

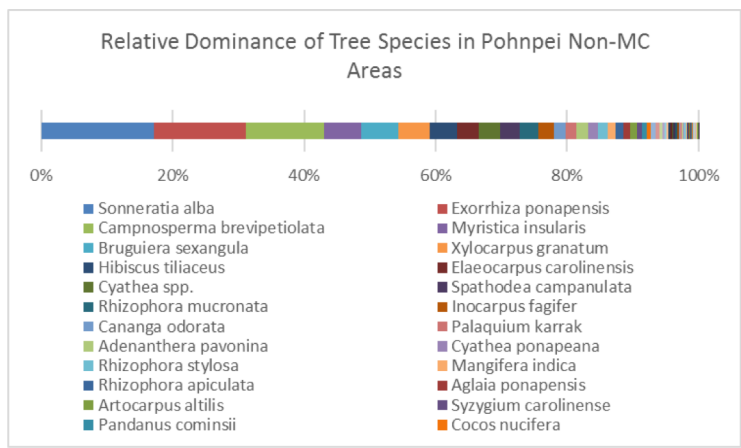
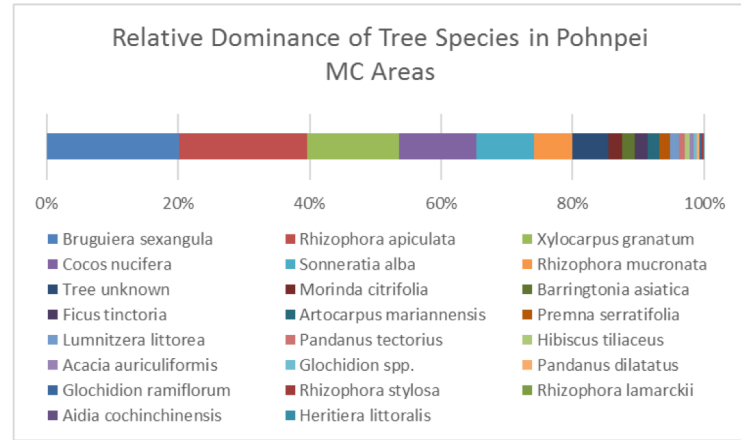
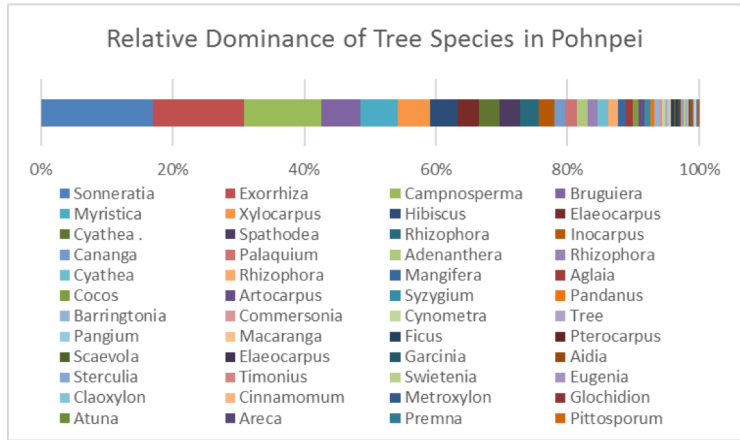


Forest Types

- 59% Lowland Tropical Rainforest
- 9% Agroforestry
- 22% Mangrove Swamps
- 9% Montaine Rainforest
- 1% Strand Vegetation

Terrestrial Measures Indicator Summaries

Overarching goal: Provide a regional framework to assess the regional monitoring indicators that measure the status of managed conservation areas set aside under the Micronesia Challenge.

