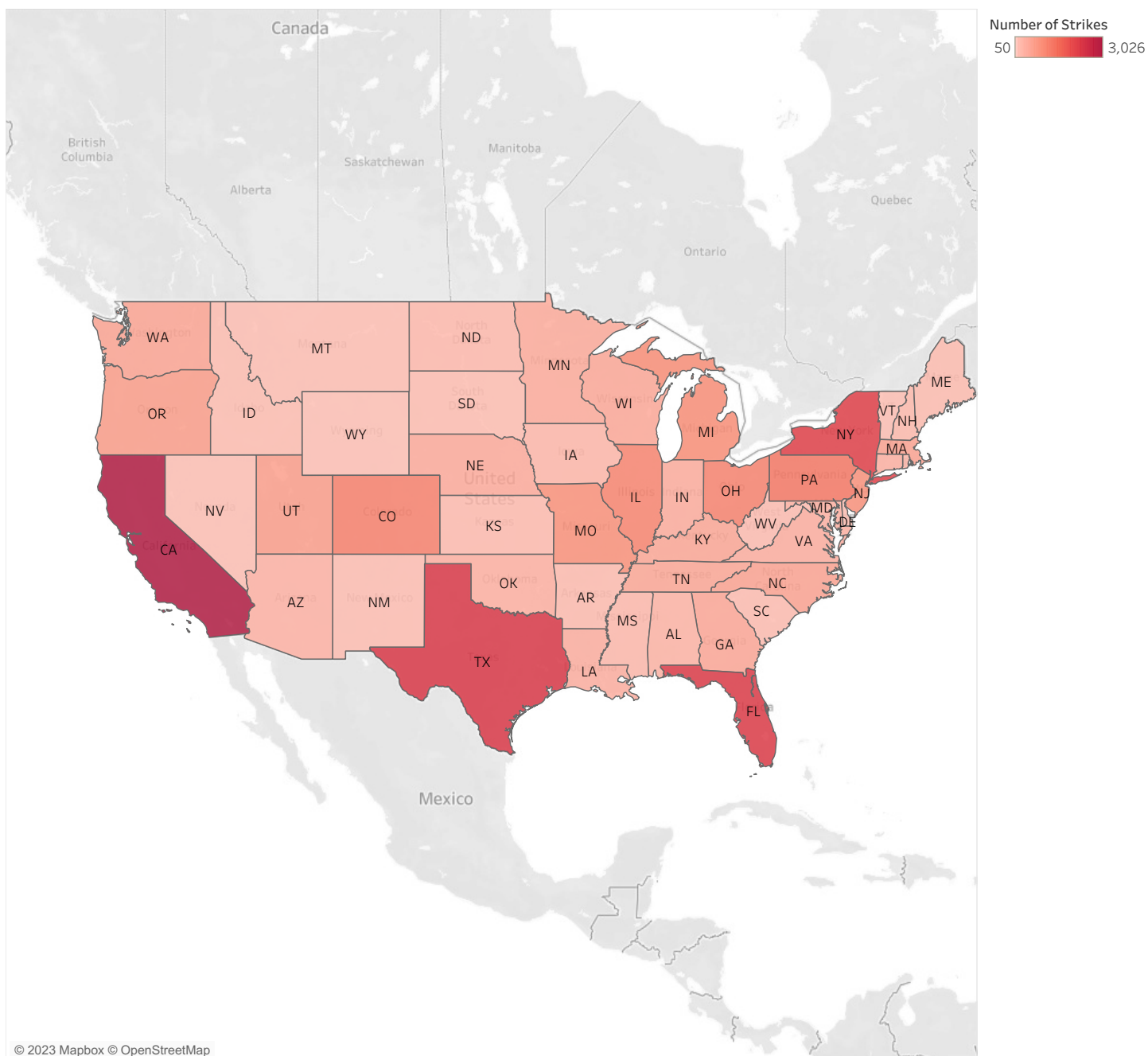
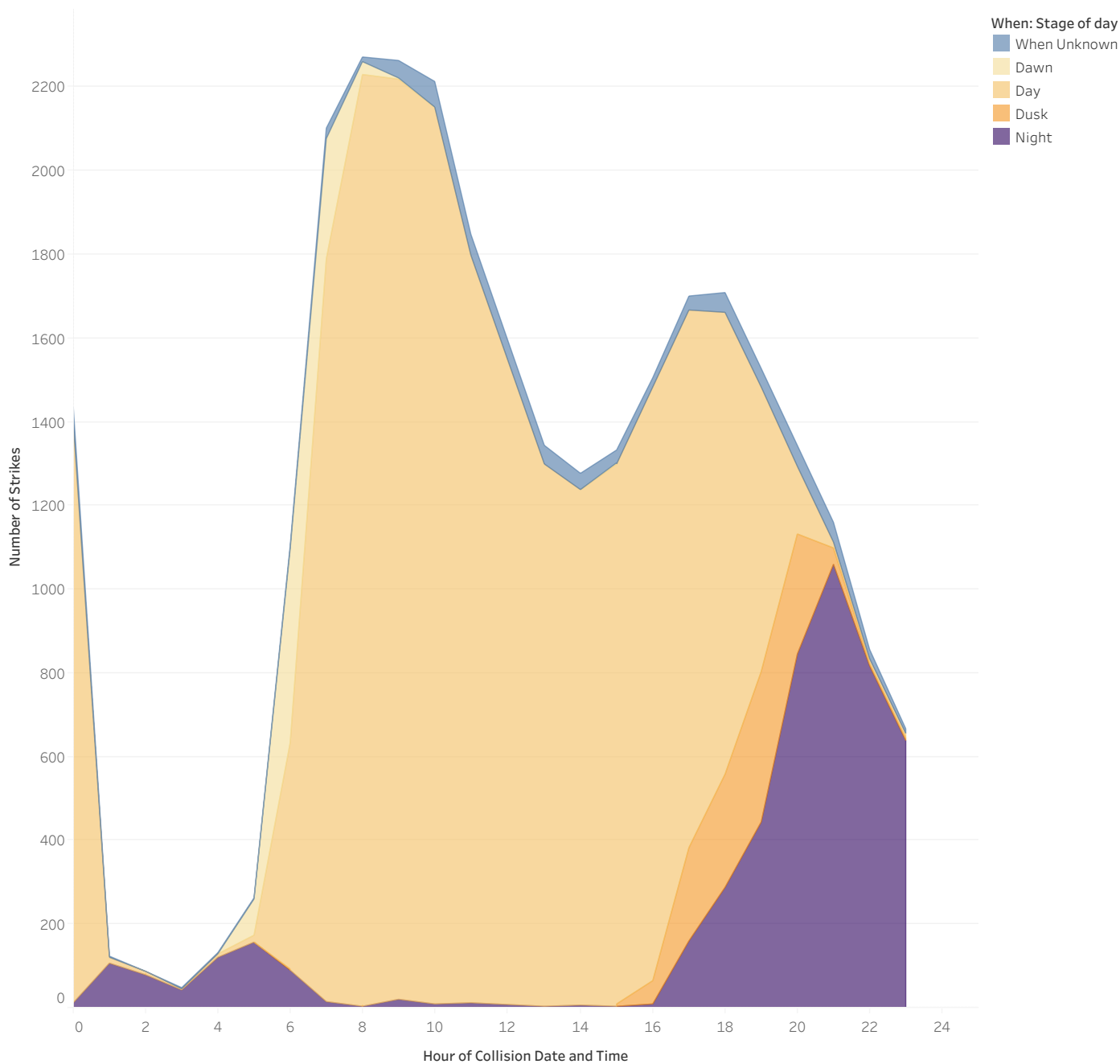


