An assessment on a large geographic scale of Eurasian inland saline surface waters

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Abstract

The major ion concentration data of sodium (Na), potassium (K), calcium (Ca), magnesium (Mg), chloride (Cl), sulphate (SO_4), bicarbonate (HCO_3), carbonate (CO_3) and pH (if it was coupled with ion data) were input into the database. The data were drawn from a large geographic scale across Eurasia (Austria, China, Hungary, Kazakhstan, Mongolia, Russia, Serbia, Turkey) and from a large number of saline lakes and pans (N=220) with minimum a 1.0 g L^{-1} salinity threshold. The 1.0 g L^{-1} salinity threshold was selected based on a former study (Boros et al., 2014), where this threshold was experimentally found to be the characteristic boundary of soda ecosystems. Salinity was estimated by the sum of measured concentrations of eight major ions (Na, K, Ca, Mg, Cl, SO_4, HCO_3, CO_3). As generally known, sodium is by far the most common cation in saline lakes and necessarily the dominant cation in soda type lakes. Therefore, sites were excluded from the dataset if Na was not the most abundant ion. If seasonal or annual water data were available, mean values were put into database. Most of the data came from papers (sources are indicated in the table).

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Step 1.