Supplementary information

Table 1. List of butterfly taxa observed in San Miguel, Grecia, Costa Rica in each habitat, elevation, and season.

|  |  |  | Grasslands | | | | | | Riverine Forest | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | 1200 | | 1500 | | 1800 | | 1200 | | 1500 | | 1800 | |
| Familia / Subfamilia | | Especie | Dry | Rainy | Dry | Rainy | Dry | Rainy | Dry | Rainy | Dry | Rainy | Dry | Rainy |
| Hesperiidae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Eudaminae | *Astraptes alardus* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Atalopedes campestris* |  |  |  | 3 |  |  |  |  |  |  |  |  |
|  |  | *Autochton vectilucis* |  |  |  |  |  | 2 |  |  |  |  |  |  |
|  |  | *Epargyreus clavicornis cf.* |  | 2 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Urbanus proteus* |  |  |  |  |  |  |  | 1 |  |  |  | 1 |
|  |  | *Urbanus tanna* |  |  | 1 |  |  |  |  |  |  |  |  |  |
|  |  | *Urbanus viterboana cf.* |  |  |  |  |  | 1 |  |  |  |  |  |  |
|  | Hesperiinae | *Anastrus luctuosus* |  |  |  |  |  | 1 |  |  | 1 |  | 2 |  |
|  |  | *Ancyloxypha cf.* |  |  |  | 2 |  |  |  |  |  |  |  |  |
|  |  | *Copaeodes cf.* |  |  |  | 1 |  |  |  |  | 1 |  |  |  |
|  |  | *Poanes zabulon* |  |  |  |  |  |  |  |  |  |  | 3 | 2 |
|  |  | *Thespieus dalman* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  | Pyrginae | *Anchlyodes pallida* |  |  |  | 2 |  |  |  | 3 |  |  | 1 | 3 |
|  |  | *Celaenorrhinus approximatus* |  |  |  |  |  |  |  | 1 |  | 1 |  |  |
|  |  | *Creonpyge creon creon* |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  | *Heliopetes sp.* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Pyrgus adepta* |  | 2 |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Pyrgus orcus* | 10 |  |  |  |  |  |  |  | 1 |  |  |  |
|  |  | *Pyrgus sp.* | 14 |  | 7 |  | 2 | 6 |  |  |  |  |  | 2 |
|  |  | *Xenophanes tryxus* |  |  |  |  |  |  |  | 1 |  |  |  |  |
| Lycaenidae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Polyommatinae | *Celastrina echo gozara* |  |  |  |  |  |  | 7 | 1 | 2 |  | 76 | 29 |
|  | Theclinae | *Apuecla maeonis* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Atlides sp.* |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  | *Calycopis sp.* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Contrafacia bassania* |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  | *Cyanophrys longula* |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  | *Cyanophrys sp.* |  |  |  |  |  | 1 |  |  |  |  |  |  |
|  |  | *Oenomaus ortygnus* |  |  |  |  |  | 1 |  |  |  |  |  |  |
|  |  | *Ostrinotes keila cf.* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Strymon istapa* |  |  |  | 1 |  |  |  |  |  |  |  | 1 |
|  |  | *Strymon sp.* |  |  |  | 1 |  |  |  |  |  |  |  | 1 |
|  |  | *Strymon yojoa cf.* |  |  |  |  |  | 1 |  |  |  |  |  |  |
| Nymphalidae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Apaturinae | *Doxocopa cyane* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  | Biblidinae | *Catonephele mexicana* |  |  |  |  |  |  |  | 2 |  |  |  |  |
