



| Chemical | Unit | Primary forest | Naturally regenerated forest | Hardwood forest | Thick Bamboo | Thin Bamboo | Banana | Recovering pasture | Pasture | Plot 1-non-bamboo | Plot 1-bamboo |
|----------|------|----------------|------------------------------|-----------------|--------------|-------------|--------|--------------------|---------|-------------------|---------------|
| Ir       | ppb  | < 5            | < 5                          | < 5             | < 5          | < 5         | < 5    | < 5                | < 5     | < 5               | < 5           |
| K        | %    | 1.19           | 0.54                         | 0.24            | 0.17         | 0.25        | 0.41   | 0.14               | 0.42    | 0.14              | 0.13          |
| Li       | ppm  | 41.5           | 37.4                         | 19.6            | 12.7         | 10.9        | 17.3   | 14.7               | 12.9    | 8.3               | 10            |
| Mg       | %    | 0.95           | 0.32                         | 0.21            | 0.22         | 0.13        | 0.34   | 0.31               | 0.25    | 0.18              | 0.22          |
| Mn       | ppm  | 1250           | 1190                         | 1100            | 2060         | 2160        | 2470   | 2350               | 2420    | 1270              | 1490          |
| Na       | %    | 0.52           | 0.05                         | 0.17            | 0.05         | 0.08        | 0.08   | 0.04               | 0.07    | 0.04              | 0.02          |
| Nb       | ppm  | 0.2            | 5.9                          | 0.3             | 0.7          | 0.6         | 1.4    | 0.4                | 0.2     | 0.1               | 0.6           |
| P        | %    | 0.07           | 0.039                        | 0.066           | 0.168        | 0.184       | 0.229  | 0.12               | 0.12    | 0.079             | 0.118         |
| Rb       | ppm  | 28.1           | 6.5                          | 10              | 15.9         | 16.9        | 40.5   | 11.2               | 25.6    | 9.3               | 11.9          |
| Re       | ppm  | < 0.001        | 0.004                        | < 0.001         | 0.002        | < 0.001     | 0.001  | < 0.001            | 0.001   | < 0.001           | 0.001         |
| Sb       | ppm  | < 0.1          | 0.9                          | 0.8             | < 0.1        | 0.7         | < 0.1  | < 0.1              | 0.6     | 0.9               | < 0.1         |
| Sc       | ppm  | 30.7           | 30.7                         | 37.4            | 42.3         | 38.2        | 36.5   | 53.1               | 31.5    | 56.4              | 54            |
| Se       | ppm  | 0.3            | 1.2                          | 1               | 1.3          | 1.1         | 1.6    | 0.7                | < 0.1   | < 0.1             | 1             |
| Sn       | ppm  | 1              | 2                            | < 1             | < 1          | < 1         | 1      | < 1                | 1       | 1                 | < 1           |
| Sr       | ppm  | 64.7           | 6.4                          | 24.4            | 19.2         | 29.9        | 53.6   | 19.9               | 39.2    | 28                | 64.1          |
| Ta       | ppm  | < 0.1          | 0.4                          | < 0.1           | < 0.1        | < 0.1       | < 0.1  | < 0.1              | < 0.1   | < 0.1             | < 0.1         |
| Te       | ppm  | < 0.1          | < 0.1                        | < 0.1           | < 0.1        | < 0.1       | < 0.1  | < 0.1              | < 0.1   | < 0.1             | < 0.1         |
| Ti       | %    | 0.22           | 0.77                         | 0.23            | 0.61         | 0.22        | 0.55   | 0.32               | 0.21    | 0.39              | 0.26          |
| Th       | ppm  | 1.2            | 0.6                          | 1.2             | 2.4          | 6.7         | 3      | 1.9                | 7.7     | 2.7               | 2.4           |
| Tl       | ppm  | 0.18           | 0.18                         | 0.1             | 0.09         | 0.11        | 0.09   | 0.09               | 0.11    | 0.07              | 0.09          |
| U        | ppm  | 2.1            | 1.8                          | 3.9             | 2.5          | 3.4         | 2.6    | 2.5                | 2.4     | 1.1               | 1.9           |
| V        | ppm  | 85             | 191                          | 133             | 293          | 107         | 165    | 320                | 58      | 203               | 281           |
| W        | ppm  | < 1            | < 1                          | < 1             | < 1          | < 1         | < 1    | < 1                | < 1     | < 1               | < 1           |
| Y        | ppm  | 17.2           | < 0.1                        | 14.4            | 26.1         | 24.8        | 46.7   | 26.8               | 25      | 12                | 12.9          |
| Zr       | ppm  | 4              | 142                          | 67              | 50           | 128         | 128    | 14                 | 4       | 9                 | 66            |
| La       | ppm  | 8              | 0.2                          | 7.2             | 19.2         | 33.4        | 57.5   | 17.6               | 33      | 8.6               | 9.3           |
| La       | ppm  | 10.8           | 4.8                          | 10              | 24.1         | 43.2        | 71.4   | 21.6               | 39      | 15.8              | 12.5          |
| Ce       | ppm  | 18.9           | 0.9                          | 24.3            | 62.9         | 62.1        | 92.9   | 47                 | 71.5    | 34                | 42.7          |

