

**Supplemental Information for:**

**Terrestrial species adapted to sea dispersal:**

**differences in propagule dispersal of two Caribbean mangroves**

**Richard G. J. Hodel**

**L. Lacey Knowles**

**Stuart F. McDaniel**

**Adam C. Payton**

**Jordan F. Dunaway**

**Pamela S. Soltis**

**Douglas E. Soltis**

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**Supplemental Table 1.** The sampling locations, their geographic coordinates, and names of individuals used in the study for (A) red mangroves (*Rhizophora mangle*) and (B) white mangroves (*Laguncularia racemosa*). For red mangroves (A), all but five individuals listed have RAD-Seq data (the five without data are noted by asterisks), and the rightmost column indicates individuals that also have chloroplast data. For white mangroves (B), some individuals have either RAD-Seq data or chloroplast data available, as indicated.

**A.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **Individual Name** | **Latitude** | **Longitude** | **Chloroplast data** |
| Anguilla | Ag\_NWC\_Rm1 | 18.24427 | -62.98512 |  |
| Anguilla | Ag\_NWC\_Rm2 | 18.24431 | -62.98518 |  |
| Anguilla | Ag\_NWC\_Rm3 | 18.24435 | -62.98524 |  |
| Anguilla | Ag\_NWC\_Rm4 | 18.24439 | -62.9853 |  |
| Anguilla | Ag\_NWC\_Rm5 | 18.24443 | -62.98536 |  |
| Antigua | An\_SCH\_Rm12 | 17.01920 | -61.85811 |  |
| Antigua | An\_SCH\_Rm14 | 17.01991 | -61.85775 |  |
| Antigua | An\_SCH\_Rm16 | 17.02031 | -61.85711 | yes |
| Antigua | An\_SCH\_Rm17 | 17.02084 | -61.85669 | yes |
| Antigua | An\_SCH\_Rm18 | 17.02072 | -61.85657 | yes |
| Antigua | An\_SCH\_Rm20 | 17.02147 | -61.85570 |  |
| Aruba | Ar\_MaH\_Rm12 | 12.46377 | -69.96910 | yes |
| Aruba | Ar\_MaH\_Rm15 | 12.46445 | -69.96982 | yes |
| Aruba | Ar\_SpL\_Rm1 | 12.47342 | -69.97502 | yes |
| Aruba | Ar\_SpL\_Rm11 | 12.47195 | -69.97556 |  |
| Aruba | Ar\_SpL\_Rm6 | 12.47404 | -69.97576 |  |
| Belize | Be\_NAC\_Rm1 | 17.86571 | -88.06606 | yes |
| Belize | Be\_NAC\_Rm2 | 17.86569 | -88.06614 | yes |
| Belize | Be\_NAC\_Rm3 | 17.86575 | -88.06601 |  |
| Belize | Be\_NAC\_Rm4 | 17.86566 | -88.06612 |  |
| Belize | Be\_NAC\_Rm5 | 17.86569 | -88.06598 |  |
| Brazil | Br\_Mno\_Rm1 | -2.59 | -42.70 |  |
| Brazil | Br\_RPg\_Rm1 | -2.66 | -42.68 |  |
| Cayman | CI\_CMW\_Rm1 | 19.29799 | -81.29546 | yes |
| Cayman | CI\_CMW\_Rm10 | 19.34865 | -81.26920 |  |
| Cayman | CI\_CMW\_Rm3 | 19.35460 | -81.26778 | yes |
| Cayman | CI\_CMW\_Rm5 | 19.35361 | -81.26766 |  |
| Cayman | CI\_CMW\_Rm6 | 19.35299 | -81.26746 | yes |
| Cayman | CI\_CMW\_Rm8 | 19.35079 | -81.26754 |  |
| Colombia | Co\_PlM\_Rm1 | 10.13 | -75.70 |  |
| Colombia | Co\_PlM\_Rm2 | 10.13 | -75.70 | yes |
| Colombia | Co\_RNy\_Rm1\* | 3.36 | -77.41 | yes |
| Costa Rica | CR\_Man\_Rm1 | 9.59645 | -82.60465 | yes |
| Costa Rica | CR\_Man\_Rm10 | 9.59120 | -82.59706 |  |
| Costa Rica | CR\_Man\_Rm3 | 9.59382 | -82.60155 |  |
| Costa Rica | CR\_Man\_Rm5\* | 9.59290 | 82.59999 | yes |
| Costa Rica | CR\_Man\_Rm6 | 9.59261 | -82.59976 | yes |
| Costa Rica | CR\_Man\_Rm8 | 9.59192 | -82.59811 |  |
| Costa Rica Pacific | CR\_HBR\_Rm1 | 9.28313 | -83.89864 | yes |
| Costa Rica Pacific | CR\_HBR\_Rm2 | 9.28319 | -83.89861 | yes |
| Costa Rica Pacific | CR\_SoW\_Rm1 | 9.38779 | -84.14694 |  |
| Costa Rica Pacific | CR\_SoW\_Rm2 | 9.38808 | -84.14673 |  |
| Costa Rica Pacific | CR\_SoW\_Rm3 | 9.38848 | -84.14662 |  |
| Costa Rica Pacific | CR\_SoW\_Rm4 | 9.38889 | -84.14657 |  |
| Costa Rica Pacific | CR\_SoW\_Rm5 | 9.38864 | -84.14655 |  |
| Cuba | Cu\_Nor\_Rm1 | 22.70701 | -84.04115 |  |
| Cuba | Cu\_Nor\_Rm2 | 22.71004 | -84.03764 |  |
| Cuba | Cu\_Nor\_Rm3 | 22.71408 | -84.02549 |  |
| Cuba | Cu\_Nor\_Rm4 | 22.69156 | -84.00868 |  |
| Everglades City | Fl\_EgC\_Rm1 | 25.84290 | -81.38280 |  |
| Everglades City | Fl\_EgC\_Rm2 | 25.84292 | -81.38278 |  |
| Everglades City | Fl\_EgC\_Rm3 | 25.84294 | -81.38276 |  |
| Everglades City | Fl\_EgC\_Rm4 | 25.84296 | -81.38274 |  |
| Everglades City | Fl\_EgC\_Rm5 | 25.84298 | -81.38272 |  |
| Everglades City | Fl\_EgC\_Rm6 | 25.84295 | -81.38261 |  |
