
SHEUNG SHUI TO LOK MA CHAU SPUR LINE

Environmental Committee Meeting

Minutes of Meeting No. 45 held at 3:00pm
on Monday, 31st Jul 2023,
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)
Ms. Catherine Leung	Environmental Team	Member (MTR)
Ms. Kenny Yiu	Environmental Team	Member (MTR)
Mr. Wilson Yuen	Environmental Team	Member (MTR)
Mr. Chun-pong Au	Civil Maintenance 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:		
Mr. Matthew Wong	Civil Maintenance Team	Member (MTR)
Mr. Siu-cheong Lau	Civil Maintenance Team	Member (MTR)
Attachments		
Annex A	Presentation Material of EC Meeting No. 45	

<u>Item/Description</u>	<u>Action By</u>
1. Welcomed Members to the EC Meeting No. 45.	Noted
<u>Confirmation of minutes of Meeting No. 44</u>	
2. There were no comments on the minutes of Meeting No. 44 and the minutes were 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 June 2023 at the LMC EEA (detailed in Annex A).	Noted
4. <i>A member (NGO)</i> commented that the fire ant nest is less than before in Mai Po Nature Reserve and seems to be decreasing in wetlands, which is a good sign and considered to be related to the maintenance of short grass. <i>A member (consultant)</i> agreed that there is a massive reduction of fire ant and might be related to keeping grass low and short with frequent grass-cutting. <i>A member (consultant)</i> added that the contractors are doing a better job comparing to previous years in terms of grass cutting; another factor could be the contribution of over 10 years of pesticide treatment.	Noted
<u>Any Other Business</u>	
5. <i>A member (MTR)</i> updated that accordingly to the current EP requirement, a 5-yearly review of the HCMP for LMC EEA is required. The management review report for the 5-yearly review was drafted and will be circulated to the members for review soon.	MTR
6. <i>A member (consultant)</i> suggested arranging a site visit to the LMC EEA with EC members during this November/December. The exact date and time will be confirmed.	MTR
7. <i>A member (NGO)</i> enquired if there are any new works in LMC EEA in the coming months. <i>A member (consultant)</i> replied that it is mostly routine works. The tower hide relocation to Pond 7 is currently under progress. Pond 7 is currently under re-profiling, reshaping to stabilize the internal bunds in order to establish the new tower hide. Current plans for LMC EEA are routine arrangements such as rice planting and pond drain downs.	Noted
8. <i>A member (MTR)</i> informed that MTR has recently partnered with HKU with the aim to create a nexus blended values through Nature-based Solutions and Social Innovation at LMC EEA. The project is currently under desktop review and planning of field trials stage. EC members will be engaged when more concrete ideas are available from the project.	Noted

<u>Item/Description</u>	<u>Action By</u>
9. <u>A member (NGO)</u> suggested that, in addition to regular meeting, EC members can be communicated in other means e.g. email such that EC members can provide more input. <u>A member (MTR)</u> agreed and thanked to the members.	Noted
<u>Date of Next Meeting</u> 10. The date of the next meeting will be advised.	MTR

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31 July 2023



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Management Works: Fish Stocking



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Management Works: Pest Management

Dog Trapping

- No dog trapped.

Red Imported Fire Ant treatment

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 ^①
No. of Nests Treated	1,211	1,333	939	969	269	254	366	157	37	0

^① include data from January to June

Apple Snail Removal and Treatment

- 500.9kg Apple Snail removed.
- 525kg Camellia Seed applied.



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Numerical Bird Target Performance in the Past 5 Years

