

St Joseph's Anglo Chinese School

(Group 2)

Biology Fieldtrip Project 2008

Study of Stream Ecosystem

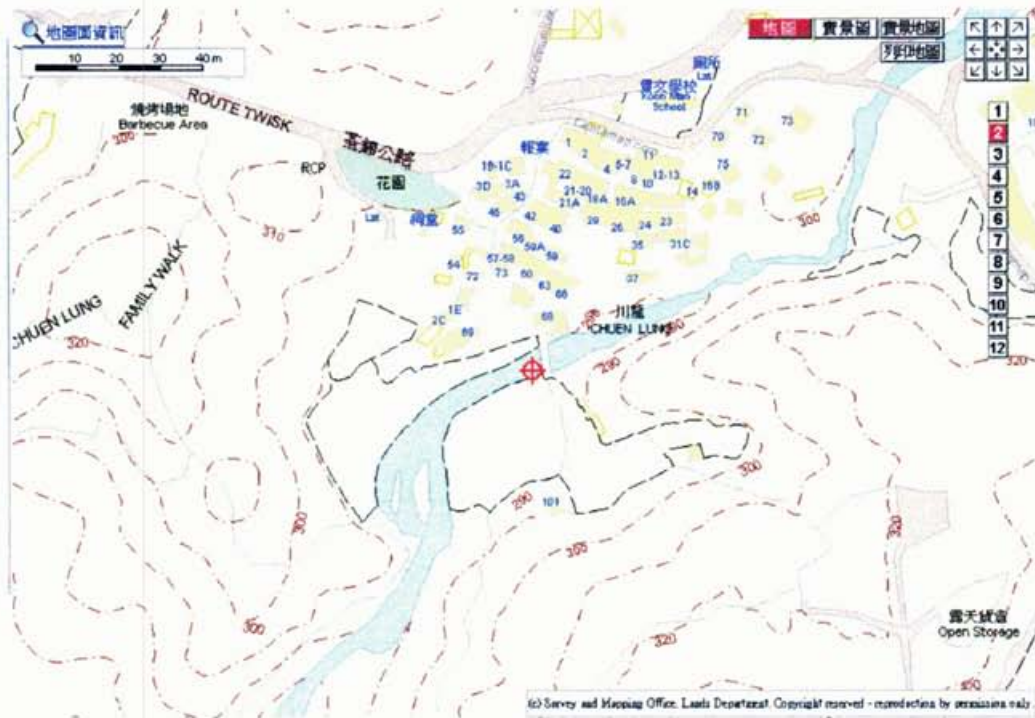


Date of study:8-12-2008

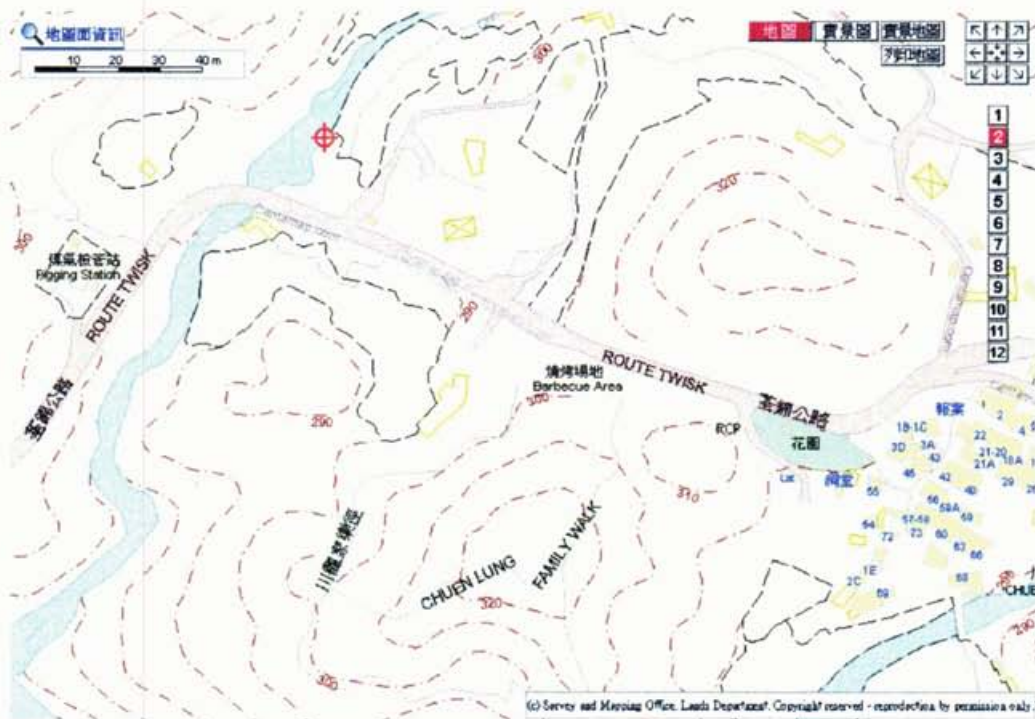
Time of study: 13:00-16:45

Investigation Site

Site 1



Site 2



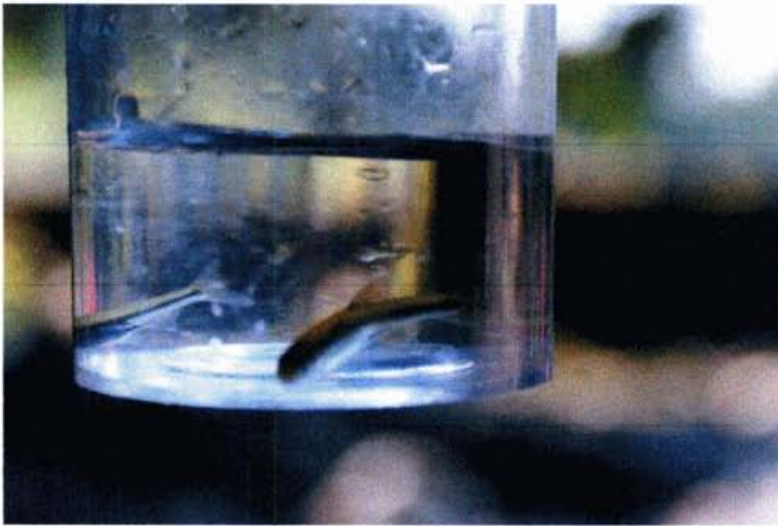
Aim

During the study, we are going to **investigate the animal species in those sites and their special features to adapt the environment** of the sites. Moreover, we are going to **discover the inter-relationships between the species** in the environment. Lastly, we are going to **investigate how the local and global threats will affect the ecosystem** of the two sites.



Opariichtys sp. Bleeker(馬口魚)