| Chemical | Unit | Primary forest | Naturally regenerated forest | Hardwood forest | Thick Bamboo | Thin Bamboo | Banana | Recovering pasture | Pasture | Plot 1-non-bamboo | Plot 1-bamboo |
|----------|------|----------------|------------------------------|-----------------|--------------|-------------|--------|--------------------|---------|-------------------|---------------|
| Pr       | ppm  | 2.3            | 0.1                          | 2               | 6.1          | 10          | 17.7   | 5.7                | 8.4     | 2.7               | 3.4           |
| Nd       | ppm  | 9.8            | 0.4                          | 8.5             | 25.2         | 38.6        | 71.4   | 24                 | 32.7    | 11.8              | 14.2          |
| Nd       | ppm  | 19             | < 5                          | < 5             | 22           | 31          | 70     | 22                 | 32      | 26                | 13            |
| Sm       | ppm  | 2.4            | 0.1                          | 1.9             | 5.3          | 7.5         | 14.2   | 5.3                | 7       | 2.8               | 3.2           |
| Sm       | ppm  | 3.2            | 1.1                          | 2.2             | 5.7          | 7.7         | 13.3   | 5.3                | 7.1     | 4.2               | 3.4           |
| Eu       | ppm  | 0.81           | 0.05                         | 0.63            | 1.53         | 2.01        | 3.96   | 1.7                | 1.88    | 0.83              | 0.9           |
| Eu       | ppm  | 0.7            | 0.5                          | 0.9             | 1.6          | 2.3         | 4.4    | 1.8                | 2.7     | 1.5               | 1             |
| Gd       | ppm  | 2.9            | 0.2                          | 2.5             | 6.1          | 7.2         | 13     | 6.1                | 6.4     | 2.9               | 3.1           |
| Dy       | ppm  | 3.2            | 0.4                          | 2.2             | 4.5          | 5.1         | 8.8    | 4.7                | 5.5     | 2.5               | 2.5           |
| Tb       | ppm  | 0.5            | < 0.1                        | 0.4             | 0.9          | 1           | 1.8    | 0.9                | 0.9     | 0.4               | 0.5           |
| Tb       | ppm  | < 0.5          | < 0.5                        | < 0.5           | < 0.5        | 1.1         | 2.2    | < 0.5              | < 0.5   | < 0.5             | < 0.5         |
| Ho       | ppm  | 0.8            | 0.1                          | 0.6             | 1.1          | 1.2         | 2.1    | 1.2                | 1.2     | 0.6               | 0.6           |
| Er       | ppm  | 2.1            | 0.4                          | 1.7             | 3.2          | 3.5         | 5.6    | 3.3                | 3.2     | 1.6               | 1.7           |
| Tm       | ppm  | 0.4            | 0.1                          | 0.3             | 0.5          | 0.5         | 0.8    | 0.5                | 0.5     | 0.2               | 0.3           |
| Yb       | ppm  | 0.7            | 0.4                          | 1.6             | 3            | 3.1         | 4.8    | 3                  | 2.7     | 1.5               | 1.7           |
| Yb       | ppm  | 2.9            | 2.1                          | 2.6             | 4.3          | 4.6         | 6.6    | 4                  | 5.4     | 3.6               | 2.7           |
| Lu       | ppm  | < 0.1          | < 0.1                        | 0.2             | 0.4          | 0.4         | 0.5    | 0.4                | 0.2     | 0.2               | 0.2           |
| Lu       | ppm  | 0.48           | 0.37                         | 0.46            | 0.66         | 0.87        | 1.07   | 0.75               | 0.88    | 0.56              | 0.43          |
| Mass     | g    | 0.897          | 1.01                         | 1.01            | 1.01         | 1.21        | 1.15   | 1.07               | 0.897   | 0.945             | 1.11          |

