

Table 4. Statistical Relationships Between the Average Chla Concentration Within the Surface Layer, $[Chla]_{surf}$, and the Chla Integrated Content Within the Euphotic Layer, $\langle Chla \rangle_{Z_{eu}}$, and Within the 0–1.5 Z_{eu} Layer, $\langle Chla \rangle_{1.5 Z_{eu}}$ ^a

Present Study	MB89
<i>Stratified Waters</i>	
For $[Chla]_{surf} \leq 1 \text{ mg m}^{-3}$	
$\langle Chla \rangle_{Z_{eu}} = 36.1[Chla]_{surf}^{0.357}$ ^b , n = 1743, $r^2 = 0.73$, $p < 0.001$	$\langle Chla \rangle_{Z_{eu}} = 38.0[Chla]_{surf}^{0.425}$
$\langle Chla \rangle_{1.5Z_{eu}} = 42.0[Chla]_{surf}^{0.248}$ ^b , n = 1129, $r^2 = 0.43$, $p < 0.001$	
For $[Chla]_{surf} > 1 \text{ mg m}^{-3}$	
$\langle Chla \rangle_{Z_{eu}} = 37.7[Chla]_{surf}^{0.615}$ ^b , n = 78, $r^2 = 0.70$, $p < 0.001$	$\langle Chla \rangle_{Z_{eu}} = 40.2[Chla]_{surf}^{0.507}$
$\langle Chla \rangle_{1.5Z_{eu}} = 43.5[Chla]_{surf}^{0.847}$ ^b , n = 59, $r^2 = 0.68$, $p < 0.001$	
<i>Mixed Waters</i>	
$\langle Chla \rangle_{Z_{eu}} = 42.1[Chla]_{surf}^{0.538}$ ^b , n = 598, $r^2 = 0.95$, $p < 0.001$	$\langle Chla \rangle_{Z_{eu}} = 38.0[Chla]_{surf}^{0.551}$
$\langle Chla \rangle_{1.5Z_{eu}} = 58.5[Chla]_{surf}^{0.546}$ ^b , n = 489, $r^2 = 0.90$, $p < 0.001$	

^aThe relationships obtained by MB89 are also reproduced. $[Chla]_{surf}$ values are given in mg m^{-3} , and $\langle Chla \rangle_{Z_{eu}}$ and $\langle Chla \rangle_{1.5 Z_{eu}}$ values are given in mg m^{-2} .

^bSee equation (8) in text.