| Flamingo | Fl\_Flm\_Rm1 | 25.12420 | -80.94241 |  |
| Flamingo | Fl\_Flm\_Rm2 | 25.13410 | -80.94290 |  |
| Flamingo | Fl\_Flm\_Rm3 | 25.13407 | -80.94293 |  |
| Flamingo | Fl\_Flm\_Rm4 | 25.13404 | -80.94296 |  |
| Flamingo | Fl\_Flm\_Rm5 | 25.13401 | -80.94299 |  |
| Flamingo | Fl\_Flm\_Rm6 | 25.13398 | -80.94302 |  |
| Grand Bahama | Ba\_Luc\_Rm10 | 26.60346 | -78.40001 | yes |
| Grand Bahama | Ba\_Luc\_Rm12 | 26.60353 | -78.39998 | yes |
| Grand Bahama | Ba\_Luc\_Rm2 | 26.60354 | -78.39995 |  |
| Grand Bahama | Ba\_Luc\_Rm4\* | 26.60351 | -78.39999 | yes |
| Grand Bahama | Ba\_Luc\_Rm6 | 26.60358 | -78.39992 |  |
| Grand Bahama | Ba\_Luc\_Rm8 | 26.60362 | -78.39989 |  |
| Grenada | Gr\_LAE\_Rm10 | 11.99232 | -61.75705 | yes |
| Grenada | Gr\_LAE\_Rm8 | 12.01636 | -61.73926 |  |
| Grenada | Gr\_LNP\_Rm1 | 12.22577 | -61.60915 |  |
| Grenada | Gr\_LNP\_Rm3 | 12.22594 | -61.60947 | yes |
| Grenada | Gr\_LPo\_Rm5 | 12.21943 | -61.61068 |  |
| Grenada | Gr\_LWo\_Rm6 | 12.01467 | -61.73884 | yes |
| Guyana | Gu\_SBc\_Rm1 | 8.372230 | -59.69998 |  |
| Hispaniola | DR\_PMR\_Rm1 | 18.42 | -70.70 | yes |
| Hispaniola | DR\_Smn\_Rm1\* | 19.27 | -69.77 | yes |
| Hispaniola | DR\_IsM\_Rm1 | 18.45 | -69.62 | yes |
| Hispaniola | Ha\_StN\_Rm1 | 19.83 | -73.37 |  |
| Honduras | Ho\_Cpc\_Rm1 | 15.958 | -85.908 | yes |
| Honduras | Ho\_Cpc\_Rm2 | 15.957 | -85.916 | yes |
| Jamaica | Ja\_MaB\_Rm1 | 17.85148 | -76.96828 |  |
| Jamaica | Ja\_MaB\_Rm10 | 17.85596 | -77.03957 |  |
| Jamaica | Ja\_MaB\_Rm3 | 17.85181 | -76.96898 | yes |
| Jamaica | Ja\_MaB\_Rm5 | 17.85196 | -76.96956 |  |
| Jamaica | Ja\_MaB\_Rm6 | 17.85219 | -76.97031 | yes |
| Jamaica | Ja\_MaB\_Rm8 | 17.85636 | -77.04120 | yes |
| Key West | Fl\_KyW\_Rm8 | 24.55280 | -81.76770 |  |
| Key West | Fl\_KyW\_Rm10 | 24.55281 | -81.76774 |  |
| Key West | Fl\_KyW\_Rm4 | 24.55287 | -81.76778 | yes |
| Key West | Fl\_KyW\_Rm5 | 24.55283 | -81.76789 | yes |
| Key West | Fl\_KyW\_Rm6 | 24.55284 | -81.76786 | yes |
| Long Island | Ba\_DBH\_Rm10 | 23.08126 | -75.02851 | yes |
| Long Island | Ba\_DBH\_Rm12 | 23.08137 | -75.02842 |  |
| Long Island | Ba\_DBH\_Rm2 | 23.08148 | -75.02833 | yes |
| Long Island | Ba\_DBH\_Rm4 | 23.08159 | -75.02824 |  |
| Long Island | Ba\_DBH\_Rm6 | 23.08170 | -75.02815 | yes |
| Long Island | Ba\_DBH\_Rm8 | 23.08181 | -75.02806 |  |
| Melbourne | Fl\_Mlb\_Rm1 | 28.0743 | -80.6052 | yes |
| Melbourne | Fl\_Mlb\_Rm5 | 28.07431 | -80.60523 |  |
| Melbourne | Fl\_Mlb\_Rm6 | 28.07432 | -80.60526 |  |
| Melbourne | Fl\_Mlb\_Rm9 | 28.07433 | -80.60529 |  |
| Melbourne | Fl\_Mlb\_Rm10 | 28.07434 | -80.60532 | yes |
| Melbourne | Fl\_Mlb\_Rm3 | 28.07435 | -80.60535 | yes |
| Mexico | Mx\_Gul\_Rm1 | 20.94199 | -90.35033 |  |
| Mexico | Mx\_Gul\_Rm2 | 20.94201 | -90.35042 | yes |
| Mexico | Mx\_Car\_Rm3 | 21.11329 | -86.76104 |  |
| Mexico | Mx\_Car\_Rm4 | 21.11315 | -86.76201 | yes |
| New Port Richey | Fl\_NPR\_Rm6 | 28.25430 | -82.75721 |  |
| New Port Richey | Fl\_NPR\_Rm11 | 28.25485 | -82.75671 |  |
| New Port Richey | Fl\_NPR\_Rm7 | 28.25492 | -82.75677 |  |
| New Port Richey | Fl\_NPR\_Rm3 | 28.25499 | -82.75683 | yes |
| New Port Richey | Fl\_NPR\_Rm5 | 28.25506 | -82.75689 | yes |
| New Port Richey | Fl\_NPR\_Rm9\* | 28.25501 | -82.75679 | yes |
| Nicaragua | Ni\_Kta\_Rm1 | 13.925 | -83.483 |  |
| Panama Pacific | Pa\_BoC\_Rm1 | 8.21795 | -82.20523 |  |
| Puerto Rico | PR\_GfC\_Rm1 | 18.38004 | -65.75655 |  |
| Puerto Rico | PR\_GfC\_Rm2 | 18.38000 | -65.75648 | yes |
| Puerto Rico | PR\_GfC\_Rm3 | 18.37996 | -65.75641 | yes |
| Puerto Rico | PR\_GfC\_Rm4 | 18.37993 | -65.75634 |  |
| Puerto Rico | PR\_GfC\_Rm5 | 18.37989 | -65.75627 | yes |
| Puerto Rico | PR\_Luq\_Rm1 | 18.37302 | -65.71092 |  |
| Saint Martin | SM\_NEC\_Rm1 | 18.08103 | -63.01384 |  |
| Saint Martin | SM\_NEC\_Rm2 | 18.08109 | -63.01381 |  |
| Saint Martin | SM\_NEC\_Rm3 | 18.08106 | -63.01371 |  |
| Senegal | Se\_DdS\_Rm1 | 13.63 | -16.55 | yes |
| Tobago | To\_BAL\_Rm1 | 11.17 | -60.83 |  |
| Venezuela | Ve\_LgS\_Rm1 | 10.51990 | -67.54236 |  |