Appendix 2: Offsite chemical analysis

|                           | pH               | cmol(+)/L |       |      |      |       | %  | mg/L |     |    |     |    |
|---------------------------|------------------|-----------|-------|------|------|-------|----|------|-----|----|-----|----|
|                           | H <sub>2</sub> O | ACIDEZ    | Ca    | Mg   | K    | CICE  | SA | P    | Zn  | Cu | Fe  | Mn |
|                           | 5.5              | 0.5       | 4     | 1    | 0.2  | 5     |    | 10   | 3   | 1  | 10  | 5  |
| Pasture across the street | 6.5              | 0.23      | 24.04 | 2.64 | 0.51 | 27.42 | 1  | 2    | 2.2 | 6  | 32  | 14 |
| Pasture near ocean        | 5.5              | 0.56      | 16.06 | 4.90 | 0.46 | 21.98 | 3  | ND   | 2.8 | 5  | 86  | 93 |
| Hacienda Baru 1           | 5.6              | 0.34      | 10.23 | 4.44 | 0.29 | 15.30 | 2  | 1    | 1.8 | 3  | 105 | 49 |
| Hacienda Baru 2           | 5.2              | 1.36      | 2.50  | 1.90 | 0.27 | 6.03  | 23 | 1    | 1.7 | 3  | 114 | 98 |
| Hacienda Baru 3           | 5.7              | 0.24      | 27.75 | 6.23 | 0.30 | 34.52 | 1  | 2    | 4.2 | 4  | 21  | 14 |
| Hacienda Baru 4           | 5.9              | 0.38      | 3.11  | 0.96 | 0.10 | 4.55  | 8  | 2    | 0.8 | 1  | 32  | 12 |
| Hacienda baru 5           | 5.8              | 1.96      | 6.07  | 2.92 | 0.28 | 11.23 | 17 | 5    | 1.7 | 3  | 94  | 11 |

Appendix 3: Nitrogen and MO chemical analysis

|  | %    |     |
|--|------|-----|
|  | N    | MO  |
| Primary forest                         | 0.28 | 2.7 |
| Naturally Regenerated Secondary Forest | 0.31 | 3.1 |
| Hardwood forest                        | 0.28 | 3.5 |
| Thick bamboo                           | 0.35 | 5.5 |
| Thin bamboo                            | 0.23 | 3.3 |
| Banana plantation                      | 0.26 | 3.8 |
| Recovering pasture                     | 0.26 | 4.2 |
| Grazed Pasture                         | 0.30 | 4.3 |
| Pasture across the street              |      | 2.5 |
| Pasture near ocean                     |      | 3.1 |
| Hacienda Baru 1                        |      | 4.5 |
| Hacienda Baru 2                        |      | 5.9 |
| Hacienda Baru 3                        |      | 3.5 |
| Hacienda Baru 4                        |      | 4.7 |
| Hacienda Baru 5                        |      | 1.6 |

