SPATIAL PREDICTION OF LOESS

STORIES FROM THE PEORIA LOESS SHEET

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Peoria Loess Sheet - Classic

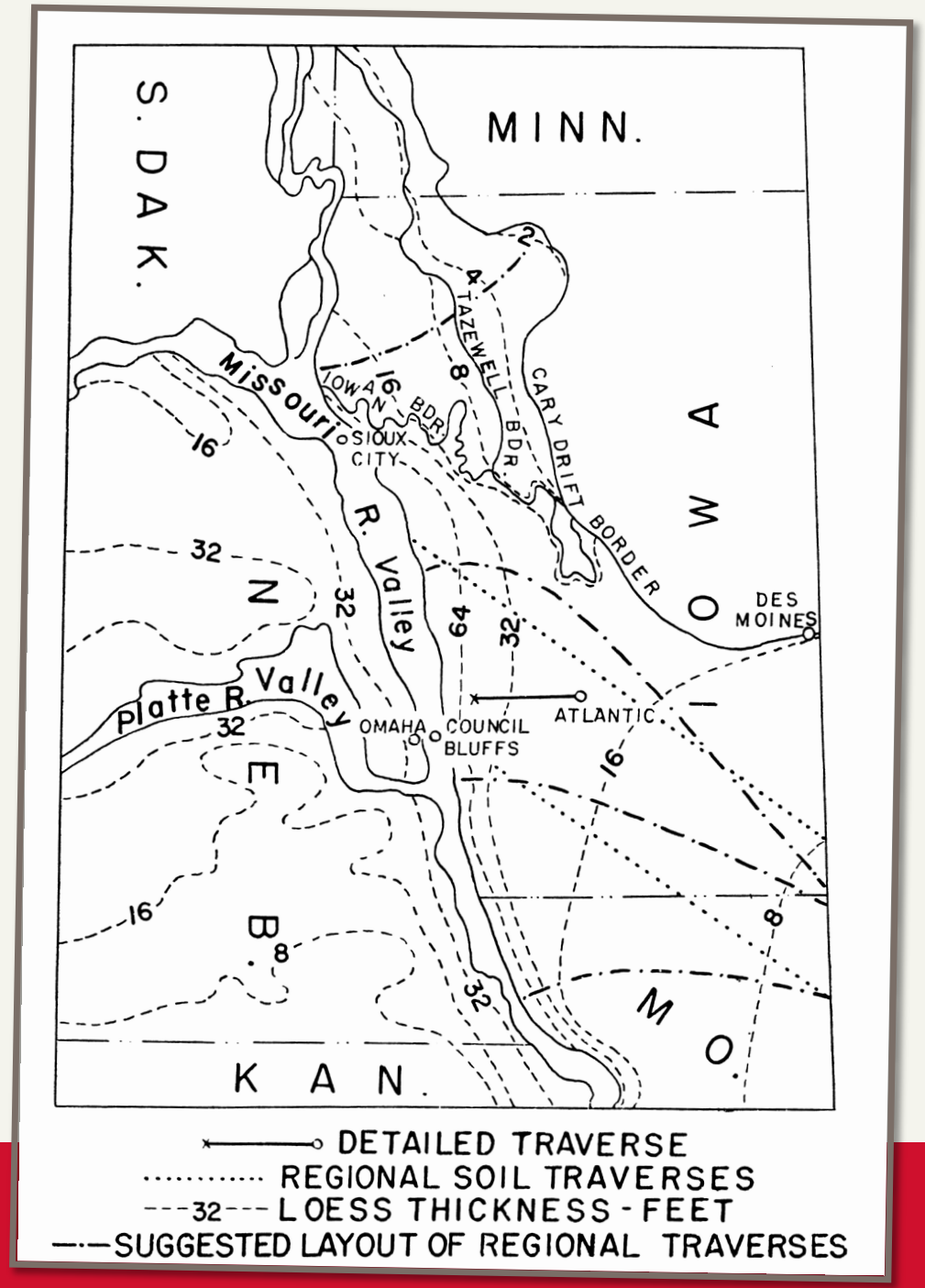
- Classic model of loess deposition, Mississippi valley (Chamberlain, 1897)
- Sourced from outwash streams
  - Missouri, Mississippi, Illinois, Wabash, Ohio Rivers

