

Name	Chapter	Slide
<i>Adinandra belukar</i>	Secondary	5/26
African Tulip	Waste	53
African Land snail	Human	62
Albizia	Waste	25/37
Albizia	Challenges	65
<i>Albizia Falcataria moluccana</i>	Waste	34
Albizia flowering	Secondary	44
<i>Albizia saman</i>	Managed	30
Alexandra palm	Managed	36
Algal bed(Chek Jawa)	Intertidal	23
American bullfrog	Human	55
American bullfrog	Challenges	53
American cockroach	Introduction	56
American cockroach (<i>Periplanata americana</i>)	Primary	14
<i>Anacardiaceae</i> (Mango family)	Primary	68
Ancher fish	Coastal	66
<i>Anopheles epiroticus</i>	Coastal	8
<i>Anopheles sinensis</i>	Coastal	8
Ant	Coastal	64
Antplant	Secondary	46
<i>api api</i> , sea holly	Coastal	23/27/31
<i>Aranda</i> hybrid	Managed	70
<i>Arantheras</i> hybrid	Managed	70
Asian Arowana	Challenges	60
Asian Bonytongue	Challenges	60
<i>Asian soft shell turtle</i>	Human	56
Asian toad	Waste	46
<i>Asiophlugis thaumasia</i>	Human	41
<i>Asthenodiapsas laevis</i> (smooth slug snake)	Introduction	45
<i>attap chee</i>	Coastal	70
Avian Influenza	Managed	53
<i>Avicennia marina</i>	Human	73
<i>bakau</i>	Coastal	11/23/25/31/33
Baler shell (<i>Melo melo</i>)	Subtidal	22
Banded bay cuckoo	Challenges	28
Banded bullfrog	Waste	46
Banded leaf monkey	Primary	79
<i>Barbula indica</i>	Managed	38
Barnacles	Intertidal	26/52
Basket star (<i>Gorgonocephalus caputmedusae</i>)	Subtidal	23
Black-lipped conch, <i>Strombus urceus/gong gong</i>	Intertidal	70
Black striped mussel, <i>Mytilopsis sallei</i>	Human	65
Blue spike moss (<i>Selaginella willdenowii</i>)	Primary	13
Bony fish	Subtidal	40
Bottlenose Dolphins	Subtidal	47
Brittle stars	Intertidal	81
<i>Bronchocela cristatella</i> (Green crested lizard)	Introduction	58
<i>Bronchocela cristatella</i> (Green crested lizard)	Waste	57

<i>Bronchocela cristatella</i> (Green crested lizard)	Human	50
Brown shrike	Waste	45
<i>Bruguiera</i>	Coastal	23/31
<i>Bruguiera hainesii</i>	Coastal	35-37
<i>Bruguiera hainesii</i>	Introduction	42
<i>Bruguiera sexangula</i>	Coastal	35
<i>Bruguiera sexangula</i>	Introduction	42
<i>Bruguiera</i> species	Coastal	31
Byrophyte	Human	29
<i>Buah kana</i>	Primary	69
Buffalo grass, <i>Axonopus compressus</i>	Managed	49
Bukit Timah NR	Primary	64
Bulbil	Challenges	62
<i>Burseraceae</i> (Chinese Olive family)	Primary	68
<i>Calotes versicolor</i>	Human	50
<i>Carp</i>	Human	58
Carpenter bee	Secondary	30/31
<i>Casuarina</i>	Waste	25/27
<i>Casuarina spp.</i>	Biodiversity	34
Cattail, <i>Typha sp.</i>	Managed	13
<i>caulerpa spp</i> (sea grapes)	Intertidal	33
Central Catchment NR	Primary	66
Changeable lizard	Waste	48
Changeable lizard (<i>Calotes versicolor</i>)	Introduction	58
<i>Charybdis japonica</i>	Challenges	58
Chestnut breasted malkoha	Challenges	29
Chinese soft shell turtle	Human	55
<i>Chloris barbata</i>	Managed	52
Chytrid fungus, <i>Batrachochytrium dendrobatidis</i>	Challenges	53
Cicada	Coastal	39
Cicada tree (<i>Ploiarium alternifolium</i>)	Primary	13
<i>Cissus Quadrangularis</i>	Biodiversity	23
Clams	Subtidal	26
<i>Clarias batrachus</i>	Challenges	59
<i>Clitoria ternatea</i>	Biodiversity	22
Clown barb, <i>Puntius dunckeri</i>	Lost	52
Coastal horseshoe crab, <i>Tachypleus gigas</i>	Challenges	37
Cockle	Subtidal	26
Coconut	Waste	25/29
Coffee family(<i>silver timon, wild randa</i>)	Secondary	45
Common acacia	Secondary	29/37
Common acacia	Waste	25/37
Common birdwing (<i>Troides helena cerberus</i>)	Primary	13
Common mollies, <i>Peocilia sphenops</i>	Human	54
common nerite <i>Nerita sp.</i>	Coastal	62
Cone shell (<i>Conus spp.</i>)	Subtidal	55
Copepods	Subtidal	36
Coral	Intertidal	61
coralline algae	Intertidal	30