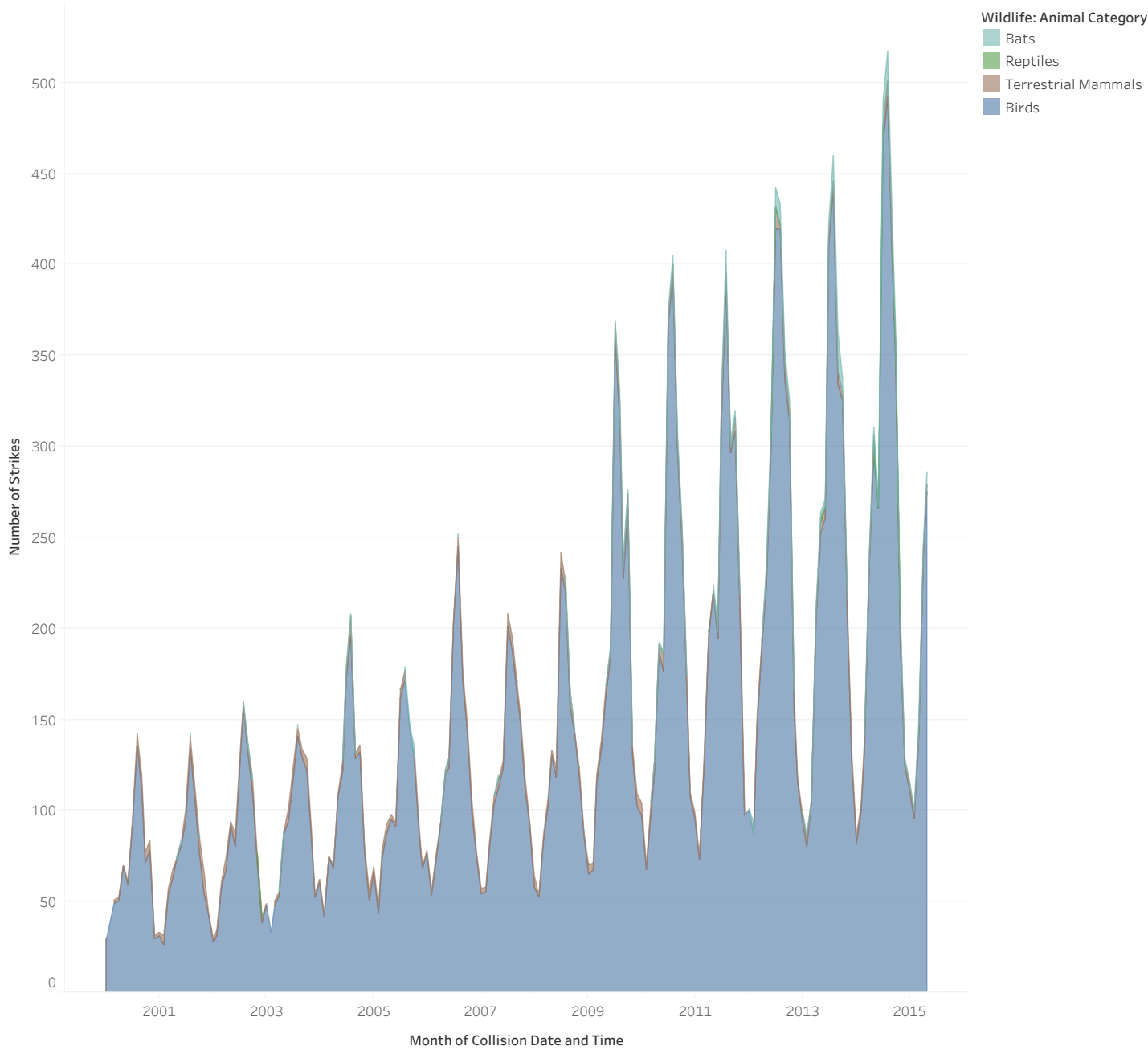
### Total Number of Strikes in State



Stage of Day vs Hour



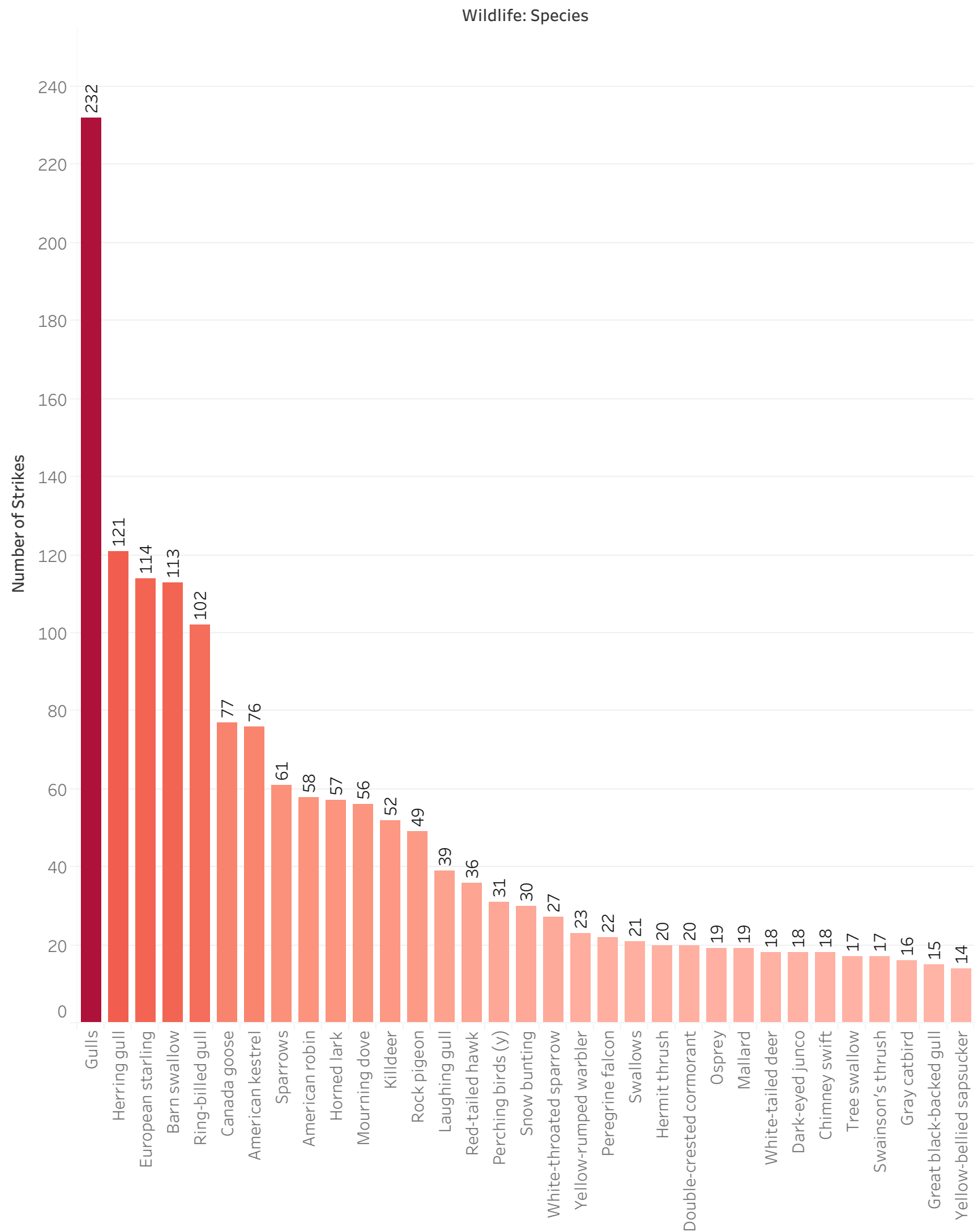
Strikes per Month



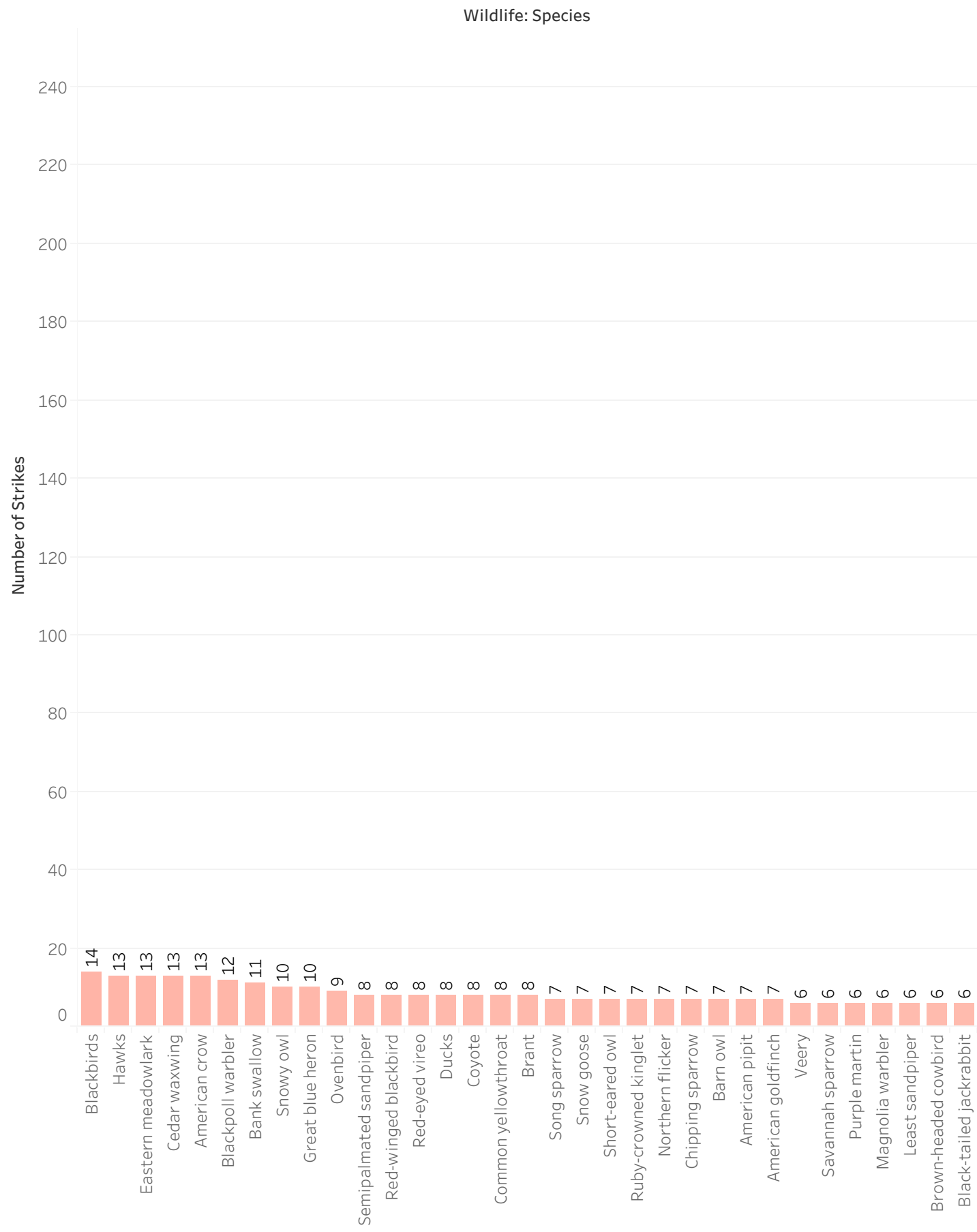
Number of  
Strikes per  
Year

Year of Colli..	
2000	853
2001	898
2002	1,043
2003	1,056
2004	1,278
2005	1,266
2006	1,522
2007	1,490
2008	1,562
2009	2,218
2010	2,416
2011	2,612
2012	2,924
2013	2,971
2014	3,288
2015	901