Bleeker has elongated and laterally compressed body with a big terminal mouth. They are characterized by a conspicuous symphysal knob on its lower jaw. There dorsal fin is opposite to its pelvic fin origin. There sex can be determined by their body. The mature female has a plain body while the mature male is silvery white.



Hong Kong Newt(蝾螈)

Hong Kong Newt is a large, brownish newt and its underside is covered with red spots. Its brown body is a natural camouflage which help it not easily been discovered on the rock. They have a tail which is thin and flattened. They have a slimy skin and a streamlined body which is able to reduce water resistance.



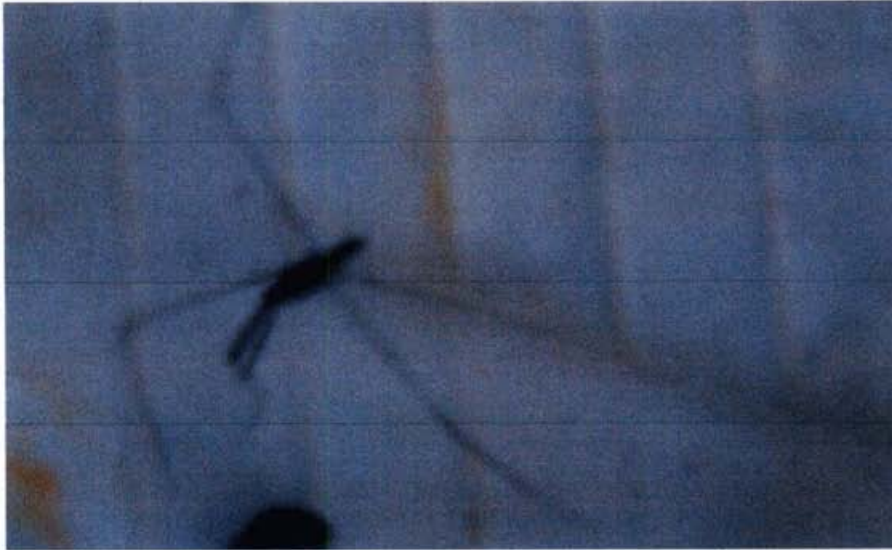
Reservoir Snail (瘤擬黑螺)

