

Ecological comparisons between Changbai Mountain region and Ting Kok

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Introduction

Ecological study is vast development as scholars and government are curious and frightened by global environmental impacts.

This essay evaluates two different government designated ecological sites, comparing its ecological niche, biodiversity and anthropogenic impacts.

Changbai Mountain is the one of the most valuable ecological sites in China. There is many different species of animals and plants. In August, the students of The Education University of Hong Kong had the opportunity going to Changbai Mountain and investigate that area with the local students. Therefore, we gained the treasure experience and learned a lot in that period.

In Hong Kong, Ting Kok is located on the northern shore of Plover Cove and west of Tai Mei Tui. In view of the high ecological and scenic value of Ting Kok, it have declared a Site of Special Scientific Interest since 1985 and the Hong Kong government initiated a new Ting Kok Coastal Plan in 2012 to enhance the long term ecological protection.

Thus, these two different places have the high ecological and scenic value. This essay will compare the ecological biodiversity of these two different government designated ecological sites.



Hibiscus tiliaceus



Kandelia obovata



Bruguiera gymnorrhiza

More than 2000 kilometres away, Ting Kok is the forth top biological reserves in Hong Kong, under 44 community (AFCD, 2015). For its special functions and ecological niche, it has been protected by government recently. Ting Kok has a coastal landscapes with tremendous ecological values. It is home to many indigenous species of Hong Kong like horse shoe crab. On the other side, Mangroves at the inner coast act as a natural barrier protecting coastline and serves as a habitat for migratory birds and coastal species.

Differ to Changbai Mountain, Hong Kong contain low sea level and pan-tropical environment, thus we can discover the species that would never be found in Changbai Mountain. In Ting kok site there are true mangrove and associate mangrove we can discover. True mangroves are which contain the ability living in such difficult environment, while associate mangroves are plants that living between true mangrove and normal soil.

From the original forest cover in Changbai Mountain, we could see there were over 10 types of species in each arbor, shrub and herb. However, it would be hard to find out more than twelve species, including all type of plants in Ting kok, because of the coastal area. However, it would not reduce its value of reserve area as it contain higher rate of carbon sequestration to normal forest per m².



Ecology and biodiversity

Changbai Mountain is one of the major tourist destinations in China, famous for its natural beauty and vast landscapes. Especially for its vertical stratification that reserves species 80% more than other landscapes (Yang, X. & Xu, M., 2003). Particularly in its lower altitude areas (600m-1100m), the abundance of pines and spruce offered extraordinary environment for fauna and flora growth, that supported inhabitants and acted as a important feeder and biocapacity for the whole ecosystem. In the upper layer of Changbai Mountain, biodiversity were ceiled by its harsh winter environment that cannot support plant growth, and formed the tundra area from 1500m and above. However, recent finding discovered the pine areas were extending upward to the higher ground at the cost of climate change (Bai, F., Sang, W. & Axmacher, J. C., 2011). In a foreseeable future, that may

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Anthropogenic impacts

It may seem that Changbai Mountain are well protected at the expense of well-planned ecotourism and environmental protection laws. However, ecological footprints in the Changbai Mountain may still be the big challenge ahead. Ecotourism may be the ideal way of sustainable development, but with the explosive popularity like Changbai Mountain, tourist capacity can be easily exceeded and causing detrimental impacts to ecological environment. As we are visiting the sampling site in Changbai Mountain, it is not hard to find rubbish there. The tourism area is far more worse than that even there were bins proved for waste collection.

It would be another failure for sustainable development if ecotourism has once again caused ecological disaster. Other than ecotourism, Changbai Mountain should have no problem at recovering from Anthropocentric activities as observed and researched, showing that the strong resilience in the area (Wang, X. Hao, Z. at el., 2009). Things are vastly different in land-shortened Hong Kong. Ting Kok are facing serious challenges from developmental stress, pollutions and recreational activities. Huge developmental stress are posing threats to Ting Kok's ecology as ongoing discussion to develop Ting Kok persists, even government's stance are inclined towards development rather than conserving it. Marine pollution is another core factor to cause environmental degradation in Ting Kok; micro plastics are carried to the coast of Ting Kok, which releasing toxic and threatening to living organisms.



Arctium lappa

Picea asperata

Senecio scandens



Larix gmelinii



Atractylodes lancea



Waste found in the reserved sampling area.

Conclusion

Both Changbai Mountain and Ting Kok uphold specific ecological niches and biospheres, which are important to biodiversity conservation. However, human activity is the common threat posing to both ecosystems. Better measures controlling human influences to environment are opt to discuss in the foreseeable future.

References

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