## *Invertebrate Diversity*

### Appendix 4: All taxon found in litter samples at FCRE

| TAXON (Order)     | Sub-order       | Family         | Number found |
|-------------------|-----------------|----------------|--------------|
| Oligochaeta       |                 |                | 1            |
| Gastropoda        |                 |                | 10           |
| Onychophora       |                 |                | 1            |
| Isopoda           | Oniscidea       | Oniscidae      | 45           |
| Isopoda           | Oniscidea       | Trichoniscidae | 115          |
| Glomerida         |                 |                | 7            |
| Penicillata       |                 |                | 21           |
| Polydesmida       |                 |                | 5            |
| Geophilomorpha    |                 |                | 10           |
| Lithobiomorpha    |                 |                | 4            |
| Scolapendromorpha |                 |                | 4            |
| Aranae            |                 |                | 37           |
| Acari             |                 | Tetranychidae  | 45           |
| Acari             |                 | Trombidiidae   | 15           |
| Opiliones         |                 | Troglobedae    | 10           |
| Pseudoscorpion    |                 |                | 46           |
| Ricinuclei        |                 |                | 5            |
| Diplura           |                 | Japygidae      | 13           |
| Protura           |                 |                | 26           |
| Collembola        | Arthropleona    |                | 102          |
| Collembola        | Symphyleona     |                | 52           |
| Odanata           | Zygoptera       |                | 1            |
| Blattodeae        |                 |                | 2            |
| Isoptera          |                 |                | 3            |
| Dermaptera        |                 |                | 1            |
| Neuroptera        |                 | Ascalaphidae   | 3            |
| Psocoptera        |                 |                | 2            |
| Orthoptera        |                 |                | 1            |
| Hemiptera         |                 | Aphididae      | 5            |
| Hemiptera         |                 | Aradidae       | 4            |
| Hemiptera         |                 | Blissidae      | 9            |
| Hemiptera         | Auchenorrhyncha | Cicadellidae   | 11           |
| Hemiptera         | Auchenorrhyncha | Cicadidae      | 3            |
| Hemiptera         | Gymnocerata     | Miridae        | 3            |
| Hemiptera         | Gymnocerata     | Nabidae        | 7            |
| Hemiptera         |                 | Phopaldidae    | 1            |
| Hemiptera         | Heteroptera     | Piesmatidae    | 5            |
| Hemiptera         |                 | Reduviidae     | 2            |
| Hemiptera         |                 | Rhopalidae     | 1            |
| Hemiptera         | Gymnocerata     | Threocoridae   | 16           |
| Hemiptera         |                 |                | 2            |
| Thysanoptera      | Tubulifera      |                | 58           |
| Coeloptera        |                 |                | 3            |
| Coleoptera        |                 | Byrrhida       | 2            |

|             |              |                |     |
|-------------|--------------|----------------|-----|
| Coleoptera  | Adephaga     | Carabidae      | 1   |
| Coleoptera  | Polyphaga    | Chrysomelidae  | 1   |
| Coleoptera  | Polyphaga    | Cleridae       | 4   |
| Coleoptera  | Polyphaga    | Curculionidae  | 13  |
| Coleoptera  |              | Latridiidae    | 6   |
| Coleoptera  |              | Mordellidae    | 1   |
| Coleoptera  | Polyphaga    | Ochodaenidae   | 3   |
| Coleoptera  | Polyphaga    | Scarabacidae   | 3   |
| Coleoptera  |              | Scydmaenidae   | 1   |
| Coleoptera  |              | Silphidae      | 1   |
| Coleoptera  |              | Staphylinidae  | 20  |
| Coleoptera  |              |                | 95  |
| Trichoptera |              |                | 10  |
| Diptera     |              | Acroceridae    | 2   |
| Diptera     | Brachycera   | Bombyliidae    | 1   |
| Diptera     | Cyclorrhapha | Calliphoridae  | 2   |
| Diptera     |              | Cecidomyiid    | 3   |
| Diptera     | Nematocera   | Chironomidae   | 1   |
| Diptera     | Cyclorrhapha | Muscidae       | 1   |
| Diptera     |              | Polichopodidae | 1   |
| Diptera     | Nematocera   | Psychodidae    | 26  |
| Diptera     | Nematocera   | Sumiliidae     | 4   |
| Diptera     | Cyclorrhapha | Tachinidae     | 2   |
| Diptera     | Nematocera   | Tipulidae      | 2   |
| Diptera     |              |                | 7   |
| Lepidopera  |              |                | 2   |
| Hymenoptera | Apocrita     | Braconidae     | 1   |
| Hymenoptera | Apocrita     | Evaniidae      | 2   |
| Hymenoptera |              | Formicidae     | 282 |
| Hymenoptera | Symphyta     | Siricidae      | 1   |
| Hymenoptera |              |                | 1   |