Reservoir snail is a relatively large snail which has a tall, smooth, brown-black shell as a natural camouflage. Also it has a leathery operculum. There eggs are retained in an internal pouch to prevent the eggs being damaged in outside.



Water Skater (水蛟剪)

They have light an elongated body which enables them to move quickly on the water and move between the rocks. They have short fore legs. They have waxy hair on their legs which enable them to float on the water.



Toothed Bee Shrimp (鋸齒米蝦)

It is a pale shrimp with three black bands across the body. It has movable eye which enable to watch in different degrees. The have powerful fore jointed leg which enable them to move quickly in water. They are almost transparent which is a natural camouflage, so it will not easily be discovered in water.



Mayfly Nymph (蜉蝣若虫)

They have powerful legs for moving quickly in water and power hooks for predating other animals. They are flattened with oval heads to reduce water resistance. They also have plate like gills for breath. The have conspicuous light spots and three 'tails'.



Bloodworm

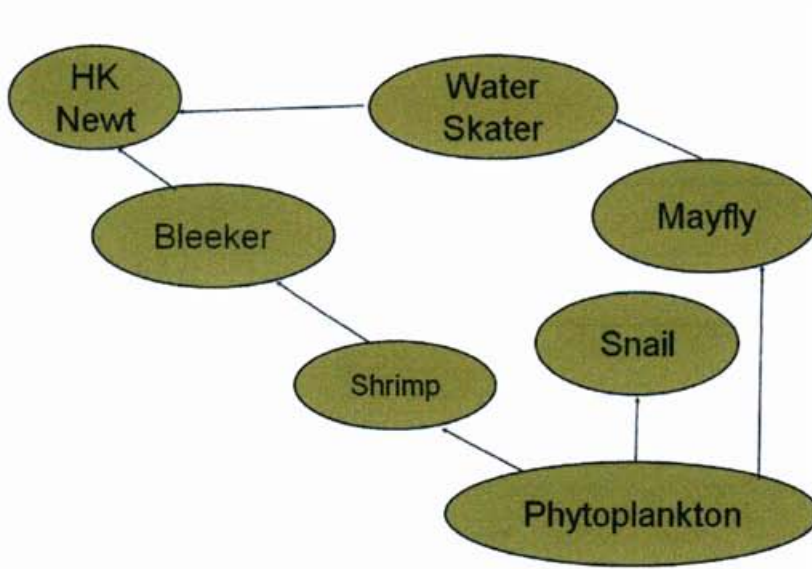
They have non-chitinous cuticle to reduce water evaporation. They have suckers to absorb nutrients. Their body is divided into a linear series of segments (metameric segmentation) which enable high generation.



Inter- relationship

	馬口魚	螺	水蛟剪	蠓螭	蝦	若虫	紅虫
Compet	●	◆	●		◆	◆	
Predat	▲			★			▲

Food Chain



Local Threats

During the investigation, we have discovered that the main source of pollutants is domestic and agricultural waste. A village and a farm are beside the site as shown in the map above. The domestic waste from the families and the restaurants is discharged to the stream. The agricultural waste from the farm is also discharged to the stream which pollutes the stream. Moreover, during our study, a construction site is discovered which is beside the stream. Not only the waste from the site will pollute the stream, the noise from the site will also give a sound pollution to the environment.



Global Threats

Lots of human activities will carry pollution to the environment and affect the life of many species of organisms. Te exhausted air and pollutants from industries and power stations will lead to vital pollution of the surrounded areas and global warming. The agricultural waste from the farm will also pollute the surrounded areas. Accidental pollution like crude oil discharged in the accidents of ships will also cause destructive effect to the sea will cannot recover easily.

