

...ly varden
150.7996°W ± 100m. 20-Aug-2011.
Matt Bowser, Kim Bowser

USA: Alaska. Anchorage. **Optimizing
typography of insect labels using
free fonts and free software.**
M.L. Bowser. 2012 meeting of the
Alaska Entomological Society,
28-Jan-2012.

USA: Alaska. Emerald Lake 59.6315°N
151.0496°W 20-Jan-2011.
Derek S. Sikes

USA: Alaska. ...
...
...

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Insect label typographical requirements

- ▶ Miniscule size (Miniscule size)
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— BSC's [Label data standards for terrestrial arthropods](#)

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- ▶ Unambiguous glyphs, e.g.

Illinois: Oglesby. 2010

vs.

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Optimal characteristics for miniscule printing

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Simple glyphs,
generally sans serif

d vs. d

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Simple glyphs,
generally sans serif

d d
vs.

Large x-height

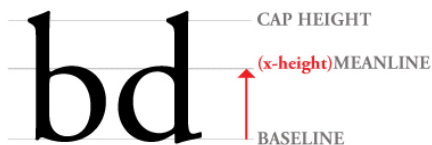
Diagram illustrating the vertical alignment of lowercase letters 'b' and 'd' relative to baseline, meanline, and cap height. The letters are shown on a set of three horizontal lines: a top line labeled 'CAP HEIGHT', a middle line labeled '(x-height) MEANLINE', and a bottom line labeled 'BASELINE'. A red arrow points upwards from the 'BASELINE' to the 'MEANLINE', indicating the x-height. The letters 'b' and 'd' are positioned such that their main vertical strokes reach the 'MEANLINE'.

Optimal characteristics for miniscule printing

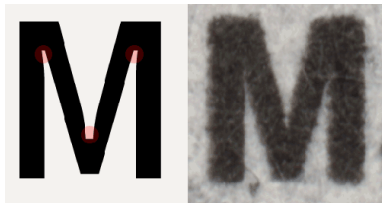
Simple glyphs,
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d d
vs.

Large x-height



Ink traps



Some sans serif fonts

Font	Specimen
Arial	Illinois: Oglesby. 2010
TeX Gyre Heros	Illinois: Oglesby. 2010
Lucida Sans Regular	Illinois: Oglesby. 2010
Calibri	Illinois: Oglesby. 2010
Droid Sans	Illinois: Oglesby. 2010
Droid Sans Dotted	Illinois: Oglesby. 2010

Droid Sans Dotted

Font

Specimen

Droid Sans Dotted

Illinois: Oglesby. 2010

Droid Sans Dotted Bold

Illinois: Oglesby. 2010

Droid Sans Dotted Oblique

Illinois: Oglesby. 2010

Droid Sans Dotted Bold Oblique ***Illinois: Oglesby. 2010***

Modified from Droid Sans using [FontForge](#), borrowing the zero's dot from Droid Sans Mono Dotted, a free font available from [cosmix.org](#).

Commerical fonts

Minuscule

a typeface
for extremely
small sizes

aaaaa

BELL CENTENNIAL



XeTeX provides *extremely fine control* over font rendering and label layout.



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- ▶ Full Unicode support. (e.g., Roháček, Коцебу)



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- ▶ Easy formatting of tabular data (e.g., data from spreadsheets or queries)
- ▶ Separation of style and content.
- ▶ Full Unicode support. (e.g., Roháček, Коцебы)
- ▶ Any TrueType or OpenType font file can be used; fonts do not have to be installed.
- ▶ Free; runs on MS Windows, Mac, Linux, etc.

Fine control, e.g.

Inter-word spacing of text.

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Inter-word spacing of text.

Inter-word spacing of text.

Inter-word spacing of text.

Inter-word spacing of text.



Arctos
 Multi-Institution, Multi-Collection Museum Database

Log out mbrowser (Last login: 2012-01-23)

Search Enter Data Manage Data Manage Arctos Reports Portals My Stuff About/Help

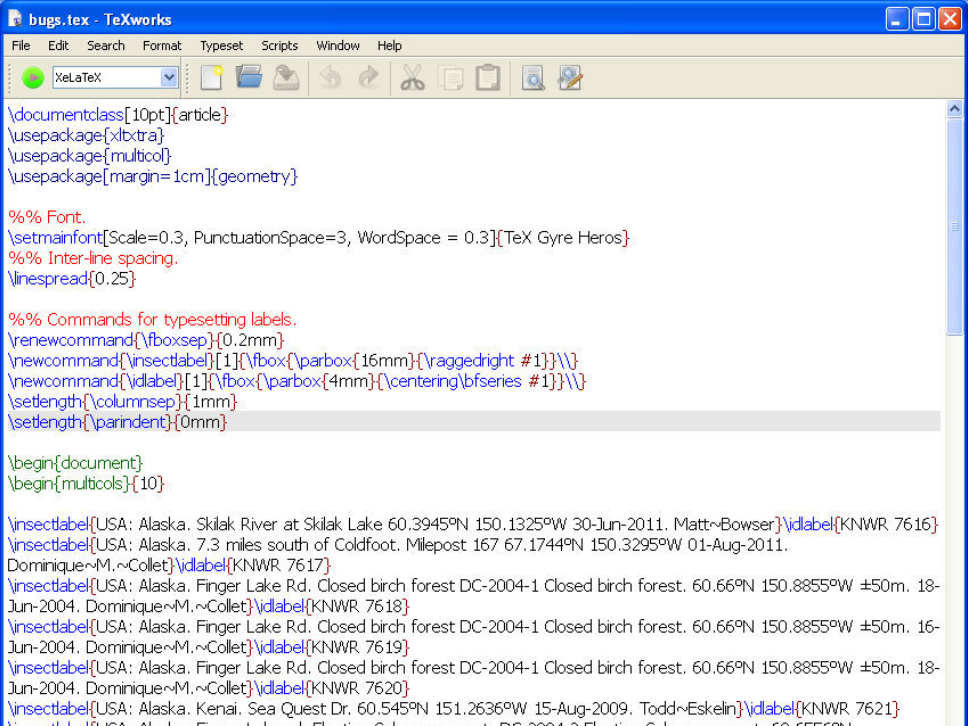
185 of these 185 records have coordinates and can be displayed with [BerkeleyMapper](#) [BerkeleyMapper+Rangemaps](#) [Google Earth/Maps](#)

