

SHEUNG SHUI TO LOK MA CHAU SPUR LINE

Environmental Committee Meeting

Minutes of Meeting No. 46 held at 2:00pm
on Wednesday, 31st January 2024,
via Webinar (Microsoft Teams)

Present:		
Dr. Xianji Wen	WWF Hong Kong	Member (NGO)
Mr. Chiky Wong	Friends of the Earth (Hong Kong)	Member (NGO)
Mr. Yat-tung Yu	The Hong Kong Bird Watching Society	Member (NGO)
Mr. Siu-cheong Lau	Civil Maintenance Team	Member (MTR)
Mr. Chun-pong Au	Civil Maintenance Team	Member (MTR)
Ms. Catherine Leung	Environmental Team	Member (MTR)
Ms. Kenny Yiu	Environmental Team	Member (MTR)
Mr. Peter Choi	Environmental Team	Member (MTR)
Mr. Wilson Yuen	Environmental Team	Member (MTR)
Mr. Paul Leader	Ecological Consultant	Member (consultant)
Ms. Elizabeth Wu	Ecological Consultant	Member (consultant)
Mr. Linus Hung	Ecological Consultant	Member (consultant)
Absent with apology:		

Attachments	
Annex A	Presentation Material of EC Meeting No. 46

<u>Item/Description</u>	<u>Action By</u>
1. Welcomed Members to the EC Meeting No. 46.	Noted
<u>Confirmation of minutes of Meeting No. 45</u>	
2. There was no comment on the minutes of Meeting No. 45 and the minutes was confirmed.	Noted
<u>Ecological Enhancement Works and Monitoring – an Update on Management Works and Look Ahead</u>	
3. <i>A member (consultant)</i> reported on the major habitat enhancement, modification works, ecological monitoring and management works undertaken from January to December 2023 at the LMC EEA (detailed in Annex A).	Noted
4. <i>A member (NGO)</i> suggested that some bird target species was difficult to achieve their target due to small population and rare occurrence such as Eurasian Coot, and asked if there was any future plan in removing them from the target list. <i>A member (consultant)</i> replied that some bird targets were removed as they were not wetland-dependent and nothing more could be done for them as wetland management. Eurasian Coot is quite localised in Hong Kong and they should be maintained as a target species. <i>A member (consultant)</i> added that LMC EEA population fluctuates years to years due to various reasons, such as, there were lots of abandoned fishponds, with larger area of vegetation, in San Tin which attracted more Eurasian Coots. <i>A member (NGO)</i> stated that they were aware that Eurasian Coot not only favored abandoned fishponds in San Tin, but also occurred in some active fishponds outside and shrimp cultivating ponds in Tai Sang Wai. This might be due to their nature of feeding on small prey item. Thus, stocking fish in LMC EEA will not attract them. More vegetation coverage and small prey such as dragonfly larvae or shrimp would be better in attracting Eurasian Coot. <i>A member (consultant)</i> replied that ponds in LMC EEA without fish stock do have more Eurasian Coot. Part of the sites were managed to achieve fish free status by draining to remove fish from the ponds.	Noted
5. <i>A member (NGO)</i> asked that if there are any difficulties in getting sufficient fish stock. <i>A member (consultant)</i> replied that it was very problematic in getting fish on regular basis and suitable size 2-3 years ago, but the fish stock supply is stable now. <i>A member (NGO)</i> explained his worry on fish supply in the long term if San Tin fishponds are not operated anymore in the future. <i>A member (MTR)</i> shared that same concern and replied that one of the objectives of the current HKU study in LMC EEA is to explore potential alternatives	Noted
6. <i>A member (NGO)</i> asked if the current practice of Red-eared Slider trapping was successful. <i>A member (consultant)</i> replied that float trap was deployed before but it was not successful. The Sliders were seen occasionally on the pond bunds. The real problem is that there was no way to dispose them. <i>A member (NGO)</i> asked if there were other possible practice to catch them and how their reproduction could be controlled. A	Noted