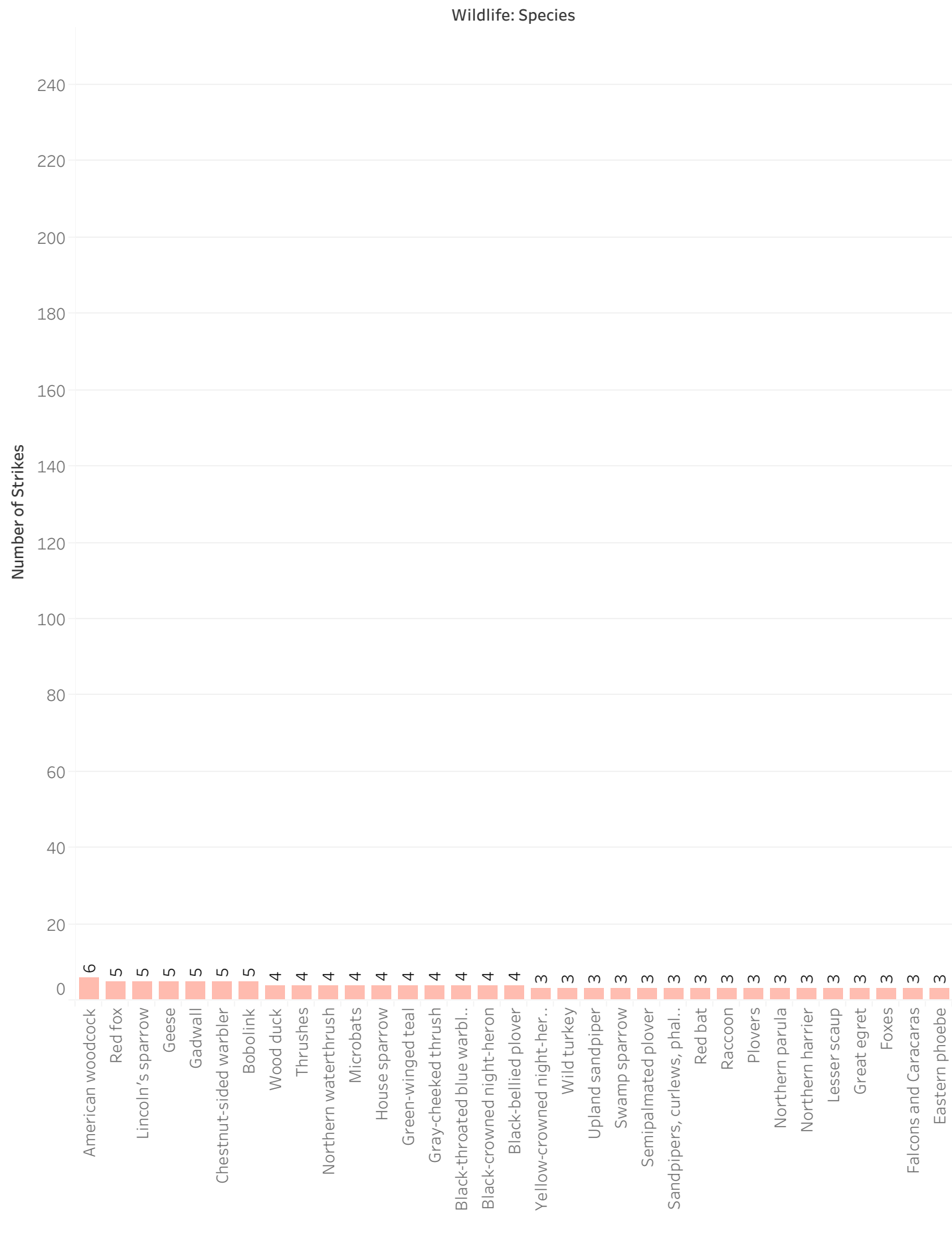
# Strikes per Species



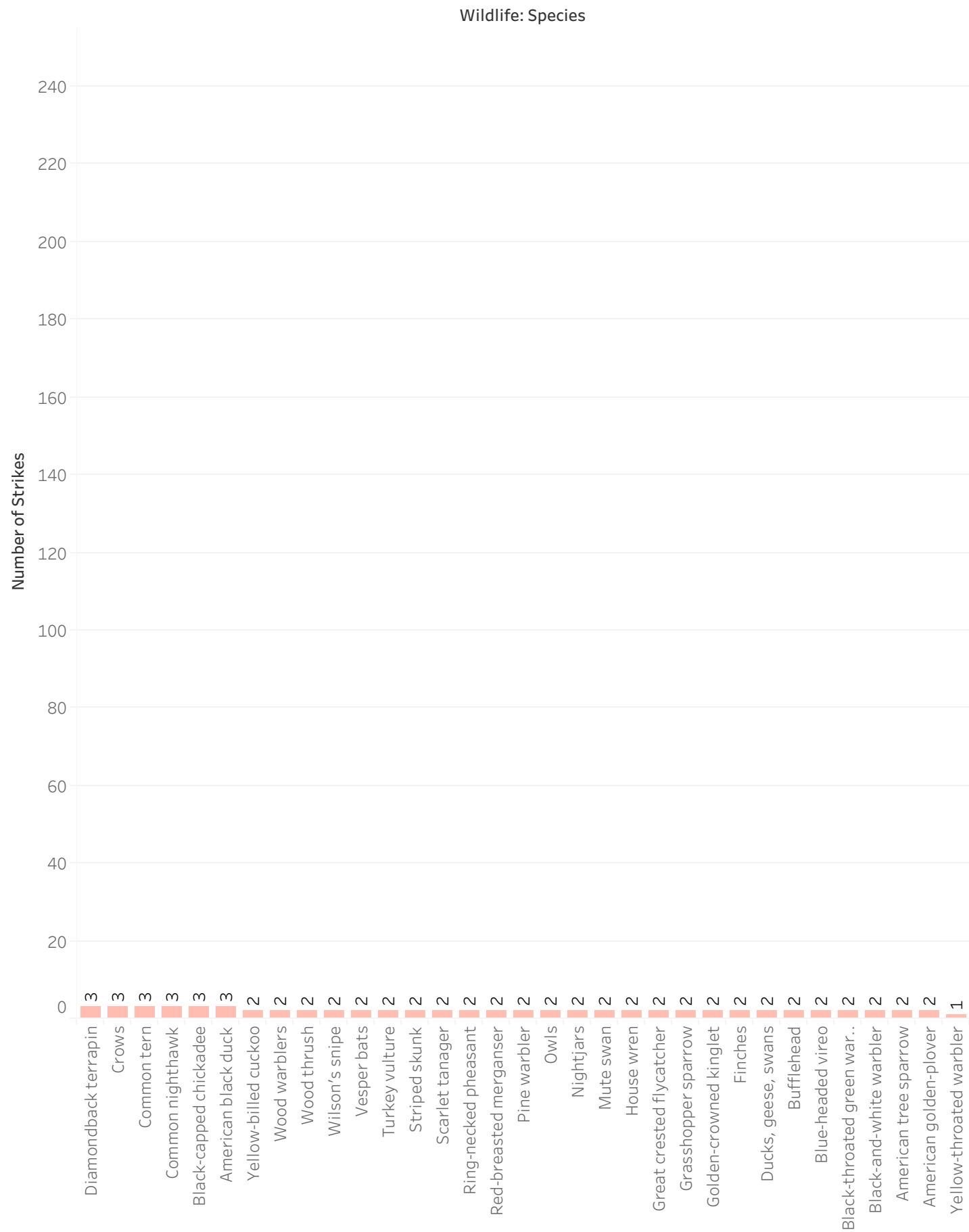
# Strikes per Species



# Strikes per Species

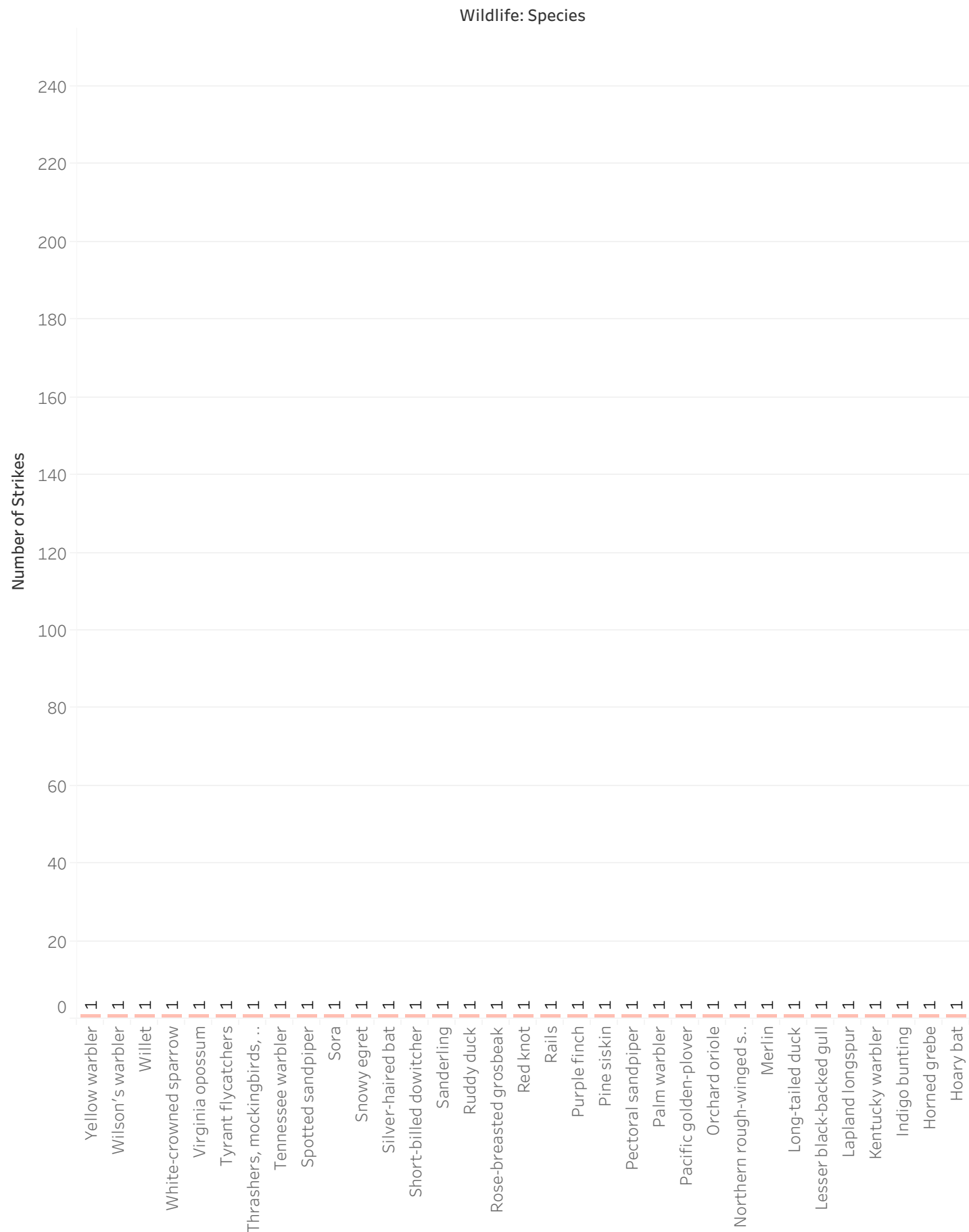


# Strikes per Species





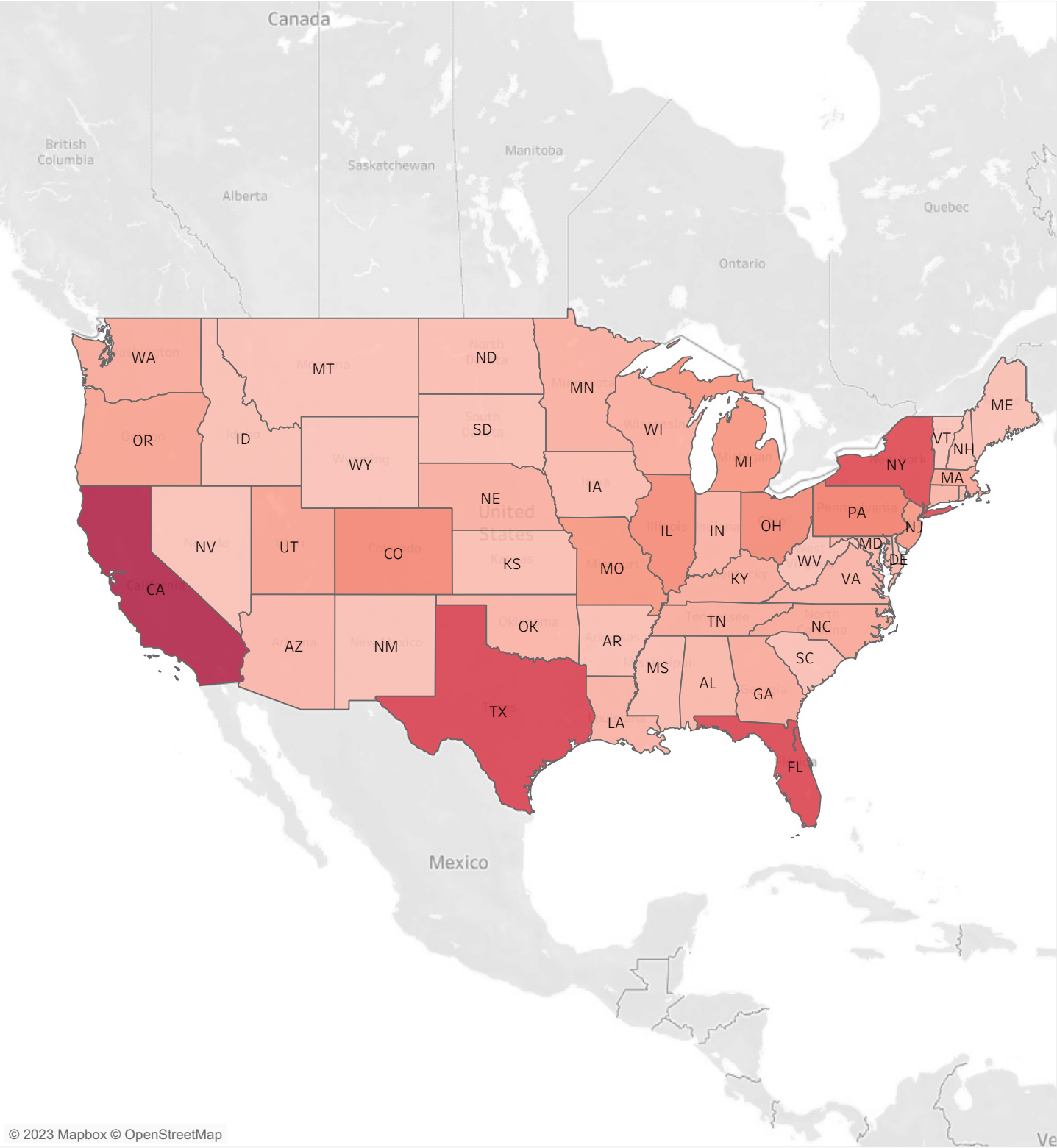
# Strikes per Species



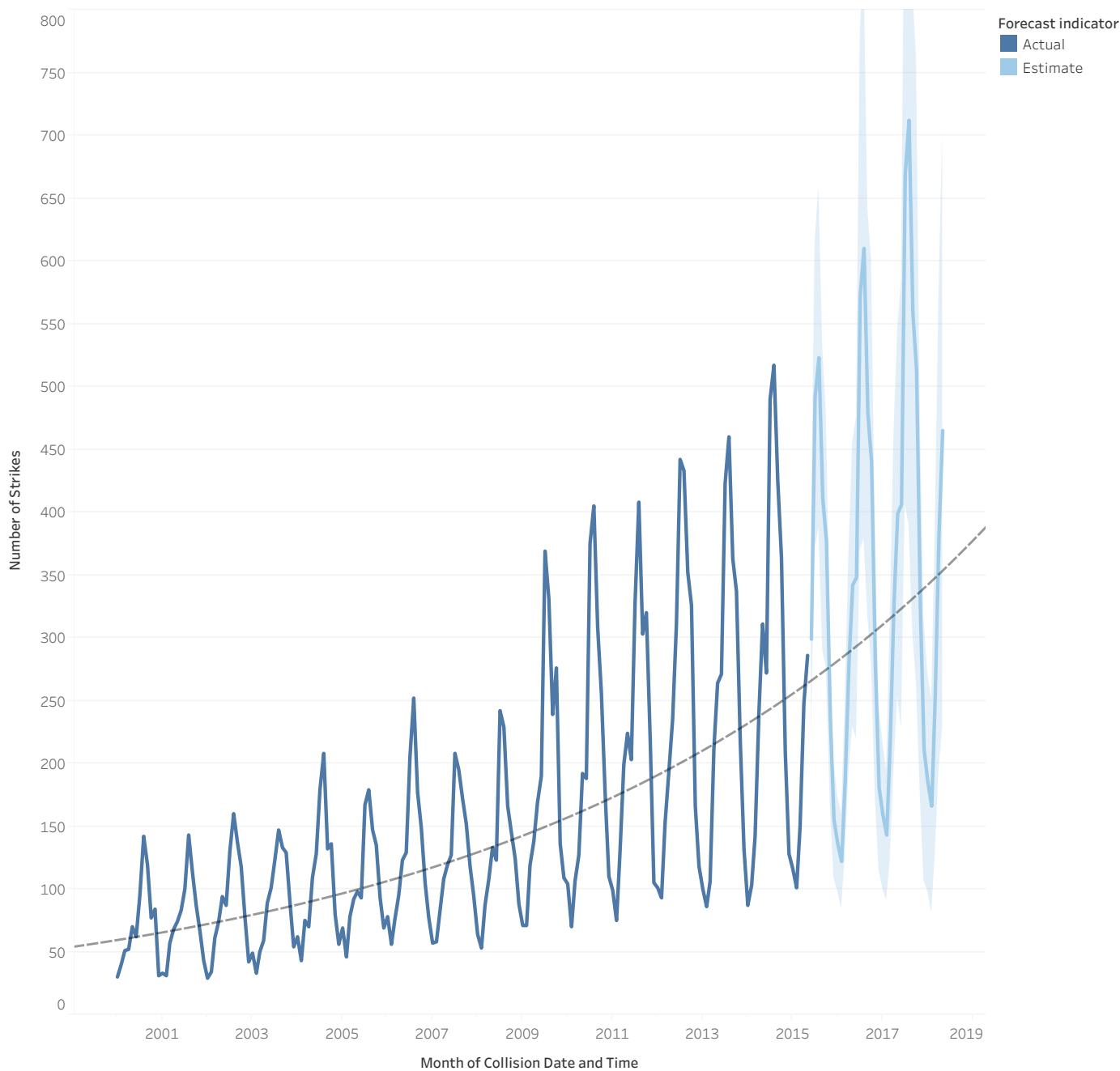
# Strikes per Species



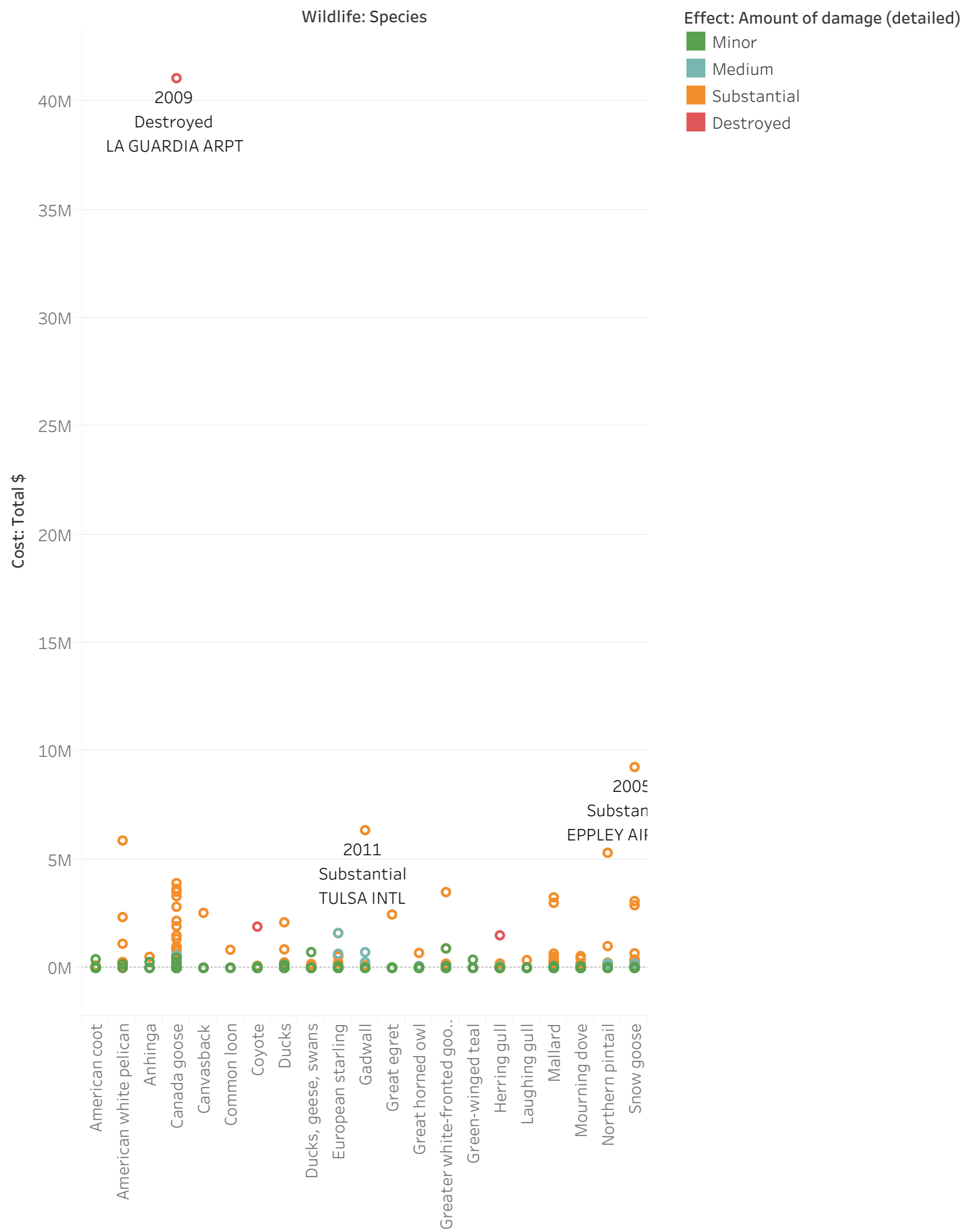
# Species Strikes per State



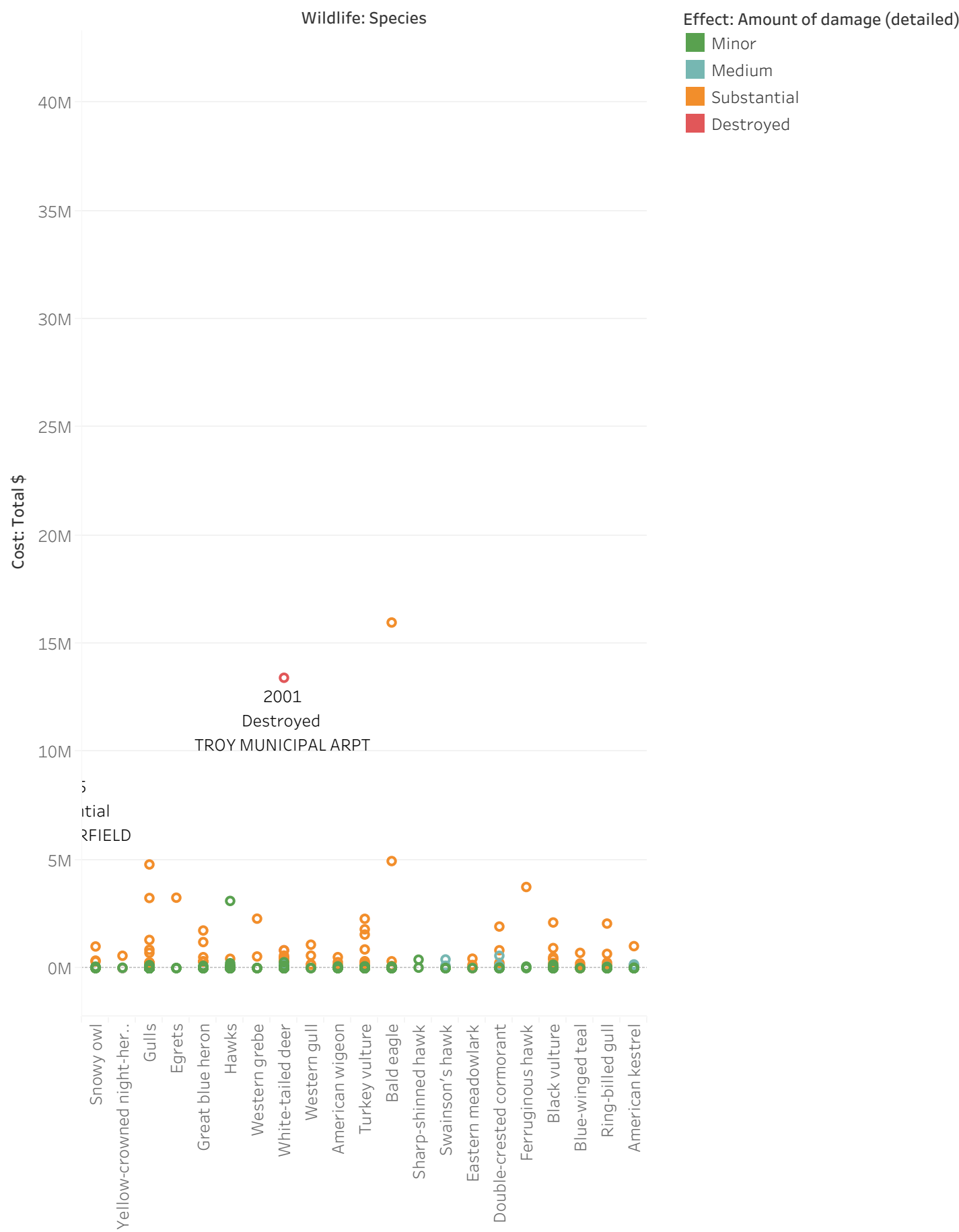
Strikes per Month Forecast



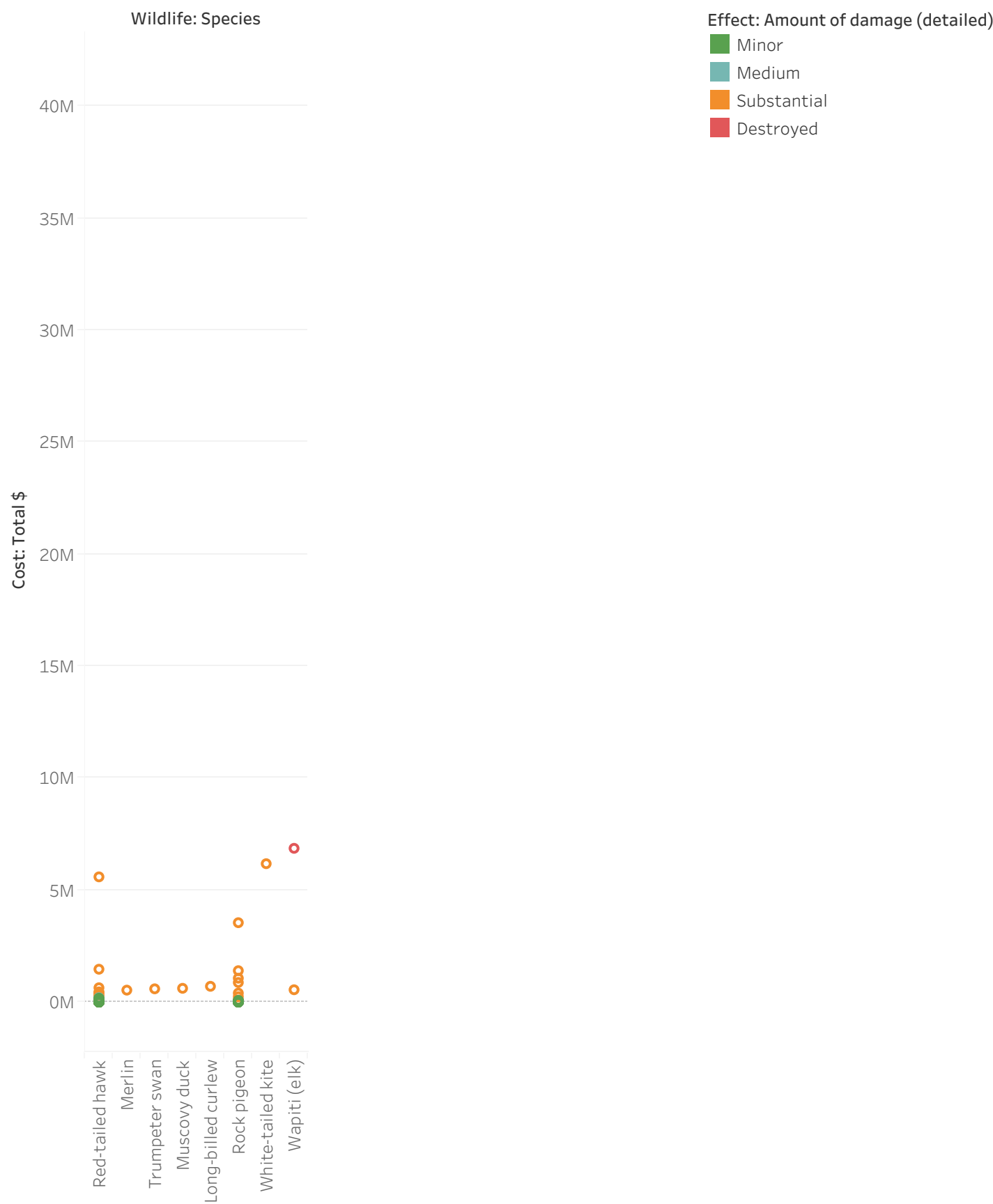
# Outliers



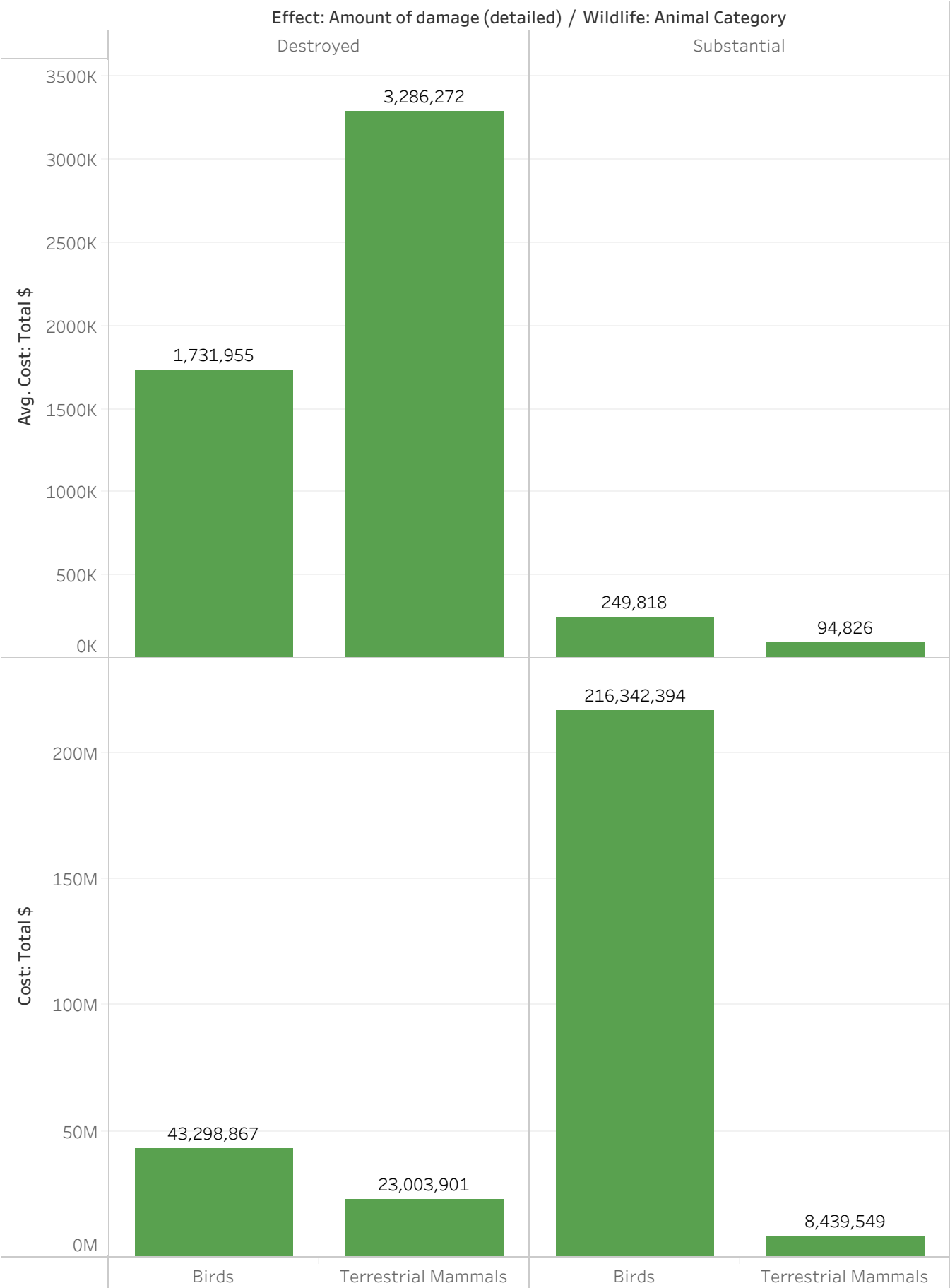
# Outliers



# Outliers

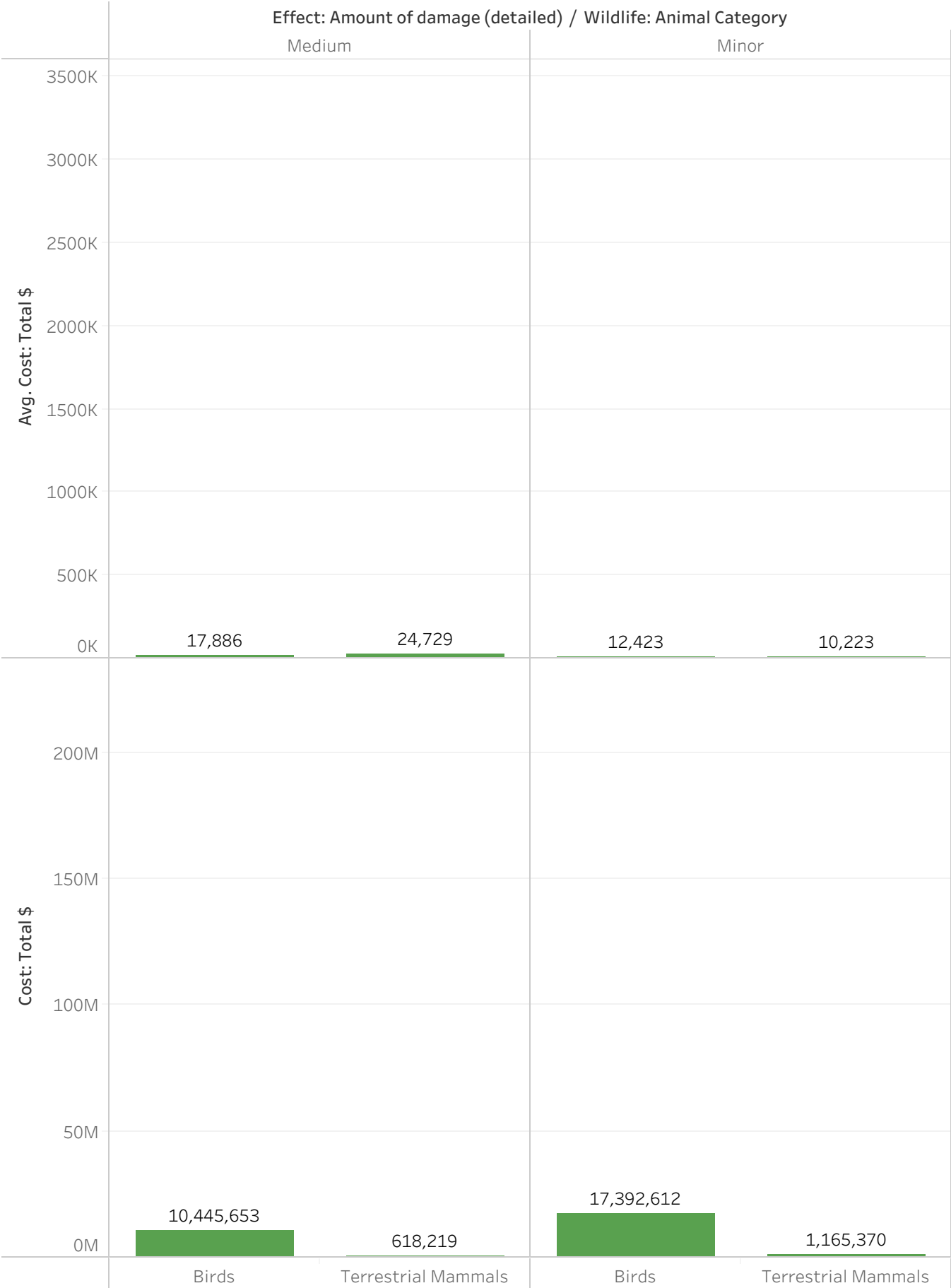


# Animal Damage and Cost

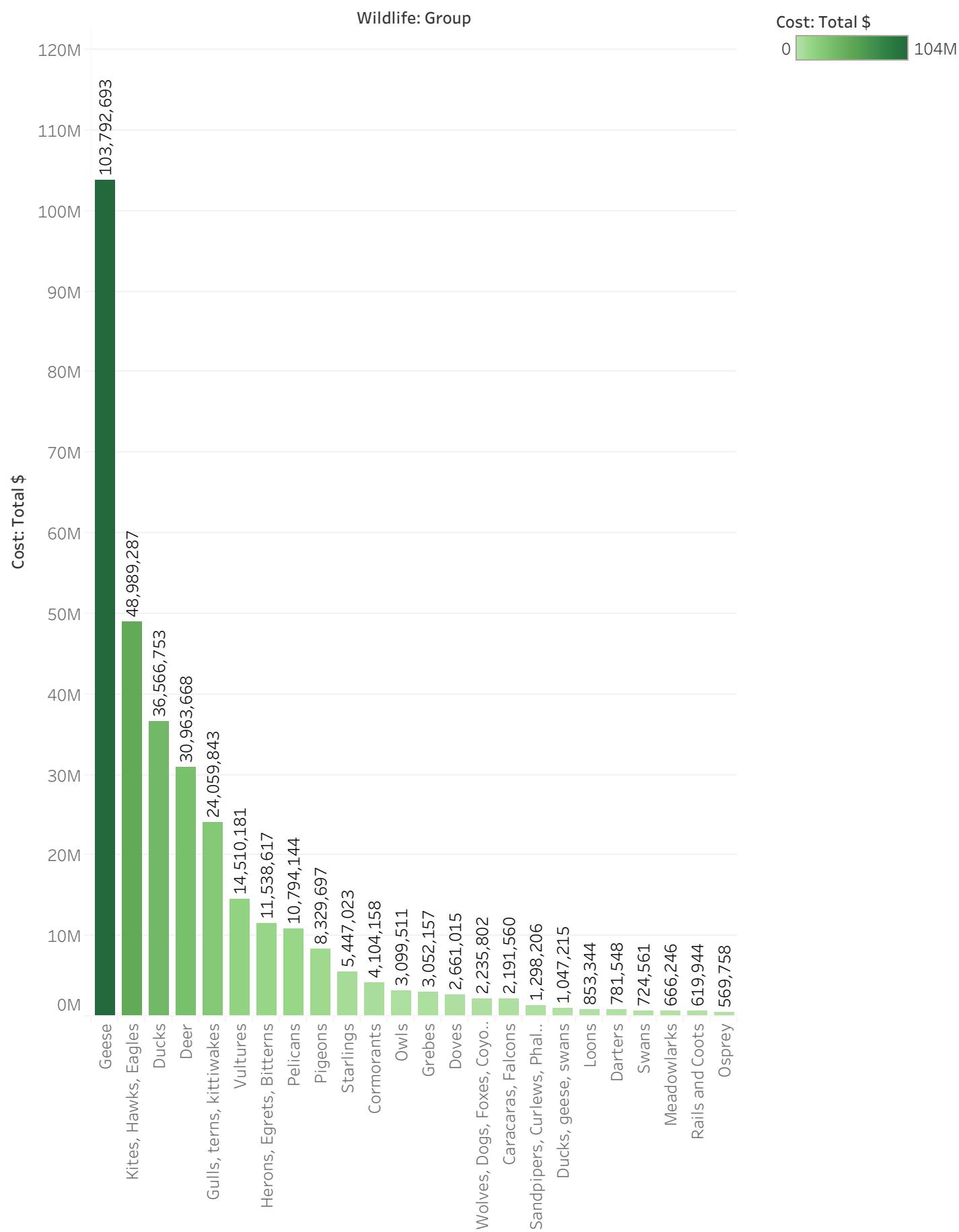




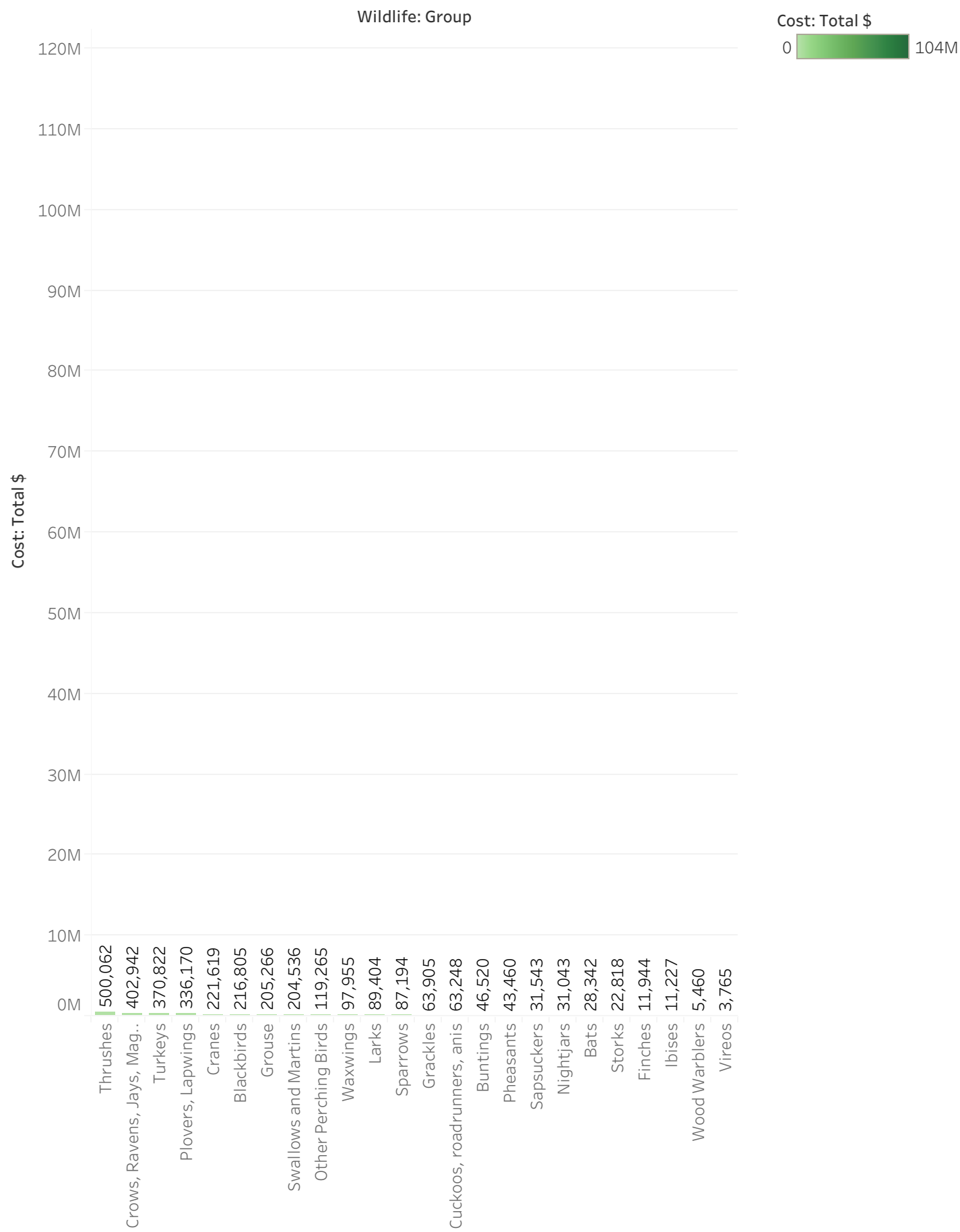
# Animal Damage and Cost



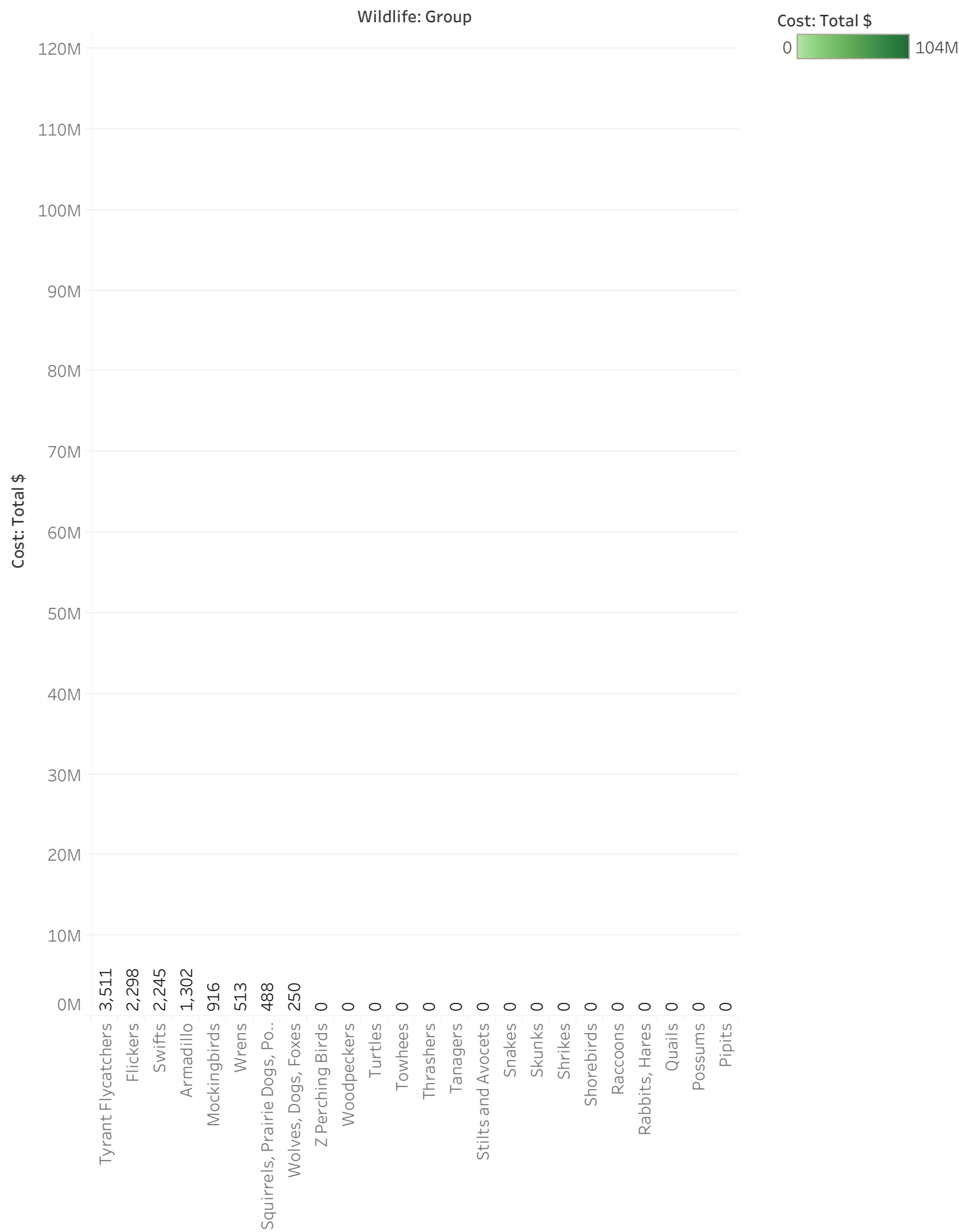
# Cost per Group



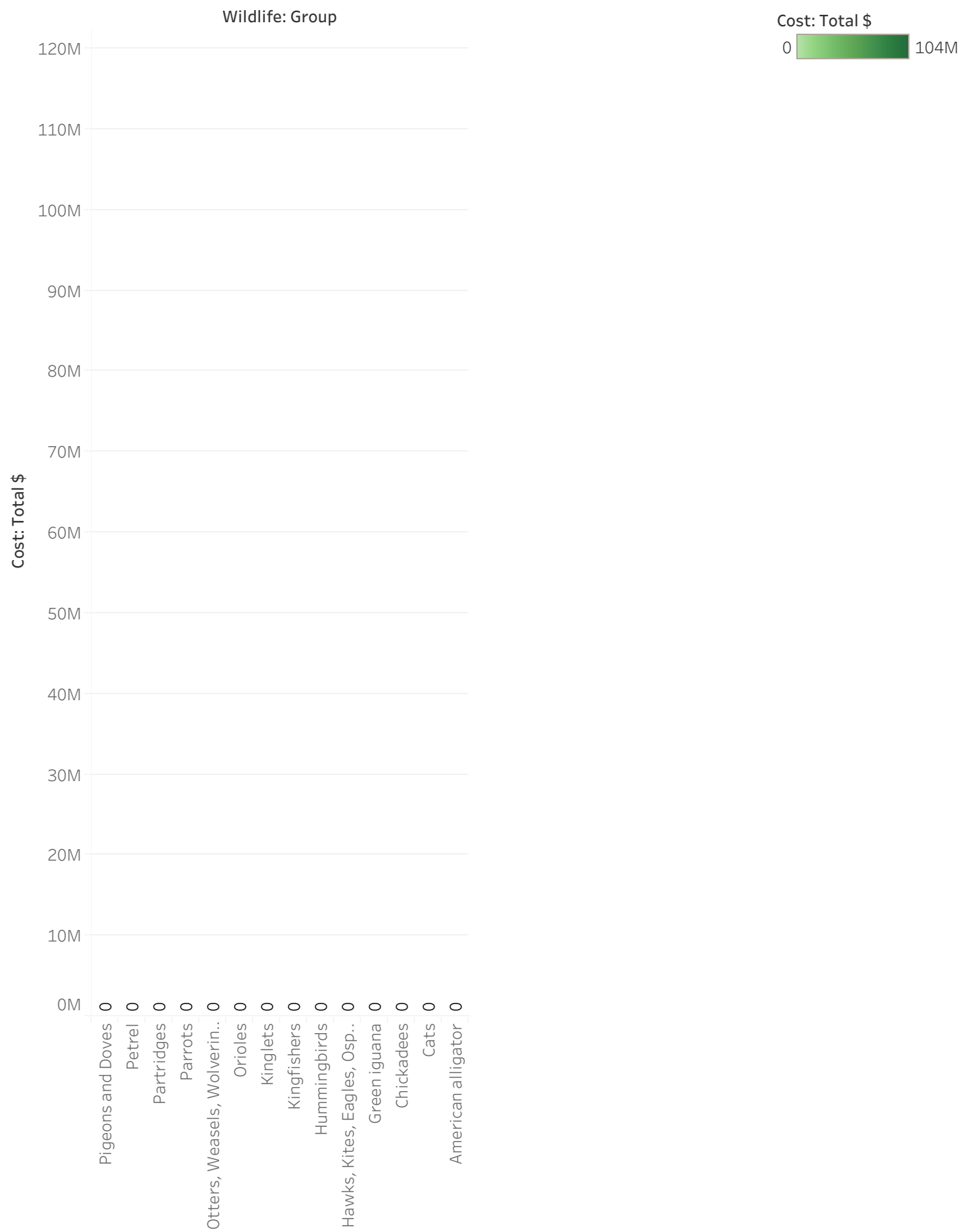
# Cost per Group



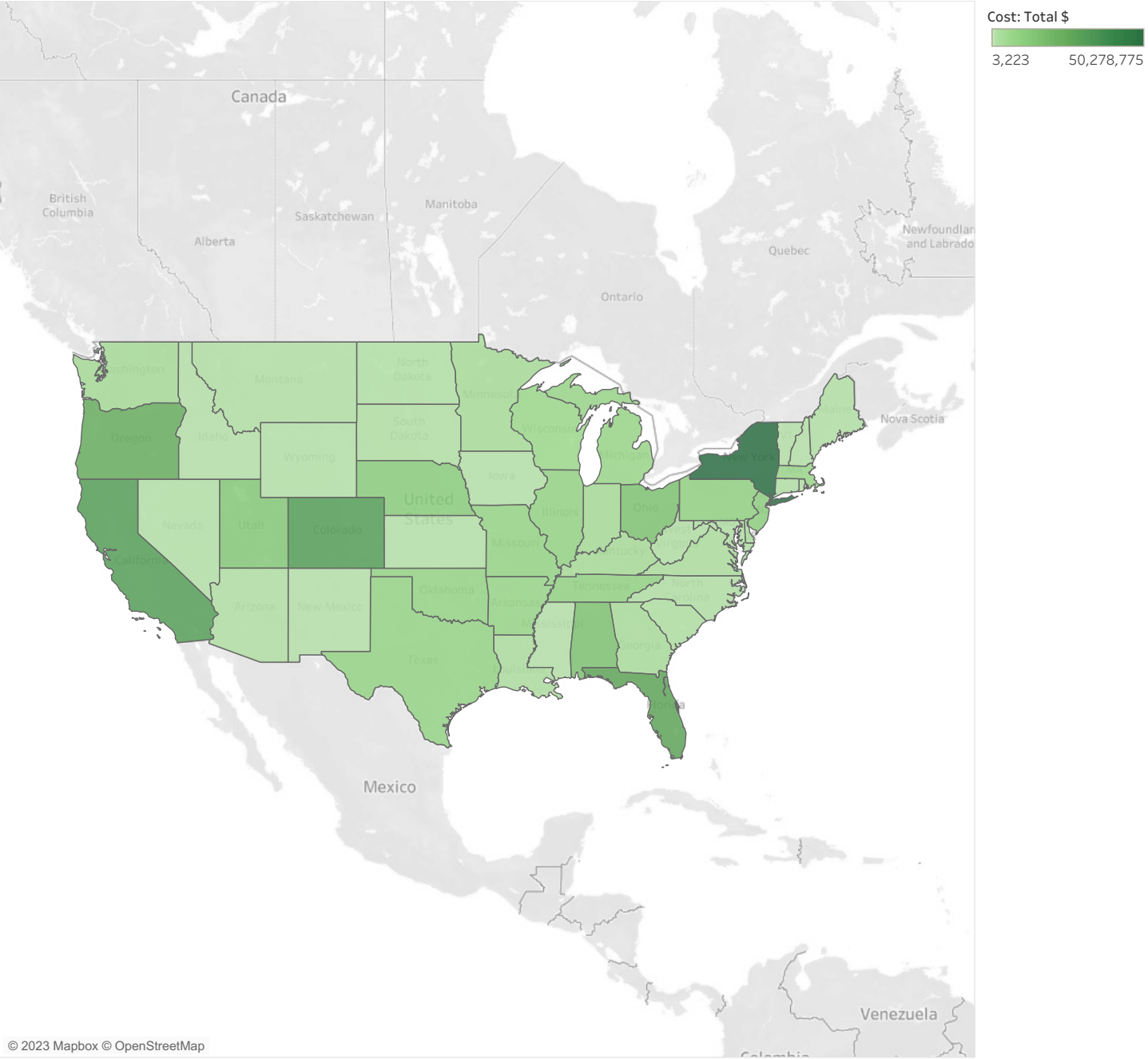
Cost per Group



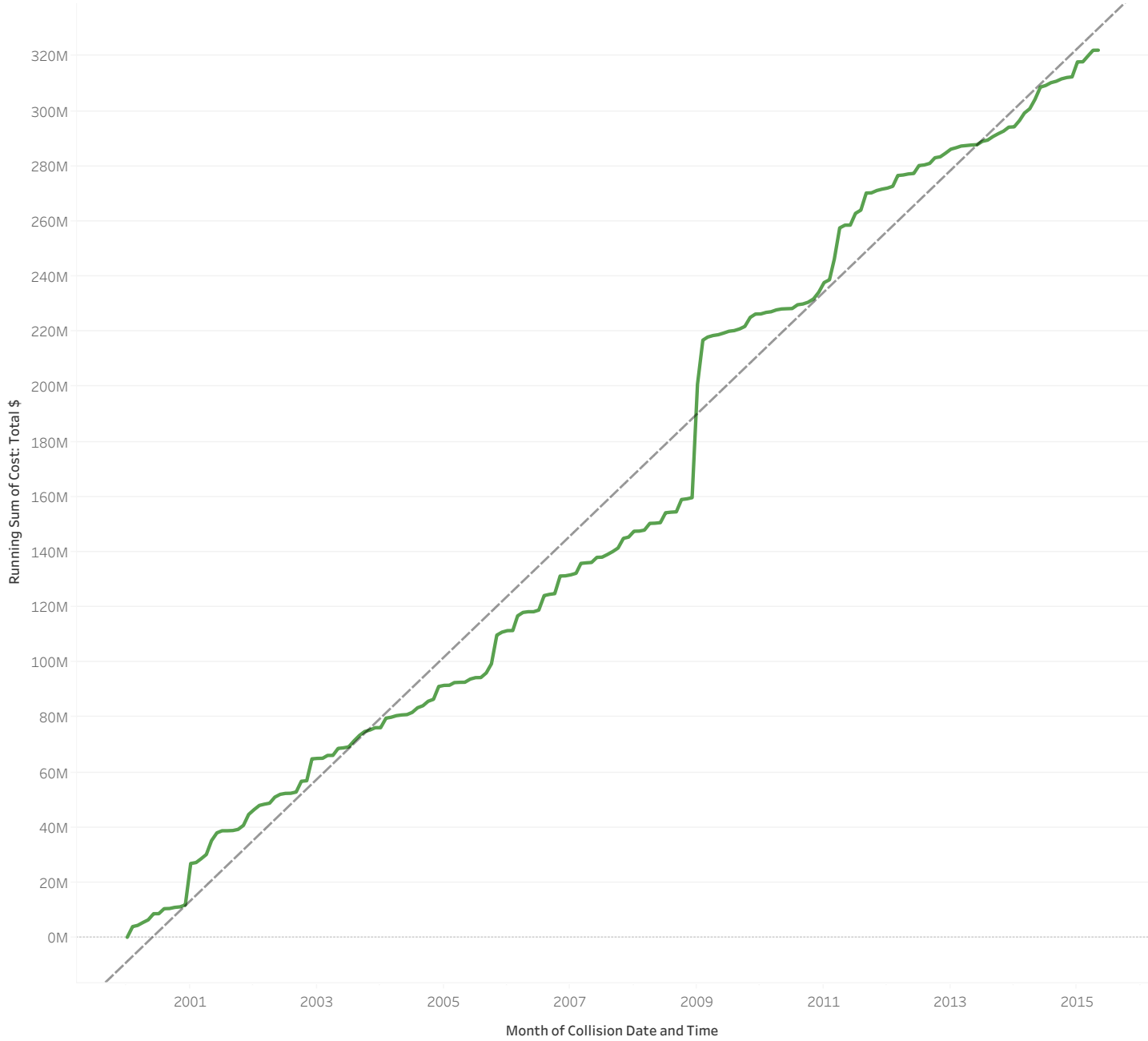
# Cost per Group



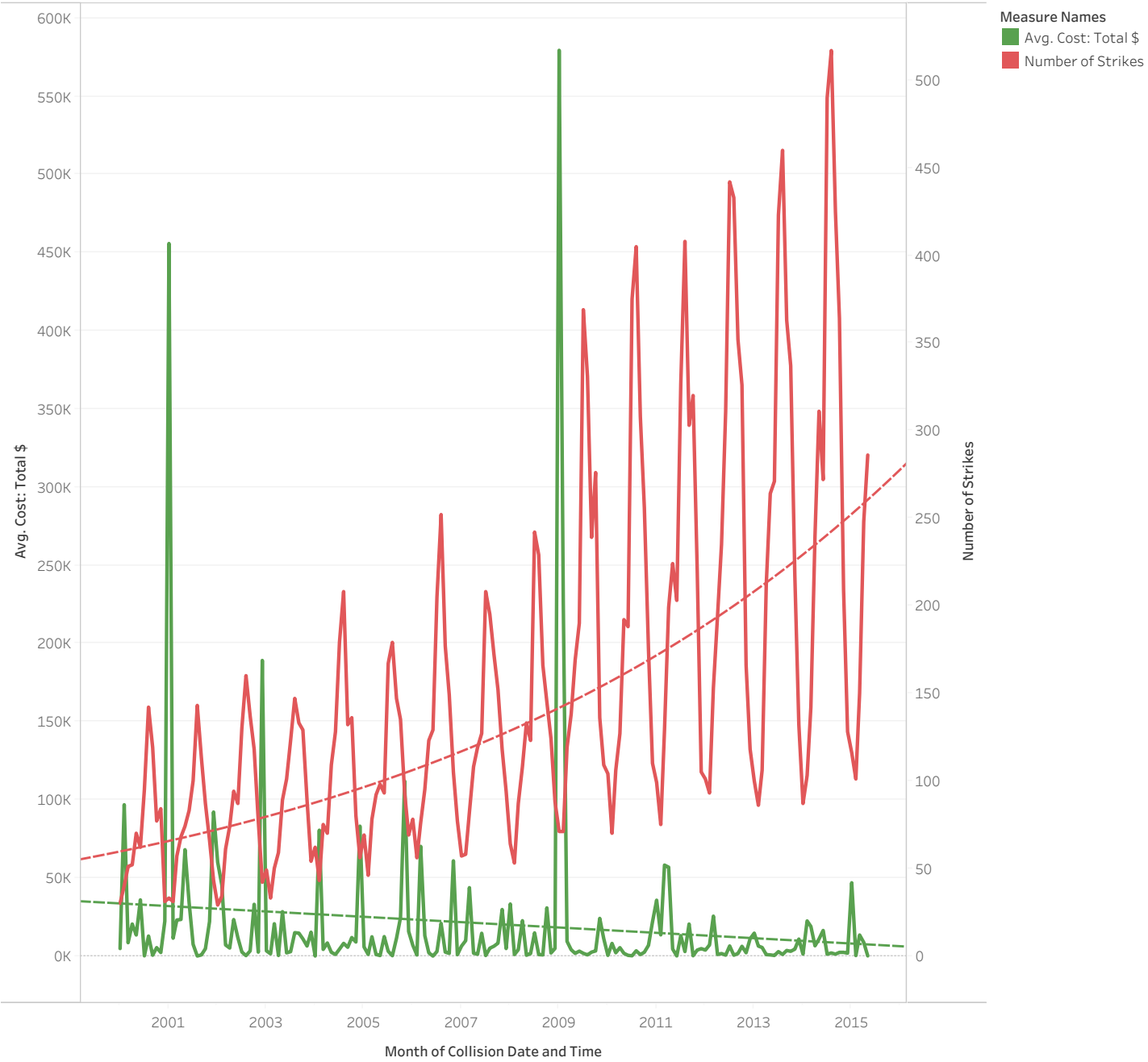
Cost per State



Cost Running Total



Avg cost and animals struck





max species height

Wildlife: An.. Wildlife: Species

Bats	Red bat	7,000
	Brazilian free-tailed bat	7,000
	Hoary bat	6,500
	Pocketed free-tailed bat	6,000
	Microbats	6,000
	Vesper bats	4,400
	Silver-haired bat	4,000
	Eastern pipistrelle	3,100
	Free-tailed bats	3,000
	Big brown bat	3,000
	Bats	2,500
	Seminole bat	1,500
	Evening bat	200
	Little brown bat	100
	Western yellow bat	70
	Florida bonneted bat	20
	Yuma myotis	0
Birds	Eared grebe	20,000
	Long-billed curlew	15,000
	Horned lark	15,000
	Dark-eyed junco	15,000
	Chipping sparrow	15,000
	American robin	15,000
	Varied thrush	14,000
	Northern shoveler	14,000
	Northern pintail	14,000
	Blue-winged teal	14,000
	Sparrows	13,800
	Red-necked phalarope	13,400
	Eastern phoebe	13,000
	Perching birds (y)	12,500