Loess Hills

- 20 m thick
- 3 km from Missouri River Valley

Loess Hills

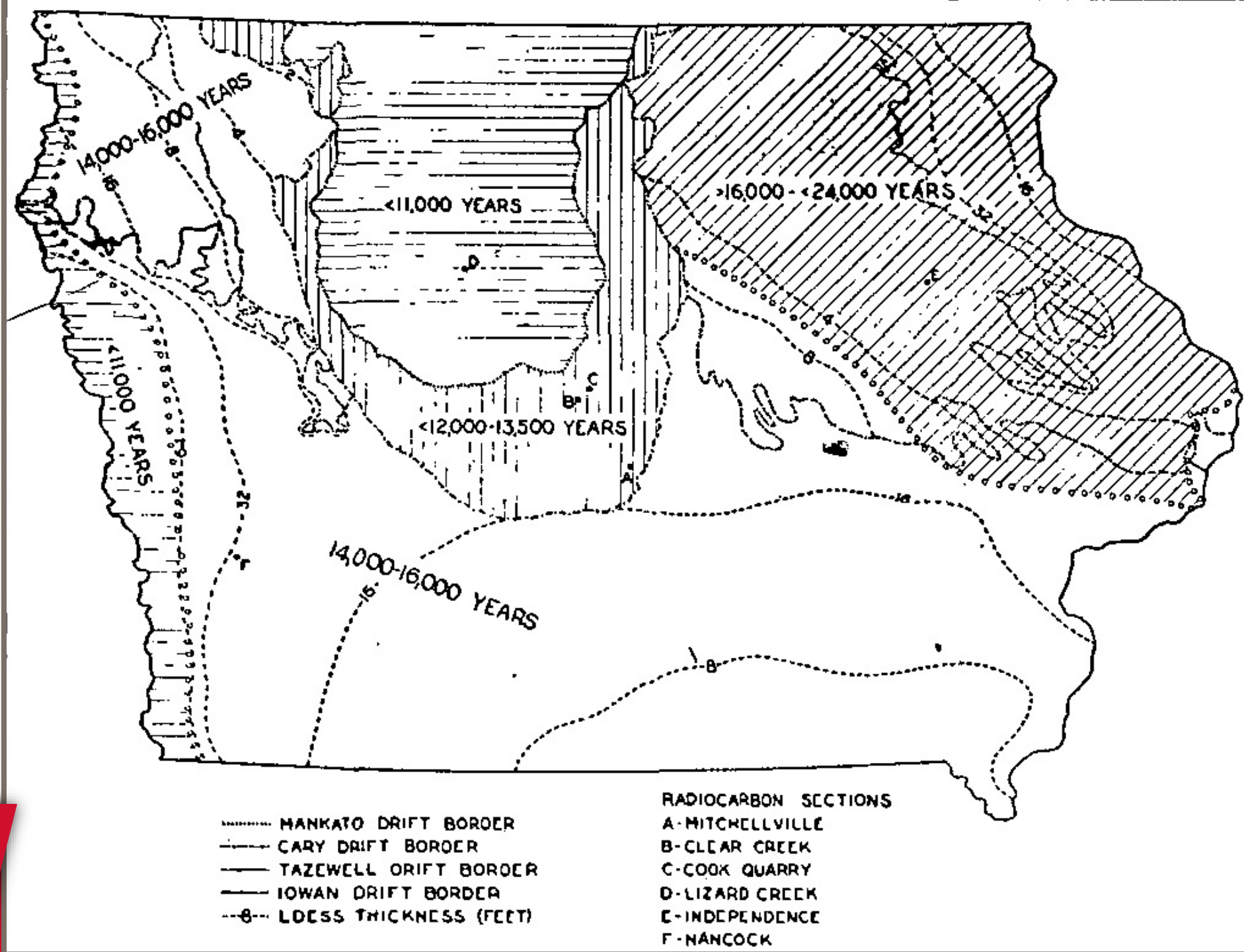
Ruhe
(1954)



