

## North American Lepidoptera in the Oregon State Arthropod Collection: Hesperiiidae, Papilionidae and Pieridae. (Version 1.0) June 4, 2018

Jon H. Shepard  
Christopher J. Marshall  
Paul C. Hammond

Oregon State Arthropod Collection, Department of Integrative Biology, Oregon State University, Corvallis, OR

### Abstract:

A dataset of 40,007 observational records is presented for North American Lepidoptera belonging to the families: Hesperiiidae, Papilionidae and Pieridae are presented. The records represent the majority, but not entire, North American holdings of these groups in the collection. We expect to add more records as well as modify these records with time. The dataset is being published at this time in order that the records therein be citable prior to being shared online.

**Keywords:** butterflies, conservation, faunistics, biodiversity data

Cite this work, including the attached dataset and records therein, as:

*Shepard, J. H., C. J. Marshall & P. C. Hammond. 2018. North American Lepidoptera in the Oregon State Arthropod Collection: Hesperiiidae, Papilionidae and Pieridae. Version 1.0. June 4, 2018. Catalog: Oregon State Arthropod Collection 2(2) p.1-2. DOI: [http://dx.doi.org/10.5399/osu/cat\\_osac.2.2.4480](http://dx.doi.org/10.5399/osu/cat_osac.2.2.4480)*

### Introduction:

This publication provides an archived and citable reference related to a dataset of observational records based on Lepidoptera specimens in the Oregon State Arthropod Collection (OSAC) (see: attached supplemental file). The dataset was generated as part of a nationally coordinated effort across entomological collections to build a shared data repository of North American Lepidoptera records for use by scientists, conservationists and the public (Seltmann et al. 2017).

This contribution represents the second dataset to be shared by the OSAC. It includes label data records for 40,007 North American specimens belonging to the families: Hesperiiidae, Papilionidae and Pieridae. Future published datasets will add additional records, including other taxa and specimens from other geographic regions. Additionally, later releases may enhance, edit or modify pre-existing records when corrections, refinements and/or improved content (e.g., new taxonomic determinations or georeferencing, etc) as it becomes available.

These new records will be archived in association with this publication and shared via an IPT server. housed at Oregon State University: <http://osac.oregonstate.edu/ipt/>

### Methods

Prior to digitization, each specimen is provisioned with a unique serial number (catalog number) that is printed using a machine-readable barcode as well as a human readable numeral on an acid-free card-stock label that is

typically placed, face down, as the bottom label for each specimen. Data was then collected into fields consistent with Darwincore standards for occurrence data (<http://rs.tdwg.org/dwc/terms/Occurrence>).

**Taxonomic treatment:** the taxonomic identity for every specimen was confirmed by J. H. Shepard prior to being captured. To ensure nomenclatural validity, all names were checked and standardized according to the Pelham checklist (Pelham 2008).

**Locality and georeference data.** Label data were transcribed into the Darwincore location fields (<http://purl.org/dc/terms/Location>). Namely: continent, country, stateProvince, county and locality. Missing information (e.g., missing county information for a given site) was added to a record if it could be determined without ambiguity based on gazetteers, maps or in reference to other label data. Elevational data on labels were converted to minimumDistanceAboveSurfaceInMeters. Elevational ranges (e.g., 500-1200m) were recorded as the lower of the two. When available, decimalLatitude and decimalLongitude were included, but not all records were georeferenced at this time.

**Metadata:** BasisofRecord for each occurrence was entered as preservedSpecimen with the collector(s) listed on the label stored in the recordedBy field. The OccurrenceID is a URI that includes the catalog number: “[http://osac.oregonstate.edu/SP/OSAC\\_XXXXXXXXXX](http://osac.oregonstate.edu/SP/OSAC_XXXXXXXXXX)” where “XXXXXXXXXX” is the 10-digit unique catalog number for the specimen.

**Supplemental File:** The entire dataset is provided here as a supplemental file in a standard text file (Comma Separated Values format).

## References:

- Pelham JP (2008) A catalogue of the butterflies of the United States and Canada. *Journal of Research on the Lepidoptera* 40: 1-658
- Seltmann KC, Cobb NS, Gall LF, Bartlett CR, Basham MA, Betancourt I, Bills C, Brandt B, Brown RL, Bundy C, Caterino MS, Chapman C, Cognato A, Colby J, Cook SP, Daly KM, Dyer LA, Franz NM, Gelhaus JK, Grinter CC, Harp CE, Hawkins RL, Heydon SL, Hill GM, Huber S, Johnson N, Kawahara AY, Kimsey LS, Kondratieff BC, Krell FT, Leblanc L, Lee S, Marshall CJ, McCabe LM, McHugh JV, Menard KL, Opler PA, Palffy-Muhoray N, Pardikes N, Peterson MA, Pierce NE, Poremski A, Sikes DS, Weintraub JD, Wikle D, Zaspel JM, Zolnerowich GG (2017) LepNet: The Lepidoptera of North America Network. *ZOOTAXA* 4247: 73-77. doi:doi: 10.11646/zootaxa.4247.1.10.

Funded by: NSF DBI#1601888: Digitization TCN: Collaborative Research: Lepidoptera of North America Network: Documenting Diversity in the Largest Clade of Herbivores