Crab-eating frog	Waste	46
Cream-coloured giant squirrel	Primary	79
Cream-coloured giant squirrel	Human	7
crowries	Intertidal	71
<i>Crustaceans</i>	Subtidal	79
<i>Crustaceans</i>	Managed	6
<i>Culex quinquefasciatus</i>	Coastal	10
Custard apple family(<i>Cyathocalyx, Xylopia</i>)	Secondary	45
<i>Cymodocea serrulata</i>	Intertidal	43
<i>Cyperus rotundus</i>	Managed	52
<i>Dendrobium</i> hybrid	Managed	70
Diatoms	Subtidal	33
<i>Dinoflagellates</i> (Red Tide)	Subtidal	34
<i>Dioscorea sansibarensis</i>	Challenges	62
<i>Diploastrea</i> spp.	Subtidal	74
Dipterocarp forest	Primary	67
Dipterocarpaceae (<i>Meranti</i> family)	Primary	68
dog-faced water snake	Coastal	67
dog-faced water snake	Human	45
Dragon's scales	Managed	37
<i>Dugong</i>	Subtidal	51
Dumeril's monitor	Human	30
<i>dungun</i>	Coastal	25/31
Dusky-gilled mudskipper (<i>Periophthalmus novemradiatus</i>)	Intertidal	60
Dwarf Snakehead, <i>Channa gachua</i>	Lost	73
Dwarf Snakehead	Human	30
Eel Loach, <i>Panglo muraeformis</i>	Lost	32
Egeria	Managed	25
Elephantopus scaber	Managed	51
Elodea	Managed	25
<i>Enhalus acoroides</i>	Intertidal	44
estuarine crocodile	Coastal	67
<i>Euphorbia hirta</i>	Managed	52
<i>Fabaceae</i> (Bean family)	Primary	68
face-banded sesarmine	Coastal	63
False killer whale	Subtidal	49
<i>Favites</i> spp.	Subtidal	73
Fern	Human	29
Fiddler crab, <i>Uca</i> spp.	Coastal	63
Fiddler crab, <i>Uca</i> spp.	Intertidal	79
figs(<i>Ficus</i> species) Hemi-Epiphyte	Primary	53
file snake	Coastal	64
Firefly (<i>Pteropteryx valida</i>)	Coastal	40
Flatback <i>Chelonia depressa</i>	Intertidal	47
Flower crabs(<i>Portunus pelagicus</i>)	Subtidal	53
Flying Lemur, <i>Cynocephalus variegatus</i>	Lost	71
Forest Fighting Fish, <i>Betta pugnax</i>	Lost	53
Funeral Nudibranch	Human	73
Freshwater South American stingrays	Challenges	55

Frogfish	Intertidal	86
Gambier	Secondary	13
Gambier	Human	10
Garden supple skink	Waste	48
German cockroach	Introduction	56
Giant African land snail	Introduction	56
Giant clam	Intertidal	55
Giant clams	Subtidal	78
Giant mudskipper (<i>Periophthalmodon schlosseri</i>)	Intertidal	60
Golden Arowana	Challenges	60
Golden Dragon Fish	Challenges	60
Golden Orb Spider	Secondary	54
<i>Gong gong</i>	Intertidal	70
Goose Barnacles	Managed	7
Gray Loach, <i>Nemacheilus selangoricus</i>	Lost	32
Greater mousedeer	Human	30
Green Broadbill, <i>Calyptomena viridis</i>	Lost	55
Green sea turtle <i>Chelonia mydas</i>	Intertidal	47
Green turtle	Subtidal	43
Grey-headed Fish Eagle	Challenges	28
Grey Land Crab, <i>Discoplax hirtipes</i>	Lost	54
<i>gula Melaka</i>	Coastal	70
Guppies	Introduction	56
Guppies	Human	54
<i>halimeda spp</i>	Intertidal	34
<i>halimeda spp</i>	Subtidal	77
<i>Halophila ovalis</i>	Intertidal	41
<i>Halophila spinulosa</i>	Intertidal	42
Harlequin Rasbora, <i>Trigonomorpha heteromorpha</i>	Lost	65
<i>Hawksbill Eretmochelys imbricata</i>	Intertidal	47
Hermit crabs	Intertidal	67
<i>Hevea brasiliensis</i> (rubber)	Secondary	18
House crow	Waste	45
Houseshoe crab	Coastal	77
Houseshoe crab, <i>Limulus, Tachypleus, Carcinoscorpius</i>	Challenges	37
Hydilla	Secondary	52
<i>Hydrilla verticillata</i>	Managed	21
Hydroids	Subtidal	79
Indo-Pacific Humpbacked Dolphins	Subtidal	46
<i>Irmengardia johnsoni</i>	Lost	34
Jaguar guapote	Human	60
Javan myna	Waste	45
jelly fish	Subtidal	52
<i>Johora Singaporensis</i>	Lost	34
<i>Kacang Kacang</i>	Coastal	27
King cobra(<i>Ophiophagus Hannah</i>)	Waste	60
Knife fish	Human	60
Knobby sea star, <i>Protoreaster nodosus</i>	Intertidal	82
Knobby sea star	Human	73