<u>Item/Description</u>	<u>Action By</u>
<p><i>member (consultant)</i> replied that they were common pest in tropical wetland as a released species. Trapping and removal is the best-known method. <i>A member (NGO)</i> asked how LMC EEA removed them. <i>A member (consultant)</i> replied that floating platforms were deployed but they were not useful in LMC EEA as there were lots of places which are good for them to come out the pond and rest. Floating platforms probably only work in ponds with no vegetation.</p>	
<p><u>Any Other Business</u></p> <p>7. None proposed.</p>	Noted
<p><u>Date of Next Meeting</u></p> <p>8. The date of the next meeting will be advised.</p>	MTR

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31st January 2024

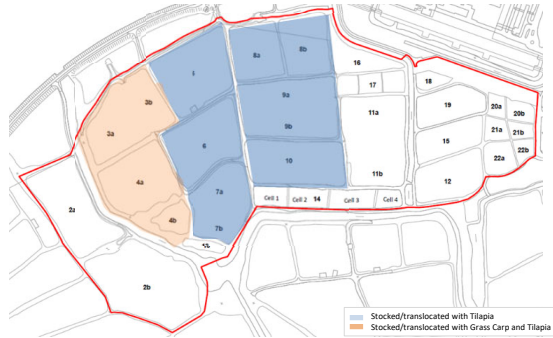


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Management Works: Fish Stocking

- 317nos. of Grass Carp and 24,929kg of Tilapia were stocked



Legend:
■ Stocked/translocated with Tilapia
■ Stocked/translocated with Grass Carp and Tilapia



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Management Works: Pest Management

Dog Trapping


- Five dogs trapped.

Red Imported Fire Ant treatment

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
No. of Nests Treated	1,333	939	969	269	254	366	157	37	0	0

Apple Snail Removal and Treatment

- 1159kg Apple Snail removed.
- 575kg Camellia Seed applied.



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Numerical Bird Target Performance in the Past 5 Years

Year	2019			2020*			2021†			2022*			2023		
	Species/Density (mean/ha)	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA
Great Cormorant	8.4	0.3	28.8	12.1	0.2	65.7	8.5	0.2	38.7	8.3	0.7	12.1	9.4	0.5	18.6
Grey Heron	1.7	0.1	11.8	2.2	0.2	11.8	1.7	0.2	9.8	1.2	0.2	5.8	2.2	0.2	12.4
Great Egret	1.2	0.4	2.9	2.5	0.8	3.1	1.3	0.4	2.9	0.6	0.6	0.9	1.2	0.5	2.4
Little Egret	0.5	0.6	0.8	1.5	0.9	1.6	0.7	1.0	0.8	0.4	0.7	0.6	1.1	0.9	1.3
Chinese Pond Heron	0.9	0.4	2.2	1.2	0.5	2.3	0.8	0.5	1.6	0.5	1.0	0.7	0.6	1.2	
Black-faced Spoonbill	0.4	<0.1	85.9	0.4	<0.1	14.5	0.4	0.1	5.6	0.2	<0.1	5.4	0.3	<0.1	3.5
Eurasian Teal	3.0	<0.1	63.1	1.6	<0.1	165.9	0.3	<0.1	9.1	0.4	<0.1	64.2	0.7	<0.1	12.4
Greater Spotted Eagle	<0.1	-	LMC	<0.1	-	LMC	<0.1	-	LMC	<0.1	-	LMC	<0.1	nr	LMC
Eastern Imperial Eagle	<0.1	-	LMC	<0.1	-	LMC	<0.1	-	LMC	<0.1	-	LMC	<0.1	nr	LMC
Japanese Quail	<0.1	<0.1	0.8	-	-	-	<0.1	-	LMC	<0.1	-	LMC	<0.1	nr	LMC
Eurasian Coot	<0.1	<0.1	3.8	<0.1	<0.1	2.6	<0.1	<0.1	1.5	<0.1	<0.1	1.4	<0.1	<0.1	0.6
Pheasant-tailed Jacana	<0.1	<0.1	60.4	<0.1	-	LMC	<0.1	<0.1	125.8	<0.1	-	LMC	<0.1	nr	LMC
Greater Painted-snipe	<0.1	-	LMC	<0.1	<0.1	22.2	<0.1	-	LMC	<0.1	-	LMC	<0.1	<0.1	4.9
Black-winged Stilt	0.4	0.2	1.9	0.6	0.4	1.5	0.5	0.7	0.7	0.3	0.7	0.4	0.3	0.6	0.5
Pintail/Swinhoe's Snipe†	<0.1	<0.1	14.0	<0.1	<0.1	56.7	<0.1	<0.1	69.0	0.1	<0.1	15.8	<0.1	<0.1	LMC
Common Snipe	0.1	<0.1	7.6	<0.1	<0.1	8.0	<0.1	<0.1	2.3	0.1	<0.1	6.8	0.1	<0.1	LMC
Bluetit	<0.1	<0.1	12.3	<0.1	<0.1	7.4	<0.1	-	LMC	<0.1	<0.1	16.9	<0.1	<0.1	2.1
Pallas's Grasshopper Warbler	<0.1	<0.1	28.8	<0.1	-	LMC	<0.1	<0.1	13.2	<0.1	<0.1	59.1	<0.1	nr	LMC
Zitting Cisticola	0.1	<0.1	7.4	0.1	<0.1	2.5	0.1	<0.1	3.4	<0.1	<0.1	14.3	<0.1	<0.1	8.3
Japanese Yellow Bunting	-	-	-	-	-	-	-	-	-	-	-	<0.1	CA	-	-
Red-billed Starling	2.9	0.1	30.3	2.5	<0.1	92.3	2.7	0.1	43.1	2.9	0.2	15.8	3.8	0.2	15.8