- 20 m thick
- 3 km from Missouri River Valley

Age of Loess Sheet in Iowa

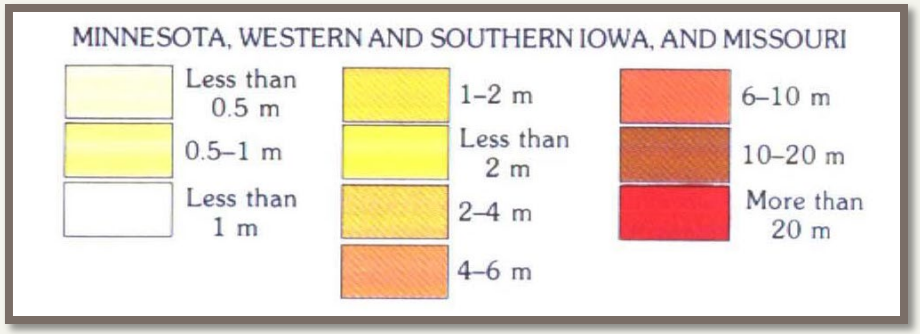
Ruhe and Scholtes
(1956)

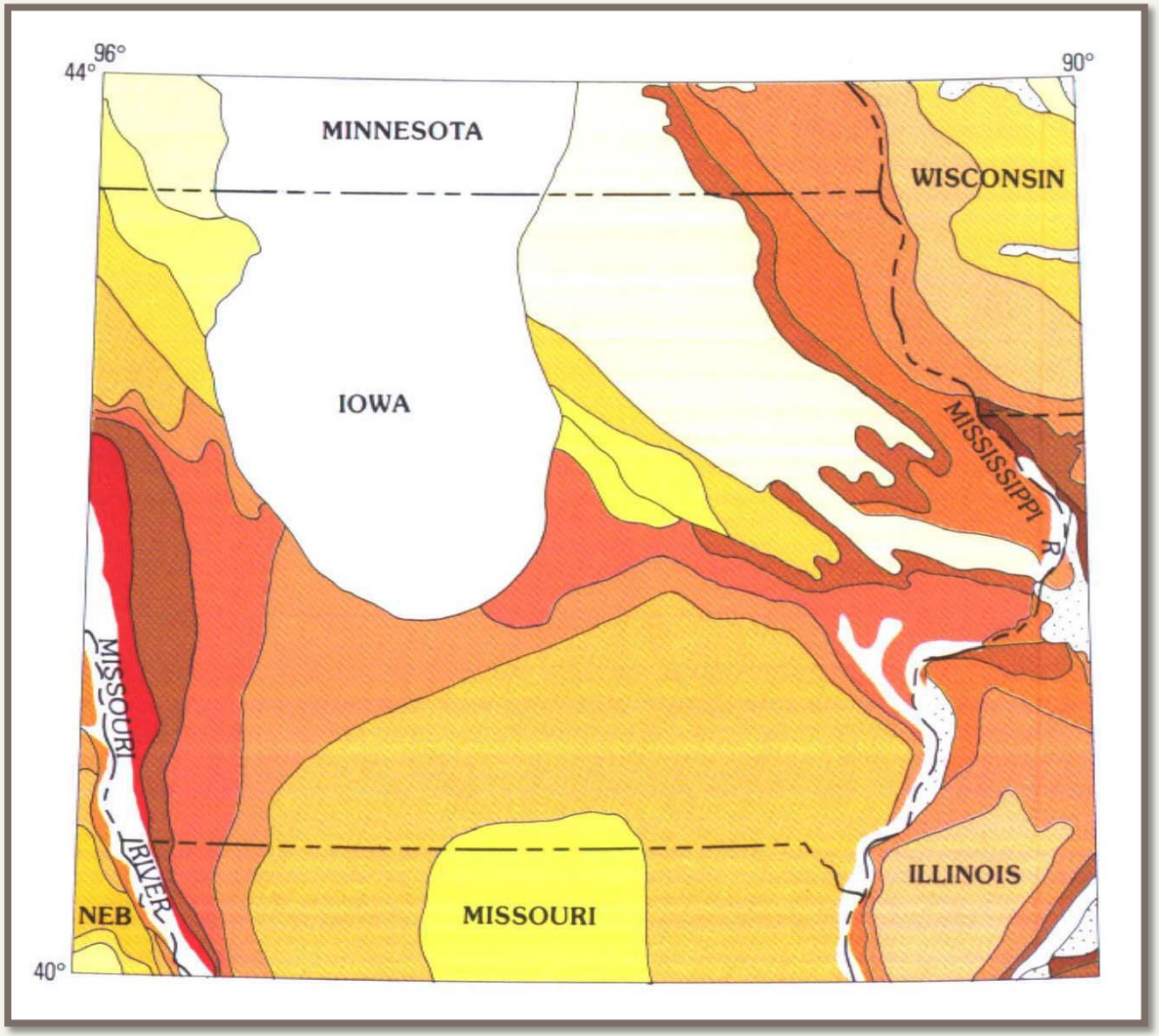


Loess Thickness

USGS

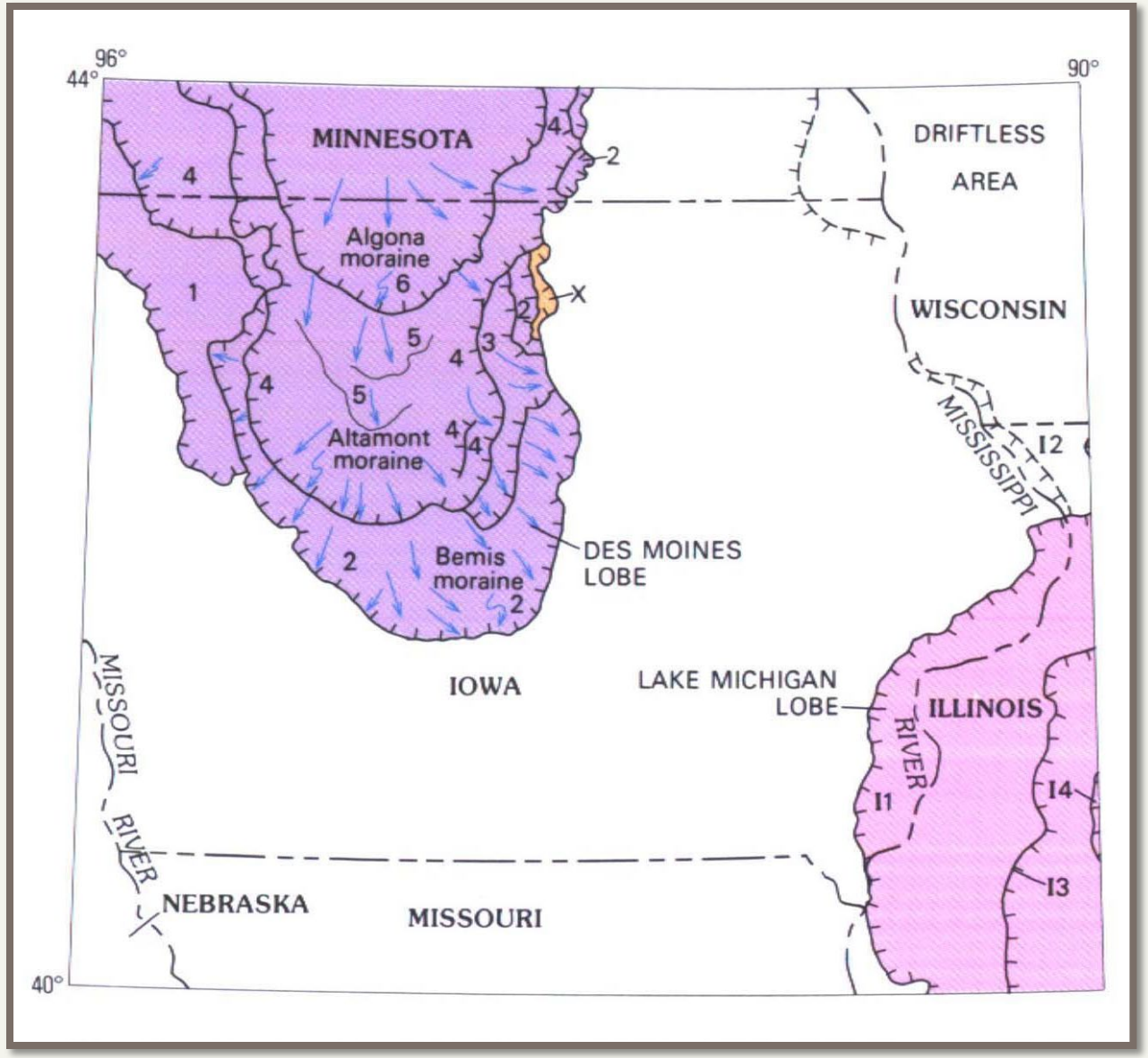
(1991)





