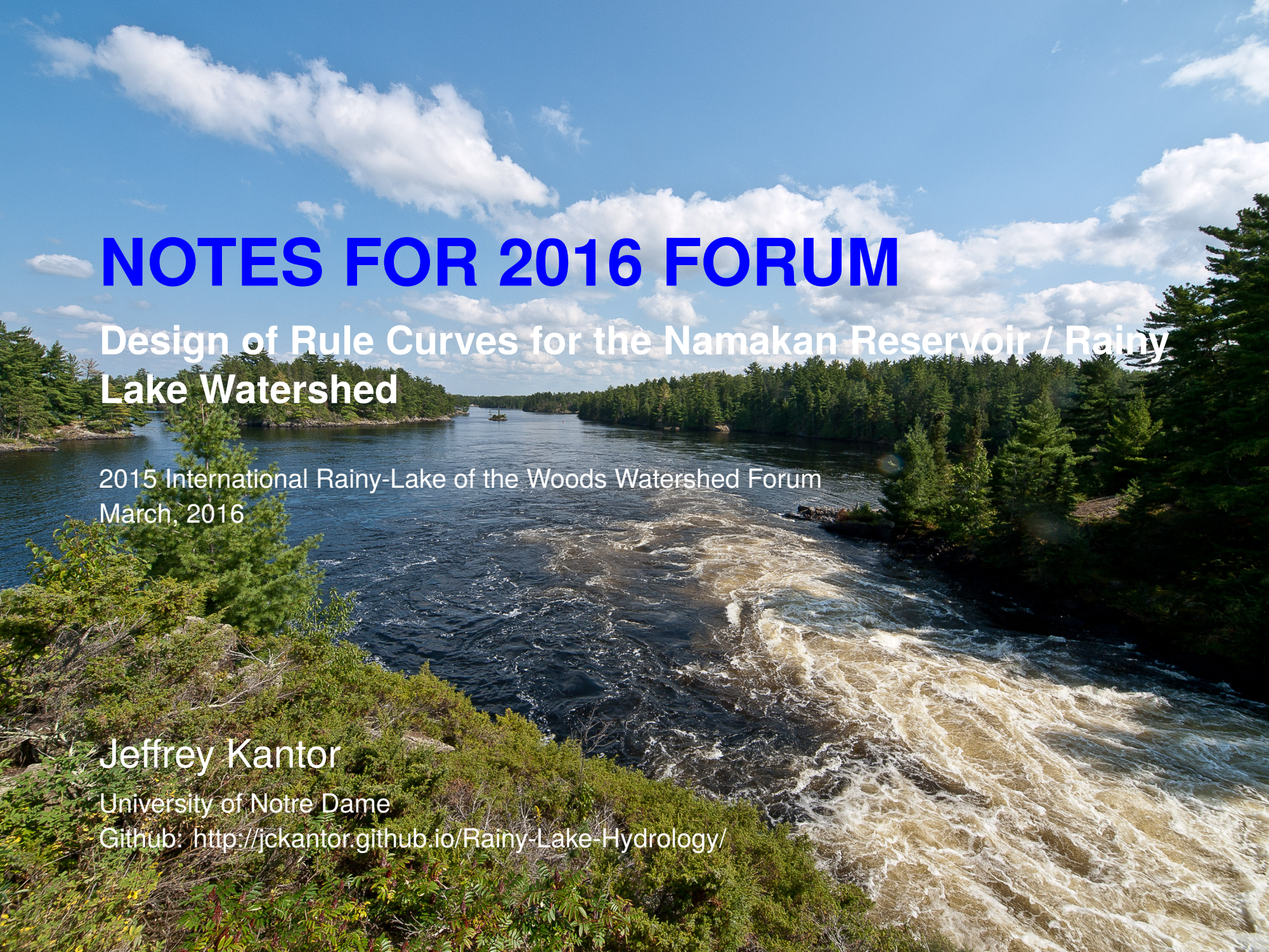


NOTES FOR 2016 FORUM

Design of Rule Curves for the Namakan Reservoir / Rainy Lake Watershed

2015 International Rainy-Lake of the Woods Watershed Forum
