

**Re-telling the Yung Shue Au Story: Co-creating Rural Place with Experimental
Communal Hub and Eco-Cultural Trail**

Research on Ecological Features in Yung Shue Au

(Task 2 Research)

Introduction

This research on ecological features in Yung Shue Au (YSA) constitutes a continuation of the ecological investigation initiated in Fall 2024 in conjunction with the Re-telling Yung Shue Au project.

Research Methods

Baseline survey of plants and animals

- *Documentation of prominent plants and animals within a 5-meter observation radius on both sides of the trail alongside the primary village path.*
- *Identification of plants and animals through photographic records (no specimens collected).*

Sampling of water

- *Collection of water samples at specified locations.*
- *Analysis of water samples.*

Sampling of soil

- *Collection of soil samples at designated locations.*
- *Analysis of soil samples.*

Summary of Research on Ecological Features

Ecological Findings:

Several plant species have been identified. A variety of animals have been documented, notably from the Lepidoptera order. Diverse insect species, including locusts, have been recorded. An examination of the middle section of the Ecological Important Site (EIS) in Yung Shue Au (YSA) has been conducted.

Water Testing:

Monitoring of water quality from a selection of areas has been maintained with detailed records.

Observations on Ecological Important Site (EIS):

Water quality assessments indicate satisfactory conditions of the EIS. Notably, *Cardina* sp. has been identified in the midsection of the EIS, underscoring its environmental significance. Additionally, freshwater crabs have been observed within the EIS.

For the past four surveys in YSA, the upper part of the EIS in YSA is less investigated due to avoidance of disturbance of the natural habitat. In the recent survey, the middle part of the EIS has been reached. For the water quality there, by measuring the water quality, the water quality seems well. By measuring the ecological value in EIS, *Cardina* sp. could be found in the middle part, stating the good quality of EIS. Also, freshwater crab is also found in EIS too.

Survey Dates

12 Dec 2023 (Tue)

27 Feb 2024 (Tue)

10 May 2024 (Fri)

Duration: 8am – 3pm.

Frequency of ecological survey: 3 times

Geographical References

The ecological survey uses the initial Eco-cultural Trail as references for geographical locations (see Figure 1).