	White-throated swift	12,000
	Whimbrel	12,000
	Snow goose	12,000
	Ducks	12,000
	Yellow-bellied sapsucker	11,500
	Gulls	11,500
	Veery	11,000
	Semipalmated plover	11,000
	Red-eyed vireo	11,000
	Pacific-slope flycatcher	11,000
	Ducks, geese, swans	11,000
	American coot	11,000
	Pectoral sandpiper	10,400

max species height

Wildlife: An.. Wildlife: Species

Birds	Yellow warbler	10,000
	Western sandpiper	10,000
	Swainson's thrush	10,000
	New World Vultures	10,000
	Common yellowthroat	10,000
	Chimney swift	10,000
	Baltimore oriole	10,000
	Turkey vulture	9,500
	Sandhill crane	9,500
	Western grebe	9,300
	Willow flycatcher	9,000
	White-throated sparrow	9,000
	Mourning dove	9,000
	Mallard	9,000
	House wren	9,000
	Least flycatcher	8,700
	Eastern wood-pewee	8,700
	Wilson's phalarope	8,500
	Hawks	8,500
	Canada goose	8,500
	Barn swallow	8,500
	Wilson's snipe	8,000
	Warbling vireo	8,000
	Swamp sparrow	8,000
	Ruby-crowned kinglet	8,000
	Purple martin	8,000
	Northern saw-whet owl	8,000
	Greater white-fronted go..	8,000
	Geese	8,000
	European starling	8,000
	Lark sparrow	7,800
	Spotted sandpiper	7,700
	Blue-gray gnatcatcher	7,400
	Wood warblers	7,000
	White-crowned sparrow	7,000
	Western meadowlark	7,000
	Thrushes	7,000
	Savannah sparrow	7,000
	Red-winged blackbird	7,000
	Pine warbler	7,000
	Pigeons, doves	7,000
	Fox sparrow	7,000
	Eastern meadowlark	7,000
	Cedar waxwing	7,000

max species height

Wildlife: An.. Wildlife: Species

Birds	Blackbirds	7,000
	American white pelican	6,800
	Grasshopper sparrow	6,700
	Gadwall	6,600
	Common loon	6,600
	Killdeer	6,500
	Franklin’s gull	6,500
	Yellow-crowned night-her..	6,000
	White-faced ibis	6,000
	Thrashers, mockingbirds, ..	6,000
	Swallows	6,000
	Sora	6,000
	Rock pigeon	6,000
	Redhead	6,000
	Raptors: Hawks, eagles, v..	6,000
	Plovers	6,000
	Orange-crowned warbler	6,000
	Lincoln’s sparrow	6,000
	Hermit thrush	6,000
	Canada warbler	6,000
