# Budburst Literature Review

Todo

Have standard text as for ‘chill’ in data detailed. Both in meta data and

Lat long – DMS to DD, use neg pos, avoid symbols

## Overview

## Hypotheses

## Methods

## Workflow

Searching for papers

First find papers using search terms as noted below, then search through the references for related papers.

Criteria for inclusion: woody plants in temperate ecosystems which test temperature and photoperiod effects on leaf out or flowering. In some cases, we include papers which test only one driver or the other. Studies which include chilling treatments were also sought out as available.

Aimed for studies done using growth chambers or otherwise controlled environments (including greenhouse/glasshouse) to manipulate temperature / photoperiod.

After downloading likely candidate papers, get PDFs and place them in the dropbox folder, Budburst Candidate Refs

If we decide to keep it, move to Budburst Refs, and enter data in the excel file. First, enter bibliographic in Source tab. Then enter study details in Study tab (may be multiple studies per reference). Then enter response data in either data\_simple or data\_detailed if possible.

### Budburst Refs folder

All found papers have been dropped into this folder.

Color coding:

Purple: Entered in source and data\_detailed at least.

Yellow: Papers for BBCH or alternative budburst scales/rubrics.

## Searching

Google Scholar and Web of Science.

2015-07-13

Dan: GS, ran first search and went through 10 pages

2015-07-27

Tim: WoS, ran first search and went through 85 (all) results. Marked and saved EndNote bib list of selected papers, now need to pull down pdf’s.

2015-07-28

Tim: Pulled pdf’s off of WoS first search down to References folder. Recorded titles of a few pdf’s for which I need to request a library loan, looks like because of their age. That document is called Tim’s Lit Review Log. Partially through second search on WoS, stopped at Biasi 2012, saved EndNote bib document.

2015-08-20

Tim: Made Harvard Library access requests for list of papers whose .pdf’s did not allow easy access during search. Around 20 papers. Made note of papers that did not offer access requests (maybe three), noticed that they’re all foreign language (Chinese, Portuguese). Did some extra searching on entire list as well, found about five .pdf’s and added to References folder. Onto data scraping.

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1 - **(budburst OR leaf-out) AND (photoperiod or daylength) AND temperature\***

85 on WoS

2 - **(budburst OR leaf-out) AND dorman\***

193 on WoS

- - - - - -

Other search terms which we tested:

(budburst OR flower\* OR leaf-out) AND (photoperiod or daylength) AND temp\*

1,638 on WoS

(budburst OR flower\* OR leaf-out) AND photoperiod AND temp\*

1510 hits on WoS, 19k on GS

(budburst OR flower\* OR leaf-out) AND (photoperiod or daylength) AND temp\*

1,638 on WoS

(budburst OR leaf-out) AND (photoperiod or daylength) AND temperature\*

63 on WoS

(budburst OR leaf-out) AND (photoperiod or daylength) AND temp\*

65 on WoS

(budburst OR leaf-out) AND (photoperiod or daylength) AND temp\*

65 on WoS

(budburst OR leaf-out) AND dorman\*

193 on WoS

((budburst OR leaf-out) AND dorman\* AND (chamber\* or glasshouse\* or greenhouse\*))

27

Followed by manual search for woody plants

CNC Handbook of Flowering

Data extraction from papers

* - -

# Papers to request from Hollis

**Climatic warming and its effect on bud burst and risk of frost damage to white spruce in Canada**

Stephen J. Colombo

1998

Forestry Chronicle

X requested

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| --- | --- | --- | --- |
| Article | Scandinavian journal of forest research: Dependence of dormancy release on temperature in different origins ofPinus sylvestrisandBetula pendulaseedlings | Leinonen, Ilkka | Awaiting Copyright Clearance |

X requested

# Not available

[Progression of apple (Malus× domestica Borkh.) bud dormancy in two mild winter climates.](https://scholar.google.com/citations?view_op=view_citation&continue=/scholar%3Fhl%3Den%26as_sdt%3D0,22%26scilib%3D1&citilm=1&citation_for_view=otWCBH8AAAAJ:vRqMK49ujn8C&hl=en&oi=p)

NC Cook, G Jacobs - Journal of Horticultural Science and Biotechnology, 2000

Regulation of annual shoot growth cycle in northern tree species.

**Authors**

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**Editors**

[Taulavuori, E.](http://www.cabdirect.org/search.html?q=ed%3A%22Taulavuori%2C+E.%22);[Taulavuori, K.](http://www.cabdirect.org/search.html?q=ed%3A%22Taulavuori%2C+K.%22)

**Book**

[Physiology of northern plants under changing environment](http://www.cabdirect.org/search.html?q=do%3A%22Physiology+of+northern+plants+under+changing+environment%22) 2007 pp. 177-210

**ISBN**

[81-308-0113-2](http://www.cabdirect.org/search.html?q=bn%3A%2281-308-0113-2%22)

**Record Number**

20083110244

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| --- | --- |
| Journal of Sustainable Forestry /abstract content  [Volume 1](http://www.tandfonline.com/loi/wjsf20?open=1#vol_1), [Issue 2](http://www.tandfonline.com/toc/wjsf20/1/2), 1993 | placeholder id=null, description=abstract-googleTranslate  [Select Language ▼](javascript:void(0))  [Translator disclaimer](http://www.tandfonline.com/action/clickThrough?id=3310&url=%2Fpage%2Fterms-and-conditions%23googletranslate&loc=%2Fdoi%2Fabs%2F10.1300%2Fj091v01n02_01&pubId=41364605) |

Temperature Effects on Bud-Burst and Leaf-Fall in Subalpine Larch

/abstract content The article meta after title will be split in order to highlight authors

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**DOI:**10.1300/J091v01n02\_01

John Worralla

pages 1-18

[**Publishing models and article dates explained**](http://www.tandfonline.com/page/models-and-dates-explained)

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