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Liberal Arts and Sciences

**Entomology Department** 

Sydney A. Cameron Papers, 1991-97, 1999-2012, 2015

## <u>Box 1</u>:

Bombus (Bumblebee) Phylogeny and Reclassification

Record Notebooks

Collection Data, 2002

Includes weather and bee behavior

Techniques, Procedures, and Receipts, 2002-04

Polymerase Chain Reaction Data, 2003-05

Jennifer Smith's OPSIN (Bombus), Primer Testing, 2003-08

PEPCK HMH [Heather M. Hines], 2005-06

A continuation from the Primer Testing Notebook

OPSIN, 2004-2005

Bombus Phylogeny in Collaboration with Paul Williams and Heather Hines (Maps, Table of Taxa, etc.)

Bombus Status and Trees, ca. 2007 [See Cross Reference Sheets]

**Invalid Trees** 

#### Box 2:

Bombus Phylogeny and Reclassification - Bombus Phylogeny in Collaboration (Continued)

Bombus Phylogeny, 1991-96, 1999-2000

Bee Lists and Analyses, 2002-06 [Restricted]

Bombus species lists from different geographical regions, 2005-08

Correspondence and Notes, 1997, 1999-2005

Bombus Phylogeny, ca. 2006

Distance Analysis

Bombus 165 Analyses, 2003-04

Bombus Phylogeny Analyses, 2004

Bombus Stats, ca. 2004

Correspondence and Analyses on Collecting and Sequencing, 2004

Bombus Phylogeny Paper (Heather's [Hines] comments) & ([Paul] Williams Comments), 2005-06

Gaps Edited Combined, ca. 2005

### Box 3:

Bombus Phylogeny (Continued)

Incl. Gaps, With Gaps 4 genes combined (v2, v3) (16 mil gen), 2005

Morph Data MP Analyses, 2005

No Gaps, 2005

Bombus Genus MP Analyses Genus, Genus Date MP Analysis, February 2005

TNT MP Analyses (Yoder), February 2005

Includes correspondence with Matt Yoder.

Equal Rates runs combined 4 genes (v1, v2), March 26, 2005

Exclude 16s (no gap), March 26, 2005

Heather's [Hines] Notes (Part 1 of 2), August 2005

Heather's [Hines] Notes (Part 2 of 2), August 2005

4-Gene Trees, September 2005

Morph Bayesian + Reduced (46) Taxon DNA Bayesian + Genes + Morph, ca. 2006

Reclassification Correspondences, Data, and Articles, 2006

Table Figures, ca. 2006

Gaps and 5-Gene Trees, No Gap data 5-genes, October 2006

Modified Figures, October 2006

Morph Last, October 2006

Access Volume 10 Cover, 2007

Publications, 2007-08

Publication, Reclassification Part 1 of 4, 2008

Uppsala Trip, Reclassification Part 2 of 4, 2006

Bombus Worldwide Phylogeny, Reclassification Part 3 of 4, 1999-2001

Correspondence and Draft, Reclassification Part 4 of 4, 2006-7

Phylogenic Tree and Bee Banding Diagram, ca. 2007

Bumblebee Decline 2007-2011

North American Bombus Decline Study, 2007-11

Important papers for "decline" project SAC, Part 1 of 3, July 2007

### Box 4:

#### Bumblebee Decline (Continued)

Important papers for "decline" project SAC, Part 2 of 3, July 2007

Important papers for "decline" project SAC, Part 3 of 3, July 2007

Original Notes, Papers, and Figure Data, Part 1 of 2, 2008-11

Original Notes, Papers, and Figure Data, Part 2 of 2, 2008-11

Media Attention, Bombus Decline Study, 2010-11, 2015

IUCM-STL Zoo Bombus Workshop, November 2010

## Bumblebee Decline Field Survey

2008 Bombus Surveys

Map and Data Collections Tracker, 2009

Illinois Data Sheet, July 2009

Arkansas, May-June 2009

2009 Bombus Trip Data Sheets, 2010 Added

2010 Bombus Collection Data Sheets

Illinois, 2009

Minnesota, 2009

Wisconsin, 2009

Missouri, 2009

Kansas, 2009

Iowa, 2009

Nebraska, 2009

Indiana, 2009

Ohio, 2009

Pennsylvania, 2009

New York, 2009

Vermont, 2009

New Hampshire [Empty]

Massachusetts, 2009

Connecticut, 2009

Virginia, 2009

North Carolina, 2009

South Carolina, 2009

Georgia, July 2009

Tennessee, 2009

Kentucky, 2009

Arkansas, June 2009

Louisiana, June 2009

Mississippi, June 2009

Alabama, June 2009

Oklahoma

Texas, August 2009

## <u>Box 5</u>:

Bumblebee Decline Field Survey - 2009 Bombus Trip (Continued)

Maine, August 2009

Illinois [Empty]

Kansas, May 2009

2009 Permits

Permit Materials, 2009 [Restricted]

Louisiana, 2009

North Carolina, 2009

Tennessee, 2009

Wisconsin-Madison Arboretum and Mississippi State University, 2008-09

2009 Permits, Reservations, and Data

MO (Missouri), 2009

Illinois, 2009

Indiana [Empty]

Bombus Collection Data Sheet [Blank Sheets], 2009

Notes and Field Tags, 2009

Kentucky, 2009

Tennessee, 2009

Georgia, 2009

South Carolina, 2009

North Carolina, 2009

Virginia, 2009

West Virginia [Empty]

Lot 89G9 Data

Bombus Files J. Grixti, RM 422 M.H

Iowa State University Specimen Loan, June 2008

Collection Maps and Notes

Project Description, 2008

Undergraduate Assistantship Applications, 2008 [Restricted]