	Black-bellied plover	6,000
	Anhinga	6,000
	American kestrel	6,000
	Bald eagle	5,800
	Cinnamon teal	5,600
	Northern flicker	5,500
	Broad-winged hawk	5,500
	American pipit	5,500
	Black vulture	5,200
	Yellow-throated warbler	5,000
	Yellow-billed cuckoo	5,000
	Upland sandpiper	5,000
	Tyrant flycatchers	5,000
	Tree swallow	5,000
	Tennessee warbler	5,000
	Scarlet tanager	5,000
	Ruddy duck	5,000
	Ring-billed gull	5,000
	Red-tailed hawk	5,000
	Red-necked grebe	5,000
	Northern waterthrush	5,000
	Lesser scaup	5,000
	Hooded warbler	5,000
	Gray flycatcher	5,000

max species height

Wildlife: An.. Wildlife: Species

Birds	Common tern	5,000
	Chestnut-sided warbler	5,000
	Cattle egret	5,000
	Band-tailed pigeon	5,000
	American woodcock	5,000
	Wood thrush	4,500
	Solitary sandpiper	4,500
	Semipalmated sandpiper	4,500
	Lapland longspur	4,200
	Yellow-rumped warbler	4,000
	Wood duck	4,000
	Swifts	4,000
	Spotted towhee	4,000
	Sharp-shinned hawk	4,000
	Sandpipers, curlews, phal..	4,000
	Red-naped sapsucker	4,000
	Rails	4,000
	Ovenbird	4,000
	Osprey	4,000
	Gray-cheeked thrush	4,000
	Gray catbird	4,000
	Common moorhen	4,000
	Common grackle	4,000
	Cave swallow	4,000
	Canvasback	4,000
	Burrowing owl	4,000
	Black-throated green war..	4,000
	Black-throated blue warbl..	4,000
	Black-headed grosbeak	4,000
	Black-billed cuckoo	4,000
	American wigeon	4,000
	American redstart	4,000
	Blackpoll warbler	3,800
	Ruby-throated hummingb..	3,600
	Green-tailed towhee	3,600
	Yellow-headed blackbird	3,500
	Tundra swan	3,500
	Sage sparrow	3,500
	Ring-necked duck	3,500
	Painted bunting	3,500
	Horned grebe	3,500
	Song sparrow	3,100
	Green-winged teal	3,100
	Yellow-bellied flycatcher	3,000

max species height

Wildlife: An.. Wildlife: Species

Birds	Wood stork	3,000
	Sprague’s pipit	3,000
	Perching birds (z)	3,000
	Nashville warbler	3,000
	Long-tailed duck	3,000
	Least sandpiper	3,000
	Herring gull	3,000
	Great horned owl	3,000