Problems viewing this page? [Click for HTML version](#) [Report Bad Data](#)

Records... Order by... then order by
 1 - 20 cat_num collection
 Customize Form Download Save Search Manage...
 ::Change Stuff: Go

Cat Num	Identification	Specific Locality	Verbatim Date	Dec. Lat.	Dec. Long.	
KNWR ENTO 7616	Bdellidae	Skilak River at Skilak Lake	29 June 2011	60.39451	-150.7285	
KNWR ENTO 7617	Carabus vietinghoffii	7.3 miles south of Coldfoot. Milepost 167	8/16/11	67.17435	-150.7285	
KNWR ENTO 7618	Netelia	Finger Lake Rd. Closed birch forest DC-2004-1 Closed birch forest.	6/19/04	60.66003	-150.7285	
KNWR ENTO 7619	Netelia	Finger Lake Rd. Closed birch forest DC-2004-1 Closed birch forest.	6/17/04	60.66003	-150.7285	
KNWR ENTO 7620	Netelia	Finger Lake Rd. Closed birch forest DC-2004-1 Closed birch forest.	6/19/04	60.66003	-150.7285	
KNWR ENTO 7621	Megarhyssa nortoni	Kenai. Sea Quest Dr.	15.VIII.2009	60.545	-151.07285	
KNWR ENTO 7622	Campoplegini	Finger Lake rd. Floating Sphagnum mat. DC-2004-2 Floating Sphagnum mat.	6/18/04	60.6556	-150.7285	
KNWR ENTO 7623	Campoplegini	Finger Lake rd. Floating Sphagnum mat. DC-2004-2 Floating Sphagnum mat.	6/18/04	60.6556	-150.7285	
KNWR ENTO 7624	Araneae	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7625	Entomobryidae	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7626	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7627	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7628	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7629	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7630	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7631	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7632	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7633	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	
KNWR ENTO 7634	Insecta	Soldotna. Ski Hill Road	27-28 June 2011	60.46473	-151.07285	

- Encumbrances
- Identification
- Agents
- Part Locations
- Collecting Events
- Accession
- MSB<->DGR
- Modify Parts
- ::Print Stuff:
- UAM Mammals Vial Labels
- UAM Mammals Box Labels
- MSB Mammals Vial Labels
- download bug.tex
- Print NK pages
- ALA Labels
- Map By Locality
- Parts table/download
- Print Any Report



File Home Insert Page Layout Formulas Data Review View Help

Clipboard Font Alignment Number Styles Cells Editing

Calibri 11

B *I* U A A

Number Styles Cells

A1 fx

	A	B	C	D	E	F
1		SPEC_LOCALITY	VERBATIM_DATE	DEC_LAT	DEC_LONG	
2		Turnagain Pass	15-VII-2004	60.77766	-149.205	
3		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
4		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
5		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
6		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
7		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
8		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
9		East side of Skyline	27.VIII.2003	60.51829	-150.186	
10		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
11		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
12		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
13		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	
14		Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	

Home Insert Page Layout Formulas Data Review View Add-Ins

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Calibri 11

B *I* U A A

Number Styles Cells Editing

A1 *fx*

	A	B	C	D	E	F
1		SPEC_LOCALITY	VERBATIM_DATE	DEC_LAT	DEC_LONG	
2	\insectlabel{	Turnagain Pass	15-VII-2004	60.77766	-149.205	}
3	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}
4	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}
5	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}
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7	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}
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12	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}
13	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}
14	\insectlabel{	Emerald Lake	30 JUN - 1 JUL 20	59.623357	-151.058	}

METRIC
1

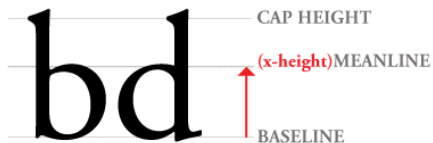
USA: Alaska. Soldotna.
Headquarters Lake at ski trail near
floatplane dock. 60.4625°N
151.0738°W ±20m. 30-Oct-2011.
Matt Bowser

KNWR:
Ento:
7798

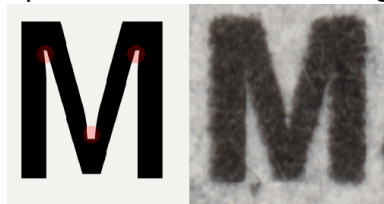


Dytiscus harrisii Kirby, 1837? ♀
det. M.L. Bowser
12-Jan-2012

Image credits



<http://www.graphictivitis.com/wp-content/uploads/2011/01/x-Height2.jpg>



<http://chotchot.files.wordpress.com/2011/01/inktraps-m.gif?w=500&h=313>