



## *Corrigendum to* “A Canadian River Ice Database from the National Hydrometric Program Archives” published in Earth Syst. Sci. Data, 12, 1835–1860, 2020

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Published: 3 December 2020

In the published version of the above-mentioned paper, Tables 2 and 4 were missing the grey shading that was introduced in the caption. The corrected version of these tables can be found below.

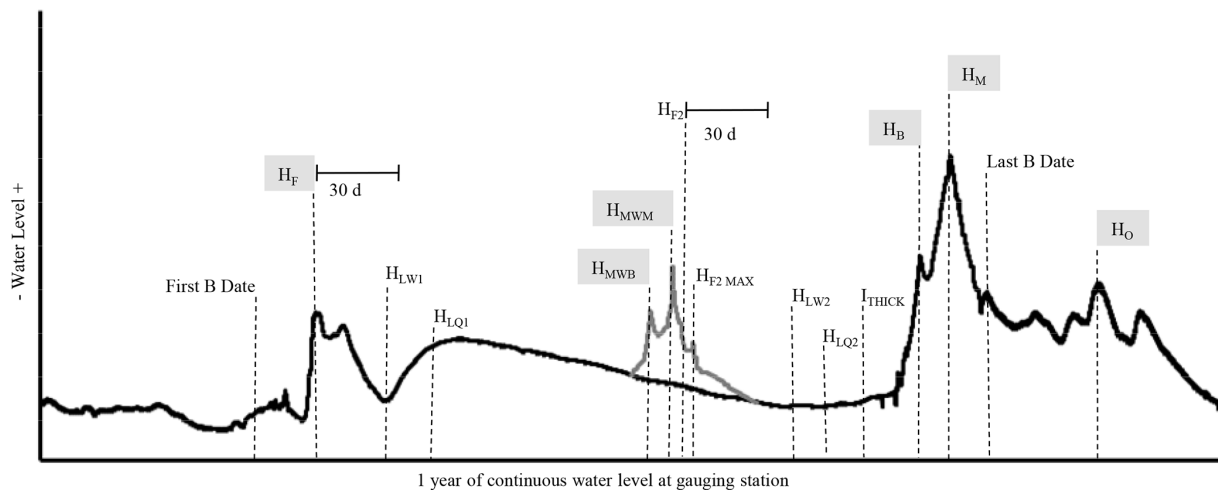
Furthermore, the dashed lines in Fig. 3 were shifted. Please find the correct version below as well.

**Table 2.** The 15 variables extracted from the National Hydrometric Program archives and input to the Canadian River Ice Database (CRID). The CRID includes the date of all variables classified by season. The resolution of the water level or discharge record examined is summarized with grey shading that denotes an attempt to identify instantaneous water level events. Data quality rating was applied to the data in bold.

Season	Variable	Symbol	Description	Data resolution: Instantaneous (I), daily (D), no extraction (-)	Data quality rating (0-1-2)
Freeze-up	First day with backwater due to ice	First B date	First day that ice affects channel flow conditions	-	-
Freeze-up	Freeze-over water level	$H_F$	Channel-wide ice cover; daily water level at $H_F$ and the following 29 d	<b>I or D</b>	D
Ice cover	First minimum winter water level	$H_{F,W1}$	Minimum daily water level between $H_F$ and $H_B$	<b>D</b>	D
Ice cover	First minimum winter discharge	$H_{F,Q1}$	Minimum daily discharge between $H_F$ and $H_B$	<b>D</b>	D
Ice cover	Midwinter break-up initiation	$H_{MWB}$	Initiation of midwinter break-up event	<b>I</b>	D
Ice cover	Maximum midwinter break-up water level	$H_{MWM}$	Maximum midwinter break-up event water level	<b>I or D</b>	D
Ice cover	Maximum winter water level	$H_{F2}$	Freeze-up after $H_{MWM}$ . If there is no midwinter event, first day of the 7 d average if it exceeds the $H_F$ 7 d average	<b>D</b>	D
Ice cover	Maximum winter water level 7 d	$H_{F2,MAX}$	Maximum daily water level within first 7 d following $H_{F2}$	<b>D</b>	D
Ice cover	Second minimum winter water level	$H_{F,W2}$	Minimum daily water level between $H_{F2}$ and $H_B$ if $H_{F,W1}$ is before $H_{F2}$	<b>D</b>	D
Ice cover	Second minimum winter discharge	$H_{F,Q2}$	Minimum daily discharge between $H_{F2}$ and $H_B$ if $H_{F,Q1}$ is before $H_{F2}$	<b>D</b>	D
Ice cover	River ice thickness	$T_{RICK}$	Average channel ice thickness prior to spring break-up	-	-
Break-up	Spring break-up initiation	$H_B$	Beginning of spring break-up event	<b>I</b>	D
Break-up	Maximum spring break-up water level	$H_M$	Maximum spring break-up water level event	<b>I or D</b>	D
Break-up	Last day with backwater due to ice	Last B date	Final day that ice affects channel flow conditions	-	-
Open-Water	Maximum open-water level	$H_O$	Maximum water level occurring outside first B date to last B date range	<b>I or D</b>	I or D