	Great blue heron	3,000
	Eastern towhee	3,000
	Doves	3,000
	Common poorwill	3,000
	Common nighthawk	3,000
	Cliff swallow	3,000
	California gull	3,000
	Brown-headed cowbird	3,000
	Brant	3,000
	Blackburnian warbler	3,000
	American goldfinch	3,000
	Double-crested cormorant	2,800
	American tree sparrow	2,800
	Cassin’s vireo	2,600
	Virginia rail	2,500
	Peregrine falcon	2,500
	Palm warbler	2,500
	Northern parula	2,500
	Indigo bunting	2,500
	Crows	2,500
	Black-capped chickadee	2,500
	Bank swallow	2,500
	Golden-crowned kinglet	2,200
	Western gull	2,100
	Wilson’s warbler	2,000
	Vesper sparrow	2,000
	Shorebirds	2,000
	Sharp-tailed grouse	2,000
	Rose-breasted grosbeak	2,000
	Red-throated loon	2,000
	Pied-billed grebe	2,000
	Owls	2,000
	Loons	2,000
	Kites, eagles, hawks	2,000
	Hooded merganser	2,000
	Greater yellowlegs	2,000

max species height

Wildlife: An.. Wildlife: Species

Birds	Great egret	2,000
	Cuckoos	2,000
	Blue-headed vireo	2,000
	Black-crowned night-heron	2,000
	Black-and-white warbler	2,000
	Anna’s hummingbird	2,000
	American crow	2,000
	Short-billed dowitcher	1,900
	Dunlin	1,900
	Acadian flycatcher	1,900
	Northern mockingbird	1,800
	Long-billed dowitcher	1,800
	Hairy woodpecker	1,800
	Great crested flycatcher	1,800
	Brown pelican	1,750
	Swainson’s hawk	1,700
	Magnolia warbler	1,700
	Lesser yellowlegs	1,700
	Townsend’s warbler	1,500
	Tanagers	1,500
	Red-breasted merganser	1,500
	Orchard oriole	1,500
	Mew gull	1,500
	Egrets	1,500
	Cardinals, buntings, sparr..	1,500
	Cape May warbler	1,500
	Little blue heron	1,400
	Laughing gull	1,400
	Grackles	1,400
	Glaucous-winged gull	1,300
	Common snipe	1,300
	Green heron	1,200
	Grebes	1,200
	Greater scaup	1,200
	White-winged dove	1,100
	House finch	1,100
	Great-tailed grackle	1,100
	Finches	1,100
	Cuckoos, roadrunners, anis	1,100
	White-eyed vireo	1,000
	Western tanager	1,000
	Smith’s longspur	1,000
	Red-shouldered hawk	1,000
	Pine siskin	1,000