**B.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Nuclear (RAD-Seq)** | |  | **Chloroplast** |  |  |
| **Location** | **Individual Name** | **Latitude** | **Longitude** | **Individual Name** | **Latitude** | **Longitude** |
| Antigua | MKPAn\_L15 | 17.1424 | -61.85807 |  |  |  |
| Antigua | SCHAn\_L21 | 17.01915 | -61.8581 |  |  |  |
| Antigua | SCHAn\_L24 | 17.02171 | -61.85541 | SCHAn\_L24 | 17.02171 | -61.85541 |
| Antigua |  |  |  | DwBAn\_L19 | 17.04081 | -61.89342 |
| Antigua |  |  |  | FtCAn\_L11 | 17.11483 | -61.78986 |
| Aruba | MgHAr\_L5 | 12.46447 | -69.96937 |  |  |  |
| Aruba | SpLAr\_L1 | 12.47355 | -69.97508 | SpLAr\_L1 | 12.47355 | -69.97508 |
| Aruba |  |  |  | MgHAr\_L7 | 12.46408 | -69.96965 |
| Aruba |  |  |  | MgHAr\_L11 | 12.46498 | -69.96970 |
| Belize | TrIBe\_L1 | 16.53233 | -88.36274 | TrIBe\_L1 | 16.53233 | -88.36274 |
| Belize |  |  |  | CCkBe\_L1 | 17.72861 | -88.03472 |
| Belize |  |  |  | LCCBe\_L1 | 16.49167 | -88.21167 |
| Cayman | NSvCI\_L3 | 19.29605 | -81.29563 |  |  |  |
| Cayman | NSvCI\_L5 | 19.29301 | -81.29816 |  |  |  |
| Cayman |  |  |  | NSvCI\_L1 | 19.29793 | -81.29545 |
| Cayman |  |  |  | PkICI\_L10 | 19.28067 | -81.32233 |
| Cayman |  |  |  | RmPCI\_L11 | 19.36495 | -81.26250 |
| Colombia |  |  |  | BdACo\_L1 | 8.10 | -76.74 |
| Colombia |  |  |  | IsBCo\_L1 | 10.23 | -75.61 |
| Costa Rica | ManCR\_L1 | 9.59273 | -82.59991 |  |  |  |
| Costa Rica | ManCR\_L10 | 9.59037 | -82.59674 | ManCR\_L10 | 9.59037 | -82.59674 |
| Costa Rica | ManCR\_L3 | 9.59233 | -82.59879 |  |  |  |
| Costa Rica | ManCR\_L5 | 9.59166 | -82.59755 |  |  |  |
| Costa Rica | ManCR\_L6 | 9.59144 | -82.5973 | ManCR\_L6 | 9.59144 | -82.5973 |
| Costa Rica |  |  |  | ManCR\_L8 | 9.59083 | -82.59679 |
| Everglades City | EgCFl\_L1 | 25.8429 | -81.3828 |  |  |  |
| Everglades City | EgCFl\_L3 | 25.84292 | -81.38278 |  |  |  |
| Everglades City | EgCFl\_L4 | 25.84294 | -81.38276 |  |  |  |
| Everglades City | EgCFl\_L6 | 25.84296 | -81.38274 |  |  |  |
| Everglades City | EgCFl\_L8 | 25.84298 | -81.38272 |  |  |  |
| Flamingo | FlmFl\_L4 | 25.13407 | -80.94293 |  |  |  |
| Flamingo | FlmFl\_L5 | 25.13404 | -80.94296 |  |  |  |
| Flamingo | FlmFl\_L7 | 25.13401 | -80.94299 |  |  |  |
| Flamingo | FlmFl\_L9 | 25.13398 | -80.94302 |  |  |  |
| Grand Bahama | LucBa\_L1 | 26.60354 | -78.39995 | LucBa\_L1 | 26.60354 | -78.39995 |
| Grand Bahama | LucBa\_L11 | 26.60358 | -78.39992 |  |  |  |
| Grand Bahama | LucBa\_L3 | 26.60354 | -78.39995 | LucBa\_L3 | 26.60354 | -78.39995 |
| Grand Bahama | LucBa\_L5 | 26.60358 | -78.39992 | LucBa\_L5 | 26.60358 | -78.39992 |
| Grand Bahama | LucBa\_L7 | 26.60362 | -78.39989 |  |  |  |
| Grand Bahama | LucBa\_L9 | 26.60366 | -78.39986 |  |  |  |
