

## APPENDIX 13.8 DRAGONFLIES

**Appendix 13.8.1.** Dragonfly species recorded in the Study Area in this and/or previous studies. Where study boundaries of previous studies extended beyond the current study area boundary, only records from within the area covered by this study are included. Note that for some sources, lists are incomplete and/or only some records are attributed to a specific locality.

Species	Conservation and Protection Status <sup>1</sup>	NENT Study - KTN <sup>2</sup>	Present Study - KTN	AFCD Biodiversity Database 2002 to June 2012 - KTN	NENT Study - FLN <sup>2</sup>	Present Study - FLN	AFCD Biodiversity Database 2002 to June 2012- FLN	Other Studies <sup>3</sup>
Chinese Greenwing <i>Neurobasis chinensis chinensis</i>	-						Y*	
Common Blue Jewel <i>Rhinocypha perforata</i>	-						Y*	
Black-banded Gossamerwing <i>Euphaea decorata</i>	-						Y*	
Orange-tailed Midget <i>Agriocnemis femina</i>	-	Y			Y	Y	Y	
Wandering Midget <i>Agriocnemis pygmaea</i>	-	Y		Y	Y	Y		
Orange-tailed Sprite <i>Ceragrion auranticum</i>	-	Y	Y	Y	Y	Y	Y	Y
Common Bluetail <i>Ischnura senegalensis</i>	-	Y	Y	Y	Y	Y	Y*	Y
Marsh Dancer <i>Onychargia atrocyana</i>	-					Y		
Eastern Lilysquatter <i>Paracercion melanotum</i>	LC							Y
Blue Sprite <i>Pseudagrion microcephalum</i>	LC					Y	Y	
Ferruginous-faced Sprite <i>Pseudagrion pruinatum</i>	-			Y			Y	
Orange-faced Sprite <i>Pseudagrion rubriceps</i>	-		Y	Y		Y	Y	
Black-kneed Featherlegs <i>Copera ciliata</i>	-					Y		
Yellow Featherlegs <i>Copera marginipes</i>	-		Y	Y		Y	Y*	Y
Black Threadtail <i>Prodasineura autumnalis</i>	-					Y	Y*	
Orange-backed Threadtail <i>Prodasineura croconota</i>	LC			Y				
Common Evening Hawker <i>Anaciaeschna jaspidea</i>	-				Y	Y		Y
Pale-spotted Emperor <i>Anax guttatus</i>	-		Y	Y		Y	Y	Y

Species	Conservation and Protection Status <sup>1</sup>	NENT Study - KTN <sup>2</sup>	Present Study - KTN	AFCD Biodiversity Database 2002 to June 2012 - KTN	NENT Study - FLN <sup>2</sup>	Present Study - FLN	AFCD Biodiversity Database 2002 to June 2012- FLN	Other Studies <sup>3</sup>
Lesser Emperor <i>Anax parthenope julius</i>	-	Y		Y			Y	Y
Dingy Dusk-hawker <i>Gynacantha subinterrupta</i>	LC					Y		
Common Flangetail <i>Ictinogomphus pertinax</i>	-		Y	Y		Y	Y*	Y
Golden Flangetail <i>Sinictinogomphus clavatus</i>	-		Y	Y		Y	Y	
Regal Pond Cruiser <i>Epopthalmia elegans</i>	-		Y	Y		Y	Y	
Elusive Adjutant <i>Aethriamanta brevipennis</i>	-					Y		
Asian Pintail <i>Acisoma panorpoides</i>	-	Y	Y	Y		Y		Y
Blue Dasher <i>Brachydiplax chalybea</i>	-		Y	Y		Y	Y	Y
Asian Amberwing <i>Brachythemis contaminata</i>	-	Y	Y	Y	Y	Y	Y	Y
Crimson Darter <i>Crocothemis servilia</i>	-	Y	Y	Y	Y	Y	Y	Y
Blue Percher <i>Diplacodes trivialis</i>	-	Y	Y	Y	Y			
Amber-winged Glider <i>Hydrobasileus croceus</i>	-		Y	Y		Y	Y	Y
Forest Chaser <i>Lyriothemis elegantissima</i>	-			Y				
Russet Percher <i>Neurothemis fulvia</i>	-	Y	Y	Y		Y	Y	
Pied Percher <i>Neurothemis tullia</i>	-	Y	Y	Y		Y	Y	
Red-faced Skimmer <i>Orthetrum chrysis</i>	-		Y	Y		Y		Y
Common Blue Skimmer <i>Orthetrum glaucum</i>	-	Y	Y	Y	Y	Y	Y*	
Marsh Skimmer <i>Orthetrum luzonicum</i>	-	Y	Y		Y	Y		Y
Common Red Skimmer <i>Orthetrum pruinatum</i>	-	Y	Y	Y	Y	Y	Y*	Y
Green Skimmer <i>Orthetrum sabina</i>	-	Y	Y	Y	Y	Y	Y*	Y
Wandering Glider <i>Pantala flavescens</i>	-	Y	Y	Y	Y	Y	Y*	Y
Blue Chaser <i>Potamarcha congener</i>	LC			Y				Y

