

*A Study on Influencing Factors of Cherry Blossoms in
Kinmen Area*

Students :

- 1.顏浩軒 Yen,Hao-Hsuan
- 2.陳成恩 Chen, Cheng-en
- 3.許伯煒 Xu, Bo-Wei
- 4.何儼祺 Ho,Yen-Chi

Teacher :

李育賢 Lee, Yu-Hsien



Summary

Cherry blossoms are plants of the genus *Prunus* in the Rosaceae family and are suitable for viewing. Cherry blossoms usually bloom in high-latitude or high-altitude areas. However, Kinmen is a low-latitude flat land, and there were no cherry blossoms in the early years. Why there are cherry blossoms in recent years has aroused our curiosity.

After the varieties are improved, cherry blossoms will also bloom in the Kinmen area. Cherry blossoms usually bloom in spring when temperatures warm up.

Research motivation

One of our classmates who lived near National Quemoy University took a look at National Quemoy University and found that it was different from the cherry blossoms in Kinmen senior high school. After that, we decided to explore the difference between the two and compare the cherry blossoms in other places.

Compare the main reasons for their differences.

Research purposes

1. What is the relationship between cherry blossom blooming and changes in temperature and light?
2. Comparison of cherry blossom blooming and temperature changes in different parts of Kinmen County , and further find out the evidence of cherry blossom blooming and temperatures.

Observation location

The subject of this experiment is cherry blossoms, which grow all over the world, mainly in temperate regions.

Most of the cherry blossoms in Kinmen are Feihan cherry blossoms. Most of them are planted in schools, government offices or roadsides, and some are also planted in private courtyards.

In the past, the average spring temperature in Kinmen was about 12-20 degrees Celsius, and the temperatures from January to April are as follows:

The average monthly temperature in Kinmen from January to April

month	Average daily maximum temperature(°C)	Average daily minimum temperature(°C)	record high temperature(°C)
January	18	11	24
February	18	10	26
March	24	14	29
April	28	19	32

Kinmen is an outlying island of the Republic of China in Asia. It is surrounded by sea and is mainly an island dominated by hills. The weather is dry and rainy, windy and windy. Similar to Japan's climate, it is suitable for planting cherry blossoms compared with the same latitude.



Research method

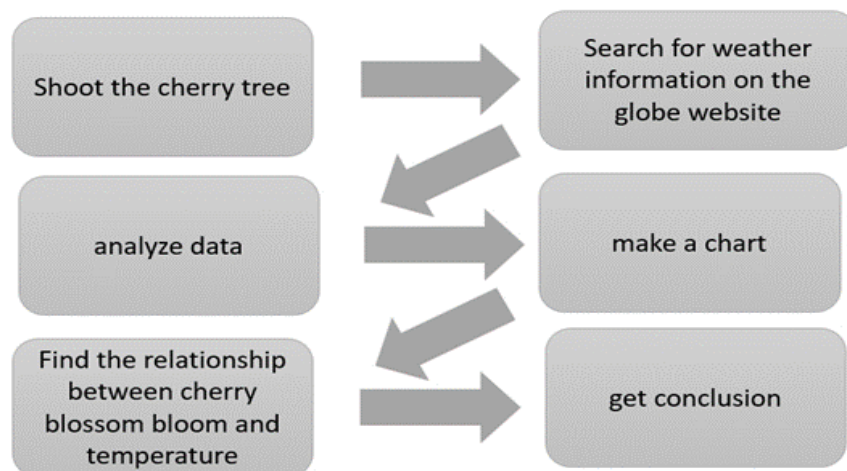


photo (1)

(Kinmen County Jin-Sha Junior High School Prunus campanulata Maxim)

2022/02/06	2022/02/08	2022/02/09
		
☐2022/02/10 blossom	2022/02/11	2022/02/13
		
2022/02/15	2022/2/17	2022/2/19
		

2022/2/21	2022/02/23	2022/02/25
		
2022/02/27 (wither)	2022/02/28	2022/03/1
		

photo (2)

(National Quemoy University Yoshino cherry)

2022/02/05	2022/02/06	2022/02/08
		
2022/02/09	2022/02/10	2022/02/11
		
2022/02/12	2022/02/13	02/15 blossom
		

2022/02/17	2022/02/19	2022/02/21
		
2022/02/23	2022/02/26	2022/02/28
		

photo (3)

(Kinmen senior high school *Cerasus campanulata*)

2022/02/07	2022/02/08	2022/02/09
		
2022/02/10	2022/02/11	2022/02/12
		
2022/02/14	2022/02/15	2022/02/18
		

2/19blossom(the tree of behind)	2022/02/20	2022/02/22
		
2022/02/24	2022/02/26	2022/02/27
		
2022/02/28		
		

Discussion

Flowering conditions

- (1) Cherry blossoms in the environment below 15 °C, only need 5 or 6 consecutive days, and then slowly return to the temperature to bloom.
- (2) From the photos and the temperature map, it can be seen that the cherry blossoms bloom when the temperature warms up after the low temperature. Different locations have different conditions, such as species, location temperature, and sunlight, so the flowering dates are not exactly the same.

2022 Kinmen temperature in February:



Conclusion

After variety improvement, Taiwan's flatland cherry blossoms do not need a low temperature below 10 degrees to break the dormant state.

References

1. The GLOBE website.
<https://www.globe.gov/>
2. 植物說(2021), 櫻花樹是喜陽還是喜陰・屬於耐陰植物嗎?
<https://m.zhiwushuo.com/baike/608442021081560844.html>
3. 公民報橘(2021), 京都櫻花開花時間提前・創1200年紀錄! 氣候變遷如何影響櫻花 生長週期
<https://buzzorange.com/ctiorange/2021/04/06/cheery-blossom-issue/>
4. 天氣預報
<https://www.tianqi.com/qiwen/city-jinmen-spring/>
5. AccuWeather, 金門縣, 台灣每月天氣
<https://www.accuweather.com/zh/tw/kinmen-county/2332525/february-weather/2332525?year=2022> 金門二月氣溫
https://james54168.blogspot.com/2019/02/blog-post_21.html
7. 上下游新聞(2021), 平地也能賞櫻・要感謝這些研究員一生付出・育成6種平地櫻花燦爛盛放
<https://www.newsmarket.com.tw/blog/145496/>
[https://www.backpackerwebs.com/japan-kyushu/cherry-chilling-requirement-blossoms/\(0-9度\)](https://www.backpackerwebs.com/japan-kyushu/cherry-chilling-requirement-blossoms/(0-9度))