| Grenada | LNPGr\_L1 | 12.22602 | -61.60907 | LNPGr\_L1 | 12.22602 | -61.60907 |
| Grenada | LNPGr\_L3 | 12.22576 | -61.60910 |  |  |  |
| Grenada |  |  |  | LAEGr\_L9 | 11.99231 | -61.75726 |
| Grenada |  |  |  | LWoGr\_L4 | 12.01481 | -61.73913 |
| Hispaniola |  |  |  | BdCDR\_L1 | 18.4 | -68.9 |
| Hispaniola |  |  |  | ICE\_DR\_L2 | 18.20 | -68.63 |
| Hispaniola |  |  |  | RBcDR\_L1 | 19.13 | -69.65 |
| Honduras |  |  |  | CSWHo\_L1 | 15.958 | -85.908 |
| Honduras |  |  |  | RNCHo\_L1 | 15.94 | -85.91 |
| Jamaica | MaBJa\_L10 | 17.88771 | -77.07597 | MaBJa\_L10 | 17.88771 | -77.07597 |
| Jamaica | MaBJa\_L8 | 17.88799 | -77.07552 |  |  |  |
| Jamaica |  |  |  | MaBJa\_L5 | 17.85202 | -76.96972 |
| Jamaica |  |  |  | MaBJa\_L1 | 17.85156 | -76.96830 |
| Key West | KyWFl\_L3 | 24.5528 | -81.7677 | KyWFl\_L3 | 24.5528 | -81.7677 |
| Key West | KyWFl\_L6 | 24.55281 | -81.76774 | KyWFl\_L6 | 24.55281 | -81.76774 |
| Key West | KyWFl\_L5 | 24.55283 | -81.76782 |  |  |  |
| Key West | KyWFl\_L7 | 24.55284 | -81.76786 |  |  |  |
| Key West |  |  |  | KyWFl\_L4 | 24.55281 | -81.76774 |
| Long Island | DBHBa\_L10 | 23.08126 | -75.02851 |  |  |  |
| Long Island | DBHBa\_L12 | 23.08137 | -75.02842 |  |  |  |
| Long Island | DBHBa\_L2 | 23.08148 | -75.02833 |  |  |  |
| Long Island | DBHBa\_L4 | 23.08159 | -75.02824 | DBHBa\_L4 | 23.08159 | -75.02824 |
| Long Island | DBHBa\_L6 | 23.08170 | -75.02815 | DBHBa\_L6 | 23.08170 | -75.02815 |
| Long Island | DBHBa\_L8 | 23.08181 | -75.02806 | DBHBa\_L8 | 23.08181 | -75.02806 |
| Melbourne | MlbFl\_L1 | 28.07430 | -80.60520 | MlbFl\_L1 | 28.07430 | -80.60520 |
| Melbourne | MlbFl\_L3 | 28.07432 | -80.60526 | MlbFl\_L3 | 28.07432 | -80.60526 |
| Melbourne | MlbFl\_L2 | 28.07433 | -80.60529 |  |  |  |
| Melbourne | MlbFl\_L5 | 28.07434 | -80.60532 |  |  |  |
| Melbourne |  |  |  | MlbFl\_L13 | 28.07432 | -80.60534 |
| Mexico |  |  |  | RPcMx\_L1 | 22.20 | -97.93 |
| New Port Richey | NPRFl\_L9 | 28.2543 | -82.75721 | NPRFl\_L9 | 28.2543 | -82.75721 |
| New Port Richey | NPRFl\_L5 | 28.25485 | -82.75671 |  |  |  |
| New Port Richey |  |  |  | NPRFl\_L8 | 28.25459 | -82.75665 |
| New Port Richey |  |  |  | NPRFl\_L6 | 28.25430 | -82.75721 |
| Panama |  |  |  | VCzPa\_L1 | 8.89403 | -79.61290 |
| Panama |  |  |  | VCzPa\_L2 | 8.89401 | -79.61297 |
| Puerto Rico | LqBPR\_L1 | 18.37302 | -65.71092 |  |  |  |
| Puerto Rico | LqBPR\_L2 | 18.37299 | -65.71092 |  |  |  |
| Puerto Rico | LqBPR\_L3 | 18.37296 | -65.71093 |  |  |  |
| Puerto Rico | LqBPR\_L4 | 18.37293 | -65.71092 | LqBPR\_L4 | 18.37293 | -65.71092 |
| Puerto Rico | LqBPR\_L5 | 18.3729 | -65.71094 | LqBPR\_L5 | 18.3729 | -65.71094 |
| Puerto Rico | LqBPR\_L6 | 18.37287 | -65.71095 | LqBPR\_L6 | 18.37287 | -65.71095 |
| Senegal |  |  |  | DdSSe\_L1 | 13.63 | -16.55 |