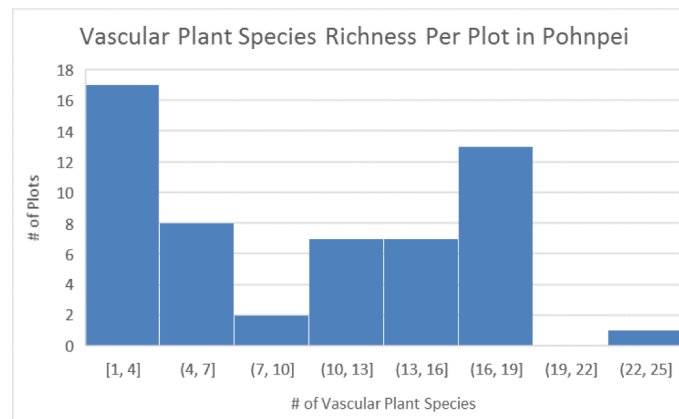
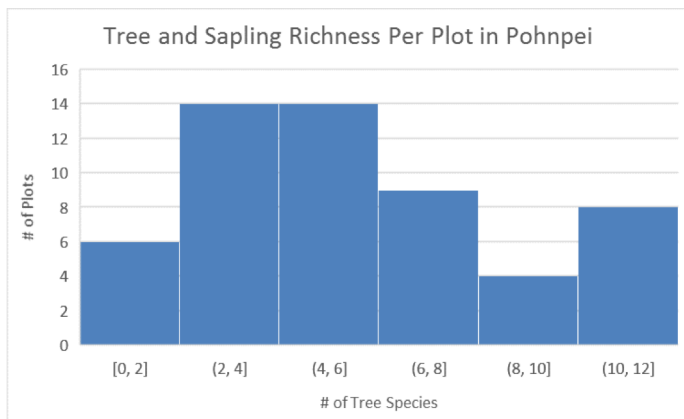
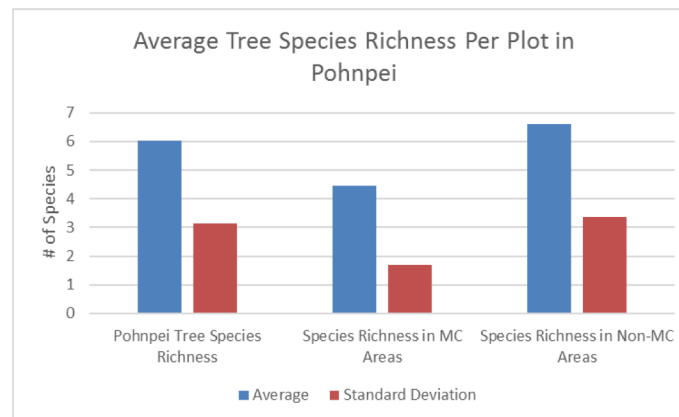
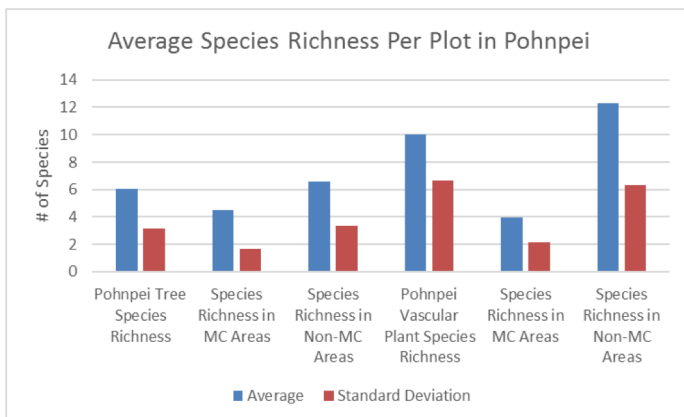