March, 2016

Jeffrey Kantor

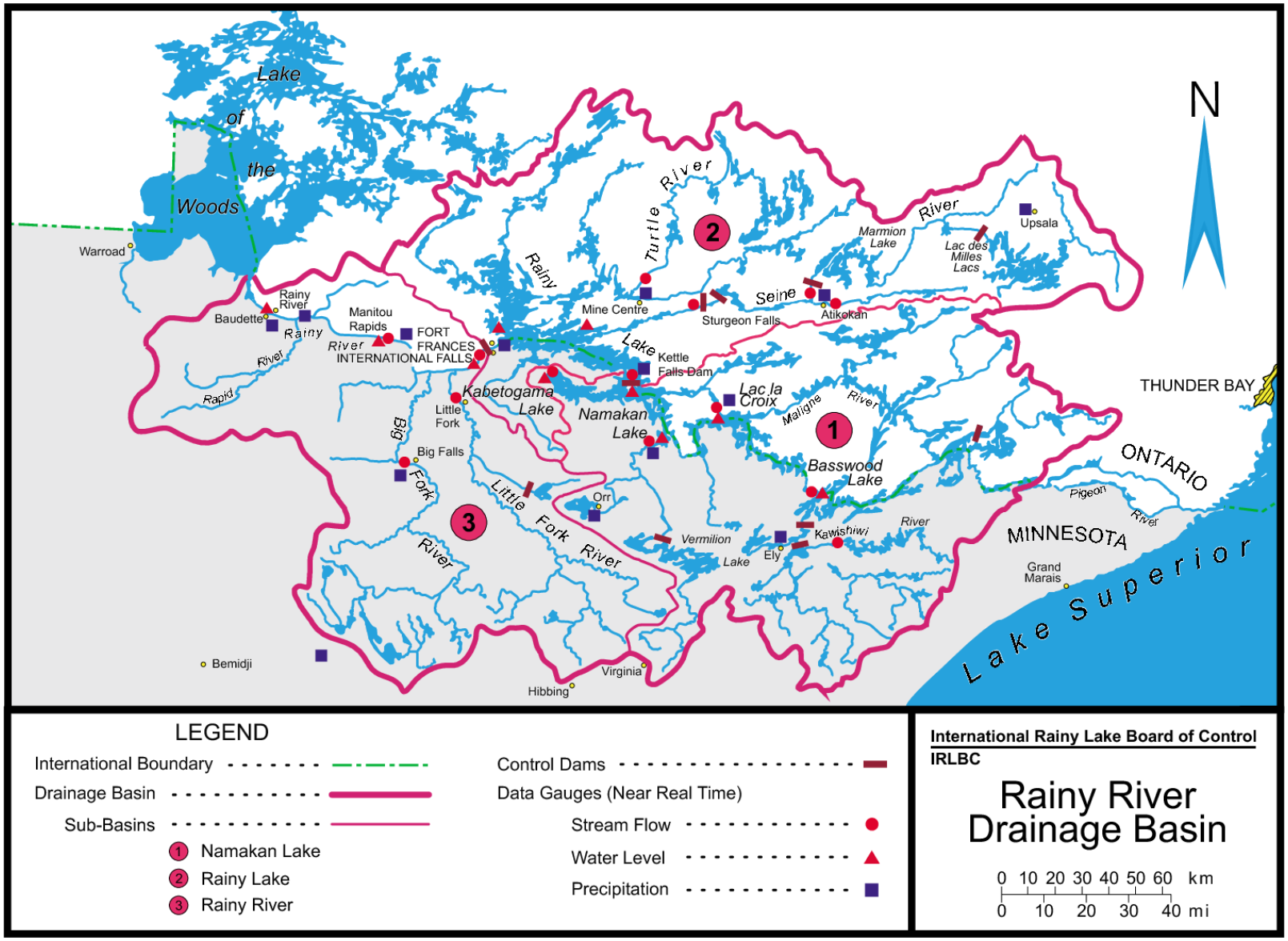
University of Notre Dame
Github: http://jckantor.github.io/Rainy-Lake-Hydrology/