Appendix 5: All taxon found in dry extraction at FCRE

| Order             | Sub-order       | Family         | Number found |
|-------------------|-----------------|----------------|--------------|
| Oligochaeta       |                 |                | 3            |
| Gastropoda        |                 |                | 9            |
| Isopoda           | Oniscidea       | Oniscidae      | 1            |
| Isopoda           | Oniscidea       | Trichoniscidae | 22           |
| Penicillata       |                 |                | 5            |
| Geophilomorpha    |                 |                | 2            |
| Lithobiomorpha    |                 |                | 1            |
| Scolapendromorpha |                 |                | 1            |
| Aranae            |                 |                | 22           |
| Acari             |                 | Orbitidae      | 5            |
| Acari             |                 | Tetranychidae  | 9            |
| Acari             |                 | Trombidiidae   | 38           |
| Pseudoscorpion    |                 |                | 4            |
| Diplura           |                 | Japygidae      | 12           |
| Protura           |                 |                | 17           |
| Collembola        | Symphyleona     |                | 504          |
| Collembola        | Arthropleona    |                | 27           |
| Isoptera          |                 | Kalotermitidae | 7            |
| Neuroptera        | Planipennia     | Myrmeleontidae | 3            |
| Orthoptera        |                 |                | 1            |
| Hemiptera         |                 | Alydidae       | 1            |
| Hemiptera         |                 | Aphididae      | 3            |
| Hemiptera         | Auchenorrhyncha | Cicadellidae   | 77           |
| Hemiptera         |                 | Formicidae     | 2            |
| Hemiptera         | Gymnocerata     | Miridae        | 5            |
| Hemiptera         | Gymnocerata     | Nabidae        | 1            |
| Hemiptera         |                 | Phopalidae     | 1            |
| Hemiptera         | Heteroptera     | Piesmatidae    | 1            |
| Hemiptera         | Gymnocerata     | Pyrrhocoridae  | 2            |
| Hemiptera         | Gymnocerata     | Thyreocoridae  | 1            |
| Thysanoptera      | Tubulifera      |                | 18           |
| Celeoptera        |                 |                | 1            |
| Coleoptera        |                 | Bostrichidae   | 1            |
| Coleoptera        |                 | Byrrhida       | 3            |
| Coleoptera        |                 | Carabidae      | 1            |
| Coleoptera        | Polyphaga       | Chrysomelidae  | 8            |
| Coleoptera        | Polyphaga       | Cleridae       | 4            |
| Coleoptera        |                 | Curculionidae  | 55           |
| Coleoptera        | Polyphaga       | Histeridae     | 2            |
| Coleoptera        |                 | Latridiidae    | 14           |
| Coleoptera        | Gymnocerata     | Pyrrhocoridae  | 1            |
| Coleoptera        | Polyphaga       | Scarabacidae   | 6            |
| Coleoptera        |                 | Scydmaenidae   | 4            |
| Coleoptera        |                 | Staphilinidae  | 13           |
| Coleoptera        |                 |                | 24           |
| Trichoptera       |                 |                | 105          |

|             |              |                |     |
|-------------|--------------|----------------|-----|
| Diptera     |              | Acroceridae    | 7   |
| Diptera     | Brachycera   | Bombyliidae    | 1   |
| Diptera     | Cyclorrhapha | Calliphoridae  | 2   |
| Diptera     |              | Cecidomyiid    | 19  |
| Diptera     | Nematocera   | Chironomidae   | 17  |
| Diptera     | Nematocera   | Culicidae      | 15  |
| Diptera     | Cyclorrhapha | Dropophilidae  | 9   |
| Diptera     | Cyclorrhapha | Muscidae       | 13  |
| Diptera     |              | Mycetophilidae | 12  |
| Diptera     | Nematocera   | Psychodidae    | 317 |
| Diptera     | Cyclorrhapha | Sarcophagidae  | 1   |
| Diptera     | Nematocera   | Simuliidae     | 38  |
| Diptera     | Cyclorrhapha | Tachinidae     | 9   |
| Diptera     | Cyclorrhapha | Tephritidae    | 7   |
| Diptera     | Nematocera   | Tipulidae      | 8   |
| Diptera     |              |                | 131 |
| Lepidoptera |              | Limacodidae    | 1   |
| Lepidoptera |              | Pyralidae      | 1   |
| Lepidoptera |              |                | 1   |
| Hymenoptera | Apocrita     | Braconidae     | 1   |
| Hymenoptera | Symphyta     | Diprionidae    | 2   |
| Hymenoptera |              | Formicidae     | 70  |
| Hymenoptera | Apocrita     | Megachilidae   | 1   |
| Hymenoptera | Symphyta     | Siricidae      | 1   |
| Hymenoptera | Apocrita     | Sphecidae      | 1   |
| Hymenoptera | Symphyta     | Tenthredinidae | 1   |
| Hymenoptera |              |                | 4   |



