Global Shoreline Ternary Process Classification

The global shoreline ternary process classification dataset is based on the work described in

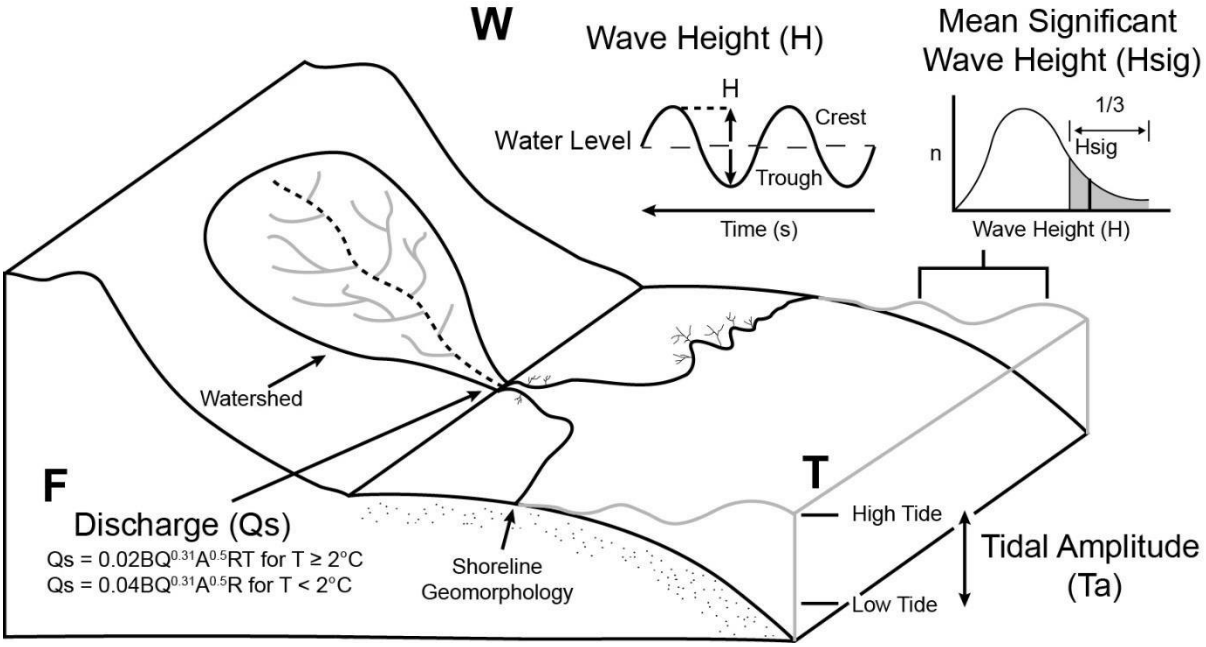
Nyberg, B. & Howell, J.A., (2016). Global distribution of modern shallow marine shorelines. Implications for exploration and reservoir analogue studies, Marine and Petroleum Geology, Vo. 71, 2016, Pages 83-104.

Null values = 0 or -9999

Coordinate System = World_Equidistant_Cylindrical

GSTPC

Parameter	Description
Wave	Mean Significant Wave Height (m)
Tide	Tidal range (m)
F_Inf	Fluvial influence acting on a shoreline based on equation $(\frac{Qs^3}{D})$ $where\ D\ is \geq 10km.$ QS is in kg/s and D distance from the fluvial source.
Process	The two-tier ternary process classification to define the dominant and influenced processes acting on a shoreline. For example **Ft** = Fluvial Dominated Tide Influenced. Nine different shoreline types are available as **F**, **Ft**, **Fw**, **T**, **Tf**, **Tw**, **W**, **Wf** and **Wt**;
Structure	Simplified tectonic regime imposed on the coastal region.
Class	Corresponding coastal class type of Durr et al., (2011).
MainClass	Main climate at the shoreline based on the KÖPPEN-GEIGER classification scheme
Shelf	The type of continental shelf as 0 – narrow (<25km), 1 - medium (25 – 75km), 2 – epicontinental seaways/miscellaneous and 3 – wide (>75km)
Funnel_L	Length of a funnel feature (e.g., estuary, embayment, etc…) in meters.
Subclass	Sub climate based on the based on the KÖPPEN-GEIGER classification scheme
T	Relative tidal influence acting on the shoreline 0 – 1 (0 – 100%)
F	Relative fluvial influence acting on the shoreline 0 – 1 (0 – 100%)
W	Relative wave influence acting on the shoreline 0 – 1 (0 – 100%)
Qs	Calculated total suspended sediment load in kg/s based on the BQART formula of Syvitski and Milliman (2007)
Ba	Depositional (0) and non-depositional (1) classification. ****Note**** - *currently only available in the GeoPackage (GSTPC.gpkg) file!*


W
Wave Height (H)
H
Crest
Water Level
Trough
Time (s)
Mean Significant
Wave Height (Hsig)
1/3
Hsig
n
Wave Height (H)
Watershed
F
Discharge (Qs)
Qs = 0.02BQ^0.31A^0.5RT for T ≥ 2°C
Qs = 0.04BQ^0.31A^0.5R for T < 2°C
Shoreline
Geomorphology
T
High Tide
Low Tide
Tidal Amplitude
(Ta)