OVERVIEW

1. Evidence of Change
2. Discussion

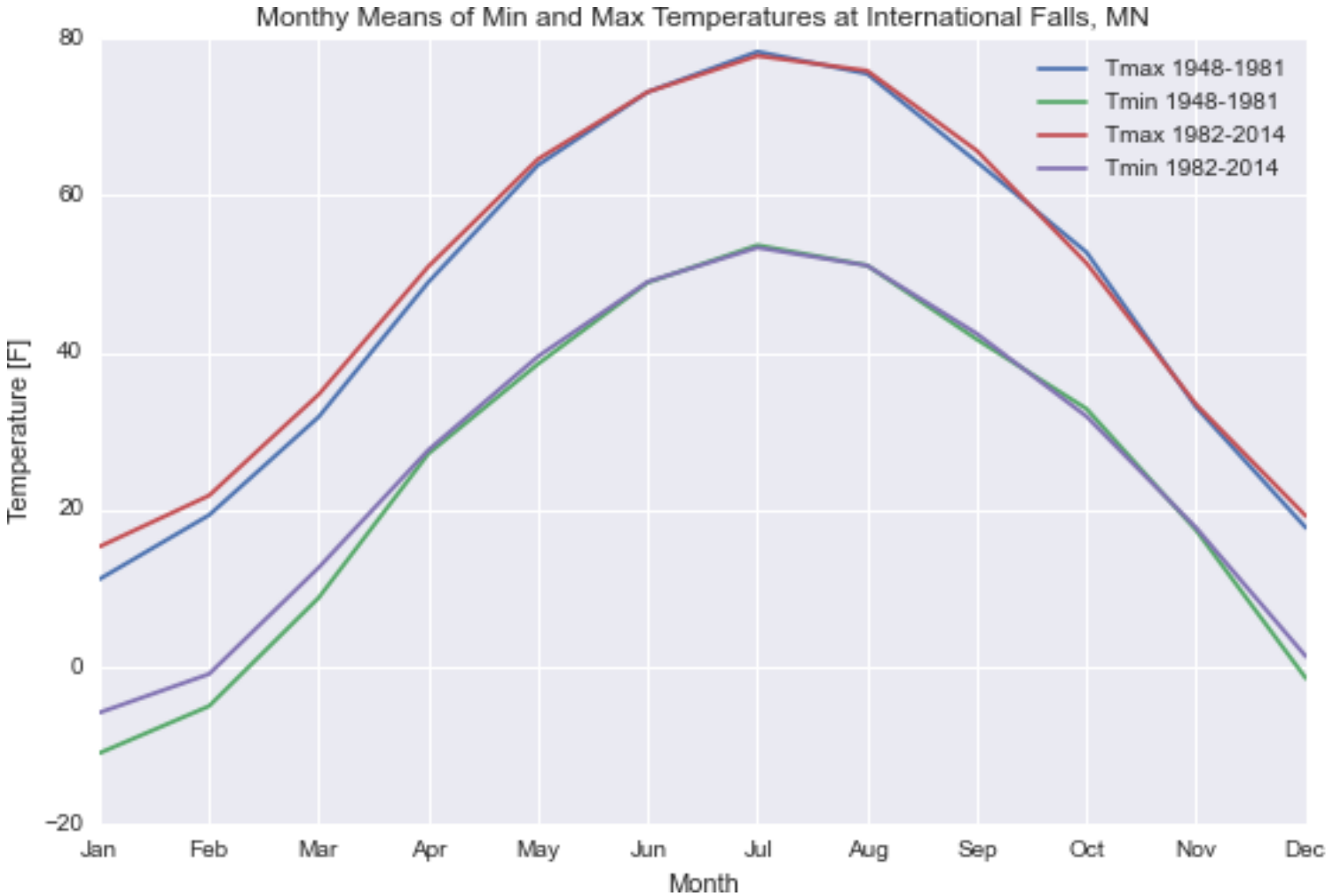
EVIDENCE OF CHANGE

RAINY RIVER DRAINAGE BASIN



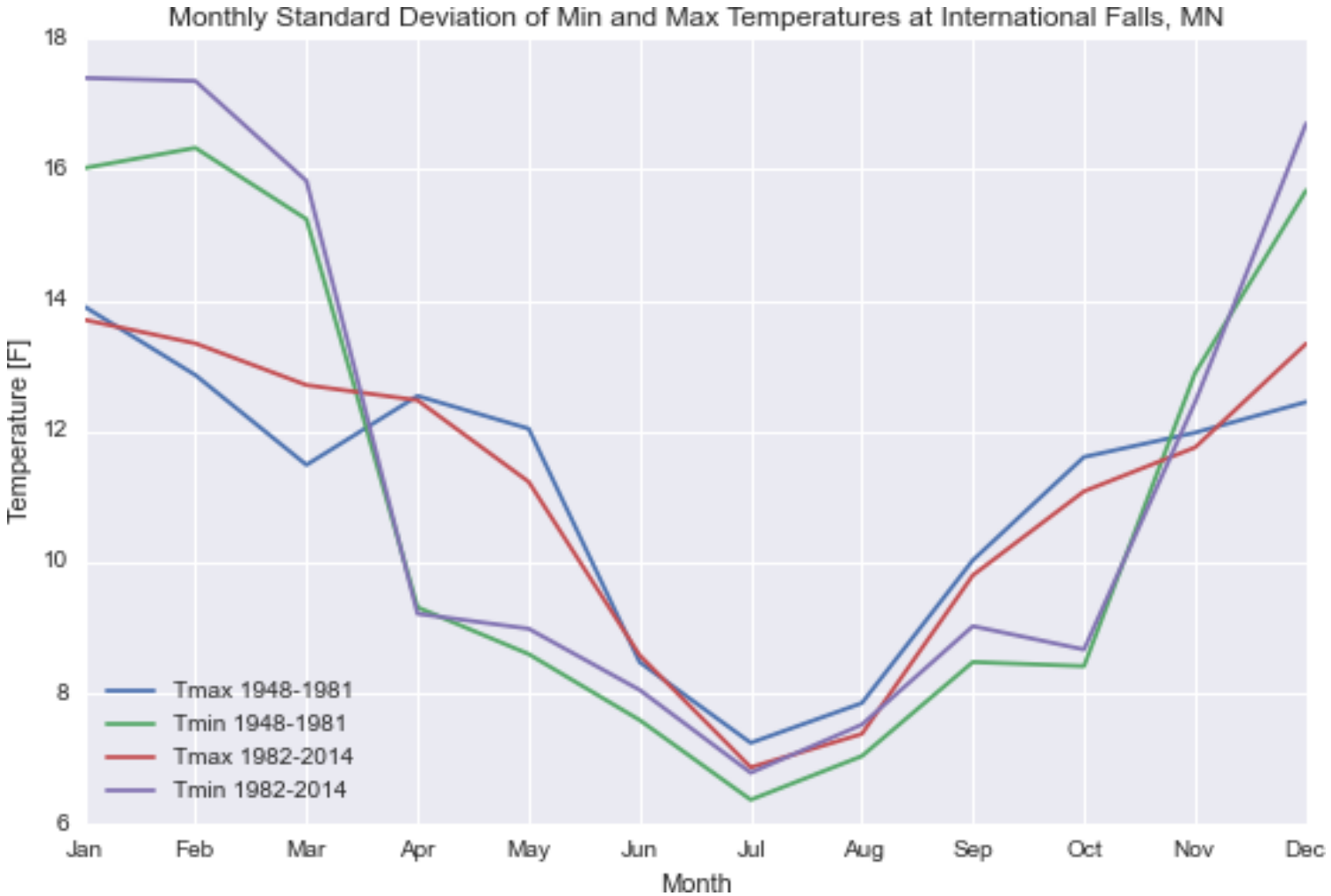
Source: International Rainy Lake Board of Control (now IRLWWB)

WINTERS ARE WARMER, KINL, 1948–2014



Source: Github Repository for this paper.