Meetings, January-May 2008

Arkansas, Part 1 of 4, January 2008

Arkansas Key, Part 2 of 4, 1965

Arkansas Loans, Part 3 of 4, January 2008

Arkansas Permits, Part 4 of 4, 2008

Colorado [Empty]

Iowa, 2008

Illinois Map, Part 1 of 3, January 2008

Illinois Keys, Part 2 of 3, ca. 2008

Illinois Permits, Part 3 of 3, 2007-08

Indiana, January 2008

Kansas Part 1 of 3, January 2008

Kansas Loans, Part 2 of 3, January 2008

Kansas Permits, Part 3 of 3, 2008

Michigan Part 1 of 3, 2008

Michigan Key, Part 2 of 3, 1965

Michigan Loans, Part 3 of 3, April 2008

Minnesota Part 1 of 2, 2008

Minnesota Permits, Part 2 of 2, April-May 2008

Missouri Part 1 of 3, January 2008

Missouri Keys, Part 2 of 3, 2008

Missouri Permits, Part 3 of 3, 2008

Nebraska Part 1 of 2, 2008

Includes ISBE Teaching Certificate

Nebraska Key, Part 2 of 2, 2006

North Dakota, 2008

Oklahoma, Part 1 of 3, January 2008

Oklahoma Loans, Part 2 of 3, 2008

Oklahoma Permits, Part 3 of 3, 2008 [Restricted]

South Dakota Part 1 of 3, January 2008

South Dakota Loans, Part 2 of 3, January 2008

South Dakota Permits, Part 3 of 3, 2008

Texas Part 1 of 3, January 2008

Texas Loans, Part 2 of 3, January 2008

Texas Permits, Part 3 of 3, 2008

Wisconsin, Part 1 of 4, January 2008

Wisconsin Key, Part 2 of 4, 2008

Wisconsin Loans, Part 3 of 4, February 2008

Wisconsin Permits, Part 4 of 4, May 2008 [Restricted]

Wyoming [Empty] Notes, ca. 2008

### Box 6:

Bumblebee Decline Field Survey (Continued)

Bombus Decline, 2009

Museum Loan Forms, 2009

Specimen Invoices [Empty]

Species List

Permits and Maps

Publications on Bee Classification and Description

Maps and Email, July 2009

Park Info, 2008

Permits, 2008

Trips

Maps and Itinerary

Trip 1: IL, MO + KS

**Contact Information** 

Illinois, June 2008

Kansas

Missouri

Trip 2: IL, WI + MN

Maps and Data Sheet

Minnesota, 2008

Wisconsin

Trip 3: Indiana

Route, Sites + Camping

Trip 4: Illinois

Trip 5: NE Iowa

USDA 2008 Bombus Surveys

Survey Description, 2008

Arkansas, July 2008

Colorado, July 2008

Illinois, June-August 2008

Indiana, June 2008

Iowa, July and September 2008

Kansas, July 2008

Minnesota, July-August 2008

Missouri, June-July and September 2008

Nebraska, July 2008

North Dakota, August 2008

Oklahoma, July 2008

South Dakota, August 2008

Texas, July 2008

Wisconsin, June-August 2008

West Trip Maps, 2008 Directions, 2008 Colorado, July 2008 Colorado Permits, July 2008 Illinois [Empty] Illinois Permits, May 2008 Kansas, 2008 Minnesota, 2008 Minnesota Permits, May 2008 Missouri [Empty] Missouri Permits, May 2008 North Dakota, August 2008 North Dakota Permits, May 2008 South Dakota, July-August 2008 South Dakota Permits, May-August 2008 Wisconsin, August 2008 Wisconsin Permits, May 2008 [Restricted] Box 7: Bumblebee Decline Field Survey – West Trip (Continued) Wyoming, July 2008 Collection Sheets [Empty] Extra Bees and Articles Field Tags Site 7 Notes Labels, Correspondences, and Data Sheets, 2008 Louisiana Data Sheet, June 2009 Nosema Museum Stuff, 2010-2012 2011 Collecting Trips, July 2011 Corbiculate Bee Phylogeny Systematic Biology Poster, April 2001 [See OS-25] Eulaema Phylogeny (Orchid Bees) Ideas for Eulaema Phylogeographic Study, 2000 Eulaema Phylogeny, Part 1 of 2, 2001 Eulaema Collecting, Eulaema Phylogeny Part 2 of 2, 2001 Lab Notebook, Alice Salzat, Euglossini Phylogeny, 2001-02 Reprints, 2004 Meliponini (Stingless Bee) DNA Sequencing Data 2004 Claus

Wyoming, July 2008

### Box 8:

Meliponini (Continued)

2005-6 Claus

2007-8 Claus, Part 1 of 2

2007-8 Claus, Part 2 of 2

Claus Rasmussen Notebook, 2004-05

Contains protocols, data, and notes

Comprehensive Phylogeny of Stingless Bees, 2009

Vespid Phylogeny (Wasps)

Vespid Phylogeny Taxonomy Poster [See OS-25]

Paper Wasp Photo by Won Young Choi, 2004

Vespid Rob/Hines, Primer Data (Bound Book), 2006

# Box 9: [Poster Box]

Bombus Status and Trees, ca. 2007

Includes Comprehensive Tree and Laminated Poster

# OS-25: [Oversized Materials - Folder]

Bombus Status and Trees, ca. 2007

Includes RJ Trees and "Current Status and Potential Causes of Population Decline in Wild Bumble Bee Pollinators"

Systematic Biology Poster, April 2001

Vespid Phylogeny Taxonomy Poster