Supplementary Table 1. Mean 13C and 15N isotopic ratios (± sd) of the different components studied in the mangrove forest: sources of organic matter (i.e. POM= particulate organic matter, SOM= sedimentary organic matter and primary producers), invertebrates and fish sampled at La Foa, New Caledonia. (-): no sample at the period considered.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Component | Site | Species | Season |  | 13C ± sd | 15N ± sd | Note |
| POM | River |  | April | 3 | -25.31 ± 0.05 | 5.30 ± 0.15 |  |
|  |  |  | August | 3 | -18.78 ± 0.50 | 7.62 ± 0.49 |  |
|  | Estuary |  | April | 3 | -28.12 ± 0.13 | 5.48 ± 0.15 |  |
|  |  |  | August | 3 | -28.70 ± 0.13 | 4.56 ± 0.16 |  |
|  | Mouth |  | April | 3 | -24.67 ± 0.06 | 4.90 ± 0.63 |  |
|  |  |  | August | 3 | -27.49 ± 0.10 | 4.16 ± 0.37 |  |
|  | Marine |  | April | 3 | -20.24 ± 0.32 | 2.37 ± 0.06 |  |
|  | (lagoon) |  | August | 3 | -23.19 ± 0.43 | 2.73 ± 0.38 |  |
|  |  |  |  |  |  |  |  |
| SOM | Estuary |  | April | 3 | -27.72 ± 0.18 | 3.58 ± 0.32 |  |
|  |  |  | August | 3 | -27.52 ± 0.28 | 7.19 ± 0.88 |  |
|  | Mouth |  | April | 3 | -27.25 ± 0.85 | 4.15 ± 0.86 |  |
|  |  |  | August | 3 | -27.07 ± 0.32 | 5.49 ± 0.82 |  |
|  |  |  |  |  |  |  |  |
| Primary producers | Estuary | *Avicennia marina* | April | 3 | -28.74 ± 0.67 | 3.29 ± 0.31 |  |
|  |  |  | August | 3 | -28.92 ± 0.15 | 3.81 ± 0.43 |  |
|  |  | *Bruguiera gymnorhiza* | April | 3 | -32.29 ± 2.42 | 3.06 ± 0.50 |  |
|  |  |  | August | 3 | -29.41 ± 0.43 | 3.63 ± 1.33 |  |
|  |  | *Rhizophora stylosa* | April | 3 | -30.02 ± 1.00 | 2.17 ± 1.14 |  |
|  |  |  | August | 3 | -29.20 ± 0.09 | 3.05 ± 1.56 |  |
|  |  | *Eichornia crassipes* | April | 3 | -29.43 ± 0.35 | 10.17 ± 0.12 |  |
|  |  |  | August | 3 | -28.10 ± 0.42 | 7.08 ± 1.08 |  |
|  |  | Detritus | April | 6 | -27.43 ± 0.53 | 6.92 ± 0.52 |  |
|  |  |  | August | 6 | -26.82 ± 0.46 | 6.56 ± 0.99 |  |
|  | Mouth | *Avicennia marina* | April | 3 | -27.83 ± 0.14 | 4.37 ± 0.18 |  |
|  |  |  | August | 3 | -27.69 ± 0.41 | 1.48 ± 0.84 |  |
|  |  | *Bruguiera gymnorhiza* | April | 3 | -29.51 ± 1.21 | 7.28 ± 1.91 |  |
|  |  |  | August | 3 | -31.77 ± 1.30 | 2.46 ± 0.22 |  |
|  |  | *Rhizophora stylosa* | April | 3 | -27.96 ± 0.60 | 4.87 ± 1.31 |  |
|  |  |  | August | 3 | -30.20 ± 1.20 | 3.59 ± 0.69 |  |
|  |  |  |  |  |  |  |  |
| Invertebrates | Estuary | *Saccostrea cucullata tuberculata* | April | 4 | -27.59 ± 0.10 | 7.90 ± 0.46 | Mollusk, filter-feeder |
|  |  |  | August | 3 | -27.12 ± 0.19 | 7.67 ± 0.45 |  |
|  |  | *Terebralia palustris* | April | 3 | -24.94 ± 0.74 | 4.39 ± 0.17 | Mollusk, surface sediment  |
|  |  |  | August | - | - | - | and detritus feeder |
|  |  | *Neosarmatium cf. fourmanoiri* | April | 4 | -23.97 ± 1.13 | 5.52 ± 0.50 | Crustacean, omnivore |
|  |  |  | August | - | - | - |  |
|  |  | *Perisesarma cf. lividum* | April | 3 | -26.27 ± 0.85 | 6.37 ± 0.11 | Crustacean, omnivore |
|  |  |  | August | 3 | -27.23 ± 0.60 | 6.58 ± 0.53 |  |
|  |  | *Scylla serrata* | April | 5 | -21.49 ± 2.07 | 8.18 ± 0.39 | Crustacean, omnivore |
|  |  |  | August | - | - | - |  |
|  |  | *Uca tetragodon* | April | 3 | -20.00 ± 0.54 | 6.41 ± 0.44 | Crustacean, omnivore |