**Supplemental Table 2.** The pairwise *FST* values for all sampling locations for (A) red mangroves (*Rhizophora mangle*) and (B) white mangroves (*Laguncularia racemosa*) using nuclear (RAD-Seq) data. Warmer colors indicate higher values, whereas cooler colors indicate lower values. Warmer colors indicate higher values, whereas cooler colors indicate lower values. Sampling location abbreviations are as follows: Ang = Anguilla; Ant = Antigua; Aru = Aruba; Blz = Belize; Cay = Cayman Islands; Col = Colombia; CRC = Costa Rica, Caribbean Coast; CRP = Costa Rica, Pacific Coast; Cub = Cuba; D\_R = Dominican Republic; EgC = Everglades City; Flm = Flamingo; GrB = Grand Bahama; Gre = Grenada; Hai = Haiti; Hon = Honduras; Jam = Jamaica; KyW = Key West; L\_I = Long Island; Mlb = Melbourne; MxC = Mexico, Caribbean Coast; MxG = Mexico, Gulf Coast; NPR = New Port Richey; Nic = Nicaragua; P\_R = Puerto Rico; Sen = Senegal; Tob = Tobago; Ven = Venezuela.

**A.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ang | Ant | Aru | Blz | Cay | Col | CRC | Cub | D\_R | EgC | Flm | GrB | Gre | Hai | Hon | Jam | KyW | L\_I | Mlb | MxC | MxG | NPR | Nic | P\_R | Sen | Tob | Ven |
| Ang | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ant | 0.180 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aru | 0.409 | 0.291 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blz | 0.382 | 0.315 | 0.119 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cay | 0.365 | 0.259 | 0.094 | 0.107 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Col | 0.653 | 0.388 | 0.083 | 0.000 | 0.090 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRC | 0.440 | 0.356 | 0.153 | 0.079 | 0.178 | 0.078 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cub | 0.406 | 0.332 | 0.145 | 0.016 | 0.118 | 0.024 | 0.114 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D\_R | 0.541 | 0.223 | 0.140 | 0.148 | 0.009 | 0.141 | 0.282 | 0.188 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EgC | 0.514 | 0.390 | 0.233 | 0.106 | 0.195 | 0.232 | 0.213 | 0.069 | 0.330 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Flm | 0.494 | 0.388 | 0.230 | 0.086 | 0.195 | 0.188 | 0.182 | 0.053 | 0.274 | 0.000 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| GrB | 0.430 | 0.336 | 0.170 | 0.063 | 0.140 | 0.080 | 0.154 | 0.050 | 0.183 | 0.039 | 0.039 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gre | 0.180 | 0.139 | 0.168 | 0.245 | 0.190 | 0.171 | 0.269 | 0.252 | 0.062 | 0.288 | 0.276 | 0.242 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hai | 0.549 | 0.201 | 0.205 | 0.154 | 0.060 | 0.103 | 0.312 | 0.156 | 0.000 | 0.348 | 0.267 | 0.189 | 0.065 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hon | 0.597 | 0.384 | 0.143 | 0.000 | 0.118 | 0.058 | 0.074 | 0.000 | 0.265 | 0.208 | 0.190 | 0.084 | 0.211 | 0.305 | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Jam | 0.241 | 0.196 | 0.123 | 0.174 | 0.070 | 0.153 | 0.208 | 0.189 | 0.000 | 0.245 | 0.230 | 0.186 | 0.171 | 0.000 | 0.167 | x |  |  |  |  |  |  |  |  |  |  |  |
| KyW | 0.486 | 0.372 | 0.223 | 0.094 | 0.185 | 0.212 | 0.193 | 0.065 | 0.312 | 0.020 | 0.015 | 0.043 | 0.272 | 0.319 | 0.181 | 0.235 | x |  |  |  |  |  |  |  |  |  |  |
| L\_I | 0.261 | 0.220 | 0.151 | 0.154 | 0.080 | 0.073 | 0.201 | 0.157 | 0.000 | 0.180 | 0.184 | 0.120 | 0.192 | 0.000 | 0.114 | 0.080 | 0.178 | x |  |  |  |  |  |  |  |  |  |
| Mlb | 0.455 | 0.376 | 0.216 | 0.088 | 0.196 | 0.169 | 0.192 | 0.066 | 0.270 | 0.000 | 0.000 | 0.030 | 0.285 | 0.284 | 0.148 | 0.236 | 0.003 | 0.187 | x |  |  |  |  |  |  |  |  |
| MxC | 0.490 | 0.351 | 0.524 | 0.000 | 0.099 | 0.005 | 0.075 | 0.038 | 0.195 | 0.182 | 0.147 | 0.094 | 0.220 | 0.223 | 0.009 | 0.159 | 0.149 | 0.128 | 0.142 | x |  |  |  |  |  |  |  |
| MxG | 0.524 | 0.351 | 0.104 | 0.000 | 0.099 | 0.000 | 0.072 | 0.003 | 0.173 | 0.194 | 0.164 | 0.081 | 0.201 | 0.173 | 0.019 | 0.144 | 0.163 | 0.115 | 0.152 | 0.000 | x |  |  |  |  |  |  |
| NPR | 0.570 | 0.433 | 0.316 | 0.180 | 0.280 | 0.416 | 0.273 | 0.151 | 0.512 | 0.068 | 0.051 | 0.118 | 0.325 | 0.552 | 0.350 | 0.291 | 0.065 | 0.248 | 0.030 | 0.283 | 0.308 | x |  |  |  |  |  |
| Nic | 0.679 | 0.377 | 0.038 | 0.000 | 0.026 | 0.000 | 0.017 | 0.000 | 0.198 | 0.195 | 0.133 | 0.027 | 0.145 | NA | 0.008 | 0.106 | 0.164 | 0.022 | 0.105 | 0.000 | 0.000 | 0.416 | x |  |  |  |  |
| P\_R | 0.242 | 0.151 | 0.242 | 0.273 | 0.187 | 0.300 | 0.312 | 0.283 | 0.060 | 0.328 | 0.316 | 0.283 | 0.168 | 0.049 | 0.313 | 0.120 | 0.320 | 0.122 | 0.319 | 0.283 | 0.279 | 0.364 | 0.278 | x |  |  |  |
| Sen | 0.623 | 0.271 | 0.306 | 0.300 | 0.259 | 0.286 | 0.419 | 0.363 | 0.339 | 0.481 | 0.394 | 0.352 | 0.050 | NA | 0.479 | 0.224 | 0.457 | 0.197 | 0.400 | 0.459 | 0.354 | 0.609 | NA | 0.286 | x |  |  |
| Tob | 0.586 | 0.242 | 0.205 | 0.250 | 0.196 | 0.275 | 0.374 | 0.269 | 0.167 | 0.443 | 0.383 | 0.304 | 0.000 | NA | 0.398 | 0.161 | 0.416 | 0.136 | 0.402 | 0.309 | 0.266 | 0.591 | NA | 0.222 | NA | x |  |
| Ven | 0.630 | 0.313 | 0.000 | 0.070 | 0.000 | 0.103 | 0.192 | 0.104 | 0.096 | 0.285 | 0.232 | 0.135 | 0.046 | NA | 0.215 | 0.067 | 0.268 | 0.037 | 0.254 | 0.112 | 0.082 | 0.484 | NA | 0.223 | NA | NA | x |