Koi	Human	58
Koster's curse	Primary	93
<i>Lalang</i>	Biodiversity	23
<i>Lalang</i>	Secondary	6
<i>Lalang</i> grass root	Biodiversity	23
Land hermit crab	Waste	47
Laurel family(<i>Litsea, shiny laurel</i>)	Secondary	45
Leaf-fish, <i>Nandus nebulosis</i>	Lost	33
Leafy Liverwort	Secondary	39/40
Leatherback turtle	Subtidal	44
Leathery turtle, <i>Dermochelys coriacea</i>	Lost	56
Lee Crab, <i>Leelumnus radium</i>	Lost	69
Lesser dog-faced fruit bat	Secondary	30/54
Lesser Mousedeer, <i>Tragulus kanchil</i>	Human	41
Lesser trema(<i>trema cannabina</i>)	Secondary	22
Leucaena	Waste	25/39
Leucosid crabs	Intertidal	75
<i>Ligia spp.</i> (sea cockroach)	Intertidal	67
Lithophyte	Managed	38
Lithophyte fern, <i>Pteris vittata</i>	Managed	40
Loggerhead <i>Caretta caretta</i>	Intertidal	47
Loggerhead turtle	Subtidal	42
Long legged fly	Human	32
Long-tailed macaque	Primary	80
Long-tailed macaque	Secondary	54
Long-tailed macaque	Human	7
Lotus	Secondary	52
Lowland freshwater Crab, <i>Parathelphusa maculata</i>	Lost	66
Lumnitzera	Coastal	23
<i>Macaranga gigantea</i>	Secondary	46
Macroalgae	Intertidal	29
Macroalgal Beds	Intertidal	36
<i>Mahang</i>	Secondary	46
Malayan Cherry	Waste	54
Malayan colugo(flying lemur)	Primary	79
Malayan pangolin	Secondary	54
Malayan porcupine	Human	30
<i>Mangosteen</i> family(bintangor, wild Kandis)	Secondary	45
Mangrove Horseshoe crab, <i>Carcinoscorpius rotundicauda</i>	Challenges	37
mangrove periwinkle	Coastal	62
mangrove slug	Coastal	62
Mangrove(Sungei Buloh)	Intertidal	20
<i>Marchantia sp.</i> Liverwort	Primary	50
Marine snails	Subtidal	26
Marine snails <i>Turbo bruneus</i>	Intertidal	68
Marine turtles <i>Hawksbill turtle</i>	Subtidal	41
Mayan Cichlid	Human	60
Meiofauna	Intertidal	50
<i>Melastoma malabathricum</i>	Secondary	48