Species	Conservation and Protection Status <sup>1</sup>	NENT Study - KTN <sup>2</sup>	Present Study - KTN	AFCD Biodiversity Database 2002 to June 2012 - KTN	NENT Study - FLN <sup>2</sup>	Present Study - FLN	AFCD Biodiversity Database 2002 to June 2012- FLN	Other Studies <sup>3</sup>
Pied Skimmer <i>Pseudothemis zonata</i>	-		Y	Y		Y	Y	Y
Ruby Darer <i>Rhodothemis rufa</i>	LC		Y	Y		Y		Y
Variegated Flutterer <i>Rhyothemis variegata</i>	-	Y	Y	Y		Y	Y*	Y
Evening Skimmer <i>Tholymis tillarga</i>	-	Y	Y	Y		Y	Y	
Saddlebag Glider <i>Tramea virginia</i>	-	Y	Y	Y		Y	Y	Y
Crimson Dropwing <i>Trithemis aurora</i>	-		Y	Y		Y	Y*	Y
Indigo Dropwing <i>Trithemis festiva</i>	-		Y			Y	Y*	Y
Scarlet Basker <i>Urothemis signata</i>	LC		Y	Y			Y	Y
Emerald Cascader <i>Zygonyx iris</i>	PGC					Y	Y*	Y
Dingy Dusk-darter <i>Zyxomma petiolatum</i>	-						Y	

**Note:**

- Conservation status made reference to Cap 170, <http://www.sepa.gov.cn>, UNEP-WCMC (2012), Fellowes *et al.* (2002) and IUCN (2013)
  - Cap. 170 = Chapter 170 Wild Animals Protection Ordinance
  - Conservation Status by Fellowes *et al.* (2002): PGC = Potential Global Concern; LC = Local Concern.
- Maunsell (2003).
- Arup (2010), Atkins (2010), Binnie, Black and Veatch (2002), Dudgeon and Corlett (2001), Maunsell (1997), Mott MacDonald (2010 & 2012), field survey data from Agreement No. CE/2008 (CE). Planning and Engineering Study on Development of Lok Ma Chau Loop - Investigation.

**Key:**

- Y = Species recorded in the corresponding study.  
\* = Also recorded in Kau Lung Hang EIS.

**Appendix 13.8.2.** Mean and maximum number of dragonflies recorded in systematic surveys in the Kwu Tung North NDA and observations during further surveys for this study.

Species	Conservation Status <sup>1</sup>	Hong Kong Status <sup>2</sup>	Habitat Type <sup>3</sup>														
			WA	DA	PO	MA	MW	CS	NS	LG	SH	FSW/SecW	OR	PL/MP	VA	WG	UR
Orange-tailed Sprite <i>Ceragrion auranticum</i>	-	A			0.2(1)	√		0.2(1)	0.2(1)	0.3(2)		0.3(2)		0.2(1)			
Common Bluetail <i>Ischnura senegalensis</i>	-	A	0.8(4)	0.3(2)	1(2)		1.8(11)	2.0(12)									
Orange-faced Sprite <i>Pseudagrion rubriceps</i>	-	C							√								
Yellow Featherlegs <i>Copera marginipes</i>	-	A						√	1.3(5)								
Pale-spotted Emperor <i>Anax guttatus</i>	-	C	0.2(1)		0.2(1)												
Common Flangetail <i>Ictinogomphus pertinax</i>	-	C	0.3(2)		1.2(5)	0.3(2)	1.2(6)		√		0.2(1)						
Golden Flangetail <i>Sinictinogomphus clavatus</i>	-	C			0.3(2)												
Regal Pond Cruiser <i>Epothemia elegans</i>	-	C			0.2(1)		0.2(1)										
Asian Pintail <i>Acisoma panorpoides</i>	-	C									0.2(1)						
Blue Dasher <i>Brachydiplax chalybea</i>	-	C			1.7(4)	0.2(1)	0.5(2)	√		0.2(1)	3.0(9)	0.2(1)			0.2(1)		
Asian Amberwing <i>Brachythemis contaminata</i>	-	A	2.0(8)	0.2(1)	7.3(30)	0.2(1)	0.7(2)		√						0.5(2)		
Crimson Darter <i>Crocothemis servilia</i>	-	A	1.7(5)		0.7(4)	0.2(1)	0.5(2)										
Blue Percher <i>Diplacodes trivialis</i>	-	A			0.7(4)												
Amber-winged Glider <i>Hydrobasileus croceus</i>	-	C			0.5(3)						0.5(3)						
Russet Percher <i>Neurothemis fulvia</i>	-	C										√					
Pied Percher <i>Neurothemis tullia</i>	-	A	0.2(1)	0.2(1)		√	0.3(2)								0.5(3)		
Red-faced Skimmer <i>Orthetrum chrysis</i>	-	A				√		√			0.5(2)						
Common Blue Skimmer <i>Orthetrum glaucum</i>	-	A					√		0.3(1)		0.2(1)	√			0.5(1)		
Marsh Skimmer <i>Orthetrum luzonicum</i>	-	A				√			√								
Common Red Skimmer	-	A	10.5(5)	0.3(2)		0.2(1)	0.2(1)	√	4.5(22)	0.7(1)	2.7(7)	0.7(3)			1.0(3)	0.8(5)	