“Recent” Glaciations

USGS
(1991)

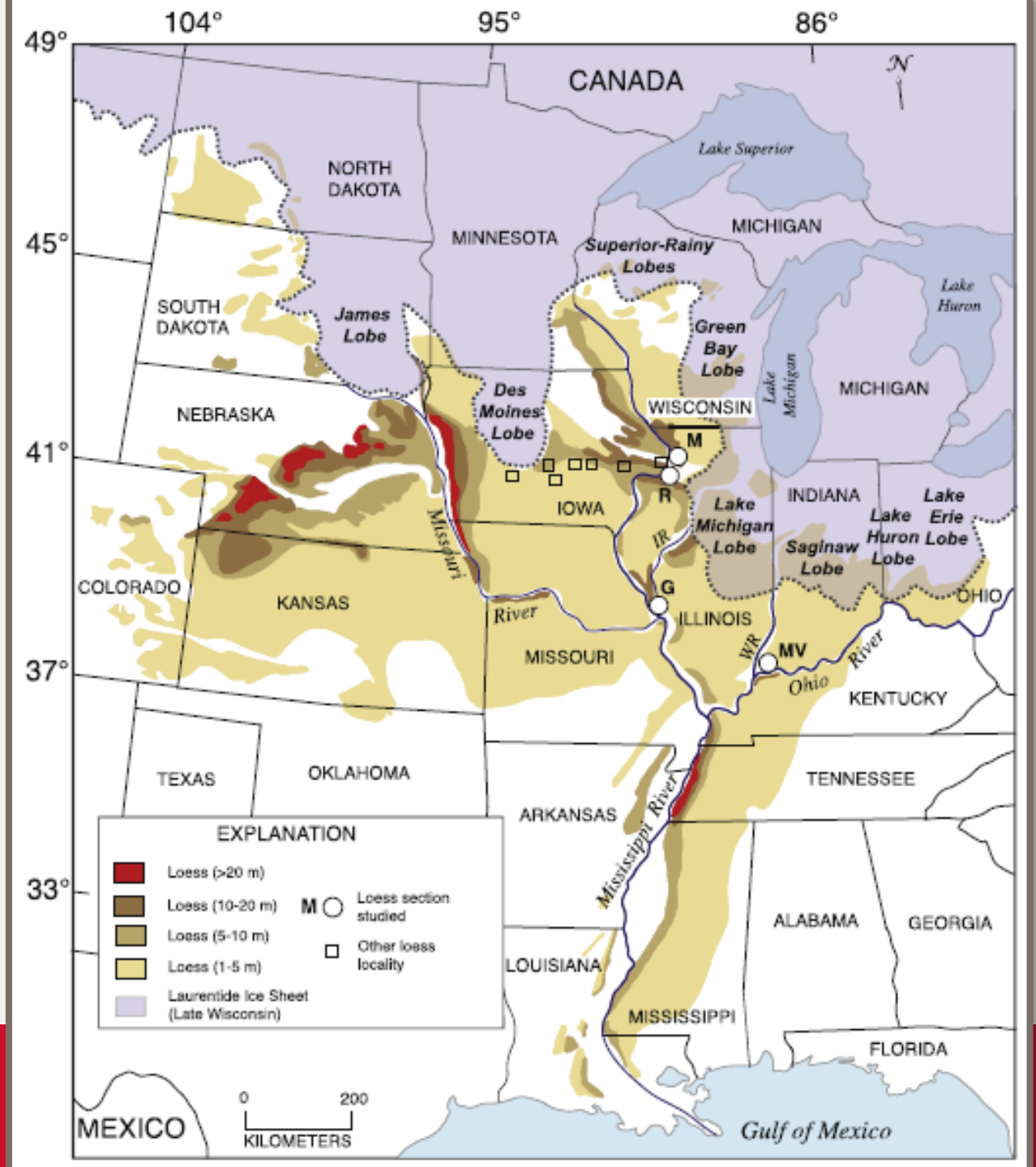


Laurentide Ice Sheet

Muhs et al.
(2018)

