

Animal Management Intermediate Elective: Mammals

Course Objectives:

After attending the intermediate elective module, participants should be able to:

- Identify and distinguish common mammals in Singapore;
- Perform macaque dispersal (“guarding”) safely and effectively; and
- Handle and trap specific mammals (civets, bats, squirrels, treeshrews) while ensuring public safety, personnel safety and animal welfare.

Target Participants:

Animal management companies, pest control companies interested to take up mammal handling functions, and relevant agencies

Duration: 6 weeks for virtual learning and small group sessions for hands-on components*

Cost: \$395.90

Class Size: Up to 28

Validity: 3 years (renew upon participation in a separate 1-day refresher course with assessment)

To accommodate for safe distancing measures, virtual learning options will be made available:

1. Theory components will be conducted through pre-recorded lectures and live streaming on WEBEX
2. MCQ Assessment will be done through an online quiz
3. #Group discussion and presentation will be replaced by individual online presentation
4. Hands-on session will still be conducted in person but within the allowed participant number limit e.g. multiple small groups setting

S/N	Topics	Lecture Outlines	Learning Outcomes	Method	Duration	Trainer
Week 1						
18 Oct 10am	Introduction to Mammals in Singapore	Introduction to mammals in Singapore	• Introduction to the ecology, diversity and distribution of mammals in Singapore • Understand relevance of mammal management in our City in Nature • Understanding interactions and conflict • Wildlife management approaches and principles • Understand the importance of public, personnel safety & animal welfare in the course of work	Live	1hr	Mr Thaddaeus Cheng
		Overview of human-mammal interaction, research and management				
19 Oct 10am	Macaques	Behaviour, physiology & ecology	• Identify primate species in Singapore • Understand the behaviour, physiology & ecology of macaques • Have knowledge of habitat modification measures • Have knowledge of monkey guarding • Have knowledge of recommended handling methods and guidelines • Have knowledge of the appropriate techniques and equipment for transporting • Use of proper PPE and practise good hygiene • Have basic understanding of how to deal with injured animals • Be able to answer common FAQs by members of the public • Case scenarios for discussion	Live	1hr	Ms Chanelle Lim
		Human-macaque interaction				
20 Oct 10am	Bats	Health & safety	• Identify common bat species in Singapore • Understand the behaviour, physiology & ecology • Have knowledge of habitat modification measures • Have knowledge of recommended handling methods and guidelines • Have knowledge of the appropriate techniques and equipment for transporting • Use of proper PPE and practise good hygiene • Have basic understanding of how to deal with injured animals	Live	1hr	Dr Benjamin Lee
		Behaviour, physiology & ecology				
		Human-bat interaction				

			• Be able to answer common FAQs by members of the public • Case scenarios for discussion			
21 Oct 10am	Otters	Behaviour, physiology & ecology	• Understand the behaviour, physiology and ecology of otters • Have knowledge of habitat modification measures • Be able to answer common FAQs by members of the public • Case scenarios for discussion	Live	1hr	Ms Rekha Mohan
		Human-otter interaction				
		Health & safety				
	Civets, Squirrels & Tree Shrews	Behaviour, physiology & ecology	• Identify common species in Singapore • Understand the behaviour, physiology and ecology of civets, squirrels & tree shrews • Have knowledge of habitat modification measures • Have knowledge of recommended handling methods and guidelines • Have knowledge of the appropriate techniques and equipment for transporting • Use of proper PPE and practise good hygiene • Have basic understanding of how to deal with injured animals • Be able to answer common FAQs by members of public • Case scenarios for discussion		1hr	
		Human-civets/squirrels/tree shrews interaction				
		Health & safety				
22 Oct 10am	Wild Boar	Behaviour, physiology & ecology	• Understand the behaviour, physiology & ecology of wild boar • Have knowledge of habitat modification measures • Have knowledge of recommended handling methods and guidelines • Have knowledge of the appropriate techniques and equipment for transporting • Use of proper PPE and practise good hygiene • Have basic understanding of how to deal with injured animals • Be able to answer common FAQs by members of the public • Case scenarios for discussion	Live	1hr	Mr Bryan Lim
		Human-wild boar interaction				
		Health & safety				

Week 2 to 5

(Due to safe distancing measures, the class will be split into multiple small groups setting. You are only required to attend one hands-on mammal handling session and one site visit.)

27 Oct 9am – 11am	Site Visit Session 1	Macaque Dispersal	• Demonstrate macaque dispersal effectively • Have knowledge of macaque-proofing methods • Identify signs of wild boar presence and have knowledge of wild boar-proofing methods	Face-to-face sessions (up to 10 pax per session)	1.5hr Each participant will be allocated to one session.	Ms Chanelle Lim Mr Bryan Lim
3 Nov 9am – 11am	Site Visit Session 2	Macaque Dispersal	• Demonstrate macaque dispersal effectively • Have knowledge of macaque-proofing methods • Identify signs of wild boar presence and have knowledge of wild boar-proofing methods	Face-to-face sessions (up to 10 pax per session)	1.5hr Each participant will be allocated to one session.	Ms Chanelle Lim Mr Bryan Lim
10 Nov 9am – 11am	Site Visit Session 3	Macaque Dispersal	• Demonstrate macaque dispersal effectively • Have knowledge of macaque-proofing methods • Identify signs of wild boar presence and have knowledge of wild boar-proofing methods	Face-to-face sessions (up to 10 pax per session)	1.5hr Each participant will be allocated to one session.	Ms Chanelle Lim Mr Bryan Lim
28 Oct 2pm - 5pm	Hands-on Mammal Handling Session 1*	Civets, bats, squirrels, treeshrews <i>*Competency of mammal handling will be assessed during this session</i>	• Demonstrate recommended handling and restraint methods	Face-to-face sessions (up to 10 pax per session)	3-4hrs Each participant will be allocated to one session.	WRS: Dr Charlene Yeong Dr Abraham Mathew
11 Nov 2pm - 5pm	Hands-on Mammal Handling Session 2*	Civets, bats, squirrels, treeshrews <i>*Competency of mammal handling will be assessed during this session</i>	• Demonstrate recommended handling and restraint methods	Face-to-face sessions (up to 10 pax per session)	3-4hrs Each participant will be allocated to one session.	WRS: Dr Charlene Yeong Dr Abraham Mathew

18 Nov 2pm - 5pm	Hands-on Mammal Handling Session 3*	Civets, bats, squirrels, treeshrews <i>*Competency of mammal handling will be assessed during this session</i>	Demonstrate recommended handling and restraint methods	Face-to-face sessions (up to 10 pax per session)	3-4hrs Each participant will be allocated to one session.	WRS: Dr Charlene Yeong Dr Abraham Mathew
Week 6						
22 & 23 Nov	Oral & Practical Assessment	MCQs* (20 questions)		Live	10am – 11am 1hr	All trainers Ms Cyrena Lin Mr Nicholas Chuan
		Group discussion & presentation# - Case scenarios will be given e.g. handling of dummy animals - Discussion & presentation to NParks panel <i>*Note: Participants will have the opportunity for a guided re-take of assessment questions and work towards passing</i>		Live	1pm – 5pm Timeslot to be allocated	