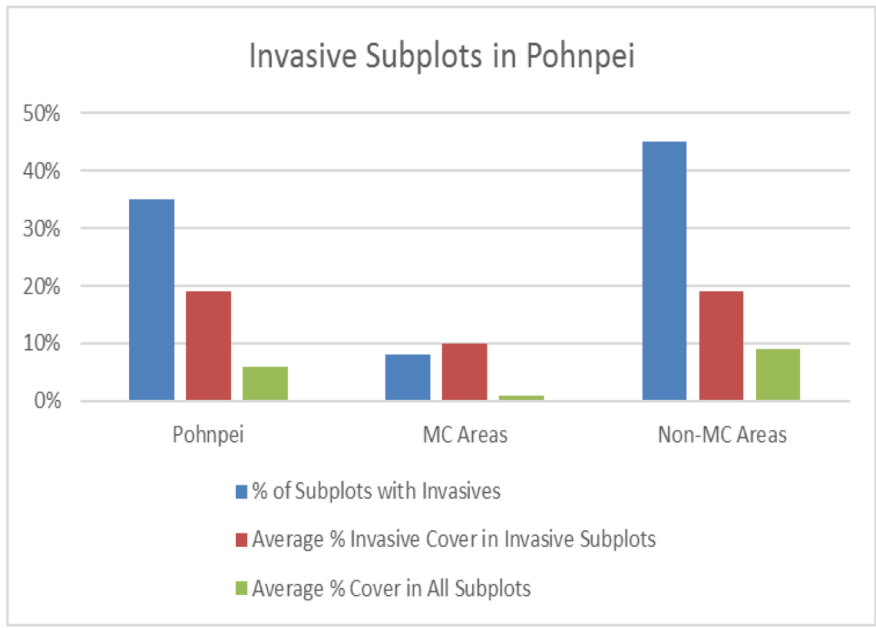


Species Diversity

There are three main types of species diversity measures from FIA forest plots reported here:

- Two are measures of species richness, or total numbers of plant species per area of interest.
- The third is relative dominance, which is a proportional indicator of the amount of wood each tree species contributes to the forest overall. One measure of species richness is the total number of tally trees, meaning the shrubs and trees which are at least 1 inch in diameter at breast height (DBH). The other is the total number of vascular plant species occurring on forest plots, which includes ferns, forbs, herbs, orchids, grasses, vines, shrubs, trees, and seedlings.





Comparison of invasive subplot summaries in MC and Non-MC areas and overall in Pohnpei.

	Pohnpei	MC Areas	Non-MC Areas
# of Invasive Species	9	1	9
# of Forested Subplots	192	52	140
# of Subplots with Invasives	67	4	63
% of Invasive Subplots	35%	8%	45%
Average % Invasive Cover in Invasive Subplots	19%	10%	19%
Average % Cover in All Subplots	9%	1%	9%

Comparison of most common invasive plant species in MC and Non-MC areas in Pohnpei.

	Pohnpei MC Areas	Pohnpei Non-MC Areas
Most Common Invasive Species	Costus speciosus	Chromolaena odorata
% Occurrence in Forested Subquads	26%	8%
Average % Cover	8%	10%
Secondmost Common Invasive Species	Merremia peltata	
% Occurrence in Forested Subquads	24%	
Average % Cover	11%	

All invasive plant species, occurrence (# and % of all subplots present) and average % cover in Pohnpei invasive subplots.

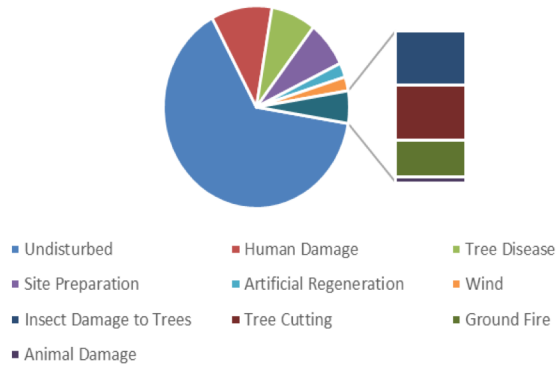
Scientific Name	# of Subplots Present	% Occurrence	Average % Cover
Costus speciosus	37	19%	8
Merremia peltata	34	18%	11
Chromolaena odorata	19	10%	4
Spathodea campanulata	13	7%	25
Clerodendrum quadriloculare	3	2%	21
Falcataria moluccana	3	2%	33
Hedychium coronarium	3	2%	6
Mimosa diplotricha	1	1%	2
Momordica charantia	1	1%	1



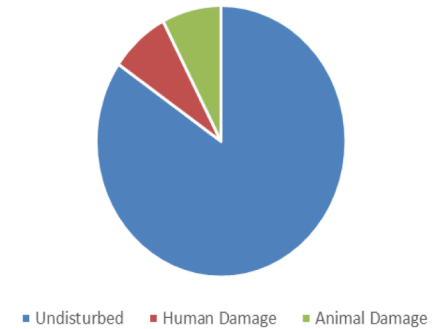
Disturbance

The FIA protocol records disturbances (from animals, weather, vegetation, fires, & general human activity) of 1 acre in size or larger, or that affect 25% or more of all trees or 50% or more of a single tree species on each forest condition sampled per plot. Up to three disturbances and three treatments can be recorded per forest condition.