Year	Jul 2018 – Jun 2019			Jul 2019 – Jun 2020			Jul 2020 – Jun 2021			Jul 2021 – Jun 2022			Jul 2022 – Jun 2023		
	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a
Density (mean/ha)	0.6	<0.1	144.7	3	<0.1	61.7	1.7	<0.1	119.8	0.2	<0.1	7.1	0.3	<0.1	64.5
Eurasian Teal	<0.1	nr	LMC	<0.1	<0.1	10.8	nr	nr	<0.1	nr	LMC	<0.1	nr	LMC	<0.1
Japanese Quail	0.3	<0.1	15.1	0.4	<0.1	21.4	0.5	0.1	7.7	0.2	<0.1	7.5	0.3	<0.1	2.9
Black-faced Spoonbill	1.6	0.6	2.8	1.0	0.4	2.4	1.1	0.6	1.8	0.7	0.4	1.6	0.4	0.5	0.9
Chinese Pond Heron	1.8	0.2	11.2	1.9	0.2	12.1	7.3	0.2	14.4	1.1	0.2	5.8	2.0	0.2	8.8
Grey Heron	1.4	0.2	6.5	1.9	0.5	3.6	2.4	0.8	3.0	0.9	0.5	1.8	0.9	0.7	1.3
Great Egret	0.6	0.6	1.2	1.1	0.7	1.5	1.5	1.0	1.4	0.5	0.8	0.6	1.1	0.8	1.3
Little Egret	9.6	0.4	23.2	12.9	0.2	52.7	11.6	0.2	52.3	5.7	0.2	25.1	11.7	0.8	15.1
Greater Cormorant	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC
Greater Spotted Eagle	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC
Eastern Imperial Eagle	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	nr	LMC
Eurasian Coot	<0.1	<0.1	16.9	<0.1	<0.1	16.6	<0.1	<0.1	0.7	<0.1	<0.1	0.9	<0.1	<0.1	1.6
Black-winged Stilt	0.2	0.2	0.8	0.6	0.3	1.8	0.7	0.5	1.3	0.2	0.8	0.2	0.3	0.6	0.6
Greater Painted-snipe	<0.1	nr	LMC	<0.1	<0.1	54.3	<0.1	nr	LMC	<0.1	nr	LMC	<0.1	<0.1	5.6
Pheasant-tailed Jacana	<0.1	<0.1	74	<0.1	<0.1	33.3	<0.1	nr	LMC	<0.1	<0.1	125.8	<0.1	<0.1	LMC
Pintail/ Swinhoe's Snipe ^b	0.1	<0.1	71.5	<0.1	<0.1	11.5	<0.1	<0.1	50.1	<0.1	<0.1	11.3	<0.1	<0.1	21.4
Common Snipe	<0.1	<0.1	6.4	<0.1	<0.1	1.1	<0.1	<0.1	5.8	<0.1	<0.1	1.5	0.2	<0.1	18.6
Pallas's Grasshopper Warbler	<0.1	<0.1	59.2	<0.1	<0.1	26.3	<0.1	nr	LMC	<0.1	<0.1	23.0	<0.1	<0.1	21.1
Zitting Cisticola	0.1	<0.1	11.8	0.1	<0.1	2.5	0.1	<0.1	2.5	0.1	<0.1	10.8	<0.1	<0.1	15.8
Red-billed Starling	3.5	0.1	41.6	3.2	0.1	36.2	7.5	0.1	48.0	2.0	0.1	17.9	4.9	0.2	20.4
Bluetit	<0.1	<0.1	3.8	<0.1	<0.1	12.3	<0.1	nr	LMC	<0.1	<0.1	19.0	<0.1	<0.1	6.7
Japanese Yellow Bunting	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	nr	<0.1	CA	nr	nr

¹ Includes one species pair, Pintail/Swinhoe's Snipe, not distinguishable in the field.

² Started from 2020, data is calculated based on the maximum count of all surveys i.e. also including the afternoon counts and roost count.

nr – Not recorded within LMC EEA or Control Areas during the period
LMC – Only recorded in LMC EEA
CA – Only recorded in the Control Areas

Blue – Target met (i.e. density in EA 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.



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Non-numerical Bird Target Performance in the Past 5 Years

Year	Jul 2018 – Jun 2019			Jul 2019 – Jun 2020			Jul 2020 – Jun 2021			Jul 2021 – Jun 2022			Jul 2022 – Jun 2023		
	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a	LMC	CA	Ratio ^a
Eurasian Wigeon	0.1	<0.1	47.5	0.2	<0.1	60.1	<0.1	<0.1	71.5	<0.1	<0.1	1.2	0.2	<0.1	32.2
Little Grebe	1.1	0.8	1.3	0.7	0.7	0.9	0.5	0.7	0.7	0.8	0.6	1.3	0.4	0.7	0.6
Yellow Bittern	Became a target in November 2019			<0.1	<0.1	5.2	<0.1	<0.1	3.9	<0.1	<0.1	4.4	<0.1	<0.1	2.9
Cinnamon Bittern	<0.1	<0.1	2.5	<0.1	<0.1	9.9	<0.1	nr	LMC	<0.1	<0.1	5.8	<0.1	<0.1	31.7
Black-crowned Night Heron	0.5	<0.1	11.3	0.2	<0.1	5.7	0.6	<0.1	12.3	0.6	0.1	10.9	0.2	<0.1	7.5
Intermediate Egret	0.1	<0.1	10.2	<0.1	<0.1	6.6	<0.1	3.0	<0.1	<0.1	0.9	<0.1	<0.1	<0.1	7.2
Wood Sandpiper	Became a target in November 2019			0.3	<0.1	5.6	0.2	<0.1	4.8	0.2	0.1	2.5	0.5	<0.1	7.6
White-checked Starling	0.5	<0.1	27.2	0.6	<0.1	15.0	0.3	<0.1	54.8	0.4	<0.1	207.3	0.6	<0.1	264.0
White-shouldered Starling	1.2	0.1	12.2	1.2	0.1	22.7	1.6	<0.1	42.5	1.4	<0.1	32.6	1.1	<0.1	21.6
Yellow-breasted Bunting	<0.1	<0.1	23.4	<0.1	<0.1	0.8	<0.1	<0.1	12.3	<0.1	<0.1	148.0	<0.1	<0.1	4.0