**B.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ant | Aru | Blz | Cay | CRC | EgC | Flm | GrB | Gre | Jam | KyW | L\_I | Mlb | NPR | P\_R |
| Ant | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aru | 0.071 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blz | 0.460 | 0.221 | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Cay | 0.495 | 0.333 | 0.176 | x |  |  |  |  |  |  |  |  |  |  |  |
| CRC | 0.265 | 0.187 | 0.000 | 0.232 | x |  |  |  |  |  |  |  |  |  |  |
| EgC | 0.540 | 0.408 | 0.231 | 0.276 | 0.197 | x |  |  |  |  |  |  |  |  |  |
| Flm | 0.569 | 0.494 | 0.343 | 0.409 | 0.281 | 0.000 | x |  |  |  |  |  |  |  |  |
| GrB | 0.515 | 0.453 | 0.223 | 0.360 | 0.299 | 0.010 | 0.027 | x |  |  |  |  |  |  |  |
| Gre | 0.209 | 0.204 | 0.414 | 0.524 | 0.301 | 0.552 | 0.566 | 0.517 | x |  |  |  |  |  |  |
| Jam | 0.562 | 0.383 | 0.271 | 0.120 | 0.252 | 0.503 | 0.560 | 0.481 | 0.575 | x |  |  |  |  |  |
| KyW | 0.520 | 0.392 | 0.179 | 0.157 | 0.178 | 0.000 | 0.000 | 0.000 | 0.536 | 0.442 | x |  |  |  |  |
| L\_I | 0.370 | 0.317 | 0.208 | 0.106 | 0.309 | 0.198 | 0.299 | 0.293 | 0.431 | 0.117 | 0.153 | x |  |  |  |
| Mlb | 0.595 | 0.435 | 0.244 | 0.283 | 0.187 | 0.043 | 0.036 | 0.021 | 0.594 | 0.571 | 0.064 | 0.179 | x |  |  |
| NPR | 0.556 | 0.356 | 0.308 | 0.147 | 0.168 | 0.000 | 0.000 | 0.000 | 0.576 | 0.472 | 0.000 | 0.138 | 0.035 | x |  |
| P\_R | 0.189 | 0.197 | 0.138 | 0.176 | 0.319 | 0.292 | 0.411 | 0.430 | 0.325 | 0.125 | 0.236 | 0.286 | 0.269 | 0.219 | x |