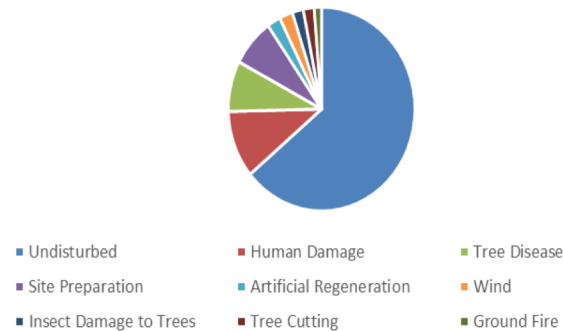
% of Forest Area Disturbed in Pohnpei



% of Total Forest Area Disturbed in MC Areas of Pohnpei



% Total Forest Area Disturbed in Non-MC Areas of Pohnpei

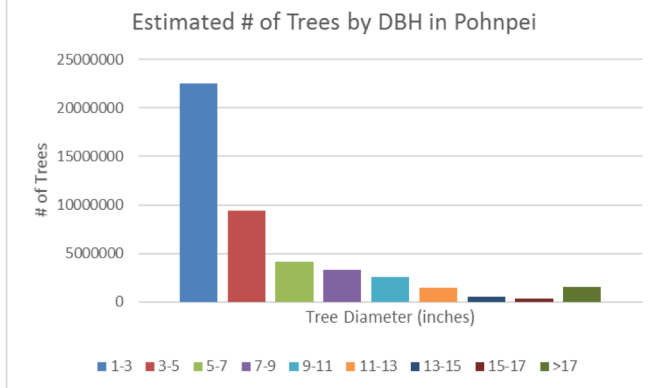


Federated States of Micronesia: Pohnpei Forest Structure

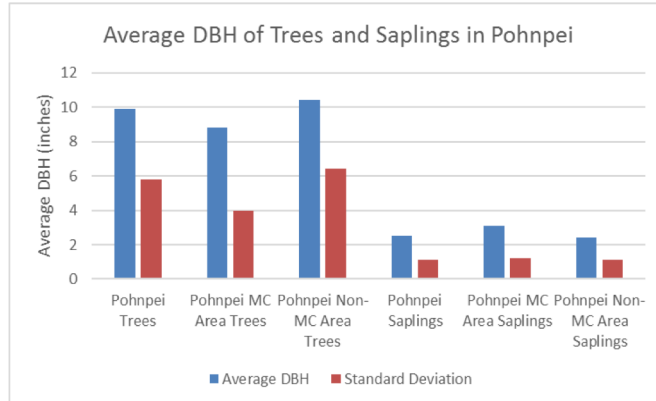
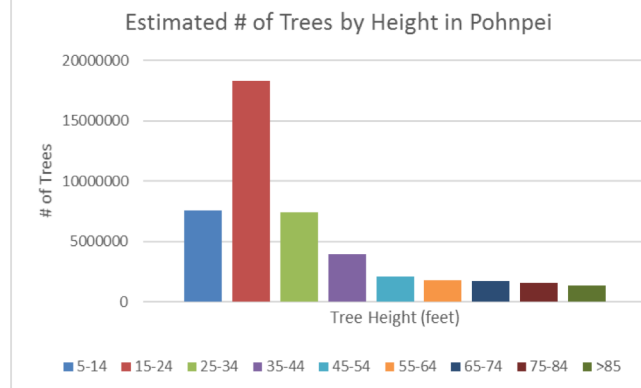


There are five measures of forest structure summarized here. These include the total estimated number of trees and saplings by diameter at breast height (DBH) and by height, the average DBH and height of trees and saplings per plot, and the stem density per plot and per acre.

Average DBH of estimated trees = 5.0 inches and quadratic mean diameter (QMD) = 7.0 inches.

