P.4.3.1.17 - Mae Jo University)



#### Methods of conducting research

#### Research plan

This research Is research-oriented Quantitative and qualitative Is intended to Study of the properties of water that influence the formation of Spirogyra.

Population / sample

Population: Spirogyra

Samples: PH value, temperature, The level of water

, spirogyra algae.

Location of latitude is 17.95976 Longitude position is 104.03466

#### Research instruments

The tools used in this research include

- 1. PH measuring instrument
- 2. Relative humidity measuring instrument
- 3. Temperature measuring tool
- 4. Water level measurement tool







#### Research results

# Research results according to objective 1

Water quality found in spirulina
The gyra and water quality found for
spirogyra were different, cultivated
in the area where the spirojyra was
found had higher pH than the area
not found.



# Research results according to objective 2

Areas where spirogira was found and areas where spirogira was not found had different PH values, relative humidity, water level, and temperature.



Table showing the survey of the areas where the spirogyra was found and the areas where the spirogyra was not found.

Water properties								
Found area Spirogyra algae					Not found area Spirogyra algae			
time that	PH	relative humidity	The level of water	temperature	PH	relative humidity	The level of water	temperature
1	8.0	35.56	38	28.06	6.5	37.87	37	29.16
2	8.5	38.06	38	29.06	7.0	40.37	37	30.16
3	9.0	40.56	38	30.06	7.5	42.87	37	31.16

# Results of the discussion

From the results of the study on water quality surveys, spirogyra algae were found. Found issues for discussion As follows, the areas where spirogyra was found had higher PH and The level of water than those where spirogyra was not found. However, the relative humidity and temperature were lower than those in the area where spirogyra was not found.







## Suggestion

#### Suggestions for this research

- 1. Should take more time to explore. For resolution in research work
- 2. Should use tools that have a resolution to measure various values.
- 3. You should study more information than you study.



#### Next research proposal

- 1. The benefits of spirogyra should be more studied.
- 2. Should study the method of data collection in more detail.

#### Organizers

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