^a Started from 2020, data are calculated based on the maximum count of all surveys, i.e. also including the afternoon counts and roost count.

nr – Not recorded within LMC EEA or Control Areas during the period
LMC – Only recorded in LMC EEA

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 from January to June

Species	Jan	Feb	Mar	Apr	May	Jun
Chinese Pond Heron	2	-	-	-	-	-
Eastern Cattle Egret	6	4	47	8	3	-
Grey Heron	15	21	21	-	-	1
Great Egret	137	31	120	44	23	-
Little Egret	54	408	319	194	17	-
Greater Cormorant	884	857	806	-	-	-
Total of Large Waterbirds	1,098	1,321	1,313	246	43	1

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



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Nest Box Occupation

- 100 nest boxes surveyed: 73 White-shouldered Starling, 1 Oriental Magpie Robin




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Breeding Birds (in addition to nest box)

Number of pairs recorded:

- Black-winged Stilt 1 pair, 3 chicks hatched
- Greater Painted-snipe 1 pair displaying
- Cinnamon Bittern 1 pair (either on site or near by)



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Globally Threatened Bird Species (maximum number) from January to June

Species	IUCN	Jan	Feb	Mar	Apr	May	Jun
Falcated Duck	NT	3	3	-	-	-	-
Japanese Quail	NT	1	-	-	-	-	-
Oriental Stork	EN	16	11	3	-	-	-
Black-faced Spoonbill	EN	78	48	34	-	-	-
Greater Spotted Eagle	VU	3	2	1	-	-	-
Eastern Imperial Eagle	VU	2	1	-	-	-	-
Collared Crow	VU	8	2	4	3	1	-

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Mammal Targets Recorded in the Past 10 Years

	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 [^]	0	1	2	5	6	19	1	0	0
Leopard Cat <i>Prionailurus bengalensis</i>										
No. of Records ¹ /OI ²	871	114 ^{1,^}	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	45 ¹ , 55.9 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
® Include data from January to June

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Reptile Targets Recorded in the past 10 years

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

Reeves' Turtle became target species from November 2019.
Number of surveys recorded is indicated in the table, whereas the numbers in brackets are the maximum count per survey.

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
® Include data from January to June

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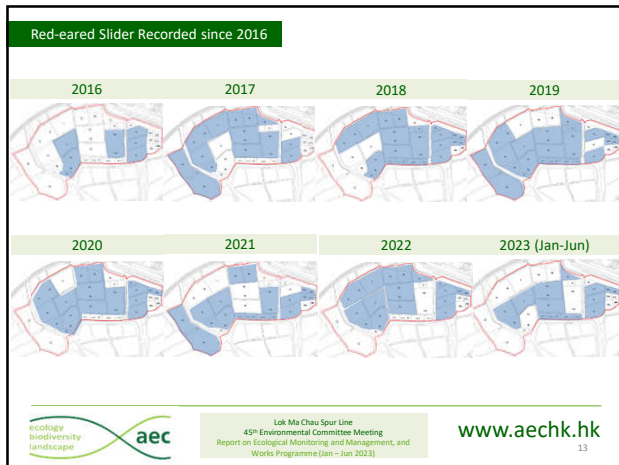
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Red-eared Slider Recorded since 2015

- A maximum of 6 individuals;
- 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;
 - 2015 – 7.

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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>Kaloula 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 ornate</i>	128	-	-	-	20	18	-	4	38	29
Marbled Pigmy Frog <i>Microhyla pulchra</i>	1	-	-	-	50	-	-	-	-	-
Paddy Frog <i>Fajeryarya limncharis</i>	35	10	35	19	13	6	7	9	64	95
Chinese Bullfrog <i>Haplobatrachus chinensis</i>	4 (9)	0 (0)	0 (0)	4 (9)	0 (0)	1 (2)	0 (0)	0(0)	0(0)	10(10) [#]
Gunther's Frog <i>Rana guentheri</i>	293	115	82	342	172	127	73	65	130	87
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	-
Number of species recorded	10	5	4	5	8	7	7	6	7	6

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.
[#] Include data from January to June.
[#] 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	21	26	26
Total Number of Species Recorded	39									

Key: * A Midget species was also recorded.
[#] Include data from January to June.

Species recorded are presented in Appendix for reference.

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