max species height

Wildlife: An.. Wildlife: Species

Birds	McCown’s longspur	1,000
	Harris’s sparrow	1,000
	Gulls,terns, kittiwakes	1,000
	Golden eagle	1,000
	Eastern kingbird	1,000
	Chuck-will’s-widow	1,000
	Cackling goose	1,000
	Bullock’s oriole	1,000
	Black-headed gull	1,000
	Barn owl	1,000
	American golden-plover	1,000
	Bufflehead	850
	Snow bunting	800
	Mourning warbler	800
	Meadowlarks	800
	Long-eared owl	800
	Brandt’s cormorant	800
	Baird’s sandpiper	800
	Plovers, lapwings	600
	Nelson’s sharp-tailed spa..	600
	Eurasian collared dove	600
	Eagles	600
	Common goldeneye	600
	Yellow bittern	500
	White ibis	500
	Western kingbird	500
	Summer tanager	500
	Short-eared owl	500
	Rough-legged hawk	500
	Marsh wren	500
	Lesser black-backed gull	500
	Larks	500
	Kentucky warbler	500
	House sparrow	500
	Great cormorant	500
	Great black-backed gull	500
	Dickcissel	500
	Brewer’s blackbird	500
	Bay-breasted warbler	500
	American black duck	500
	Yellow-breasted chat	400
	Snowy owl	400
	Mountain bluebird	400
	Merlin	400

max species height

Wildlife: An.. Wildlife: Species

Birds	Ferruginous hawk	400
	Caspian tern	400
	Bobolink	400
	Black-bellied whistling-du..	400
	American avocet	400
	Towhees	350
	Pelicans	350
	Winter wren	300
	Terns	300
	Swallow-tailed kite	300
	Purple finch	300
	Northern rough-winged s..	300
	Nightjars	300
	Greater sage-grouse	300
	Blue jay	300
	Snowy egret	280
	Prairie warbler	250
	Zenaida dove	200
	Wrens	200
	Violet-green swallow	200
	Mute swan	200
	Mottled duck	200
	Loggerhead shrike	200
	Cooper’s hawk	200
	Common merganser	200
	Boat-tailed grackle	200
	American bittern	200
	Surf scoter	180
	Vireos	150
	Pigeons	150
	Yellow-billed magpie	100
	Starlings	100
	Snowy plover	100
	Scissor-tailed flycatcher	100
	Rusty blackbird	100
	Ring-necked pheasant	100
	Northern harrier	100
	Monk parakeet	100
	Herons, egrets, bitterns	100
	Herons	100
	Falcons and Caracaras	100
	Brown thrasher	100
	Bonaparte’s gull	100
	Black-billed magpie	100



max species height

Wildlife: An.. Wildlife: Species

Birds	Belted kingfisher	100
	Glaucous gull	80
	Grouse	60
	Red knot	55
	Golden-crowned sparrow	55
	White-tailed kite	50
	Sanderling	50
	Parrots	50
	Least tern	50
	Crested caracara	50
	Chestnut-collared longspur	50
	Blackbirds, orioles	50
	Willet	40
	Barred owl	40
	Wilson’s plover	20
	Piping plover	20
	Lesser nighthawk	20
	Lark bunting	20
	Gray partridge	20
	Buff-breasted sandpiper	15
	Wild turkey	10
	Prairie falcon	10
	Ibises	10
	Common raven	10
	Carolina wren	10
	Brewer’s sparrow	10
	Woodpeckers	0
	Whooping crane	0
	Western screech-owl	0
	Western bluebird	0
	Vaux’s swift	0
	Thayer’s gull	0
	Swans	0
	Say’s phoebe	0
	Quails	0
	Northern fulmar	0
	Northern bobwhite	0
	Muscovy duck	0
	Mountain chickadee	0
	Lesser goldfinch	0
	Least bittern	0
	Hammond’s flycatcher	0
	Great kiskadee	0
	Field sparrow	0

max species height

Wildlife: An.. Wildlife: Species

Birds	European golden-plover	0
	Eastern bluebird	0
	Crows, ravens	0
	Common ground-dove	0
	Clay-colored sparrow	0
	Chukar	0
	Carolina chickadee	0
	California towhee	0
	Cactus wren	0
	Black-necked stilt	0
	Black skimmer	0
Reptiles	Turtles	0
	Pond slider	0
	Green iguana	0
	Gopher tortoise	0
	Eastern diamondback ratt..	0
	Diamondback terrapin	0
	Common snapping turtle	0
	American alligator	0
Terrestrial	White-tailed deer	2,000
Mammals	Coyote	100
	Red fox	25
	Mule deer	4
	Yellow-bellied marmot	0
	Woodchuck	0
	White-tailed prairie dog	0
	White-tailed jackrabbit	0
	Wapiti (elk)	0
	Virginia opossum	0
	Swine (pigs)	0
	Striped skunk	0
	Skunks	0
	Raccoon	0
	Rabbits	0
	Pronghorn	0
	North American porcupine	0
	Muskrat	0
	Kit fox	0
	Gunnison's prairie dog	0
	Foxes	0
	Eastern cottontail	0
	Domestic dog	0
	Domestic cat	0
	Desert cottontail	0

max species height

Wildlife: An..	Wildlife: Species	
Terrestrial Mammals	Deer	0
	Common gray fox	0
	Black-tailed prairie dog	0
	Black-tailed jackrabbit	0
	Badger	0
	Armadillo	0

avg species height

Wildlife: An.. Wildlife: Species

Bats	Yuma myotis	0
	Florida bonneted bat	20
	Little brown bat	33
	Western yellow bat	70
	Evening bat	200
	Microbats	514
	Free-tailed bats	597
	Big brown bat	645
	Silver-haired bat	669
	Brazilian free-tailed bat	930
	Bats	972
	Eastern pipistrelle	1,000
	Vesper bats	1,076
	Seminole bat	1,500
	Red bat	1,972
	Hoary bat	3,022
	Pocketed free-tailed bat	6,000
Birds	Black skimmer	0
	Black-necked stilt	0
	Cactus wren	0
	California towhee	0
	Carolina chickadee	0
	Chukar	0
	Clay-colored sparrow	0
	Common ground-dove	0
	Crows, ravens	0
	Eastern bluebird	0
	European golden-plover	0
	Field sparrow	0
	Great kiskadee	0
	Hammond’s flycatcher	0
	Least bittern	0
	Lesser goldfinch	0
	Mountain chickadee	0
	Muscovy duck	0
	Northern bobwhite	0
	Northern fulmar	0
	Quails	0
	Say’s phoebe	0
	Swans	0
	Thayer’s gull	0
	Vaux’s swift	0
	Western bluebird	0
	Western screech-owl	0

## avg species height

### Wildlife: An.. Wildlife: Species

Birds	Whooping crane	0
	Woodpeckers	0
	Wild turkey	1
	Prairie falcon	2
	Brewer's sparrow	2
	Buff-breasted sandpiper	2
	Lark bunting	2
	Common raven	3
	Gray partridge	4
	Ibises	5
	Ring-necked pheasant	6
	White-tailed kite	8
	Scissor-tailed flycatcher	8
	Falcons and Caracaras	8
	Sanderling	8
	Barred owl	10
	Carolina wren	10
	Lesser nighthawk	10
	Hérons	11
	Crested caracara	13
	Cooper's hawk	13
	Snowy owl	16
	Northern rough-winged s..	16
	Northern harrier	16
	Wrens	18
	Meadowlarks	18
	Least tern	18
	Bonaparte's gull	18
	Barn owl	19
	Piping plover	20
	Wilson's plover	20
	Western kingbird	24
	Blackbirds, orioles	25
	Chestnut-collared longspur	25
	Boat-tailed grackle	26
	Glaucous gull	27
	Golden-crowned sparrow	28
	Greater sage-grouse	28
	Snow bunting	28
	House sparrow	29
	Merlin	29
	American kestrel	32
	Short-eared owl	33
	American golden-plover	36

avg species height

Wildlife: An.. Wildlife: Species

Birds	Violet-green swallow	38
	Ferruginous hawk	38
	Loggerhead shrike	40
	Willet	40
	Mottled duck	42
	Rough-legged hawk	43
	Pigeons	43
	Kentucky warbler	47
	Snowy egret	47
	Starlings	47
	Doves	48
	Barn swallow	50
	Black-billed magpie	50
	Brown thrasher	50
	Parrots	50
	Red knot	53
	American black duck	55
	Mourning dove	56
	Killdeer	58
	Glaucous-winged gull	58
	Grouse	60
	Terns	66
	Great black-backed gull	71
	Cliff swallow	73
	Bank swallow	73
	Eastern meadowlark	74
	Grackles	75
	Mute swan	75
	Horned lark	80
	Red-shouldered hawk	81
	Egrets	83
	Eastern kingbird	84
	Blue jay	86
	Sandpipers, curlews, phal..	86
	Mountain bluebird	86
	Swallows	86
	Great horned owl	89
	Bobolink	90
	Brewer's blackbird	93
	Western meadowlark	94
	Tree swallow	96
	Finches	97
	Belted kingfisher	100
	Hérons, egrets, bitterns	100

avg species height

Wildlife: An.. Wildlife: Species

Birds	Monk parakeet	100
	Rusty blackbird	100
	Snowy plover	100
	Yellow-billed magpie	100
	European starling	100
	Baird’s sandpiper	101
	Peregrine falcon	108
	Cattle egret	110
	Rock pigeon	113
	Caspian tern	115
	Laughing gull	117
	Dunlin	121
	Ring-billed gull	123
	Great-tailed grackle	124
	Red-tailed hawk	125
	Prairie warbler	125
	Yellow-breasted chat	125
	Herring gull	128
	Northern mockingbird	128
	Upland sandpiper	131
	Great blue heron	134
	Common nighthawk	135
	American pipit	136
	Eurasian collared dove	144
	Purple finch	150
	Vireos	150
	California gull	155
	Great egret	160
	Owls	160
	Sparrows	161
	American crow	163
	White ibis	167
	House finch	167
	Dickcissel	175
	Burrowing owl	178
	Surf scoter	180
	Least sandpiper	186
	Swainson’s hawk	191
	Brown-headed cowbird	197
	American bittern	200
	Common merganser	200
	Mew gull	200
	Zenaida dove	200
	Green heron	205

## avg species height

### Wildlife: An.. Wildlife: Species

Birds	Black-bellied whistling-du..	208
	Plovers, lapwings	208
	Crows	210
	Osprey	212
	Pelicans	217
	Red-winged blackbird	219
	Golden eagle	229
	White-winged dove	233
	Swallow-tailed kite	233
	Chuck-will's-widow	250
	Marsh wren	250
	Smith's longspur	275
	Semipalmated sandpiper	278
	Black-capped chickadee	286
	Hawks	294
	Nightjars	300
	Winter wren	300
	Black-crowned night-heron	300
	Sandhill crane	302
	Western gull	311
	Shorebirds	328
	Gulls, terns, kittiwakes	333
	Larks	333
	Gulls	338
	Black-bellied plover	349
	Towhees	350
	Blackbirds	370
	Bufflehead	375
	Lapland longspur	376
	Brown pelican	378
	American avocet	400
	McCown's longspur	400
	American goldfinch	401
	Franklin's gull	405
	Vesper sparrow	413
	Common grackle	425
	American woodcock	432
	White-eyed vireo	433
	Bald eagle	436
	Purple martin	444
	Eagles	450
	Western tanager	450
	Western sandpiper	454
	Wilson's warbler	464



## avg species height

### Wildlife: An.. Wildlife: Species

Birds	Savannah sparrow	485
	Perching birds (z)	495
	Bay-breasted warbler	500
	Great cormorant	500
	Lesser black-backed gull	500
	Sharp-tailed grouse	500
	Summer tanager	500
	Yellow bittern	500
	Lesser yellowlegs	567
	Cave swallow	589
	Common goldeneye	600
	Nelson's sharp-tailed spa..	600
	Brant	611
	Yellow-crowned night-her..	628
	Cardinals, buntings, sparr..	633
	Chimney swift	643
	Acadian flycatcher	647
	Grebes	650
	Long-eared owl	650
	Common snipe	655
	Plovers	660
	Anna's hummingbird	668
	Pine siskin	675
	Cackling goose	680
	Golden-crowned kinglet	688
	Canada goose	713
	Magnolia warbler	714
	Wilson's snipe	719
	Double-crested cormorant	723
	Pigeons, doves	729
	Black-and-white warbler	750
	Cape May warbler	750
	Harris's sparrow	750
	Swifts	750
	Song sparrow	755
	Greater scaup	767
	Red-breasted merganser	767
	Turkey vulture	771
	Ruby-throated hummingb..	780
	Palm warbler	795
	Brandt's cormorant	800
	Mourning warbler	800
	Mallard	803
	American tree sparrow	829

## avg species height

Wildlife: An..	Wildlife: Species	
Birds	Wood stork	871
	Great crested flycatcher	900
	Pied-billed grebe	940
	Short-billed dowitcher	950
	Black-headed gull	1,000
	Bullock’s oriole	1,000
	Long-billed dowitcher	1,000
	Yellow-throated warbler	1,004
	Indigo bunting	1,030
	Nashville warbler	1,044
	Ring-necked duck	1,050
	Townsend’s warbler	1,050
	Semipalmated plover	1,058
	American redstart	1,067
	Common poorwill	1,067
	Perching birds (y)	1,069
	Cuckoos, roadrunners, anis	1,100
	Yellow-rumped warbler	1,127
	Cedar waxwing	1,136
	Sharp-shinned hawk	1,160
	Orchard oriole	1,167
	Greater yellowlegs	1,200
	Green-winged teal	1,217
	Rose-breasted grosbeak	1,233
	Tanagers	1,250
	Gray catbird	1,260
	Wood warblers	1,262
	Long-tailed duck	1,271
	Grasshopper sparrow	1,278
	Common tern	1,288
	Red-throated loon	1,300
	Northern flicker	1,319
	Band-tailed pigeon	1,325
	Ducks	1,330
	Anhinga	1,391
	Black vulture	1,393
	Little blue heron	1,400
	Northern parula	1,400
	Ruddy duck	1,400
	American wigeon	1,406
	Tyrant flycatchers	1,416
	New World Vultures	1,442
	Blackpoll warbler	1,443
	Lincoln’s sparrow	1,444

