

Entomological Research

In the summer II semester I conducted an entomological collection in Big Bend National Park (Big Bend NP). Collecting took place from 15 March to 10 August 2006 with an emphasis on collecting in July and early August. Big Bend NP is an ideal location for entomological research. The park has an elevational relief of approximately 6000' which results in a variety of habitats and microhabitats. Big Bend NP is located in the northern Chihuahuan desert and has a variety of geologic formations from the Chisos Mountains, a heavily eroded igneous mass from the Tertiary, to the lower desert where alluvium and sedimentary rocks from the Cretaceous, Tertiary, and Pleistocene are most abundant.

The research goal was to collect as many orders of Class Hexapoda (a few orders outside Hexapoda were collected mainly Arachnida) and families therein possible throughout the park. I attempted to sample as many habitats as available while working around a busy research and work schedule. Typical sampling methods included pit fall traps, black light traps, sweep netting, dip netting, hand capture and baiting. A list of the Orders and families follows, also field notes with corresponding collection numbers are attached. Total Orders collected 22; families collected 81; species collected ~154

Phylum Arthropoda

Subphylum Chelicerata

Class Arachnida

Order Scorpiones

Family Buthidae – DJLeavitt 058 *Centruoides vittatus*Family Diplocentridae – DJLeavitt *Diplocentrus whitei*Family Vaejovidae – DJLeavitt 067 *Vaejovis waueri* ♀

DJLeavitt 150

Order Uropygi

giganteus

Family Thelyphonidae – DJLeavitt 027 *Mastigoproctus*

Order Araneae

Unknown – DJLeavitt 063

Order Acari

Family Ixodidae – DJLeavitt 011

Family Trombididae - DJLeavitt 024

Unknown – DJLeavitt 110

Unknown – DJLeavitt 120

Order Solfugae – DJLeavitt 018

- DJLeavitt 019

- DJLeavitt 025

Subphylum Atelocerata

Class Hexapoda

Order Collembola

Family Mackenziellidae – DJLeavitt 161

- DJLeavitt 155

Order Thysanura

Family Lepismatidae – DJLeavitt 112

Order Odonata

Family Libellulidae – DJLeavitt 148 *Perithemis domitia*

DJLeavitt 146

Family Coenagrionidae – DJLeavitt 145

Family Cordulidae – DJLeavitt 101

DJLeavitt 175

Order Orthoptera

Family Romaleidae – DJLeavitt 169 *Taenipoda eques*

Family Acricidae – DJLeavitt 029

- DJLeavitt 049

- DJLeavitt 069

Family Tetrigidae – DJLeavitt 097

Family Gryllidae – DJLeavitt 096

DJLeavitt 127

Order Phasmatodae

Family Heteromeniidae – DJLeavitt 016

Order Dermaptera

Family Anisolabididae – DJLeavitt 129

- DJLeavitt 137

Family Labiidae – DJLeavitt 007 *Vostox brunneipenis*

Order Embiidina

Family – DJLeavitt 075

- DJLeavitt 151

Order Isoptera

Family Rhinotermitidae – DJLeavitt 068

Family Kalotermitidae – DJLeavitt 111

Order Mantodea

Order Blattodea
Family Blattidae – DJLeavitt 048
Family Polyphagidae - DJLeavitt 062

Order Hemiptera
Family Notonectidae – DJLeavitt 162
DJLeavitt 163
Family Reduviidae – DJLeavitt 022
DJLeavitt 135
Family Coreidae – DJLeavitt 073
Family Pentatomidae – DJLeavitt 008
DJLeavitt 045
Family Scutelleridae – DJLeavitt 074
Family Cicadidae – DJLeavitt 015
Family Cicadellidae – DJLeavitt 051
- DJLeavitt 052
- DJLeavitt 081
Family Miridae – DJLeavitt 165
DJLeavitt 171
Family Rhopalidae – DJLeavitt 012
Family Cydnidae – DJLeavitt 098

Order Thysanoptera
Family Phaelothripidae – DJLeavitt 16
- DJLeavitt 13
- DJLeavitt 05