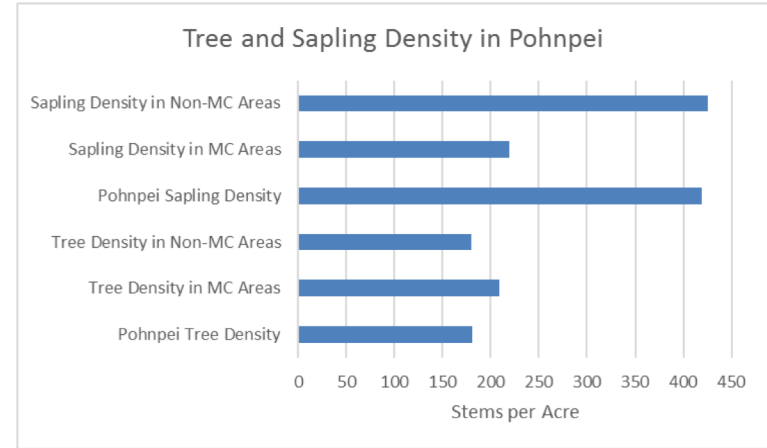
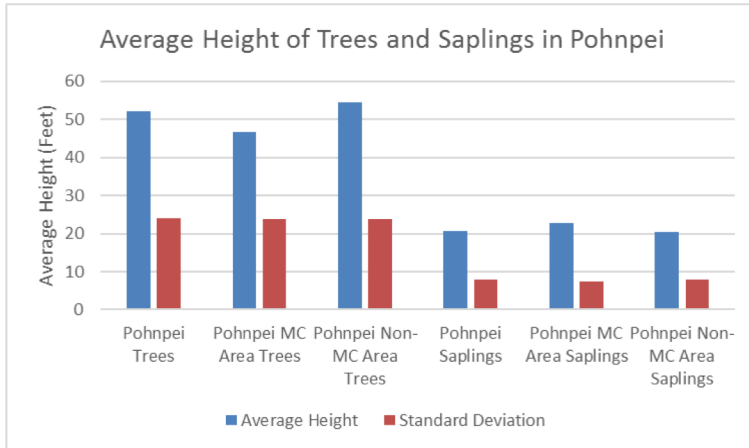


Average height of estimated trees = 31.1 feet.