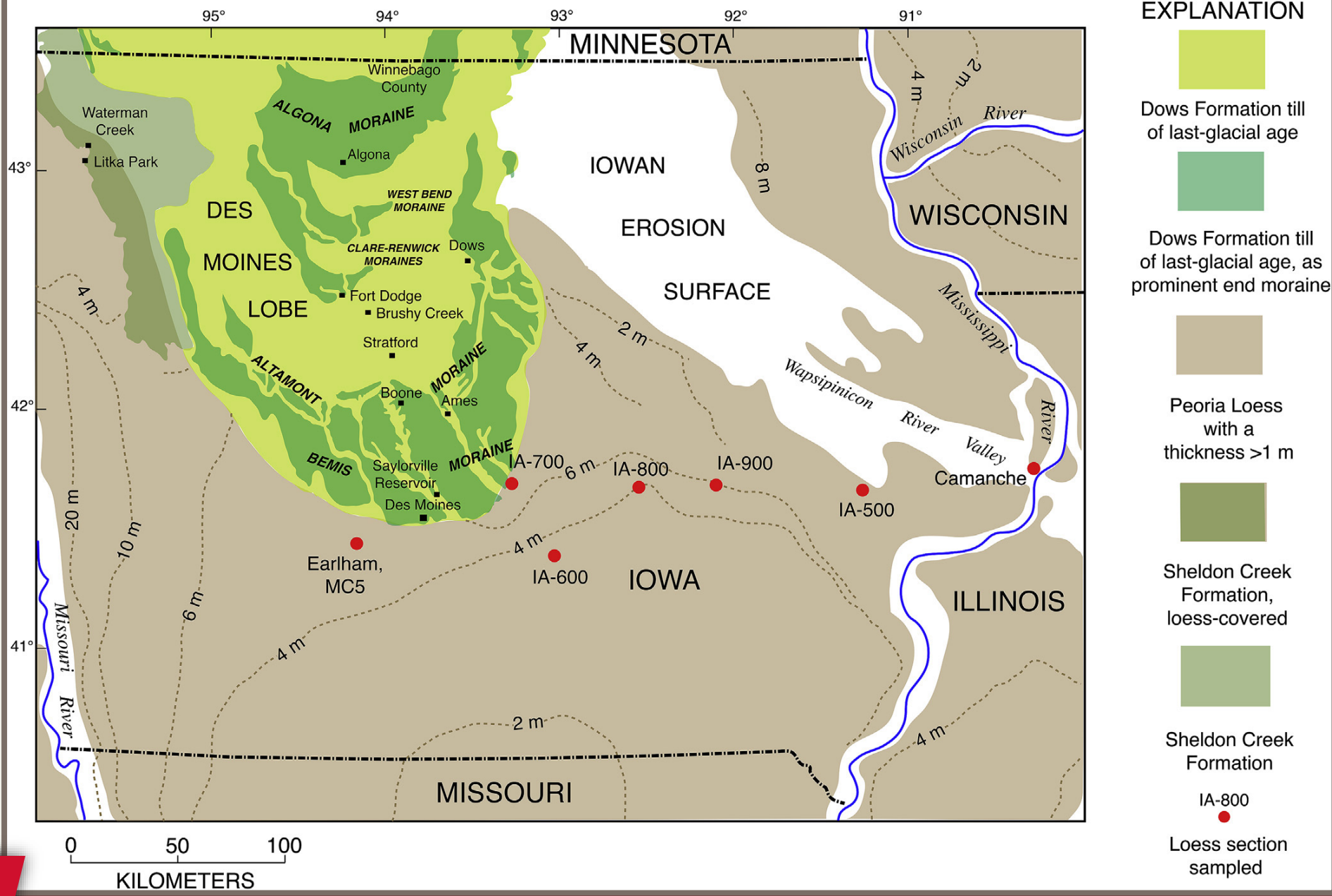
Loess Sources

Muhs et al.
(2018)