|  |  |  | August | - | - | - |  |
|  | Mouth | *Pinctada* sp. | April | 3 | -21.19 ± 0.22 | 5.60 ± 0.14 | Mollusk, filter-feeder |
|  |  |  | August | 3 | -21.17 ± 0.09 | 6.06 ± 0.53 |  |
|  |  | *Saccostrea cucullata tuberculata* | April | 3 | -20.38 ± 0.15 | 7.59 ± 0.10 | Mollusk, filter-feeder |
|  |  |  | August | 3 | -20.87 ± 0.45 | 7.17 ± 0.21 |  |
|  |  | *Terebralia palustris* | April | 3 | -23.91 ± 0.61 | 4.15 ± 0.08 | Mollusk, surface sediment  |
|  |  |  | August | 3 | -24.57 ± 0.62 | 3.38 ± 0.14 | and detritus feeder |
|  |  | *Clibanarius* sp. | April | 4 | -23.59 ± 0.53 | 5.16 ± 0.22 | Crustacean, omnivore |
|  |  |  | August | 3 | -23.44 ± 0.78 | 5.54 ± 0.19 |  |
|  |  | *Gonodactylus* sp. | April | - | - | - | Crustacean, omnivore |
|  |  |  | August | 3 | -21.09 ± 0.11 | 9.05 ± 0.08 |  |
|  |  | *Neosarmatium cf. fourmanoiri* | April | - | - | - | Crustacean, omnivore |
|  |  |  | August | 5 | -21.47 ± 0.93 | 5.75 ± 0.45 |  |
|  |  | *Scylla serrata* | April | 17 | -20.98 ± 2.09 | 7.67 ± 0.63 | Crustacean, omnivore |
|  |  |  | August | 12 | -20.71 ± 1.65 | 7.27 ± 1.33 |  |
|  |  |  |  |  |  |  |  |
| Fish | Estuary | *Acanthopagrus akazakii* | April | 3 | -23.35 ± 0.03 | 9.48 ± 0.05 | Invertebrates feeder |
|  |  |  | August | - | - | - |  |
|  |  | *Anodonstoma chacunda* | April | 19 | -20.52 ± 3.19 | 8.50 ± 0.69 | Detritivore |
|  |  |  | August | 10 | -18.48 ± 2.22 | 8.35 ± 0.69 |  |
|  |  | *Chelon* sp. | April | 3 | -22.16 ± 0.04 | 8.54 ± 0.02 | Detritivore |
|  |  |  | August | - | - | - |  |
|  |  | *Gerres filamentosus* | April | 4 | -23.99 ± 0.07 | 10.42 ± 0.62 | Macro-carnivore, |
|  |  |  | August | - | - | - | piscivore |
|  |  | *Gerres oyena* | April | 4 | -24.67 ± 0.62 | 9.55 ± 0.04 | Macro-carnivore, |
|  |  |  | August | 3 | -23.52 ± 0.51 | 9.93 ± 0.10 | piscivore |
|  |  | *Liza macrolepis* | April | 4 | -21.59 ± 0.02 | 8.34 ± 0.08 | Detritivore |
|  |  |  | August | - | - | - |  |
|  |  | *Lutjanus argentimaculatus* | April | 3 | -23.58 ± 0.04 | 9.57 ± 0.08 | Macro-carnivore |
|  |  |  | August | - | - | - |  |
|  |  | *Oxyurichthys* sp. | April | 3 | -25.70 ± 0.04 | 9.85 ± 0.02 | Invertebrates feeder |
|  |  |  | August | - | - | - |  |
|  |  | *Valamugil* sp. | April | 3 | -21.34 ± 0.03 | 6.43 ± 0.05 | Detritivore |
|  |  |  | August | - | - | - |  |
|  | Mouth | *Anodonstoma chacunda* | April | 28 | -18.76 ± 1.03 | 8.52 ± 0.44 | Detritivore |
|  |  |  | August | - | - | - |  |
|  |  | *Gerres filamentosus* | April | 4 | -19.41 ± 0.21 | 10.73 ± 0.54 | Macro carnivore, |
|  |  |  | August | - | - | - | piscivore |
|  |  | *Gerres oyena* | April | 3 | -20.07 ± 0.08 | 9.08 ± 0.33 | Macro carnivore, |
|  |  |  | August | - | - | - | piscivore |
|  |  | *Caranx* sp. | April | - | - | - | Macro carnivore, |
|  |  |  | August | 2 | -17.54 ± 0.49 | 11.24 ± 0.20 | piscivore |
|  |  | *Carangoides fulvoguttatus* | April | 3 | -18.31 ± 1.99 | 10.81 ± 0.53 | Macro carnivore, |
|  |  |  | August | - | - | - | piscivore |
|  |  | *Sillago sihama* | April | 2 | -18.94 ± 0.78 | 9.98 ± 0.66 | Macro carnivore, |
|  |  |  | August | - | - | - | piscivore |
|  |  | *Valamugil* sp. | April | - | - | - | Detritivore |
|  |  |  | August | 10 | -20.72 ± 0.78 | 7.23 ± 0.65 |  |