|  |  | *Diaethria pandama* |  |  |  |  |  | 1 |  | 1 |  |  |  |  |
|  |  | *Diaethria sp.* |  |  |  |  |  |  | 1 |  |  |  |  |  |
|  |  | *Epiphile adrasta* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Hamadryas sp.* |  | 4 |  |  |  | 1 |  | 3 |  |  |  |  |
|  | Charaxinae | *Archaeoprepona sp.* |  |  |  | 1 |  |  |  |  |  |  |  | 1 |
|  |  | *Caligo telamonius memnom* |  |  |  | 1 |  |  | 1 |  |  |  |  |  |
|  |  | *Consul electra electra* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Fountainea glycerium glycerium* |  | 1 |  | 2 |  | 3 |  |  |  | 2 |  | 2 |
|  |  | *Memphis sp.* |  |  |  |  |  |  |  |  |  |  | 1 |  |
|  | Cyrestinae | *Marpesia petreus* |  | 2 |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Marpesia zerynthia* |  | 3 |  |  |  | 2 |  | 2 | 1 |  |  |  |
|  | Danainae | *Ceratinia tutia dorilla* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Danaus gilippus thersippus* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Danaus plexippus* |  | 2 | 5 | 2 |  |  |  |  |  |  |  |  |
|  |  | *Dircenna klugii* |  |  |  |  |  | 2 |  |  | 2 |  |  |  |
|  |  | *Dircenna olyras relata* |  |  |  |  |  | 1 |  |  |  |  |  |  |
|  |  | *Episcada salvinia* |  |  |  |  |  | 1 |  |  | 1 | 5 |  | 1 |
|  |  | *Godyris nero* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Greta andromica lyra* |  |  |  |  |  |  |  |  |  | 1 |  |  |
|  |  | *Greta annette* |  |  |  |  |  | 1 |  |  |  | 4 |  |  |
|  |  | *Hyalyris excelsa decumana* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Hypothyris lycaste callispila* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Ithomia heraldica heraldica* |  |  |  | 3 |  | 28 |  | 4 | 1 | 2 |  | 2 |
|  |  | *Ithomia patilla* |  | 1 |  |  |  | 1 |  | 3 |  |  |  |  |
|  |  | *Ithomia xenos xenos* |  |  |  |  |  | 1 |  |  |  | 3 |  | 1 |
|  |  | *Mechanitis menapis saturata* |  |  |  |  |  | 5 |  | 5 |  | 23 |  | 3 |
|  |  | *Melinaea lilis imitata* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Oleria paula* |  |  |  |  |  |  |  | 3 |  |  |  |  |
|  |  | *Oleria vicina* |  |  |  |  |  |  |  |  |  | 1 |  |  |
|  |  | *Olyras crathis staudingeri* |  |  |  |  |  |  |  |  |  |  | 1 |  |
|  |  | *Pteronymia artena artena* |  |  |  |  |  | 1 |  |  |  | 1 |  |  |
|  |  | *Pteronymia fulvimargo cf.* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Pteronymia hara* |  |  |  |  |  |  |  |  |  | 2 |  |  |
|  |  | *Pteronymia latilla fulvescens* |  |  |  | 2 |  | 1 |  |  |  |  |  |  |
|  |  | *Pteronymia picta notilla* |  | 1 |  |  |  | 2 |  | 4 |  | 1 |  | 1 |
|  |  | *Pteronymia simplex simplex* |  |  |  | 7 |  | 4 |  |  | 3 | 2 |  |  |
|  |  | *Pteronymia sp.* |  |  |  |  |  | 10 |  |  |  |  |  |  |
|  | Heliconiinae | *Actinote anteas* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Altinote ozomene gabrielae* |  | 2 |  |  |  |  |  | 16 |  |  |  | 20 |
|  |  | *Altinote ozomene nox cf.* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Dione juno huascuma* |  |  | 5 | 4 |  |  |  |  |  |  |  |  |
