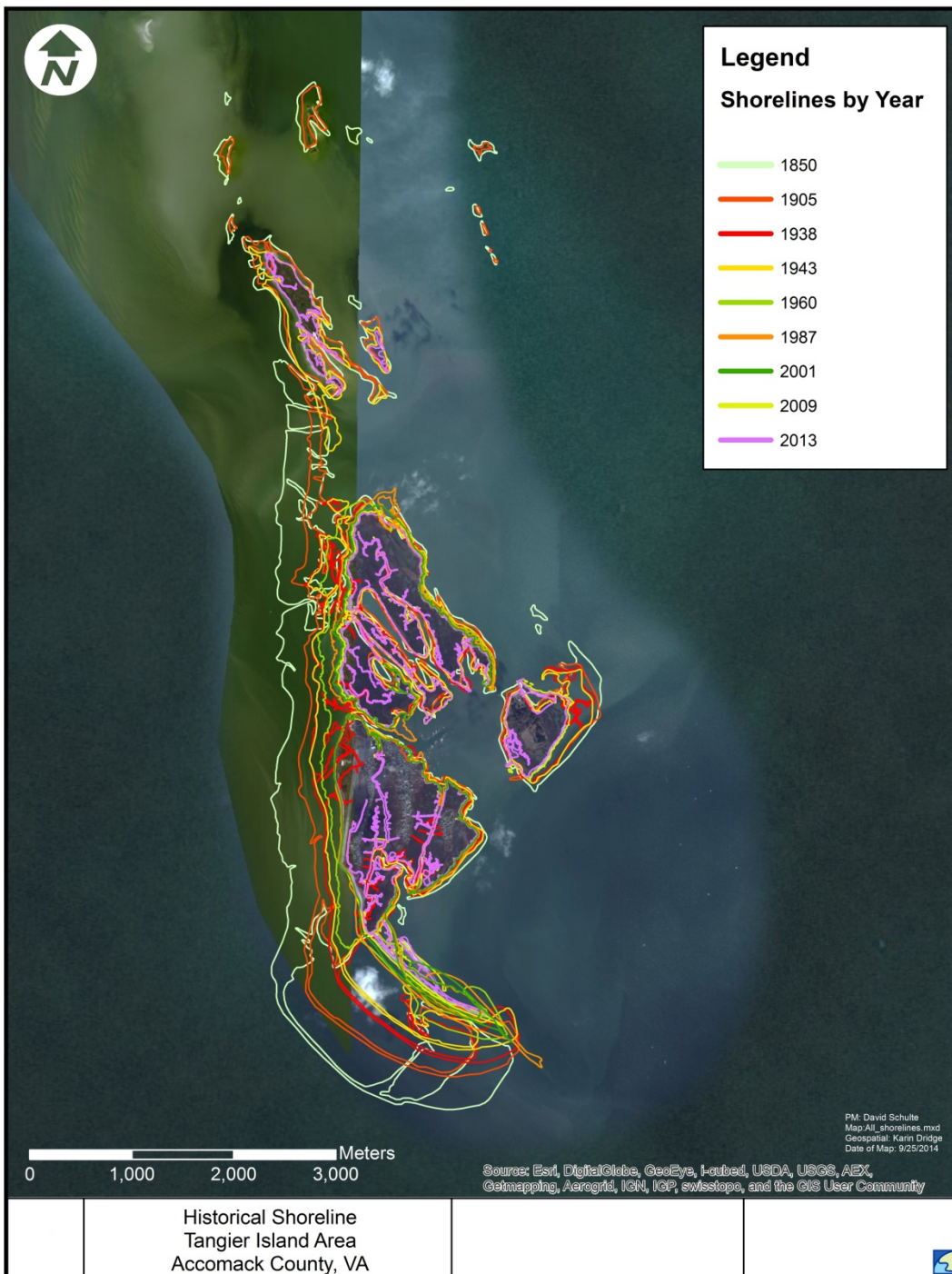**Title: Climate Change and the Evolution and Fate of the Tangier Islands of Chesapeake Bay, USA**