<i>mentigi</i>	Coastal	60
<i>Mikania micrantha</i>	Challenges	62
Mile-A-Minute	Waste	55
mistletoe	Primary	52
<i>Mokara</i> hybrid	Managed	71
Molluscs	Subtidal	79
<i>Monopterus albus</i>	Challenges	59
Moon Crabs <i>Matuta planipes</i> / <i>Ashtoret lunaris</i>	Intertidal	58
Moss	Primary	50
Moss	Secondary	39/41
mound crab	Coastal	64
Mud Lobster	Biodiversity	27
Mud Lobsters <i>Thalassina anomala</i>	Coastal	63
Mud Lobsters <i>Thalassina anomala</i>	Intertidal	57
mud shrimp	Coastal	64
Mudflat	Intertidal	17
Mudskipper	Coastal	66
Mudskipper	Intertidal	59
Mussels	Intertidal	26
Mynas	Human	52
Mynas	Challenges	68
Myrtle family(silver back)	Secondary	45
<i>Mytilopsis sallei</i>	Challenges	57
Naiads	Managed	25
Narrow-lidded pitcher plant	Secondary	29/34
nipah palm	Coastal	27/70
Noble volute (<i>Cymbiola nobilis</i>)	Subtidal	21
Norway rat (<i>Pattus norvegicus</i>)	Primary	14
<i>Nudibranch</i>	Subtidal	78
nyirah(<i>Xylocarpus</i>)	Coastal	25/30/31
<i>Nypa fruticans</i>	Coastal	71
Oak leaf fern	Managed	37
Olive Ridley <i>Lepidochelys olivacea</i>	Intertidal	47
<i>Oncidium</i> hybrid	Managed	71
<i>Ophioglossum nudicaule</i>	Managed	50
Oriental pied hornbill	Primary	89
Oriental pied hornbill	Human	45
Orthopteran	Human	41
Owl chick	Human	45
Oysters	Intertidal	53
Pacific yew (<i>Taxus brevifolia</i>)	Primary	23
<i>Padina</i> spp	Intertidal	31
<i>Padina</i> spp.	Subtidal	77
Pagolin, <i>Manis javanica</i>	Lost	72
Pangolin	Human	43
Paku laut(<i>Acrosticum aureum</i>)	Waste	33
Palm civet	Primary	82
Parasite	Primary	56
Passenger Pigeon, <i>Ectopistes migratorius</i>	Lost	16

Passiflora foetida	Challenges	62
pelir musang	Coastal	60
Pepper	Secondary	13
Pepper	Human	10
perepat	Coastal	23/31
<i>Phyllophorus sp</i> (sea cucumber)	Biodiversity	20
<i>Phytolopsis punctata</i> (Blackwater mud snake)	Introduction	45
<i>piai raya</i>	Coastal	33
Pieapple	Secondary	13
Pied Hornbill	Lost	75
Pigeon	Challenges	71
Pikehead, <i>Luciocephalus pulcher</i>	Lost	32
Pilumnid crab <i>Leelumnus radium</i>	Intertidal	74
Plantian squirrel	Secondary	54
<i>Platygyra spp</i>	Subtidal	73
<i>Pong pong</i>	Coastal	77
<i>Presbytis femoralis femoralis</i>	Lost	36
Raffles' pitcher plant	Secondary	29/34
<i>Rafflesia arnoldii</i>	Primary	56
<i>Ratufa affinis affinis</i>	Lost	35
Rays	Subtidal	38
red berry shell	Coastal	62
Red crowned barbet	Challenge	28
Red ear slider	Biodiversity	40
Red ear slider	Introduction	59
Red egg crab, <i>Atergatis integerrimus</i>	Intertidal	76
Red jungle fowl	Waste	59
Red jungle fowl	Challenge	28
Red-eared slider	Primary	93
Red-eared slider	Human	57
Reef flat(Chek Jawa)	Intertidal	21
Reticulated python	Primary	78
Reticulated python	Secondary	55
Reticulated Swamp Crab, <i>Parathelphusa reticulata</i>	Lost	82
<i>Rhizophora</i>	Biodiversity	74
<i>Rhizophora</i>	Coastal	11
<i>Rhizophora mucronata</i>	Coastal	28
Rock Barnacles	Managed	7
Rockweed	Intertidal	26
Rocky shore(Laborador, Chek jawa, St John's island)	Intertidal	22
Rough trema(<i>trema tomentosa</i>)	Secondary	22
Rubber	Secondary	13
Rubber family(<i>mahang</i>)	Secondary	45/56
Rufous woodpecker	Challenges	28
Saga(<i>Adenanthera paronina</i>)	Waste	30
Samber deer	Primary	66/77
Sand Anemones	Intertidal	51
Sand crab, <i>Scopimera spp.</i>	Intertidal	62
Sand tubeworm	Intertidal	64