**Table 4.** Total number of variables that populate the Canadian River Ice Database and their data quality ratings. Grey shading indicates that an attempt was made to extract the instantaneous water level. Also included are column totals per river type: natural versus regulated, active versus discontinued and homogeneous versus heterogeneous.

Season	Variable	Symbol	First B date	Total number of variables	Data quality rating			Number of variables by station type								
					Natural			Regulated			Regulated					
					0	1	2	Active	Discontinued	Homo- geneous, active	Homo- geneous, discontinued	Hetero- geneous, active	Hetero- geneous, discontinued			
Freeze-up	First day with backwater due to ice	H <sub>F</sub>	8933	No data quality rating	5754	806	1204	130	1022	16						
Freeze-up	Freeze-over water level	H <sub>F</sub>	6547	4794	1592	161	466	949	106	881	3					
Ice cover	First minimum winter water level	H <sub>LW1</sub>	4767	4557	193	17	2861	823	103	766	0					
Ice cover	First minimum winter discharge	H <sub>LQ1</sub>	8178	8114	62	2	5301	1077	111	925	0					
Ice cover	Midwinter break-up initiation	H <sub>MWB</sub>	362	359	3	0	249	11	8	40	0					
Ice cover	Maximum midwinter break-up water level	H <sub>MWM</sub>	467	392	70	5	308	22	9	51	0					
Ice cover	Maximum winter water level	H <sub>F2</sub>	1954	1816	39	99	1180	104	16	325	0					
Ice cover	Maximum winter water level 7 d	H <sub>F2MAX</sub>	1952	1849	27	78	1180	104	16	325	0					
Ice cover	Second minimum winter water level	H <sub>LW2</sub>	798	794	4	0	407	39	7	159	0					
Ice cover	Second minimum winter discharge	H <sub>LQ2</sub>	709	709	0	0	325	37	4	171	0					
Ice cover	River ice thickness	I <sub>THICK</sub>	6094	No data quality rating	4163	416	762	59	669	25						
Break-up	Spring break-up initiation	H <sub>B</sub>	5534	5070	333	131	3541	323	121	641	23					
Break-up	Maximum spring break-up water level	H <sub>M</sub>	7355	5428	1571	356	4483	503	168	914	44					
Break-up	Last day with backwater due to ice	Last B date	9240	No data quality rating	5816	788	1380	186	1024	46						
Open-Water	Maximum open-water level	H <sub>O</sub>	9705	5705	3728	271	6121	1408	184	1119	47					
	Column total		72 595	39 587	7622	1122	45 831	5423	1228	9032	204					



**Figure 3.** Conceptual schematic of a continuous river water level hydrograph (black line) spanning 1 September to 31 August. The period of ice-affected flow is constrained by the first B date and last B date. A possible midwinter break-up event is shown as a grey line at the approximate centre of the hydrograph. Symbols for the 15 variables that populate the Canadian River Ice Database are shown in the figure (see Table 2 for additional information). The variables shaded in grey show the instantaneous water level and associated time when the event occurred. Compression of the  $x$  axis and vertical exaggeration of the  $y$  axis accentuate the water level changes observed during ice conditions. The relative magnitudes of variables and water level pathology should not be considered as typical.