LMC – Only recorded in LMC EEA
CA – Only recorded in the Control Areas
Blue – Target met (i.e. density in EEA at least twice that in Control Areas)
Yellow – Target not met, although density higher than in Control Areas
Red – Target not met and density lower than in Control Areas.

* Started from 2020, ratio is calculated based on the maximum count of all surveys i.e. also including the afternoon counts and roost count if they are conducted.
† Due to the inaccessibility, areas of San Tin CA is reduced from Week 49.
‡ There was no LMC bird tower count surveys during Weeks 49-51.
§ Due to the safety of the tower hide, there was no LMC bird tower count survey during Weeks 44-47.



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Non-numerical Bird Target Performance in the Past 5 Years

Year	2019			2020			2021*			2022*			2023			
	Species/Density (mean/ha)	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio	LMC	CA	Ratio
Eurasian Wigeon	0.2	<0.1	83.4	0.1	<0.1	77.1	<0.1	0.6	0.1	<0.1	15.8	0.2	<0.1	300.9		
Little Grebe	0.9	0.7	1.3	0.6	0.8	0.8	0.7	0.6	1.0	0.6	0.7	0.8	0.5	0.6	0.8	
Yellow Bittern	<0.1	<0.1	4.0	<0.1	<0.1	3.4	<0.1	6.5	<0.1	2.9	<0.1	<0.1	<0.1	3.1		
Cinnamon Bittern	-	<0.1	CA	<0.1	-	LMC	<0.1	-	LMC	<0.1	7.6	<0.1	nr	LMC		
Black-crowned Night Heron	0.2	<0.1	7.4	0.6	<0.1	21.4	0.5	0.1	7.6	0.4	<0.1	8.6	<0.1	<0.1	5.1	
Intermediate Egret	<0.1	<0.1	6.5	<0.1	0.1	3.3	<0.1	1.5	<0.1	1.4	0.1	<0.1	6.7			
Wood Sandpiper	0.4	<0.1	8.9	0.3	<0.1	5.7	0.2	0.1	3.3	0.5	0.1	6.6	0.3	<0.1	5.5	
White-cheeked Starling	0.6	<0.1	161.2	0.4	<0.1	75.8	0.3	<0.1	116.8	0.6	<0.1	386.8	0.4	<0.1	52.5	
White-shouldered Starling	1.1	0.1	14.7	1.6	<0.1	42.1	1.6	<0.1	39.5	1.4	<0.1	37.4	1.2	<0.1	20.4	
Yellow-breasted Bunting	<0.1	-	LMC	<0.1	<0.1	5.5	<0.1	<0.1	69.0	<0.1	<0.1	6.6	<0.1	<0.1	15.6	

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† Due to the inaccessibility, areas of San Tin CA is reduced from Week 49; there was no LMC bird tower count surveys during Weeks 49-51.
‡ Due to the safety of the tower hide, there was no LMC bird tower count survey during Weeks 44-47.