**Supplemental Table 3.** The pairwise *FST* values for all sampling locations for (A) red mangroves (*Rhizophora mangle*) and (B) white mangroves (*Laguncularia racemosa*) using chloroplast data. Sampling location abbreviations are listed in Supplemental Table 2, with the exception of PaP, which represents ‘Panama, Pacific Coast’. Warmer colors indicate higher values, whereas cooler colors indicate lower values.

**A.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ant | Aru | Blz | Cay | Col | CRC | CRP | D\_R | GrB | Gre | Hon | Jam | KyW | L\_I | Mlb | MxC | MxG | NPR | P\_R | Sen |
| Ant | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aru | 0.569 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blz | 0.811 | 0.774 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cay | 0.438 | 0.454 | 0.264 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Col | 0.358 | 0.388 | 0.328 | 0.330 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRC | 0.758 | 0.684 | 0.434 | 0.358 | 0.344 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRP | 0.980 | 0.978 | 0.978 | 0.962 | 0.808 | 0.977 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D\_R | 0.337 | 0.366 | 0.333 | 0.289 | 0.284 | 0.388 | 0.919 | x |  |  |  |  |  |  |  |  |  |  |  |  |
| GrB | 0.583 | 0.500 | 0.322 | 0.192 | 0.334 | 0.388 | 0.971 | 0.260 | x |  |  |  |  |  |  |  |  |  |  |  |
| Gre | 0.379 | 0.355 | 0.312 | 0.182 | 0.338 | 0.410 | 0.968 | 0.272 | 0.140 | x |  |  |  |  |  |  |  |  |  |  |
| Hon | 0.543 | 0.552 | 0.354 | 0.347 | 0.274 | 0.436 | 0.947 | 0.288 | 0.341 | 0.388 | x |  |  |  |  |  |  |  |  |  |
| Jam | 0.406 | 0.468 | 0.579 | 0.210 | 0.354 | 0.556 | 0.973 | 0.289 | 0.305 | 0.209 | 0.458 | x |  |  |  |  |  |  |  |  |
| KyW | 0.886 | 0.828 | 0.719 | 0.485 | 0.362 | 0.677 | 0.980 | 0.398 | 0.540 | 0.520 | 0.490 | 0.631 | x |  |  |  |  |  |  |  |
| L\_I | 0.527 | 0.430 | 0.477 | 0.245 | 0.322 | 0.463 | 0.957 | 0.311 | 0.138 | 0.200 | 0.404 | 0.308 | 0.531 | x |  |  |  |  |  |  |
| Mlb | 0.612 | 0.629 | 0.438 | 0.356 | 0.338 | 0.464 | 0.967 | 0.352 | 0.399 | 0.368 | 0.383 | 0.463 | 0.212 | 0.455 | x |  |  |  |  |  |
| MxC | 0.884 | 0.840 | 0.634 | 0.282 | 0.228 | 0.433 | 0.979 | 0.294 | 0.424 | 0.330 | 0.338 | 0.524 | 0.903 | 0.424 | 0.359 | x |  |  |  |  |
| MxG | 0.997 | 0.993 | 0.996 | 0.978 | 0.787 | 0.992 | 0.944 | 0.920 | 0.982 | 0.970 | 0.954 | 0.985 | 0.999 | 0.966 | 0.975 | 1.000 | x |  |  |  |
| NPR | 0.667 | 0.619 | 0.441 | 0.377 | 0.347 | 0.508 | 0.968 | 0.375 | 0.387 | 0.422 | 0.423 | 0.540 | 0.232 | 0.437 | 0.209 | 0.451 | 0.979 | x |  |  |
| P\_R | 0.452 | 0.457 | 0.442 | 0.252 | 0.361 | 0.428 | 0.961 | 0.329 | 0.231 | 0.242 | 0.440 | 0.308 | 0.576 | 0.316 | 0.468 | 0.407 | 0.977 | 0.505 | x |  |
| Sen | 0.961 | 0.917 | 0.960 | 0.828 | 0.285 | 0.938 | 0.980 | 0.472 | 0.885 | 0.671 | 0.648 | 0.835 | 0.980 | 0.709 | 0.735 | 1.000 | 1.000 | 0.764 | 0.773 | x |