|  |  | *Dryas iulia* | 3 | 33 |  | 4 |  | 1 | 5 | 3 |  | 2 |  |  |
|  |  | *Dynamine paulina thalassina* |  |  |  |  |  |  |  | 1 | 1 |  |  |  |
|  |  | *Eueides aliphera* |  | 1 |  |  |  |  |  | 2 |  |  |  |  |
|  |  | *Heliconius clysonymus montanus* |  | 2 |  | 7 |  | 4 |  | 7 | 11 | 15 | 12 | 2 |
|  |  | *Heliconius doris* |  |  |  |  |  | 1 |  |  |  |  |  |  |
|  |  | *Heliconius erato petiverana* | 1 | 13 |  |  |  |  | 35 | 18 |  |  |  |  |
|  |  | *Heliconius hecale zuleika* |  | 1 |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Heliconius hecalesia formosus* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Heliconius ismenius clarescens* |  |  |  |  |  |  | 1 | 3 | 1 |  |  |  |
|  |  | *Heliconius ismenius telchinia* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Heliconius melpomene rosina* | 1 |  |  |  |  |  | 1 |  |  |  |  |  |
|  | Limenitidinae | *Adelpha demialba* |  |  |  | 2 |  | 1 |  |  |  | 1 |  | 5 |
|  |  | *Adelpha sp.* |  | 1 |  | 2 |  | 2 |  | 3 |  | 1 |  | 2 |
|  |  | *Adelpha tracta* |  |  |  |  |  | 2 |  |  |  |  |  | 2 |
|  | Nymphalinae | *Anartia fatima* | 3 | 46 |  |  |  | 2 |  | 2 |  |  |  |  |
|  |  | *Anthanassa ardys* |  | 2 |  |  |  | 1 |  | 1 |  |  |  |  |
|  |  | *Anthanassa otanes fulviplaga* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Anthanassa otanes otanes* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Anthanassa sp.* | 2 | 3 | 6 | 5 | 3 |  |  |  |  |  |  |  |
|  |  | *Chlosyne janais* |  | 4 |  | 1 |  |  |  |  |  | 1 |  |  |
|  |  | *Hypanartia dione arcaei cf.* |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  | *Hypanartia lethe* |  | 1 |  |  |  |  |  | 2 |  |  |  | 1 |
|  |  | *Siproeta epaphus* |  | 30 |  | 6 |  |  |  | 1 |  |  |  | 1 |
|  |  | *Siproeta stelenes biplagiata* |  |  |  | 1 |  |  |  | 2 | 3 |  |  |  |
|  |  | *Smyrna blomfildia datis* |  | 6 |  | 3 |  | 1 |  | 5 |  |  |  | 2 |
|  |  | *Tegosa anieta anieta* |  |  |  |  | 5 |  |  |  |  |  |  | 2 |
|  |  | *Vanessa virginiensis* |  | 5 | 1 |  | 5 |  |  |  |  | 1 |  | 1 |
|  | Satyrinae | *Cyllopsis argentella* |  |  |  | 2 |  | 1 |  |  |  | 1 |  |  |
|  |  | *Drucina leonata* |  | 4 |  | 4 | 1 | 6 | 1 |  |  |  |  |  |
|  |  | *Forsterinaria neonympha* |  |  |  |  |  | 2 |  | 1 |  |  |  |  |
|  |  | *Hermeuptychia hermes* | 31 | 24 | 1 | 35 | 2 | 9 | 9 | 1 | 2 | 1 | 1 | 3 |
|  |  | *Manataria maculata* |  |  |  |  |  |  |  |  | 42 |  | 1 |  |
|  |  | *Morpho helenor narcisus* |  | 2 |  | 3 | 7 | 2 | 3 | 7 | 15 | 7 | 16 | 6 |
|  |  | *Opsiphanes sp.* |  |  |  |  |  |  |  |  | 1 |  |  |  |
|  |  | *Oxeoschistus sp.* |  |  |  |  |  |  |  |  |  | 1 |  |  |
|  |  | *Oxeoschistus tauropolis tauropolis* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Pareuptychia ocirrhoe* |  |  |  |  |  |  | 1 |  |  |  |  |  |
|  |  | *Pedaliodes dejecta* |  |  |  | 2 |  | 1 |  |  |  | 2 |  |  |
|  |  | *Pedaliodes manis* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Pronophila timanthes* |  |  |  | 5 |  | 2 |  |  | 8 |  |  | 1 |
|  |  | *Satyrotaygetis satyrina* |  |  |  |  |  |  |  | 1 |  |  |  | 1 |