Order Coleoptera
Family Microsporidae – DJLeavitt 03
DJLeavitt 16
Family Carabidae – DJLeavitt 017
- DJLeavitt 040
- DJLeavitt 060
- DJLeavitt 071
- DJLeavitt 149
Family Gyrinidae – DJLeavitt 159
Family Staphylinidae – DJLeavitt 094
Family Noteridae – DJLeavitt 157
Family Scarabaeidae – DJLeavitt 006
- DJLeavitt 009
- DJLeavitt 028
- DJLeavitt 030
- DJLeavitt 032
- DJLeavitt 057
Family Buprestidae – DJLeavitt 026
DJLeavitt 064
Family Cantharidae – DJLeavitt 043
Family Coccinellidae – DJLeavitt 170

Family Cerambycidae – DJLeavitt 031

Family Curculionidae – DJLeavitt 037

- DJLeavitt 090

- DJLeavitt 109

- DJLeavitt 156

Family Dystiscidae – DJLeavitt 158

Family Hydrophilidae – DJLeavitt 041

- DJLeavitt 160

Family Pyrochroidae – DJLeavitt 178

Family Rhysodidae – DJLeavitt 009

Family Chrysomelidae – DJLeavitt 036

- DJLeavitt 038

- DJLeavitt 056

Family Anobiidae – DJLeavitt 004

Family Silvanidae – DJLeavitt 055

- DJLeavitt 076

Family Elateridae – DJLeavitt 085

- DJLeavitt 130

Family Amphizoidae – DJLeavitt 113

Family Zopheridae – DJLeavitt 005

- DJLeavitt 053

- DJLeavitt 054

Unknown - DJLeavitt 061

Order Neuroptera

Family Myrmeloentidae – DJLeavitt 070

Order Hymenoptera

Family Apidae – DJLeavitt 013

- DJLeavitt 044

- DJLeavitt 065

- DJLeavitt 173

- DJLeavitt 174

Family Vespidae – DJLeavitt 080

- DJLeavitt 121

Family Formicidae – DJLeavitt 020

- DJLeavitt 088 *Solenopsis molesta*

- DJLeavitt 114

- DJLeavitt 131

Family Pamphiliae – DJLeavitt 050

Family Colletidae – DJLeavitt 103

- DJLeavitt 132

Family Scoliidae – DJLeavitt 102

Family Chrysididae – DJLeavitt 021

Family Sphecidae – DJLeavitt 079

- DJLeavitt 104

Family Pteromalidae – DJLeavitt 001

Family Cydnidae – DJLeavitt 035

Family Bethylidae – DJLeavitt 086

Unknown - DJLeavitt 023

Unknown - DJLeavitt 034

Order Lepidoptera

Family Papilionidae – DJLeavitt 047 *Papilio cresphontes*

Family Pieridae – DJLeavitt 100 *Pontia protodice*

- DJLeavitt 126 *Pontia protodice*

- DJLeavitt 125

Family Nymphalidae – DJLeavitt 042 *Libytheana carinenta*

- DJLeavitt 099 *Euptoieta Claudia*

- DJLeavitt 124 *Danus glippus*

Family Arctiidae – DJLeavitt 128

Family Noctuidae – DJLeavitt 176

Family Lycaenidae – DJLeavitt 179 *Hemiargus isola*

Unknown – DJLeavitt 032

Unknown – DJLeavitt 073

Order Diptera

Family Syrphidae – DJLeavitt 002

DJLeavitt 003

Family Culicidae – DJLeavitt 077

- DJLeavitt 078

Family Cecidomyiidae – DJLeavitt 084

Family Ptychopteridae – DJLeavitt 177

Family Bombyliidae – DJLeavitt 105

- DJLeavitt 106

Family Asilidae – DJLeavitt 066

- DJLeavitt 134

Family Oestridae – DJLeavitt 082

Family Sarcophagidae – DJLeavitt 116

Family Conopidae – DJLeavitt 180

Unknown – DJLeavitt 046

- DJLeavitt 083

- DJLeavitt 108

- DJLeavitt 119

- DJLeavitt 134