Appendix 6: Identified invertebrates in nonbamboo areas of naturally regenerated forests

**LEAF LITTER**

| <b>phylum</b> | <b>subphylum</b> | <b>class</b> | <b>subclass</b> | <b>order</b>    | <b>suborder</b> | <b>family</b>  | <b>abundance</b> |
|---------------|------------------|--------------|-----------------|-----------------|-----------------|----------------|------------------|
| Annelida      |                  |              | Oligochaeta     | Haplotaxida     |                 |                | 1                |
| Mollusca      |                  | Gastropod    |                 |                 |                 |                | 2                |
| Mollusca      |                  | Gastropod    |                 | Pulmonata       |                 |                | 1                |
| Arthropoda    | Crustacea        | Malacostraca |                 | Isopoda         | Oniscidea       | Trichoniscidae | 17               |
| Arthropoda    | Myriapoda        | Diplopoda    | Penicillata     | Polyxenida      |                 |                | 2                |
| Arthropoda    | Myriapoda        | Symphyla     |                 |                 |                 |                | 1                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Prostigmata     |                 | Bdellidae      | 1                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Prostigmata     |                 | Trombididae    | 2                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Prostigmata     |                 |                | 1                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Prostigmata     | Eupodina        | Dictynidae     | 1                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Orbatida        |                 | Orbatidae      | 11               |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Orbatida        |                 | Orbatidae      | 4                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           |                 |                 |                | 2                |
| Arthropoda    | Chelicerata      | Arachnida    |                 | Araneae         |                 |                | 1                |
| Arthropoda    | Chelicerata      | Arachnida    |                 | Araneae         |                 | Leptonetidae   | 1                |
| Arthropoda    | Chelicerata      | Arachnida    |                 | Pseudoscorpions |                 |                | 1                |
| Arthropoda    | Hexapoda         | Entognatha   |                 | Collembola      | Arthropleona    | Isotomidae     | 4                |
| Arthropoda    | Hexapoda         | Entognatha   |                 | Collembola      | Arthropleona    | Isotomidae     | 1                |
| Arthropoda    | Hexapoda         | Entognatha   |                 | Collembola      | Arthropleona    | Isotomidae     | 1                |
| Arthropoda    | Hexapoda         | Entognatha   |                 | Collembola      | Arthropleona    | Onychiuridae   | 2                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Isoptera        |                 | Hodotermitidae | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Orthoptera      | Ensifera        | Gryllidae      | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Hemiptera       |                 |                | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Hemiptera       |                 |                | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Hemiptera       | Gymnocerata     | Aradidae       | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Hemiptera       |                 |                | 3                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Hemiptera       |                 | Pentatomidae   | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Thysanoptera    |                 |                | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Diptera         |                 | Psychodidae    | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Hymenoptera     |                 | Formicidae     | 9                |

**DRY EXTRACTION**

| <b>phylum</b> | <b>subphylum</b> | <b>class</b> | <b>subclass</b> | <b>order</b> | <b>suborder</b> | <b>family</b>  | <b>abundance</b> |
|---------------|------------------|--------------|-----------------|--------------|-----------------|----------------|------------------|
| Annelida      |                  |              | Oligochaeta     | Haplotaxida  |                 |                | 4                |
| Arthropoda    | Crustacea        | Malacostraca |                 | Isopoda      | Oniscidea       | Trichoniscidae | 1                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Orbatida     |                 | Orbatidae      | 2                |
| Arthropoda    | Chelicerata      | Arachnida    | Acari           | Prostigmata  |                 | Bdellidae      | 1                |
| Arthropoda    | Chelicerata      | Arachnida    |                 | Araneae      | Labidognatha    | Dictynidae     | 1                |
| Arthropoda    | Hexapoda         | Entognatha   |                 | Collembola   |                 | Isotomidae     | 1                |
| Arthropoda    | Hexapoda         | Entognatha   |                 | Collembola   |                 | Isotomidae     | 1                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Isoptera     |                 | termitidae     | 2                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Homoptera    | Auchenorrhyncha | Cicadellidae   | 2                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Homoptera    | Auchenorrhyncha | Cicadellidae   | 3                |
| Arthropoda    | Hexapoda         | Insecta      |                 | Homoptera    | Auchenorrhyncha | Cicadellidae   | 1                |