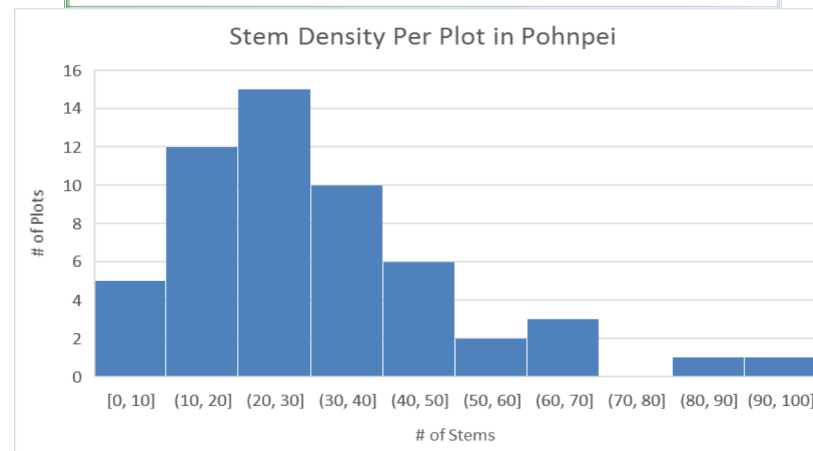




Forest Structure

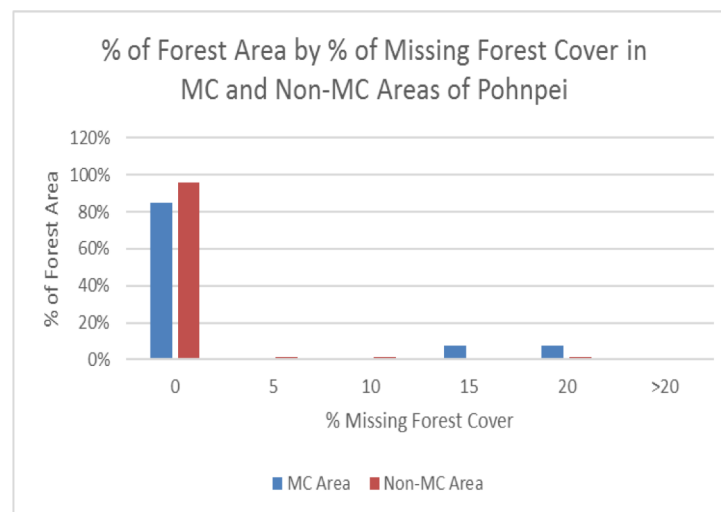
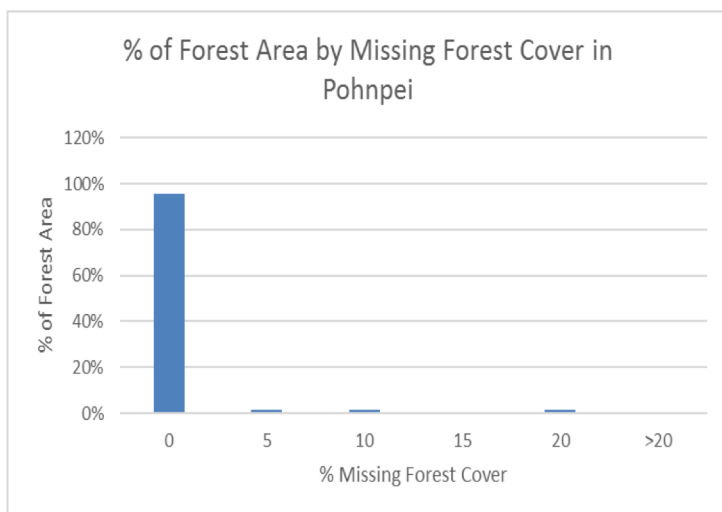
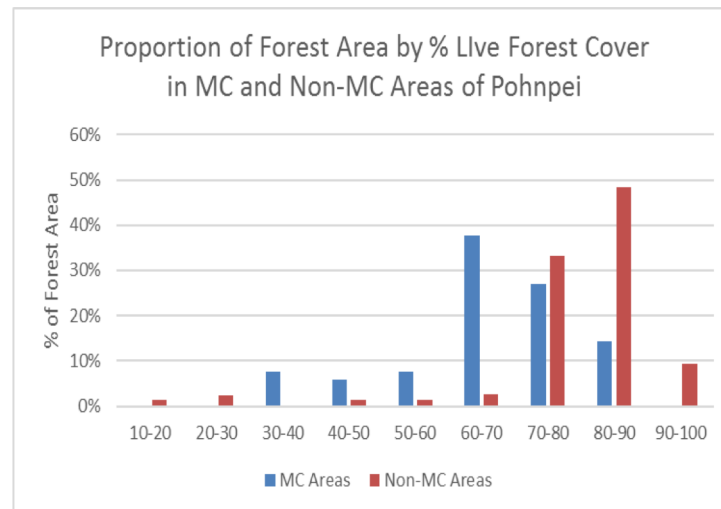
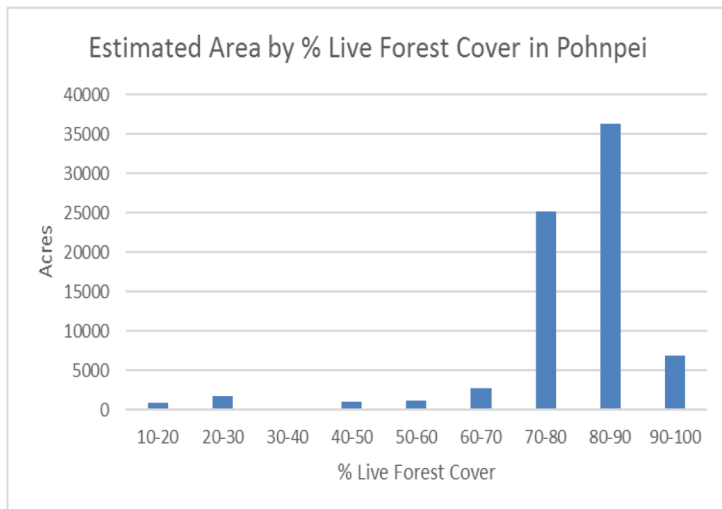


Average stem density = 31.1 (Standard Deviation = 19.4)





Forest Cover





Tree Abundance

Abundance (estimated % of all live trees) of tree species in Pohnpei. Of 69 total species, 34 species listed here comprise 1% or more of all trees, and 35 species not listed here comprise <1%.