**B.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ant | Aru | Blz | Cay | Col | CRC | D\_R | GrB | Gre | Hon | Jam | KyW | L\_I | MxC | Mlb | NPR | PaP | P\_R | Sen |
| Ant | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aru | 0.268 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Blz | 0.473 | 0.469 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cay | 0.300 | 0.322 | 0.383 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Col | 0.329 | 0.342 | 0.261 | 0.290 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| CRC | 0.294 | 0.298 | 0.432 | 0.257 | 0.333 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| D\_R | 0.854 | 0.859 | 0.765 | 0.847 | 0.652 | 0.845 | x |  |  |  |  |  |  |  |  |  |  |  |  |
| GrB | 0.220 | 0.277 | 0.430 | 0.279 | 0.307 | 0.257 | 0.842 | x |  |  |  |  |  |  |  |  |  |  |  |
| Gre | 0.234 | 0.338 | 0.491 | 0.318 | 0.327 | 0.320 | 0.861 | 0.279 | x |  |  |  |  |  |  |  |  |  |  |
| Hon | 0.775 | 0.783 | 0.673 | 0.768 | 0.562 | 0.768 | 0.391 | 0.772 | 0.784 | x |  |  |  |  |  |  |  |  |  |
| Jam | 0.247 | 0.285 | 0.497 | 0.299 | 0.328 | 0.268 | 0.858 | 0.243 | 0.263 | 0.778 | x |  |  |  |  |  |  |  |  |
| KyW | 0.324 | 0.372 | 0.429 | 0.271 | 0.315 | 0.346 | 0.857 | 0.288 | 0.328 | 0.782 | 0.365 | x |  |  |  |  |  |  |  |
| L\_I | 0.294 | 0.365 | 0.469 | 0.340 | 0.324 | 0.329 | 0.856 | 0.242 | 0.286 | 0.781 | 0.339 | 0.326 | x |  |  |  |  |  |  |
| MxC | 0.992 | 0.995 | 0.928 | 0.990 | 0.801 | 0.986 | 0.713 | 0.991 | 0.985 | 0.654 | 0.989 | 0.989 | 0.989 | x |  |  |  |  |  |
| Mlb | 0.324 | 0.429 | 0.420 | 0.347 | 0.328 | 0.346 | 0.863 | 0.307 | 0.371 | 0.782 | 0.342 | 0.314 | 0.347 | 0.988 | x |  |  |  |  |
| NPR | 0.264 | 0.303 | 0.446 | 0.248 | 0.291 | 0.282 | 0.852 | 0.267 | 0.309 | 0.777 | 0.298 | 0.326 | 0.309 | 0.982 | 0.320 | x |  |  |  |
| PaP | 0.660 | 0.663 | 0.576 | 0.597 | 0.424 | 0.641 | 0.849 | 0.642 | 0.690 | 0.768 | 0.683 | 0.661 | 0.708 | 0.987 | 0.661 | 0.641 | x |  |  |
| P\_R | 0.230 | 0.247 | 0.159 | 0.183 | 0.075 | 0.210 | 0.460 | 0.193 | 0.218 | 0.393 | 0.224 | 0.197 | 0.211 | 0.624 | 0.205 | 0.196 | 0.272 | x |  |
| Sen | 0.586 | 0.712 | 0.394 | 0.469 | 0.244 | 0.545 | 0.841 | 0.582 | 0.653 | 0.744 | 0.656 | 0.690 | 0.733 | 1.000 | 0.605 | 0.556 | 0.811 | 0.088 | x |

**MAC:private:var:folders:x4:ngtf_p2d7931_fyl2z2ydnlm0000gp:T:com.apple.Preview:PostScript-8clxDI:lagrac_nuc_tree.pdf**

**MAC:private:var:folders:x4:ngtf_p2d7931_fyl2z2ydnlm0000gp:T:com.apple.Preview:PostScript-Cx597O:rhiman_nuc_tree.pdf**

**Supplemental Figure 1.** RAxML trees using nuclear (RAD-Seq) data for white mangrove (*Laguncularia racemosa*; top) and red mangrove (*Rhizophora mangle*; bottom). Bootstrap percentages greater than 70% are indicated at each node.

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**Supplemental Figure 2.** RAxML trees using chloroplast data for white mangroves (*Laguncularia racemosa*; top) and red mangroves (*Rhizophora mangle*; bottom). Bootstrap percentages greater than 70% are indicated at each node.

**Macintosh HD:Users:richiehodel:Documents:mangroves:Caribbean_RAD:rhiz_procrustes_map_all.eps**

Macintosh HD:private:var:folders:x4:ngtf_p2d7931_fyl2z2ydnlm0000gp:T:com.apple.Preview:PostScript-Ahdo0E:rhiz_procrustes_map_Pacific.pdf

**Supplemental Figure 3.** The red mangrove Procrustes errors for all samples except those from the Pacific coast of Costa Rica and Panama (A), and the red mangrove Procrustes errors for all sampling locations (B). Note that the scale of the axes are different in (A) and (B). Both plots show the color-coding of sampling locations in their respective legends. Triangles represent sampling locations, circles represent the Procrustes deformation distance, and arrows connect the deformation points to the corresponding sampling location.