Authors: corresponding: David M. Schulte, contributing: Karin M. Dridge, Mark H. Hudgins
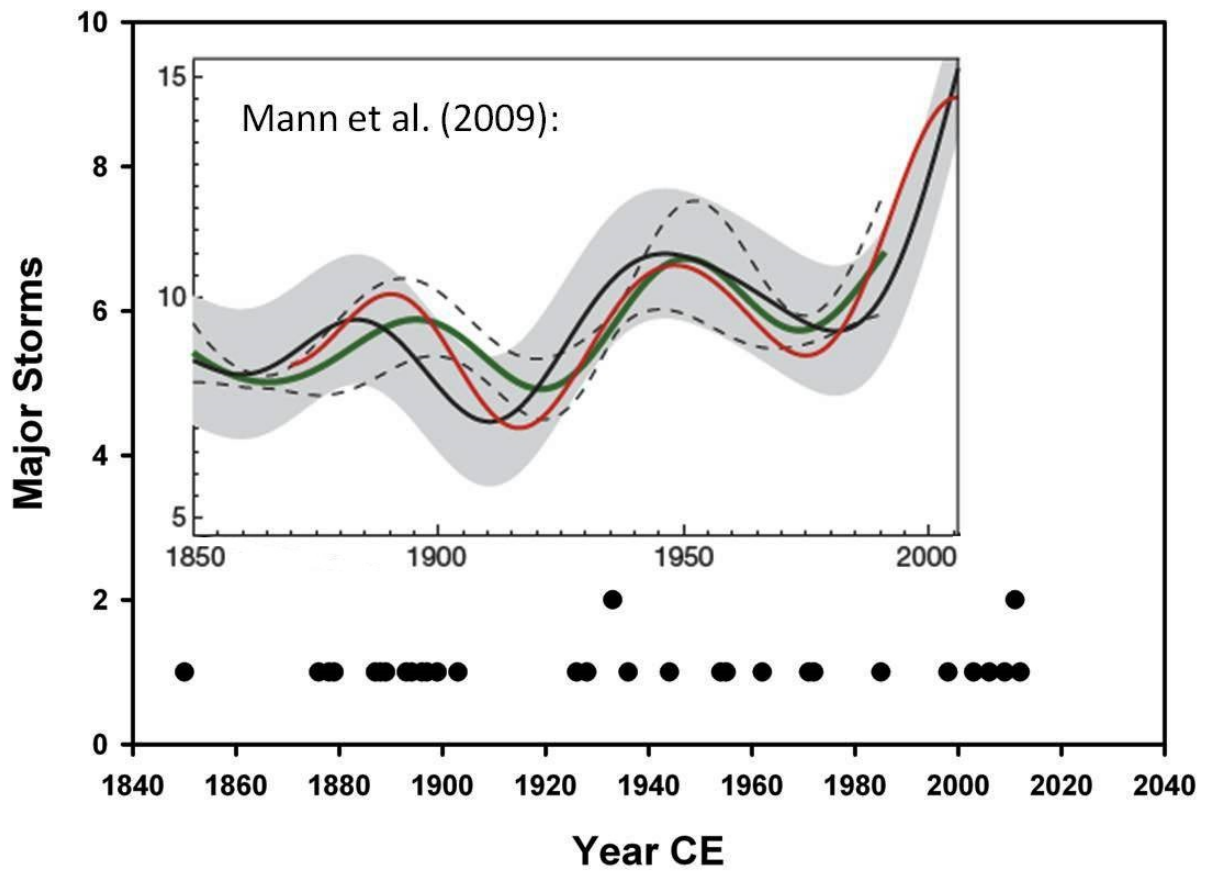
Supplementary Figure 1. Historic shorelines over time of the Tangier Islands, Virginia, Chesapeake Bay