GENUS	SPECIES	% of Total Trees
<i>Hibiscus</i>	<i>tiliaceus</i>	12
<i>Pandanus</i>	<i>cominsii</i>	10
<i>Exorrhiza</i>	<i>ponapensis</i>	10
<i>Aglaia</i>	<i>ponapensis</i>	9
<i>Cyathea</i>	<i>spp.</i>	7
<i>Spathodea</i>	<i>campanulata</i>	4
<i>Rhizophora</i>	<i>stylosa</i>	4
<i>Bruguiera</i>	<i>sexangula</i>	3
<i>Cananga</i>	<i>odorata</i>	3
<i>Myristica</i>	<i>insularis</i>	2
<i>Sonneratia</i>	<i>alba</i>	2
<i>Camptosperma</i>	<i>brevipetiolata</i>	2
<i>Cyathea</i>	<i>ponapeana</i>	2
<i>Eugenia</i>	<i>stelechantha</i>	2
<i>Syzygium</i>	<i>carolinense</i>	2
<i>Scaevola</i>	<i>taccada</i>	2
<i>Rhizophora</i>	<i>apiculata</i>	2
<i>Atuna</i>	<i>racemosa</i>	2
<i>Barringtonia</i>	<i>racemosa</i>	2
<i>Rhizophora</i>	<i>mucronata</i>	2
<i>Elaeocarpus</i>	<i>carolinensis</i>	1
<i>Macaranga</i>	<i>carolinensis</i>	1
<i>Claoxylon</i>	<i>carolinianum</i>	1
<i>Timonius</i>	<i>ponapensis</i>	1
<i>Premna</i>	<i>spp.</i>	1
<i>Pangium</i>	<i>edule</i>	1
<i>Artocarpus</i>	<i>altilis</i>	1
<i>Morinda</i>	<i>citrifolia</i>	1
<i>Ficus</i>	<i>tinctoria</i>	1
<i>Xylocarpus</i>	<i>granatum</i>	1
<i>Garcinia</i>	<i>ponapensis</i>	1
<i>Adenanthera</i>	<i>pavonina</i>	1
<i>Tree</i>	<i>unknown</i>	1
<i>Inocarpus</i>	<i>fagifer</i>	1

Abundance (estimated % of all trees) of tree species in Non-MC areas and MC areas of Pohnpei. In Non-MC Areas, out of 61 total species, 34 comprise 1% or greater of all trees and 27 species comprise <1%, and in MC-Areas out of 23 total species, 18 comprise 1% or greater of all trees and 5 species comprise <1%.

