

APPENDIX 5B

## Correlations between Hg and Age

Data are first analyzed using all fish, then analyzed by species, then park, and then lake. Data are provided for the model that had the strongest statistical significance. The categories in bold are significant at  $P < 0.05$ .

Analysis	F	d.f.	R <sup>squared</sup>	P	Best Fit Model
All fish	<b>58.10</b>	<b>2, 162</b>	<b>0.42</b>	<b>&lt;0.0001</b>	<b>2<sup>nd</sup> order polynomial (parabolic)</b>
Brook trout	<b>129.38</b>	<b>1, 98</b>	<b>0.57</b>	<b>&lt;0.0001</b>	<b>Linear</b>
Lake trout	0.39	1, 28	-0.01	0.54	Linear
Cutthroat trout	<b>7.84</b>	<b>1, 23</b>	<b>0.25</b>	<b>0.01</b>	<b>Double reciprocal</b>
Rainbow trout	<b>114.89</b>	<b>1, 8</b>	<b>0.93</b>	<b>&lt;0.0001</b>	<b>Double reciprocal</b>
<b>Sequoia</b>	<b>38.31</b>	<b>1, 18</b>	<b>0.68</b>	<b>&lt;0.0001</b>	<b>Double reciprocal</b>
Pear	<b>42.95</b>	<b>1, 8</b>	<b>0.84</b>	<b>0.0002</b>	<b>S-curve</b>
Emerald	<b>9.11</b>	<b>1, 8</b>	<b>0.63</b>	<b>0.02</b>	<b>Double reciprocal</b>
<b>Rocky Mountain</b>	<b>82.08</b>	<b>1, 18</b>	<b>0.82</b>	<b>&lt;0.0001</b>	<b>Double reciprocal</b>
Mills	<b>114.89</b>	<b>1, 8</b>	<b>0.93</b>	<b>&lt;0.0001</b>	<b>Double reciprocal</b>
Lone Pine	<b>31.14</b>	<b>1, 8</b>	<b>0.80</b>	<b>0.0005</b>	<b>Squared X</b>
<b>Gates of the Arctic</b>					
Matcharak	1.44	1, 8	0.15	0.26	Reciprocal Y; Squared X
<b>Noatak</b>					
Burial	<b>5.55</b>	<b>1, 8</b>	<b>-0.41</b>	<b>0.05</b>	<b>Reciprocal Y; Squared X</b>
<b>Denali</b>					
Wonder	0.98	1, 8	0.11	0.35	Double squared
<b>Mount Rainier</b>	<b>37.33</b>	<b>1, 28</b>	<b>0.57</b>	<b>&lt;0.0001</b>	<b>Square root Y; Squared X</b>
LP19	<b>38.18</b>	<b>1, 13</b>	<b>0.75</b>	<b>&lt;0.0001</b>	<b>Log Y; Square-root X</b>
Golden	2.68	1, 13	0.17	0.12	Double reciprocal
<b>Glacier</b>	<b>7.84</b>	<b>1, 23</b>	<b>0.25</b>	<b>0.01</b>	<b>Double reciprocal</b>
Oldman	4.04	1, 8	0.33	0.08	Double squared
Snyder	<b>11.07</b>	<b>1, 13</b>	<b>0.46</b>	<b>0.005</b>	<b>Double reciprocal</b>
<b>Olympic</b>	<b>106.82</b>	<b>1, 38</b>	<b>0.74</b>	<b>&lt;0.0001</b>	<b>Double squared</b>
PJ2003	<b>5.37</b>	<b>1, 8</b>	<b>0.40</b>	<b>0.05</b>	<b>Double reciprocal</b>
PJ2005	<b>44.74</b>	<b>1, 13</b>	<b>0.77</b>	<b>&lt;0.0001</b>	<b>Double squared</b>
Hoh	<b>44.96</b>	<b>1, 13</b>	<b>0.78</b>	<b>&lt;0.0001</b>	<b>Squared X</b>