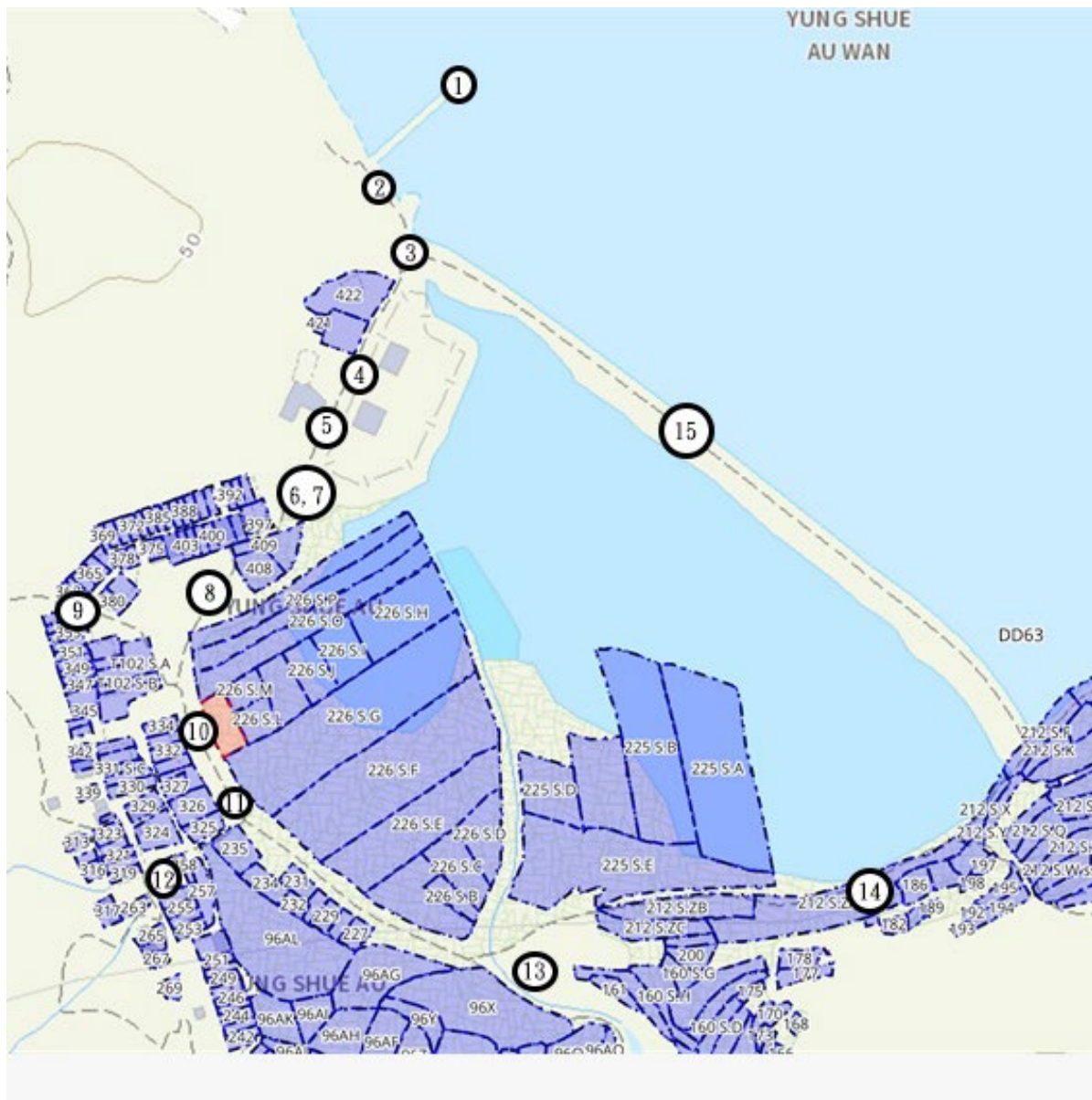


Figure 1: Map of Eco-cultural trail points. The number on the map corresponds to the numbers of the locations referred to in the ecological survey.

Water Quality Data

Date	Location	Trail location	Weather	Temperature (°C)	DO %RTB	DO mg/L	SPC-uS/cm	SAL-ppt	pH	FHU	NTU	TSS mg/L
12/12/2023	Pier	1	Sunny	24.3	110.0	7.77	49289	32.23	7.80	5.86	5.86	0
12/12/2023	Mangrove	3	Sunny	26.6	92.3	6.42	43770	28.18	7.51	1.89	1.89	0
12/12/2023	Well	11	Sunny	21.5	11.5	1.03	152.6	0.07	6.95	7.20	7.20	0
12/12/2023	Waterfall	13	Sunny	21.4	96.4	8.86	45.7	0.02	7.49	4.29	4.29	0
27/02/2024	Mangrove	3	Cloudy	19.9	104.9	8.02	51291	33.76	7.82	0.47	0.47	0
27/02/2024		3	Sunny	26.2	108.1	7.55	44199	28.49	7.92	-0.21	-0.21	0
27/02/2024		6	Sunny	27.7	100.9	6.99	40172	25.58	7.76	3.02	3.02	0
27/02/2024		7	Sunny	25.3	92.9	7.27	19006	11.27	7.25	12.57	12.57	0
27/02/2024		5	Sunny	21.2	5.7	0.52	165.8	0.08	6.89	1.43	1.43	0
27/02/2024	Middle of EIS	(13)	Sunny	22.6	104.6	9.16	39.5	0.02	7.02	0.69	0.69	0
27/02/2024		13	Sunny	23.0	103.7	9.03	36.2	0.02	6.93	0.67	0.67	0
27/02/2024		14	Sunny	27.9	84.9	5.83	41110	26.24	7.27	71.99	71.94	0
10/05/2024		1	Cloudy	26.2	108.1	7.55	44199	28.49	7.92	-0.21	-0.21	

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10/05/2024		3	Cloudy	27.7	100.9	6.99	40172	25.58	7.76	3.02	3.02	
10/05/2024		6	Cloudy	25.3	92.9	7.27	19006	11.27	7.25	12.57	12.57	
10/05/2024		12	Cloudy	21.2	5.7	0.52	165.8	0.08	6.89	1.43	1.43	
10/05/2024		13 up	Cloudy	22.6	104.6	9.16	39.5	0.02	7.02	0.69	0.69	
10/05/2024		13	Cloudy	23	103.7	9.03	36.2	0.02	6.93	0.67	0.67	
10/05/2024		14	Cloudy	27.9	84.9	5.83	4111.0	26.24	7.27	71.99	71.94	
07/06/2024		1	Cloudy	26.3	95.9	6.6	45962	29.76	7.79	0.27	0.27	
07/06/2024		3	Cloudy	26.4	48.2	3.46	35221	22.14	7.09	2.25	2.25	
07/06/2024		12	Cloudy	22.3	12.5	1.10	130	0.06	6.47	5.91	5.91	
07/06/2024		14	Cloudy	23.3	100.3	8.62	37.7	0.02	6.93	1.05	1.05	