Non-MC Areas			MC Areas		
GENUS	SPECIES	% of Total Trees	GENUS	SPECIES	% of Total Trees
<i>Hibiscus</i>	<i>tiliaceus</i>	13	<i>Bruguiera</i>	<i>sexangula</i>	33
<i>Pandanus</i>	<i>cominsii</i>	10	<i>Rhizophora</i>	<i>apiculata</i>	25
<i>Exorrhiza</i>	<i>ponapensis</i>	10	<i>Rhizophora</i>	<i>mucronata</i>	9
<i>Aglaia</i>	<i>ponapensis</i>	10	<i>Morinda</i>	<i>citrifolia</i>	5
<i>Cyathea</i>	<i>spp.</i>	7	<i>Tree</i>	<i>unknown</i>	4
<i>Spathodea</i>	<i>campanulata</i>	4	<i>Xylocarpus</i>	<i>granatum</i>	4
<i>Rhizophora</i>	<i>stylosa</i>	4	<i>Cocos</i>	<i>nucifera</i>	4
<i>Cananga</i>	<i>odorata</i>	3	<i>Sonneratia</i>	<i>alba</i>	3
<i>Bruguiera</i>	<i>sexangula</i>	3	<i>Ficus</i>	<i>tinctoria</i>	2
<i>Myristica</i>	<i>insularis</i>	2	<i>Glochidion</i>	<i>ramiflorum</i>	2
<i>Sonneratia</i>	<i>alba</i>	2	<i>Heritiera</i>	<i>littoralis</i>	1
<i>Camptosperma</i>	<i>brevipetiolata</i>	2	<i>Glochidion</i>	<i>spp.</i>	1
<i>Cyathea</i>	<i>ponapeana</i>	2	<i>Aidia</i>	<i>cochinchinensis</i>	1
<i>Eugenia</i>	<i>stelechantha</i>	2	<i>Pandanus</i>	<i>tectorius</i>	1
<i>Syzygium</i>	<i>carolinense</i>	2	<i>Premna</i>	<i>serratifolia</i>	1
<i>Scaevola</i>	<i>taccada</i>	2	<i>Lumnitzera</i>	<i>littorea</i>	1
<i>Atuna</i>	<i>racemosa</i>	2	<i>Barringtonia</i>	<i>asiatica</i>	1
<i>Barringtonia</i>	<i>racemosa</i>	2	<i>Artocarpus</i>	<i>mariannensis</i>	1
<i>Elaeocarpus</i>	<i>carolinensis</i>	1	<i>Pandanus</i>	<i>dilatatus</i>	0
<i>Macaranga</i>	<i>carolinensis</i>	1	<i>Hibiscus</i>	<i>tiliaceus</i>	0
<i>Rhizophora</i>	<i>apiculata</i>	1	<i>Rhizophora</i>	<i>stylosa</i>	0
<i>Rhizophora</i>	<i>mucronata</i>	1	<i>Rhizophora</i>	<i>lamarckii</i>	0
<i>Claoxylon</i>	<i>carolinianum</i>	1	<i>Acacia</i>	<i>auriculiformis</i>	0
<i>Timonius</i>	<i>ponapensis</i>	1			
<i>Premna</i>	<i>spp.</i>	1			
<i>Pangium</i>	<i>edule</i>	1			
<i>Artocarpus</i>	<i>altilis</i>	1			
<i>Garcinia</i>	<i>ponapensis</i>	1			
<i>Ficus</i>	<i>tinctoria</i>	1			
<i>Morinda</i>	<i>citrifolia</i>	1			
<i>Xylocarpus</i>	<i>granatum</i>	1			
<i>Adenanthera</i>	<i>pavonina</i>	1			
<i>Inocarpus</i>	<i>fagifer</i>	1			
<i>Commersonia</i>	<i>bartramia</i>	1			

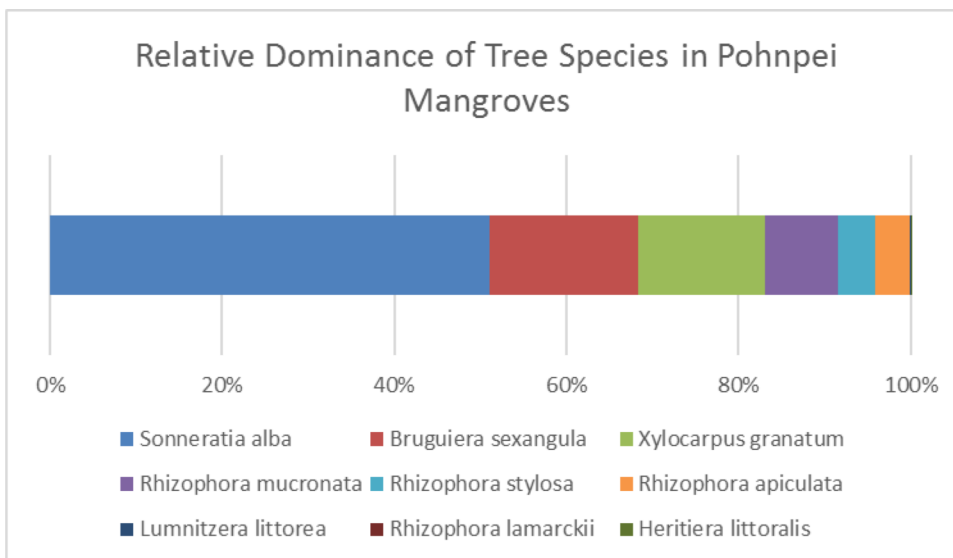
Federated States of Micronesia: Pohnpei



Tree Abundance

Total estimated acreage of mangroves, number of tree and sapling stems, and number of trees and saplings per acre in mangroves in MC and Non-MC areas and overall in Pohnpei

	Acres of Mangroves	Total Mangrove Stems	Stem Density
Pohnpei	16475	5934589	360
MC Areas	1386	745606	538
Non-MC Areas	15089	5188983	344



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