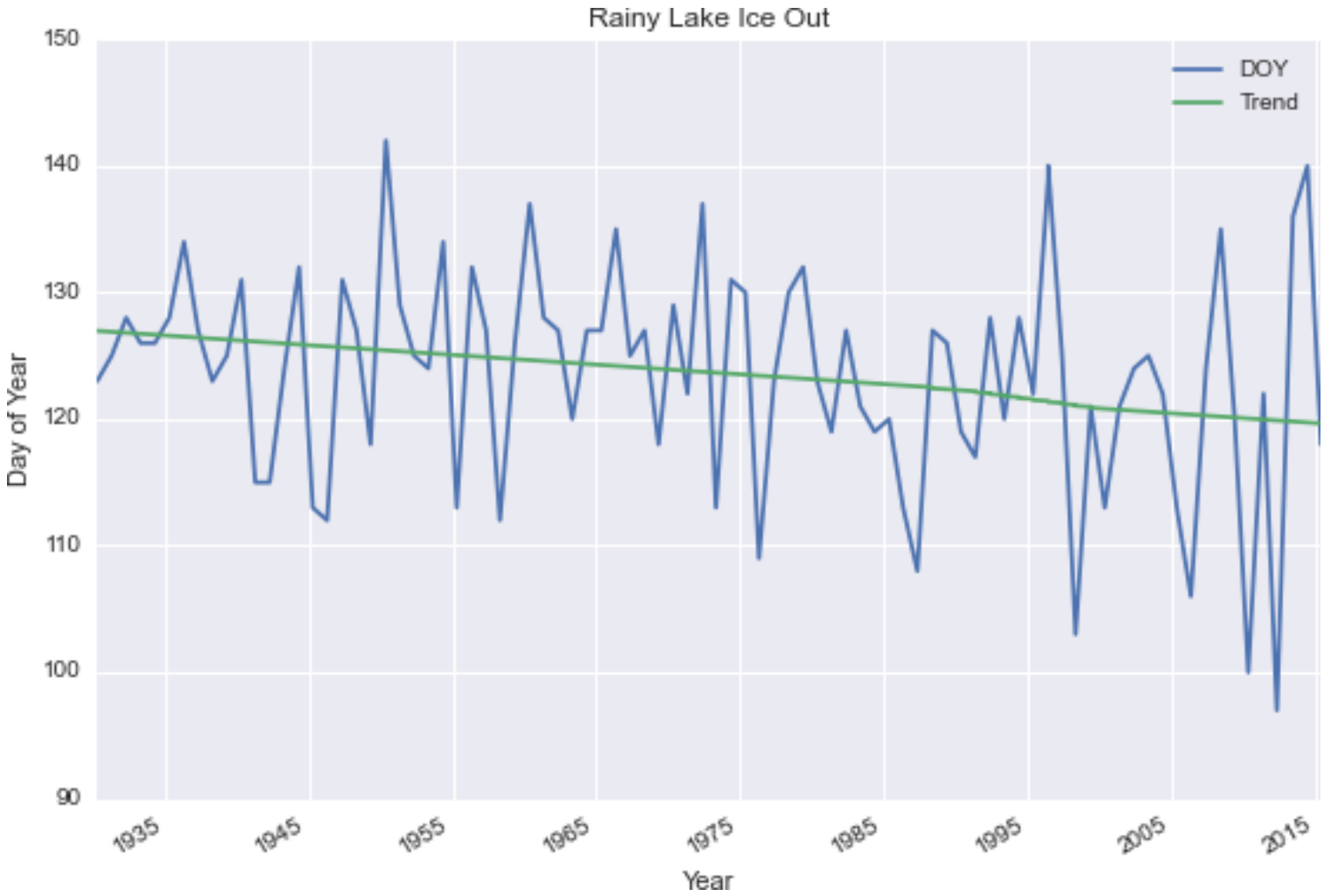
WINTER TEMPERATURES ARE LESS VARIABLE, KINL, 1948–2014



Source: Github Repository for this paper.