DO = Dissolved Oxygen

SAL = Salinity

pH = Acidity

FHU = Turbidity

Ecological Survey

Plants Identified on 12 December 2023

No.	Scientific name	中文名	Family	Habitats					Trail Location (1-15)
				A: Coastal B: Mangrove C: Forest D: Fresh water stream E: Fung Shui Woodland	A	B	C	D	
1	<i>Kandelia obovata</i> Sheue, H.Y.Liu & J.W.H.Yong	水筆仔	Rhizophoraceae		✓				11
2	<i>Heptapleurum heptaphyllum</i> (L.) Y.F.Deng	鴨脚木	Araliaceae			✓		✓	14
	<i>Sapium sebiferum</i> (L.) Roxb.	烏柏	Euphorbiaceae					✓	14

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Photo record:



Kandelia obovata Sheue, H.Y.Liu & J.W.H.Yong 水筆仔



Heptapleurum heptaphyllum (L.) Y.F.Deng 鴨脚木



Sapium sebiferum (L.) Roxb. 烏桕 (落葉)

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Animals identified on 12 December 2023

No.	Scientific name	中文名	Order
1	<i>Delias pasithoe</i>	報喜斑粉蝶	Lepidoptera
2	-	灰蝶	Lepidoptera
3	<i>Cupha erymanthis</i>	黃襟蛺蝶	Lepidoptera
4	-	-	Lepidoptera

Photo record:



Delias pasithoe 報喜斑粉蝶



灰蝶 Lepidoptera



Cupha erymanthis erymanthis 黃襟蛺蝶



Lepidoptera

**The quality of the photographs is constrained by the distance from which the insects were observed, making it challenging to capture clear images.*

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Plants identified on 27 February 2024

No.	Scientific name	中文名	Family
1	<i>Kalanchoe pinnata</i>	落地生根(花)	Crassulaceae

Photo record:



Kalanchoe pinnata 落地生根

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Plants Identified on 10 May 2024

No.	Scientific name	中文名	Family	Habitats					Trail Location (1-15)
				A: Coastal	B: Mangrove	C: Forest	D: Fresh water stream	E: Fung Shui Woodland	
1	<i>Rhodomyrtus tomentosa</i> (Aiton) Hassk.	桃金娘	Myrtaceae			✓			2
2	<i>Aporosa dioica</i> (Roxb.) Müll. Arg.	銀柴	Phyllanthaceae			✓		✓	3
3	<i>Celtis sinensis</i> Pers.	朴樹	Cannabaceae			✓		✓	3
4	<i>Cratoxylum cochinchinense</i> (Lour.) Blume	黃牛木	Hypericaceae			✓		✓	11
5	<i>Daphniphyllum calycinum</i> Benth.	牛耳楓	Daphniphyllaceae			✓			6
6	<i>Psychotria serpens</i> L.	蔓九節	Rubiaceae			✓		✓	4
7	<i>Uvaria microcarpa</i> Champ. ex Benth.	紫玉盤	Annoaceae			✓		✓	14
8	<i>Ficus simplicissima</i> Lour.	五指毛桃/ 粗葉榕	Moraceae			✓		✓	4
9	<i>Ardisia quinqueгона</i> Blume	羅傘/ 朱砂根	Primulaceae			✓		✓	4
10	<i>Boehmeria</i> sp.	苧麻屬	Urticaceae			✓			6
11	<i>Machilus</i> sp.	潤楠屬	Lauraceae			✓		✓	8
12	<i>Aegiceras corniculatum</i> (L.) Blanco	桐花樹	Primulaceae		✓				11
13	<i>Microcos paniculata</i> L.	布渣葉	Malvaceae			✓		✓	6
14	<i>Sterculia lanceolata</i> Cav.	假蘋婆	Malvaceae			✓		✓	4
15	<i>Kalanchoe pinnata</i> (Lam.) Pers.	落地生根	Crassulaceae					✓	4

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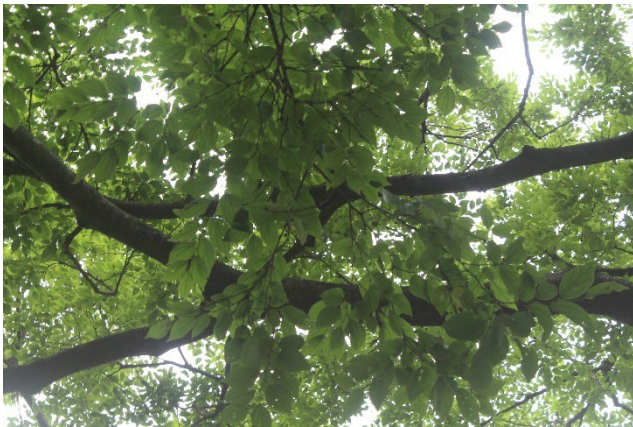
Photo Record:



Rhodomyrtus tomentosa
(Aiton) Hassk. 桃金娘



Aporosa dioica
(Roxb.) Müll. Arg. 銀柴



Celtis sinensis Pers. 朴樹



Cratoxylum cochinchinense (Lour.) Blume 黃牛木



Daphniphyllum calycinum Benth. 牛耳楓



Psychotria serpens L. 蔓九節

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Uvaria microcarpa Champ. ex Benth.
紫玉盤