Sandflat(Chek Jawa)	Intertidal	19
Sapotaceae(Chiku family)	Primary	68
Saprophyte	Primary	55
<i>sargassum spp</i>	Intertidal	32
<i>sargassum spp</i>	Subtidal	33/77
Scarlet-backed FLowerpecker	Human	45
Screw pine(<i>Pandanus odoratissimus</i>)	Waste	32
Sea almond	Coastal	77
Sea anemone	Subtidal	80
Sea cockroach	Managed	6
Sea cow <i>Dugong dugon</i>	Intertidal	47
Sea cucumbers	Intertidal	83
Sea fan	Subtidal	19
Sea fans	Subtidal	79
sea grapes	Intertidal	33
sea hibiscus	Coastal	33
Sea Lettuce	Waste	25
Sea pen	Subtidal	20
Sea purselane	Coastal	60
Sea Putat(<i>Barringtonia asisatica</i>)	Coastal	51/53
Sea slater, <i>Ligia sp.</i>	Managed	6
Sea snake (<i>Laticauda colubrina</i>)	Subtidal	45
sea teak	Coastal	60
Sea urchins	Subtidal	78
Seagrass(Chek Jawa)	Intertidal	18
Sealing wax palm	Managed	36
Seashore morning glory(<i>Ipomoea pes-caprae</i>)	Coastal	51/52
Seashore morning glory(<i>Ipomoea pes-caprae</i>)	Waste	25
Seashore Pandanus	Coastal	34
Senduduk	Secondary	47
Seraya = <i>Shorea curtisii</i>	Primary	71
<i>Seriatopora hystrix</i>	Subtidal	65
Silver back <i>Rhodamnia cinerea</i>	Secondary	48
Simpoh air	Secondary	29
Singapore Freshwater Crab, <i>Johora Singaporensis</i>	Lost	67
Singapore Kopsia, <i>Kopsia Singaporensis</i>	Lost	64
Singapuriola separata	Human	41
Six-banded barb, <i>Puntius Johorensis</i>	Lost	32
Small-clawed Otter, <i>Amblonyx cinerea</i>	Lost	70
Smooth coated otter	Human	45
Snakehead	Human	60
Soft corals	Subtidal	79
Solefish	Subtidal	26
South American armoured catfish	Human	58
South American apple snail, <i>Pomacea canaliculata</i>	Human	61
Sperm whale	Subtidal	50
Spider conch, <i>Lambis lambis</i>	Intertidal	72
Spitting cobra(<i>Naja sumatrana</i>)	Waste	58
Sponges	Subtidal	79

Spotted wood owl	Challenges	28
Stingray	Primary	93
<i>Stylophora pistillata</i>	Subtidal	65
Sun bear	Human	7
Sunda Pangolin, <i>Manis javanica</i>	Human	41
Sunflower Mushroom Corals	Human	73
superb fig	Coastal	60
Swamp forest crab (<i>Parathelphusa reticulata</i>)	Primary	75
Syzygium grande	Waste	31
T-barb, <i>Puntius lateristriga</i>	Lost	33
Tapioca	Secondary	13
Tekong oysters	Intertidal	54
telescope shell	Coastal	62
Temasek Tree Snail, <i>Amphidromus stricallosus temasek</i>	Lost	68
Tembusu	Secondary	29
Tembusu	Managed	33
tengar	Coastal	31
<i>Thismia aseroe</i>	Primary	55
Tilapia	Introduction	56
Tilapia, <i>Oreochromis mossambicus</i>	Human	53
Tiup tiup(<i>Adinandra dumosa</i>)	Secondary	26/28/29
Tom's Giant Fighting Fish, <i>Betta tomi</i>	Lost	53
tree-climbing crab	Coastal	63
Tremellia timah	Human	41
<i>Tridax procumbens</i>	Managed	50
Traveller's palm	Managed	36
Trema <i>belukar</i>	Secondary	5/22/24
Tributyltin	Human	66
<i>Trochus spp</i>	Intertidal	69
Tropical pitcher plants	Secondary	29/36
Tunicates	Subtidal	78
<i>Turbinaria spp.</i>	Subtidal	74
<i>Ulva spp</i>	Intertidal	35
<i>Ulva spp</i>	Subtidal	77
<i>Vanda Miss Joaquim</i>	Biodiversity	13
Velcro crab, <i>Camposcia retusa</i>	Intertidal	77
<i>Vitex pinnata</i>	Secondary	18
<i>Vrydagzynea lancifolia</i> orchid	Human	30
Wart snake <i>Acrochordus granulatus</i>	Intertidal	47
Water hyacinth	Managed	14
Water lilies	Secondary	52
water monitor	Coastal	67
Water spangle, <i>Salvinia molesta</i>	Managed	19
Whale Shark, <i>Rhinodou typus</i>	Subtidal	39
Whalebone whale	Subtidal	48
White-headed munia(Javan sparrow)	Waste	45
Wikimedia	Human	11
wild magnolia flower	Biodiversity	22
Wild Tumeric	Biodiversity	23

<i>Xanthid</i> crabs	Intertidal	73
Yellow crazy ant	Human	63
Yellow flame	Coastal	77
Yellow flame	Managed	31
Yellow-vented bulbul	Secondary	31/37
Zooxanthellae	Subtidal	66
<i>Zoysia matrella</i>	Managed	49