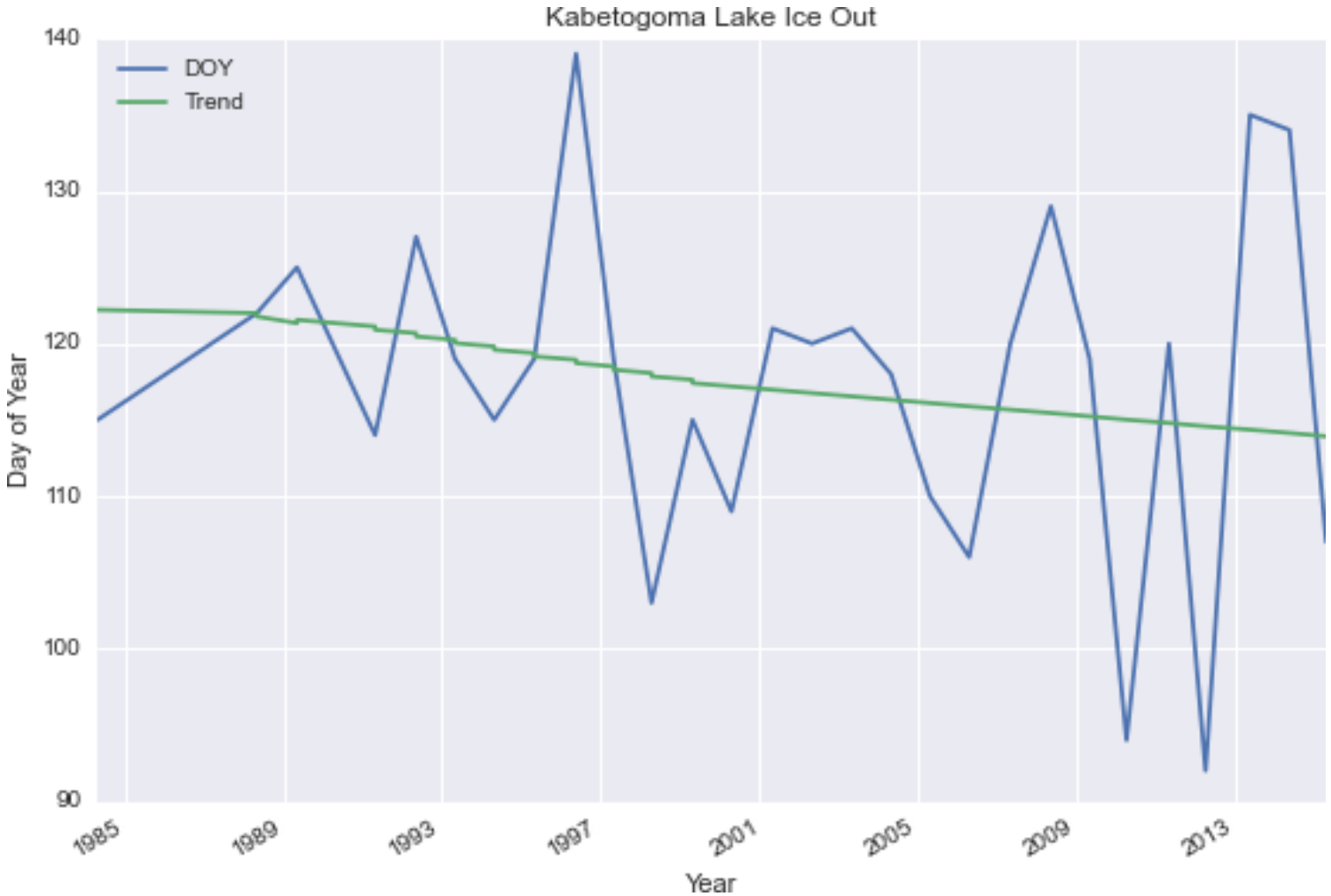
ICE OUT DATES ON RAINY LAKE ARE EARLIER

Ice out dates are earlier on Rainy Lake have become earlier. ($p < 0.01$)