Ficus simplicissima Lour.
五指毛桃/ 粗葉榕



Ardisia quinqueгона Blume
羅傘/ 朱砂根



Boehmeria sp. 苧麻屬



Machilus sp. 潤楠屬



Aegiceras corniculatum (L.) Blanco 桐花樹

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Microcos paniculata L. 布渣葉



Sterculia lanceolata Cav. 假蘋婆



Cerebras manghas Linn (Flower)

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Animals identified on 10 May 2024

No.	Scientific name	中文名	Order	Trail map Location (1-15)
1	<i>Graphium agamemnon</i>	統帥青鳳蝶	Lepidoptera	2 or 3
2	<i>Kaniska canace</i>	琉璃蛺蝶	Lepidoptera	6
3	<i>Cyrestis thyodamas chinensis</i>	網絲蛺蝶	Lepidoptera	11
4	<i>Euthalia phemius</i>	尖翅翠蛺蝶	Lepidoptera	13
5	<i>Pieris rapae</i>	菜粉蝶	Lepidoptera	4
6	<i>Zizeria</i> sp.	藍灰蝶屬	Lepidoptera	4
7	<i>Jasmides</i> sp.	雅灰蝶屬	Lepidoptera	8
8	<i>Ricania</i> sp.	廣翅立禪（若蟲）	Hemiptera	3
9	<i>Phlaeoba antennata</i>	長角佛蝗	Orthoptera	4
10	<i>Phlaeoba infumata</i>	僧帽佛蝗	Orthoptera	5
11	<i>Tessarotoma papillosa</i>	荔蝽	Hemiptera	5
12	-	石龍子	Squamata	10
13	<i>Cryptopotamon anacoluthon</i>	鰓刺溪蟹	Decapoda	13

Photo Record:



Graphium agamemnon 統帥青鳳蝶



Kaniska canace 琉璃蛺蝶

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Cyrestis thyodamas chinensis 網絲蛺蝶



Euthalia phemius 尖翅翠蛺蝶



Pieris rapae 菜粉蝶



Zizeria sp. 藍灰蝶屬



Jasmides sp. 雅灰蝶屬



Ricania sp. 廣翅立禪（若蟲）

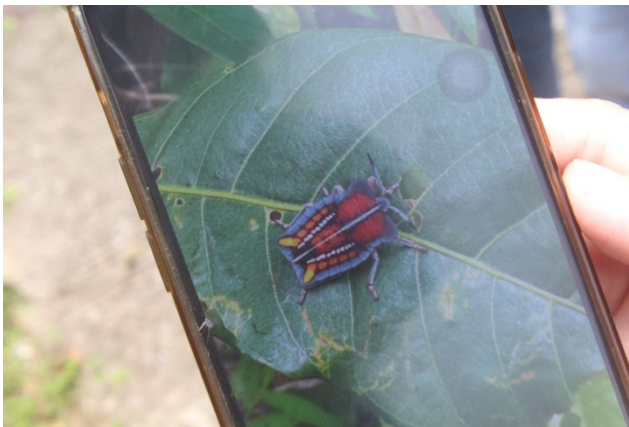
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Phlaeoba antennata 長角佛蝗



Phlaeoba infumata 僧帽佛蝗



Tessaratomia papillosa 荔蝽



石龍子



Cryptopotamon anacoluthon 鰓刺溪蟹

**The quality of the photographs is constrained by the distance from which the insects were observed, making it challenging to capture clear images.*

Animals identified on 10 May 2024 (without photos)

No.	Scientific name	中文名	Order	Trail map Location (1-15)
1	<i>Papilio polytes polytes</i>	玉帶鳳蝶	Lepidoptera	1
2	<i>Papilio helenus</i>	玉班鳳蝶	Lepidoptera	10
3	<i>Papilio paris</i>	巴黎翠鳳蝶	Lepidoptera	1
4	<i>Papilio protenor</i>	藍鳳蝶	Lepidoptera	6
5	<i>Eurema</i> sp.	黃粉蝶	Lepidoptera	1 / 5
6	<i>Delias pasithoe</i>	報喜斑粉蝶	Lepidoptera	10
7	<i>Neptis</i> sp.	蛺蝶	Lepidoptera	1
8	<i>Cupha erymanthis erymanthis</i>	黃襟蛺蝶	Lepidoptera	9/ 10
9	<i>Dysphania militaris</i>	豹尺蛾	Lepidoptera	9
10	<i>Duttaphrynus melanostictus</i>	黑眶蟾蜍	Anura	9
11	<i>Cardina</i> sp.	米蝦	Decapoda	13