LMC – Only recorded in LMC EEA
CA – Only recorded in the Control Areas
Blue – Density in LMC EEA at least twice that in Control Areas
Yellow – Density higher in LMC EEA than in Control Areas
Red – Density in LMC EEA lower than in Control Areas



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Roost Count in the Year

- Roost is mainly located at Pond 2.

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Black-crowned Night Heron	-	-	-	-	-	-	-	2	-	1	-	-
Chinese Pond Heron	2	-	-	-	-	-	-	-	-	-	-	-
Eastern Cattle Egret	6	4	47	8	3	-	-	-	-	-	-	-
Grey Heron	15	21	21	-	-	1	1	1	1	7	7	3
Great Egret	137	31	120	44	23	-	-	-	-	10	23	19
Little Egret	54	408	319	194	17	-	-	-	-	-	-	-
Great Cormorant	884	857	806	-	-	-	-	-	-	34	602	702
Total of Large Waterbirds	1,176	1,403	1,365	246	43	1	1	3	1	73	663	810

* The species occurred on site or recorded dropping into the main site during the surveys.




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Nest Box Occupation in the year

- 100 nest boxes provided
- 73 occupied by White-shouldered Starling and 1 by Oriental Magpie Robin
- 26 occupied by nesting materials only.



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Breeding Birds (in addition to nest box)

Number of pairs recorded:

- Common Moorhen: 3 pairs
- Little Grebe: 6 pairs
- Black-winged Stilt: 1 pair (3 chicks hatched)
- Greater Painted-snipe: 1 pair (Displaying)
- Cinnamon Bittern: 1 pair (Either on site or nearby)

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Globally Threatened Bird Species – peak count per month

Species	IUCN	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Falcatid Duck	NT	2	3	-	-	-	-	-	-	-	-	-	-
Japanese Quail	NT	-	1	-	-	-	-	-	-	-	-	-	1
Oriental Stork	En	16	12	3	-	-	-	-	-	-	-	-	4
Black-faced Spoonbill	En	78	82	52	-	-	-	-	-	-	21	31	86
Greater Spotted Eagle	VU	3	2	1	-	-	-	-	-	-	2	4	3
Eastern Imperial Eagle	VU	2	1	-	-	-	-	-	-	-	-	1	1
Northern Lapwing	NT	-	-	-	-	-	-	-	-	-	-	1	-
Black-tailed Godwit	NT	-	-	-	-	-	-	-	-	-	-	1	-
Collared Crow	VU	8	3	4	3	1	-	3	-	-	1	4	5
Rustic Bunting	VU	-	-	-	-	-	-	-	-	-	-	2	-
Yellow-breasted Bunting	CR	-	-	-	-	-	-	-	1	1	8	14	1

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Mammal Targets Recorded in the Past 10 Years

- Eurasian Otter was not recorded
- Leopard Cat was recorded on 64 days with an OI of 26.8

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eurasian Otter <i>Lutra lutra</i>										
Maximum Count	2	0	1	1	1	1	1	1	0	0
No. of Records ¹	5 ^A	0	1	2	5	6	19	1	0	0
Leopard Cat <i>Prionailurus bengalensis</i>										
No. of Records ¹ /OI ²	871	114 ^{1,36}	65 ¹ , 25.2 ²	51 ¹ , 24.1 ²	54 ¹ , 22.6 ²	70 ¹ , 31.2 ²	53 ¹ , 53.6 ²	52 ¹ , 24.1 ²	67 ¹ , 24.3 ²	64 ¹ , 26.8 ²

Note:
 1. Number of dates recorded by all installed cameras plus direct observations.
 2. Occurrence index.