## avg species height

### Wildlife: An.. Wildlife: Species

Birds	Canvasback	1,446
	Chipping sparrow	1,448
	Wood duck	1,450
	Tundra swan	1,486
	White-throated swift	1,488
	Blackburnian warbler	1,500
	Yellow-billed cuckoo	1,500
	Sage sparrow	1,510
	Horned grebe	1,549
	Hooded merganser	1,567
	Gadwall	1,574
	Western grebe	1,585
	Lark sparrow	1,587
	White-throated sparrow	1,614
	Lesser scaup	1,622
	Eastern towhee	1,633
	American robin	1,669
	Ovenbird	1,677
	Common loon	1,693
	Dark-eyed junco	1,724
	Canada warbler	1,729
	Common yellowthroat	1,752
	Blue-headed vireo	1,767
	Black-throated blue warbl..	1,782
	American coot	1,790
	Hairy woodpecker	1,800
	Sora	1,842
	Northern pintail	1,897
	Black-billed cuckoo	1,900
	Scarlet tanager	1,929
	Geese	1,938
	Northern waterthrush	1,950
	Black-headed grosbeak	2,000
	Cuckoos	2,000
	Kites, eagles, hawks	2,000
	Loons	2,000
	Wood thrush	2,070
	Rails	2,100
	White-crowned sparrow	2,119
	Warbling vireo	2,122
	Broad-winged hawk	2,138
	Chestnut-sided warbler	2,140
	Ducks, geese, swans	2,174
	Thrashers, mockingbirds, ..	2,205

avg species height

Wildlife: An.. Wildlife: Species

Birds	Ruby-crowned kinglet	2,210
	Hermit thrush	2,250
	Sprague’s pipit	2,250
	Black-throated green war..	2,300
	Thrushes	2,341
	Tennessee warbler	2,367
	Raptors: Hawks, eagles, v..	2,380
	Whimbrel	2,400
	Greater white-fronted go..	2,425
	House wren	2,433
	Virginia rail	2,500
	Pectoral sandpiper	2,523
	Hooded warbler	2,550
	American white pelican	2,564
	Cassin’s vireo	2,600
	Red-eyed vireo	2,659
	Northern saw-whet owl	2,692
	Eastern phoebe	2,779
	Blue-gray gnatcatcher	2,783
	Northern shoveler	2,785
	Orange-crowned warbler	2,800
	Baltimore oriole	2,825
	Yellow-bellied flycatcher	2,825
	Swamp sparrow	2,836
	Gray-cheeked thrush	2,875
	White-faced ibis	2,914
	Spotted sandpiper	2,940
	Fox sparrow	2,943
	Yellow-bellied sapsucker	3,023
	Swainson’s thrush	3,049
	Varied thrush	3,118
	Veery	3,317
	Pine warbler	3,338
	Redhead	3,350
	Cinnamon teal	3,400
	Painted bunting	3,500
	Yellow-headed blackbird	3,500
	Snow goose	3,528
	Green-tailed towhee	3,600
	Blue-winged teal	3,755
	Wilson’s phalarope	3,767
	Common moorhen	4,000
	Red-naped sapsucker	4,000
	Spotted towhee	4,000

avg species height

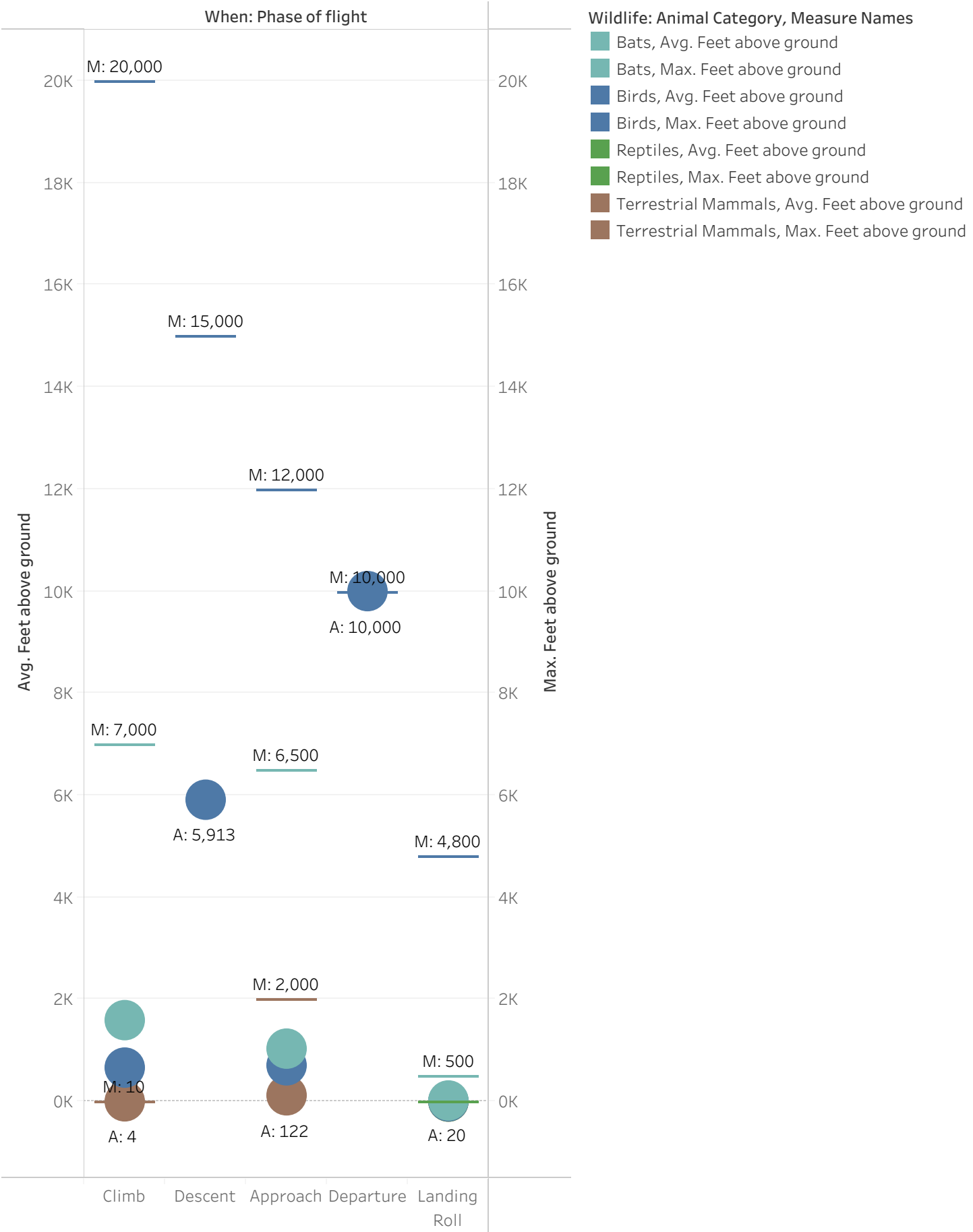
Wildlife: An.. Wildlife: Species

Birds	Least flycatcher	4,233
	Gray flycatcher	4,250
	Yellow warbler	4,276
	Red-necked phalarope	4,360
	Eastern wood-pewee	4,500
	Solitary sandpiper	4,500
	Red-necked grebe	5,000
	Pacific-slope flycatcher	7,000
	Willow flycatcher	9,000
	Eared grebe	10,000
	Long-billed curlew	15,000
Reptiles	American alligator	0
	Common snapping turtle	0
	Diamondback terrapin	0
	Eastern diamondback ratt..	0
	Gopher tortoise	0
	Green iguana	0
	Pond slider	0
	Turtles	0
Terrestrial Mammals	Armadillo	0
	Badger	0
	Black-tailed jackrabbit	0
	Black-tailed prairie dog	0
	Common gray fox	0
	Deer	0
	Desert cottontail	0
	Domestic cat	0
	Domestic dog	0
	Eastern cottontail	0
	Foxes	0
	Gunnison’s prairie dog	0
	Kit fox	0
	Muskrat	0
	North American porcupine	0
	Pronghorn	0
	Rabbits	0
	Raccoon	0
	Skunks	0
	Striped skunk	0
	Swine (pigs)	0
	Virginia opossum	0
	Wapiti (elk)	0
	White-tailed jackrabbit	0
	White-tailed prairie dog	0

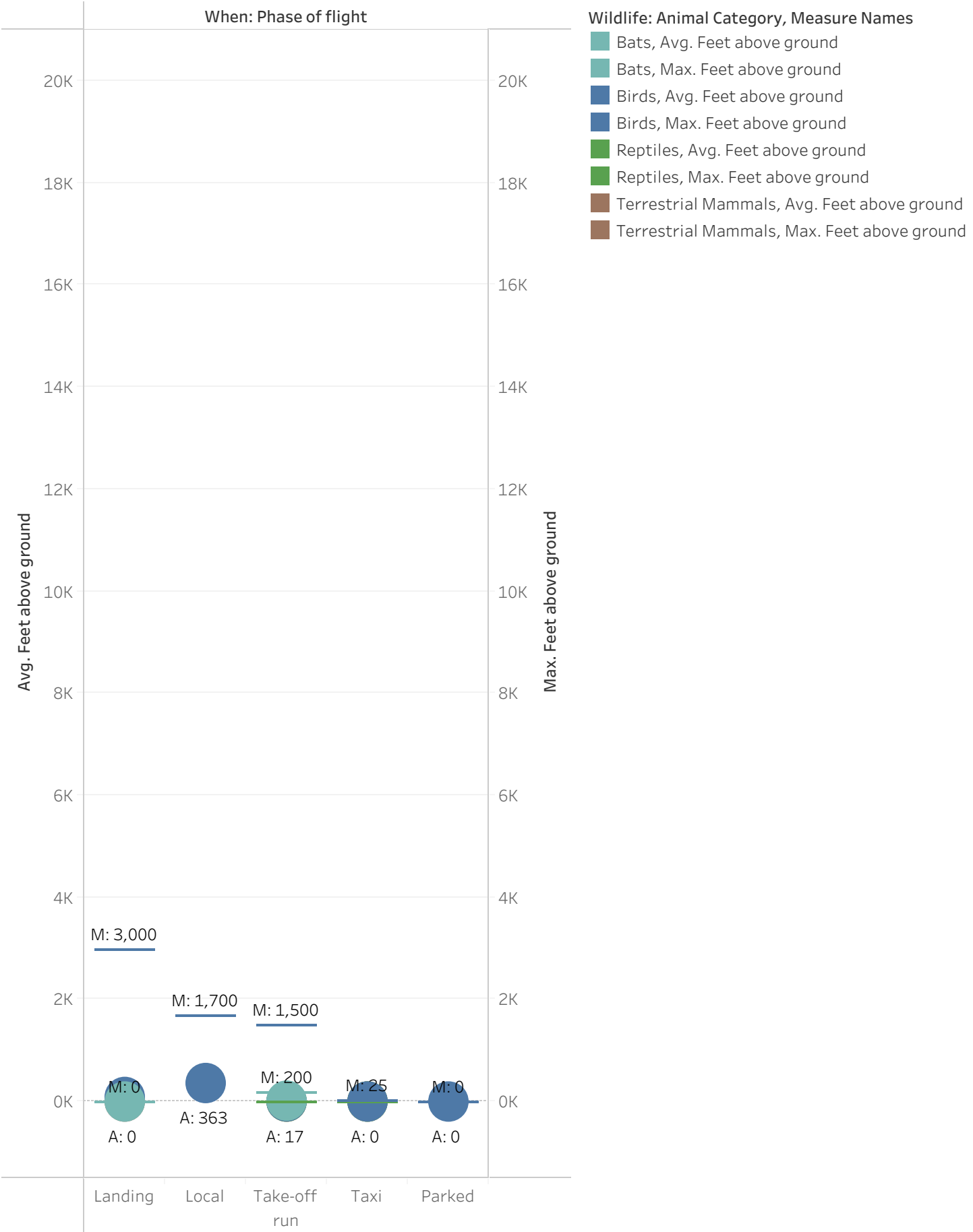
avg species height

Wildlife: An..	Wildlife: Species	
Terrestrial Mammals	Woodchuck	0
	Yellow-bellied marmot	0
	Mule deer	0
	Red fox	0
	Coyote	1
	White-tailed deer	10

# Ave Feet Above Ground vs Flight Stage



# Ave Feet Above Ground vs Flight Stage





Damage Cost Ref

		Wildlife: Animal Category				Wildlife: Animal Category			
Effect: Amount of damage..	Effect: Impact to flight	Birds	Terrestrial Mammals	Bats	Reptiles	Birds	Terrestrial Mammals	Bats	Reptiles
None	Aborted Take-off	545	44		1				
		28,298	28,298		28,298				
		0.0193	0.0016		0.0000				
		106	29		0				
		58,007	1,293		0				
		1,430,935	1,430,935		1,430,935				
	Engine Shut Down	18	1						
		28,298	28,298						
		0.0006	0.0000						
		1,640	0						
		29,512	0						
		1,430,935	1,430,935						
	None	22,596	508	325	31				
		28,298	28,298	28,298	28,298				
		0.7985	0.0180	0.0115	0.0011				
		26	9	15	0				
		586,747	4,441	4,955	0				
		1,430,935	1,430,935	1,430,935	1,430,935				
	Other	299	43	2	1				
		28,298	28,298	28,298	28,298				
		0.0106	0.0015	0.0001	0.0000				
		864	136	0	0				
		258,209	5,855	0	0				
		1,430,935	1,430,935	1,430,935	1,430,935				
	Precautionary Landing	756	13	4					
		28,298	28,298	28,298					
		0.0267	0.0005	0.0001					
		637	0	0					
		481,916	0	0					
		1,430,935	1,430,935	1,430,935					
Minor	Aborted Take-off	60	18						
		28,298	28,298						
		0.0021	0.0006						
		4,336	7,882						
		260,142	141,879						
		18,557,982	18,557,982						
	Engine Shut Down	3	2						
		28,298	28,298						
		0.0001	0.0001						
		0	5,917						
		0	11,833						
		18,557,982	18,557,982						
	None	920	45						
		28,298	28,298						
		0.0325	0.0016						
		14,117	9,820						
		12,987,391	441,883						
		18,557,982	18,557,982						
	Other	99	12						
		28,298	28,298						
		0.0035	0.0004						
		16,458	29,590						
		1,629,390	355,084						
		18,557,982	18,557,982						
	Precautionary Landing	238	4						
		28,298	28,298						
		0.0084	0.0001						
		9,309	33,165						
		2,215,590	132,660						
		18,557,982	18,557,982						
Medium	Aborted Take-off	30	2						
		28,298	28,298						
		0.0011	0.0001						
		12,998	0						
		389,940	0						
		11,063,872	11,063,872						

Damage Cost Ref

		Wildlife: Animal Category				Wildlife: Animal Category	
Effect: Amount of damage..	Effect: Impact to flight	Birds	Terrestrial Mammals	Bats	Reptiles	Birds	Terrestrial Mammals
Medium	Engine Shut Down	10	1				
		28,298	28,298				
		0.0004	0.0000				
		82,355	0				
		823,552	0				
		11,063,872	11,063,872				
	None	329	9				
		28,298	28,298				
		0.0116	0.0003				
		14,542	39,064				
		4,784,264	351,573				
		11,063,872	11,063,872				
	Other	50	4				
		28,298	28,298				
		0.0018	0.0001				
		36,527	0				
		1,826,331	0				
		11,063,872	11,063,872				
	Precautionary Landing	123	2				
		28,298	28,298				
		0.0043	0.0001				
		17,920	6,786				
		2,204,150	13,571				
		11,063,872	11,063,872				
Substantial	Aborted Take-off	81	17				
		28,298	28,298				
		0.0029	0.0006				
		212,233	56,844				
		17,190,892	966,351				
		224,781,943	224,781,943				
	Engine Shut Down	108	4				
		28,298	28,298				
		0.0038	0.0001				
		668,520	144,067				
		72,200,172	576,266				
		224,781,943	224,781,943				
	None	270	18				
		28,298	28,298				
		0.0095	0.0006				
		98,733	81,814				
		26,657,853	1,472,660				
		224,781,943	224,781,943				
	Other	80	31				
		28,298	28,298				
		0.0028	0.0011				
		114,917	116,072				
		9,193,356	3,598,231				
		224,781,943	224,781,943				
	Precautionary Landing	312	3				
		28,298	28,298				
		0.0110	0.0001				
		290,679	14,394				
		90,691,728	43,181				
		224,781,943	224,781,943				
Destroyed	Aborted Take-off		2				
			28,298				
			0.0001				
			4,380,958				
			8,761,916				
	Engine Shut Down		66,326,155				
		1					
		28,298					
		0.0000					
		1,500,000					
		1,500,000					
		66,326,155					

Damage Cost Ref

		Wildlife: Animal Category				Wildlife: Animal Category
Effect: Amount of damage..	Effect: Impact to flight	Birds	Terrestrial Mammals	Bats	Reptiles	Birds
Destroyed	Other	4	3			Terrestrial Mammals
		28,298	28,298			Bats
		0.0001	0.0001			Reptiles
		10,276,249	4,472,651			
		41,104,994	13,417,954			
		66,326,155	66,326,155			
	Precautionary Landing	1	1			
		28,298	28,298			
		0.0000	0.0000			
		55,281	0			
		55,281	0			
		66,326,155	66,326,155			