Species	Conservation Status <sup>1</sup>	Hong Kong Status <sup>2</sup>	Habitat Type <sup>3</sup>														
			WA	DA	PO	MA	MW	CS	NS	LG	SH	FSW/SecW	OR	PL/MP	VA	WG	UR
<i>Orthetrum pruinosum</i>			0)												)		
Green Skimmer <i>Orthetrum sabina</i>	-	A	13.8(50)	1.8(10)	3.3(16)	0.2(1)	1.0(5)	√	3.3(20)	0.5(3)	1.7(4)	0.2(1)		0.2(1)	0.7(2)	0.8(5)	
Wandering Glider <i>Pantala flavescens</i>	-	A	37.7(200)	2.8(12)	8.5(21)		0.2(1)	33.3(200)		2.3(10)	12.3(42)	0.5(2)		1.2(5)	4.0(20)	1.2(6)	1.0(6)
Pied Skimmer <i>Pseudothemis zonata</i>	-	C			0.3(2)						0.5(2)	2.7(12)		0.3(2)	0.7(4)		
Ruby Darter <i>Rhodothemis rufa</i>	LC	C				√											
Variegated Flutterer <i>Rhyothemis variegata</i>	-	C	8.3(49)		10.7(55)	√	8.5(50)	1.7(10)		0.7(2)	2.5(11)	1.2(3)	√	1.5(6)	1.7(5)		
Evening Skimmer <i>Tholymis tillarga</i>	-	C						0.3(2)		0.2(1)							
Saddlebag Glider <i>Tramea virginia</i>	-	A			0.5(2)	√	0.2(1)			1.0(4)	2.0(4)	2.8(7)			0.7(3)		
Crimson Dropwing <i>Trithemis aurora</i>	-	A						0.5(1)	√		0.3(1)						
Indigo Dropwing <i>Trithemis festiva</i>	-	A						√	√								
Scarlet Basker <i>Urothemis signata</i>	LC	C			0.5(2)		0.2(1)										
Total number of dragonfly species recorded			10	6	17	13	14	12	11	8	13	10	1	5	10	3	1

**Note:**

1. Conservation Status by Fellowes *et al.* (2002): LC = Local Concern.
2. Hong Kong Status by Tam *et al.* (2011): A = Abundant; C = Common.
3. Habitats: WA = Wet Agricultural Land; DA = Dry Agricultural Land; PO = Pond; MA = Marsh; MW = Mitigation Wetland; CS = Channelised Watercourse; NS = Natural Watercourse; LG = Lowland Grassland; SH = Shrubland; FSW/SecW = *Fung Shui* Wood/Secondary Woodland; OR = Orchard; PL/MP = Plantation/Mitigation Plantation; VA = Village Area; WG = Waste Ground; UR = Urban/Residential Area. No records from habitat types not listed.

**Key:**

Numbers in brackets are the maximum recorded.

Mean not relevant for observations during further surveys.

√ = Observed but not during transect surveys.

**Appendix 13.8.3.** Mean and maximum number of dragonflies recorded in systematic surveys in the Fanling North NDA and observations during further surveys for this study (where no mean is shown, observations are from the further surveys).