Key:
 * Including direct observation of one individual at Pond 12
 % Footprints were recorded

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Reptile Targets Recorded in the past 10 years

- Number of surveys recorded is indicated in the table, whereas the numbers in brackets are the maximum count per survey.

Species	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Reeves' Turtle <i>Maremys reevesii</i>	-	2 (1)	4 (2)	8 (2)	-	2 (1)	1 (1)	0 (0)	5 (1)	2 (1)
Chinese Soft-shelled Turtle <i>Pelodiscus sinensis</i>	2(1)	2* (1)	*	3 (1)	1 (1)	0 (0)	1 (1) ^A	1 (1)	1 (1)	1 (1)
Burmese Python <i>Python bivittatus</i>	3 (1)	1 ^A (1)	1 (1)	0 (0)	0 (0) #	0 (0)	1 (1)	2 (1)	2 (1)	3 (1)

Reeves' Turtle became target species from November 2019.

Key:
 % Sighting reported by the reprofiling contractor
 * include one record of track
 # It was recorded in the Clean-up Reedbed
 ^ It was recorded by the installed camera

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Reptile Target

Burmese Python, Pond 4 Otter Holt, 23rd September.



Burmese Python, Pond 20, 13th July.



Burmese Python, Pond 15, 13th April.



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Red-eared Slider Recorded since 2016

- 2023: A maximum of 7 individuals recorded.
- Maximum number recorded in the past years:
 - 2022 – 11; egg laying also noted
 - 2021 – 4;
 - 2020 – 6;
 - 2019 – 7;
 - 2018 – 19, egg laying also noted;
 - 2017 – 14, mating also noted;
 - 2016 – 2, egg laying also noted.

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Red-eared Slider Recorded since 2016

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Amphibian Findings since 2006

Species/ Maximum Total Number of Individuals Recorded in All Ponds in LMC EEA	2006-2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Asian Common Toad <i>Bufo melanostictus</i>	4	7	1	7	15	6	8	3	3	9
Asiatic Painted Frog <i>Kalouala pulchra</i>	2	-	-	-	1	2	1	1	2	5
Butler's Pigmy Frog <i>Microhyla butleri</i>	2	-	-	-	45	-	3	-	-	-
Ornate Pigmy Frog <i>Microhyla ornata</i>	128	-	-	-	20	18	-	4	38	29
Marbled Pigmy Frog <i>Microhyla pulchra</i>	1	-	-	-	50	-	-	-	-	-
Paddy Frog <i>Fejervarya limncharis</i>	35	10	35	19	13	6	7	9	64	95
Chinese Bullfrog <i>Hoplobatrachus chinensis</i>	4 (9)	0 (0)	0 (0)	4 (9)	0 (0)	1 (2)	0 (0)	0 (0)	0 (0)	10 (11)#
Günther's Frog <i>Rana guentheri</i>	293	115	82	342	172	127	73	65	130	101
Two-striped Grass Frog <i>Rana taipehensis</i>	2	2	-	-	-	-	-	-	-	-
Brown Tree Frog <i>Polypedates megacephalus</i>	33	3	6	6	1	5	7	5	4	8
American Bullfrog <i>Lithobates catesbeianus</i>	-	-	-	-	-	-	1	-	-	-
Greenhouse Frog <i>Eleutherodactylus planirostris</i>	-	-	-	-	-	-	-	-	3	1
Number of species recorded	10	5	4	5	8	7	7	6	7	8

Maximum count (per survey) is indicated in the table; for Chinese Bullfrog, the number in brackets are the total number of individuals recorded in the year.
Calling was heard

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Dragonfly Findings since 2006

Dragonfly Recorded as Adults or Exuviae at LMC EEA	2006-2014	2015*	2016*	2017*	2018	2019	2020	2021	2022	2023
Number of Species Recorded	31	17	21	25	21	24	24	27	27	28
Total Number of Species Recorded	39									

Key: * A Midget species was also recorded.

Species recorded are presented in Appendix for reference.

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Thank You

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