|  |  | *Yphthimoides renata* |  | 2 |  |  |  | 1 |  | 3 |  |  |  | 1 |
| Papilionidae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Papilioninae | *Battus polydamas polydamas* | 1 | 3 |  |  |  | 1 |  | 1 |  |  |  |  |
|  |  | *Heraclides androgeus epidaurus* |  |  |  |  | 1 |  |  |  |  |  |  |  |
|  |  | *Papilio polyxenes stabilis* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Papilio thoas neacles* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Parides iphidamas* |  |  |  |  |  |  | 1 |  |  |  |  |  |
|  |  | *Parides sp.* |  | 2 |  |  |  | 1 |  | 2 |  |  |  |  |
| Pieridae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Coliadinae | *Eurema albula* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Eurema arbela boisduvaliana* |  |  |  |  |  |  |  | 2 |  |  |  |  |
|  |  | *Eurema daira* |  | 5 |  |  |  |  |  |  | 1 |  |  |  |
|  |  | *Eurema salome* |  | 9 |  |  | 1 |  |  | 3 |  | 1 |  |  |
|  |  | *Eurema sp.* | 11 |  |  | 20 |  | 3 | 8 | 12 |  |  |  | 2 |
|  |  | *Eurema xanthochlora* |  | 12 |  |  |  |  |  | 6 |  |  | 1 |  |
|  |  | *Phoebis neocypris rurina* | 1 | 1 | 6 | 2 | 1 | 1 | 2 | 2 |  |  |  | 1 |
|  |  | *Phoebis philea philea* | 1 | 2 | 2 |  |  |  | 2 | 1 |  |  |  |  |
|  |  | *Phoebis sennae marcellina* | 2 | 4 |  | 4 |  |  |  |  |  |  |  |  |
|  |  | *Phoebis sp.* |  |  |  |  |  |  | 1 |  |  |  |  |  |
|  |  | *Pyrisitia dina* | 1 |  |  |  | 1 |  |  |  |  |  |  |  |
|  |  | *Pyrisitia nise* | 1 | 2 |  | 1 |  |  |  |  |  |  |  |  |
|  |  | *Pyrisitia proterpia* |  | 1 |  | 3 |  |  |  | 1 |  |  |  |  |
|  | Dismorphiinae | *Dismorphia amphione praxinoe* |  |  |  |  |  |  |  | 1 |  | 1 |  |  |
|  |  | *Dismorphia crisia lubina* |  |  |  |  |  | 2 |  |  |  | 1 |  |  |
|  |  | *Dismorphia eunoe desine* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Dismorphia sp.* |  |  |  | 8 |  |  |  |  |  | 3 |  | 2 |
|  |  | *Dismorphia zathoe pallidula* |  | 1 |  | 1 |  | 1 |  | 3 |  | 4 |  |  |
|  |  | *Lieinix nemesis* |  |  |  | 1 |  |  |  |  |  |  |  |  |
|  | Pierinae | *Ascia monuste* | 1 |  | 4 |  |  |  |  |  | 2 |  |  |  |
|  |  | *Catasticta nimbice bryson* |  |  |  |  | 2 | 7 |  |  | 1 | 4 | 1 | 31 |
|  |  | *Catasticta sp.* |  |  |  |  |  |  |  |  |  |  |  | 2 |
|  |  | *Catasticta teutila flavomaculata* |  |  |  |  |  |  |  |  |  |  |  | 1 |
|  |  | *Leptophobia aripa* |  | 3 |  | 2 |  | 1 |  |  |  | 2 |  |  |
|  |  | *Leptophobia caesia tenuicornis* |  | 1 |  |  |  |  |  | 4 |  | 1 |  | 1 |
|  |  | *Pereute charops* |  | 1 |  |  |  | 1 |  |  |  |  |  | 3 |
| Riodinidae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Euselasiinae | *Euselasia aurantia* |  |  |  |  |  | 1 |  |  |  |  |  | 2 |
|  | Riodininae | *Calephelis sp.* |  | 1 |  |  |  |  |  |  |  |  |  |  |
|  |  | *Emesis tenedia* |  |  |  |  |  |  |  | 1 |  |  |  |  |
|  |  | *Thisbe lycorias* |  | 1 |  |  |  |  |  |  |  |  |  |  |
| Uraniidae | |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Uraniinae | *Urania fulgens* |  |  |  | 6 |  |  |  |  |  | 1 |  |  |