Species	Conservation Status <sup>1</sup>	Hong Kong Status <sup>2</sup>	Habitat Type <sup>3</sup>												
			WA	DA	PO	MW	CS	NS	LG	UG	SecW	PL/MP	VA	WG	UR
Orange-tailed Midget <i>Agriocnemis femina</i>	-	A						0.2(1)							
Wandering Midget <i>Agriocnemis pygmaea</i>	-	C					(20)	0.2(1)							
Orange-tailed Sprite <i>Ceriagrion auranticum</i>	-	A			0.2(1)	0.2(1)	(10)					0.3(2)			
Common Bluetail <i>Ischnura senegalensis</i>	-	A					(10)		(1)	(1)		0.3(2)			
Marsh Dancer <i>Onychargia atrocyana</i>	-	C					(1)								
Blue Sprite <i>Pseudagrion microcephalum</i>	LC	C						0.3(2)							
Orange-faced Sprite <i>Pseudagrion rubriceps</i>	-	C			0.2(1)			1.3(4)							
Black-kneed Featherlegs <i>Copera ciliata</i>	-	C							(2)						
Yellow Featherlegs <i>Copera marginipes</i>	-	A					√	1.5(4)	(1)						
Black Threadtail <i>Prodasineura autumnalis</i>	-	A						2.3(10)	(10)						
Common Evening Hawker <i>Anaciaeschna jaspidea</i>	-	C				0.2(1)									
Pale-spotted Emperor <i>Anax guttatus</i>	-	C				0.3(2)									
Dinky Dusk-hawker <i>Gynacantha subinterrupta</i>	LC	UC				0.2(1)									
Common Flangetail <i>Ictinogomphus pertinax</i>	-	C			0.5(2)	1.8(7)	√	0.3(1)							
Golden Flangetail <i>Sinictinogomphus clavatus</i>	-	C			0.2(1)	0.2(1)									
Regal Pond Cruiser <i>Epopthamia elegans</i>	-	C				0.5(2)		0.2(1)							
Elusive Adjutant <i>Aethriamanta brevipennis</i>	-	UC						√							
Asian Pintail <i>Acisoma panorpoides</i>	-	C			0.2(1)	0.3(2)									
Blue Dasher <i>Brachydiplax chalybea</i>	-	C			0.3(2)			0.2(1)							
Asian Amberwing <i>Brachythemis contaminata</i>	-	A			4.3(21)	0.5(3)									

Species	Conservation Status <sup>1</sup>	Hong Kong Status <sup>2</sup>	Habitat Type <sup>3</sup>												
			WA	DA	PO	MW	CS	NS	LG	UG	SecW	PL/MP	VA	WG	UR
Crimson Darter <i>Crocothemis servilia</i>	-	A		0.3(1)		0.3(2)		0.2(1)							
Amber-winged Glider <i>Hydrobasileus croceus</i>	-	C				0.2(1)						0.2(1)			
Russet Percher <i>Neurothemis fulvia</i>	-	C						0.3(1)							
Pied Percher <i>Neurothemis tullia</i>	-	A			0.7(4)										
Red-faced Skimmer <i>Orthetrum chrysis</i>	-	A					√								
Common Blue Skimmer <i>Orthetrum glaucum</i>	-	A					√	0.2(1)							
Marsh Skimmer <i>Orthetrum luzonicum</i>	-	A					√								
Common Red Skimmer <i>Orthetrum pruinatum</i>	-	A	1.3(8)	0.3(1)		1.8(10)	1.2(6)	2.5(7)							
Green Skimmer <i>Orthetrum sabina</i>	-	A				0.8(2)	0.7(4)	0.8(3)							
Wandering Glider <i>Pantala flavescens</i>	-	A	16.7 (100)	(1)	(1)	25.0 (100)	84.5 (500)	8.5 (50)	(21)	(1)	(10)	16.8 (100)	(1)	8.3 (50)	8.3 (50)
Pied Skimmer <i>Pseudothemis zonata</i>	-	C			0.5(2)	0.5(2)		0.2(1)	(1)			(1)			
Ruby Darter <i>Rhodothemis rufa</i>	LC	C					√								
Variegated Flutterer <i>Rhyothemis variegata</i>	-	C		2.0(10)		7.8(30)	0.5(3)	√				2.2(10)			
Evening Skimmer <i>Tholymis tillarga</i>	-	C					0.3(2)								
Saddlebag Glider <i>Tramea virginia</i>	-	A				0.2(1)									
Crimson Dropwing <i>Trithemis aurora</i>	-	A						1.5(3)							
Indigo Dropwing <i>Trithemis festiva</i>	-	A					0.2(1)	0.2(1)	(3)						
Emerald Cascader <i>Zygonyx iris</i>	PGC	A						1.7(5)							
Total number of dragonfly species recorded			2	4	10	17	16	21	7	2	1	6	1	1	1

**Note:**

1. Conservation Status by Fellowes *et al.* (2002): LC = Local Concern; PGC = Potential Global Concern.
2. Hong Kong Status by Tam *et al.* (2011): A = Abundant, C = Common, UC = Uncommon.
3. Habitats: WA = Wet Agricultural Land; DA = Dry Agricultural Land; PO = Pond; MW = Mitigation Wetland; CS = Channelised Watercourse; NS = Natural Watercourse; LG = Lowland Grassland; SecW = Secondary Woodland; PL/MP = Plantation/Mitigation Plantation; VA = Village Area; WG = Waste Ground; UR = Urban/Residential Area. No records from habitat types not listed.

**Key:**

Numbers in brackets are the maximum recorded.

Mean not relevant for observations during further surveys.  
√ = Observations but not during transect surveys.