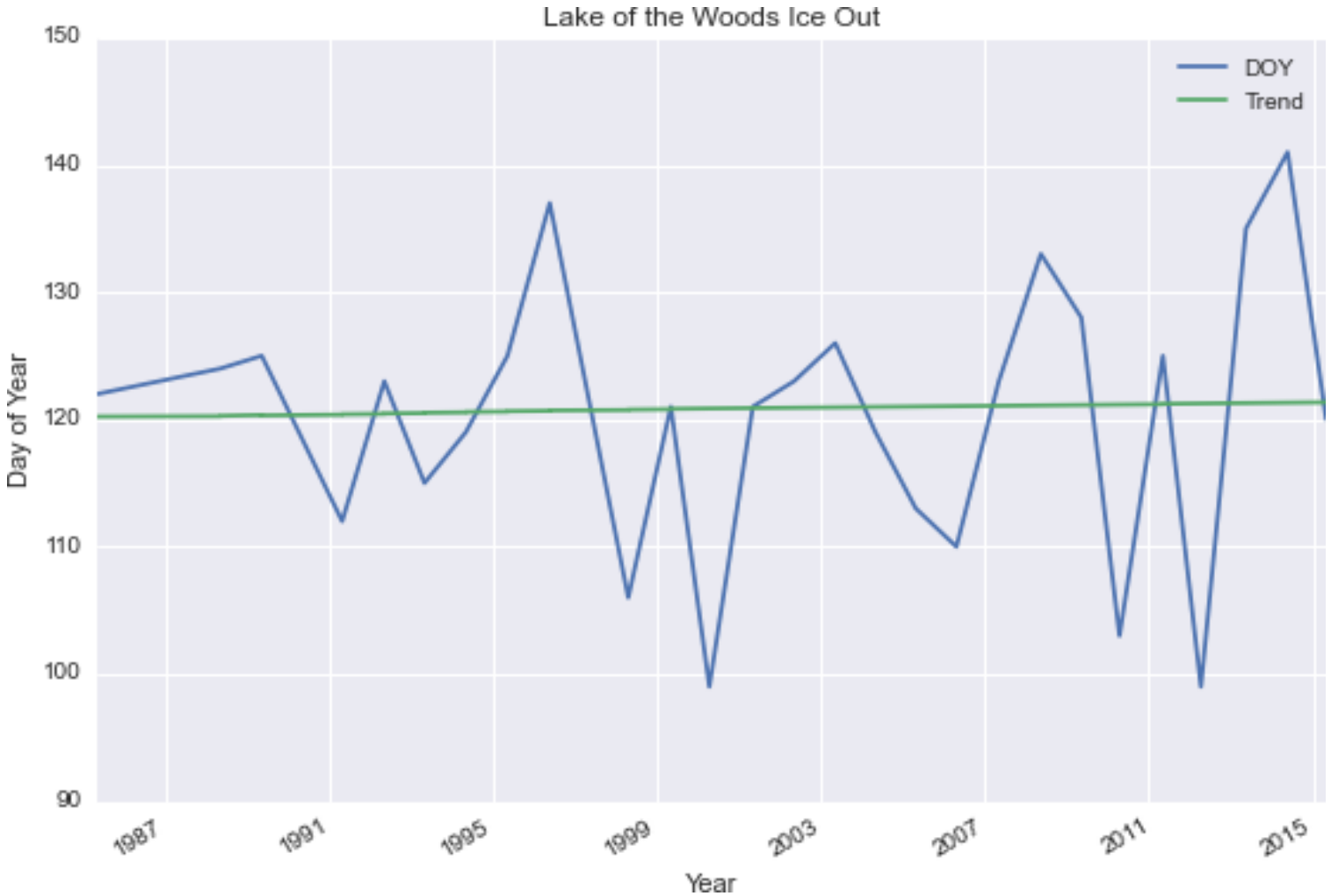
Source: Github Repository for this paper.

ICE OUT DATES ON KABETOGOMA LAKE, 1985–2015



Source: Github Repository for this paper.

ICE OUT DATES ON LAKE OF THE WOODS, 1985–2015



Source: Github Repository for this paper.

DISCUSSION