|            |          |         |  |             |                 |                |    |
|------------|----------|---------|--|-------------|-----------------|----------------|----|
| Arthropoda | Hexapoda | Insecta |  | Homoptera   | Auchenorrhyncha | Cicadellidae   | 1  |
| Arthropoda | Hexapoda | Insecta |  | Hemiptera   |                 | Pentatomidae   | 1  |
|            |          |         |  | Hemiptera   |                 |                |    |
| Arthropoda | Hexapoda | Insecta |  | larvae      |                 | Pentatomidae   | 1  |
| Arthropoda | Hexapoda | Insecta |  | Coleoptera  |                 | Byrrhidae      | 1  |
| Arthropoda | Hexapoda | Insecta |  | Coleoptera  | Polyphaga       | Scolytidae     | 11 |
| Arthropoda | Hexapoda | Insecta |  | Coleoptera  | Polyphaga       | Staphylinidae  | 1  |
| Arthropoda | Hexapoda | Insecta |  | Coleoptera  | Polyphaga       | Pselaphidae    | 1  |
| Arthropoda | Hexapoda | Insecta |  | Coleoptera  | Polyphaga       | Scydmaenidae   | 1  |
| Arthropoda | Hexapoda | Insecta |  | Coleoptera  | Polyphaga       | Leiodidae      | 1  |
| Arthropoda | Hexapoda | Insecta |  | Trichoptera |                 |                | 1  |
| Arthropoda | Hexapoda | Insecta |  | Trichoptera |                 |                | 1  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     |                 |                | 1  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     | Nematocera      | Chironmidae    | 2  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     | Nematocera      | Psychodidae    | 3  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     | Nematocera      | Ceratopognidae | 2  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     | Nematocera      | Mycetophilidae | 1  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     | Nematocera      | Mycetophilidae | 3  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     |                 | Culicidae      | 22 |
| Arthropoda | Hexapoda | Insecta |  | Diptera     |                 | Culicidae      | 4  |
| Arthropoda | Hexapoda | Insecta |  | Diptera     |                 | Culicidae      | 4  |
| Arthropoda | Hexapoda | Insecta |  | Hymenoptera |                 | Cynipidae      | 1  |
| Arthropoda | Hexapoda | Insecta |  | Hymenoptera |                 | Formicidae     | 1  |
| Arthropoda | Hexapoda | Insecta |  | Hymenoptera | Apocrita        | Cyncipoidea    | 1  |
| Arthropoda | Hexapoda | Insecta |  | Hymenoptera | Symphata        |                | 1  |

## Appendix 7: Identified invertebrates in bamboo areas of naturally regenerated forests

### LEAF LITTER

| phylum     | subphylum   | class        | subclass    | order            | suborder  | family         | abundance |
|------------|-------------|--------------|-------------|------------------|-----------|----------------|-----------|
| Annelida   |             |              | Oligochaeta | Haplotaxida      |           |                | 1         |
| Arthropoda | Crustacea   | Malacostraca |             | Isopoda          | Oniscidea | Trichoniscidae | 23        |
| Arthropoda | Myriapoda   | Diplopoda    |             |                  |           |                | 1         |
| Arthropoda | Myriapoda   | Symphyla     |             |                  |           |                | 3         |
| Arthropoda | Chelicerata | Arachnida    | Acari       | Orbatida         |           | Orbatidae      | 10        |
| Arthropoda | Chelicerata | Arachnida    | Acari       | Orbatida         |           | Orbatidae      | 5         |
| Arthropoda | Chelicerata | Arachnida    | Acari       | Orbatida         |           | Orbatidae      | 13        |
| Arthropoda | Chelicerata | Arachnida    | Acari       |                  |           |                | 1         |
| Arthropoda | Chelicerata | Arachnida    | Acari       | Prostigmata      |           | Bdellidae      | 1         |
| Arthropoda | Chelicerata | Arachnida    | Acari       | Prostigmata      |           |                | 4         |
| Arthropoda | Chelicerata | Arachnida    | Acari       |                  |           |                | 1         |
| Arthropoda | Chelicerata | Arachnida    |             | Opilliones       |           |                | 1         |
| Arthropoda | Chelicerata | Arachnida    |             | Opilliones       |           |                | 1         |
| Arthropoda | Chelicerata | Arachnida    |             | Opilliones       |           |                | 1         |
| Arthropoda | Chelicerata | Arachnida    |             | Pseudoscorpiones |           |                | 1         |
| Arthropoda | Chelicerata | Arachnida    |             | Pseudoscorpiones |           |                | 1         |
| Arthropoda | Hexapoda    | Entognatha   |             | Collembola       |           | Onychiuridae   | 1         |
| Arthropoda | Hexapoda    | Entognatha   |             | Collembola       |           | Onychiuridae   | 3         |
| Arthropoda | Hexapoda    | Entognatha   |             | Collembola       |           | Onychiuridae   | 1         |