USA. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, AEX,
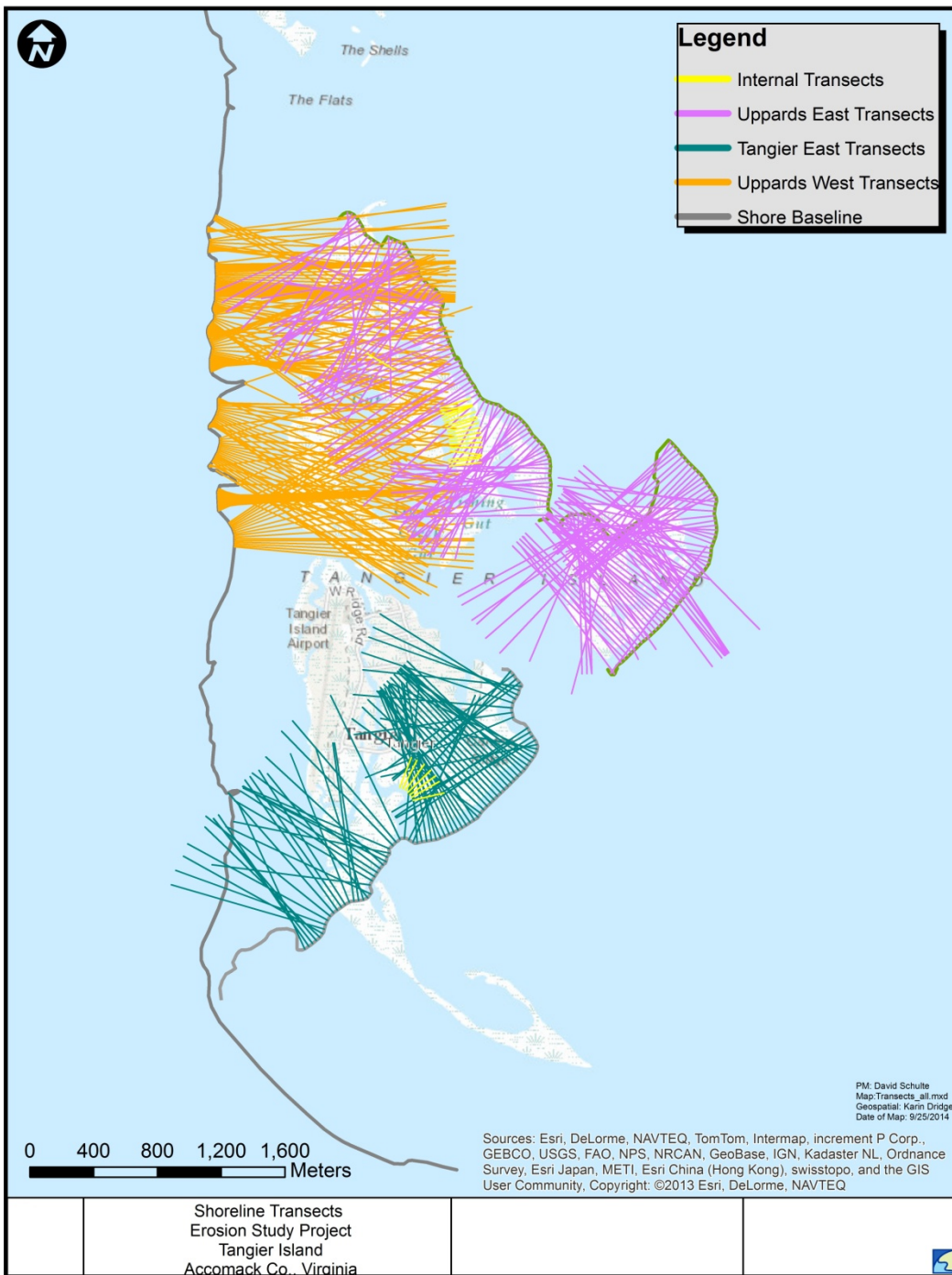
Supplementary Figure 2. Shoreline transects used to determine historic land shoreline loss rates over time. Map created using ESRI ArcGIS, ArcMap 10.1.

Supplementary Figure 3. Major storms in the local region of the Tangier Islands, indicated as black

circles. They follow a general pattern observed in the North Atlantic by Mann et al. 2009.

SF2 Reference:

Mann, M. E., Woodruff, J. D., Donnelly, J. P., & Zhang, Z. Atlantic hurricanes and climate over the past 1,500 years. *Nature*. **460**, 880-883 (2009).

SLR Scenario	Island	Regression	Best-Fit Equation	r^2	p
Low	Goose	$f = y + ax$	$y = 1160.1508 - 0.5687x$	0.99	$y < 0.0001$, $a < 0.0001$
Low	Uppards	$f = y + ax$	$y = 2394.3311 - 1.1326x$	0.99	$y < 0.0001$, $a < 0.0001$
Low	Taniger	$f = y + ax$	$y = 3627.3598 - 1.7131x$	0.99	$y < 0.0001$, $a < 0.0001$
Mid	Goose	$f = y + ax + bx^2$	$y = 3152.8223 - 2.6069x + 0.0005x^2$	0.99	$y = 0.0035$, $a = 0.0114$, $b = 0.035$
Mid	Uppards	$f = y + ax$	$y = 2465.3982 - 1.1697x$	0.99	$y < 0.0001$, $a < 0.0001$
Mid	Taniger	$f = y + ax$	$y = 3740.2302 - 1.772x$	0.99	$y < 0.0001$, $a < 0.0001$
High	Goose	$f = y + ax + bx^2$	$y = 3972.5593 - 3.4514x + 0.0007x^2$	0.99	$y = 0.0014$, $a = 0.0039$, $b = 0.0105$
High	Uppards	$f = y + ax + bx^2 + cx^3$	$y = 199766.2418 - 307.8088x - 0.1588x^2 - 2.786e^{-.005}x^3$	0.99	$y = 0.0432$, $a = 0.0428$, $b = 0.0415$, $c = 0.0397$
High	Taniger	$f = y + ax$	$y = 4120.2245 - 1.9704x$	0.98	$y < 0.0001$, $a < 0.0001$

Supplementary Table 1. Best-fit regression equations used for low, mid and high SLR scenarios for Goose, Uppards and Tangier Islands.