|            |          |         |             |              |                |      |
|------------|----------|---------|-------------|--------------|----------------|------|
| Arthropoda | Hexapoda | Insecta | Psocoptera  | Troctomorpha |                | 5    |
| Arthropoda | Hexapoda | Insecta | Hemiptera   |              |                | 2    |
| Arthropoda | Hexapoda | Insecta | Coleoptera  | Polyphaga    | Scolytidae     | 3    |
| Arthropoda | Hexapoda | Insecta | Coleoptera  |              | Dermestidae    | 1    |
| Arthropoda | Hexapoda | Insecta | Coleoptera  |              | Curculionidae  | 4    |
| Arthropoda | Hexapoda | Insecta | Coleoptera  | Archostemata | Carabidae      | 1    |
| Arthropoda | Hexapoda | Insecta | Hymenoptera |              | Formicidae     | 1    |
| Arthropoda | Hexapoda | Insecta | Diptera     |              | Culicidae      | 1    |
| Arthropoda | Hexapoda | Insecta | Diptera     | Nematocera   | Psychodidae    | 1    |
| Arthropoda | Hexapoda | Insecta | Diptera     | Nematocera   | Mycetophilidae | 1    |
| Arthropoda | Hexapoda | Insecta | Hymenoptera |              | Formicidae     | 1    |
| Arthropoda | Hexapoda | Insecta | Hymenoptera |              | Formicidae     | 200+ |

### DRY EXTRACTION

| phylum     | subphylum | class        | subclass    | order        | suborder        | family         | abundance |
|------------|-----------|--------------|-------------|--------------|-----------------|----------------|-----------|
| Annelida   |           |              | Oligochaeta | Haplotaenida |                 |                | 4         |
| Arthropoda | Crustacea | Malacostraca |             | Isopoda      | Oniscidea       | Trichoniscidae | 1         |
| Arthropoda | Hexapoda  | Entognatha   |             | Diplura      |                 | Japygidae      | 1         |
| Arthropoda | Hexapoda  | Entognatha   |             | Diplura      |                 | Japygidae      | 1         |
| Arthropoda | Hexapoda  | Insecta      |             | Homoptera    | Auchenorrhyncha | Cicadellidae   | 1         |
| Arthropoda | Hexapoda  | Insecta      |             | Hemiptera    |                 | Miridae        | 2         |
| Arthropoda | Hexapoda  | Insecta      |             | Coleoptera   | Polyphaga       | Scolytidae     | 4         |
| Arthropoda | Hexapoda  | Insecta      |             | Coleoptera   |                 | Staphylinidae  | 1         |
| Arthropoda | Hexapoda  | Insecta      |             | Trichoptera  |                 | Hydroptilidae  | 1         |
| Arthropoda | Hexapoda  | Insecta      |             | Diptera      |                 | Chironomidae   | 2         |
| Arthropoda | Hexapoda  | Insecta      |             | Diptera      |                 | Simuliidae     | 1         |
| Arthropoda | Hexapoda  | Insecta      |             | Diptera      |                 |                | 1         |
| Arthropoda | Hexapoda  | Insecta      |             | Diptera      |                 | Psychodidae    | 2         |
| Arthropoda | Hexapoda  | Insecta      |             | Diptera      |                 | Culicidae      | 2         |
| Arthropoda | Hexapoda  | Insecta      |             | Hymenoptera  |                 | Formicidae     | 2         |