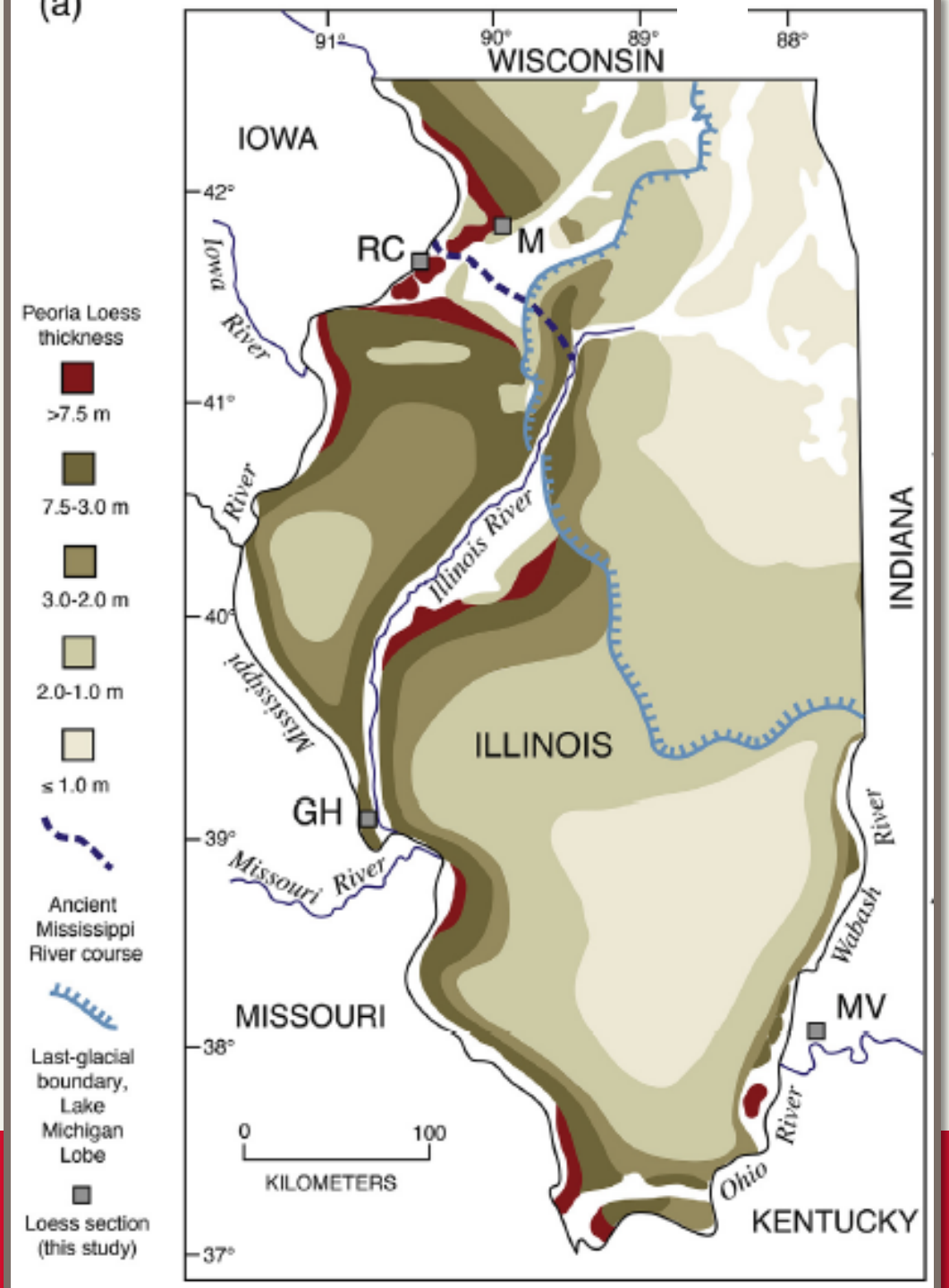
Iowa's Loess

Muhs et al.
(2018)

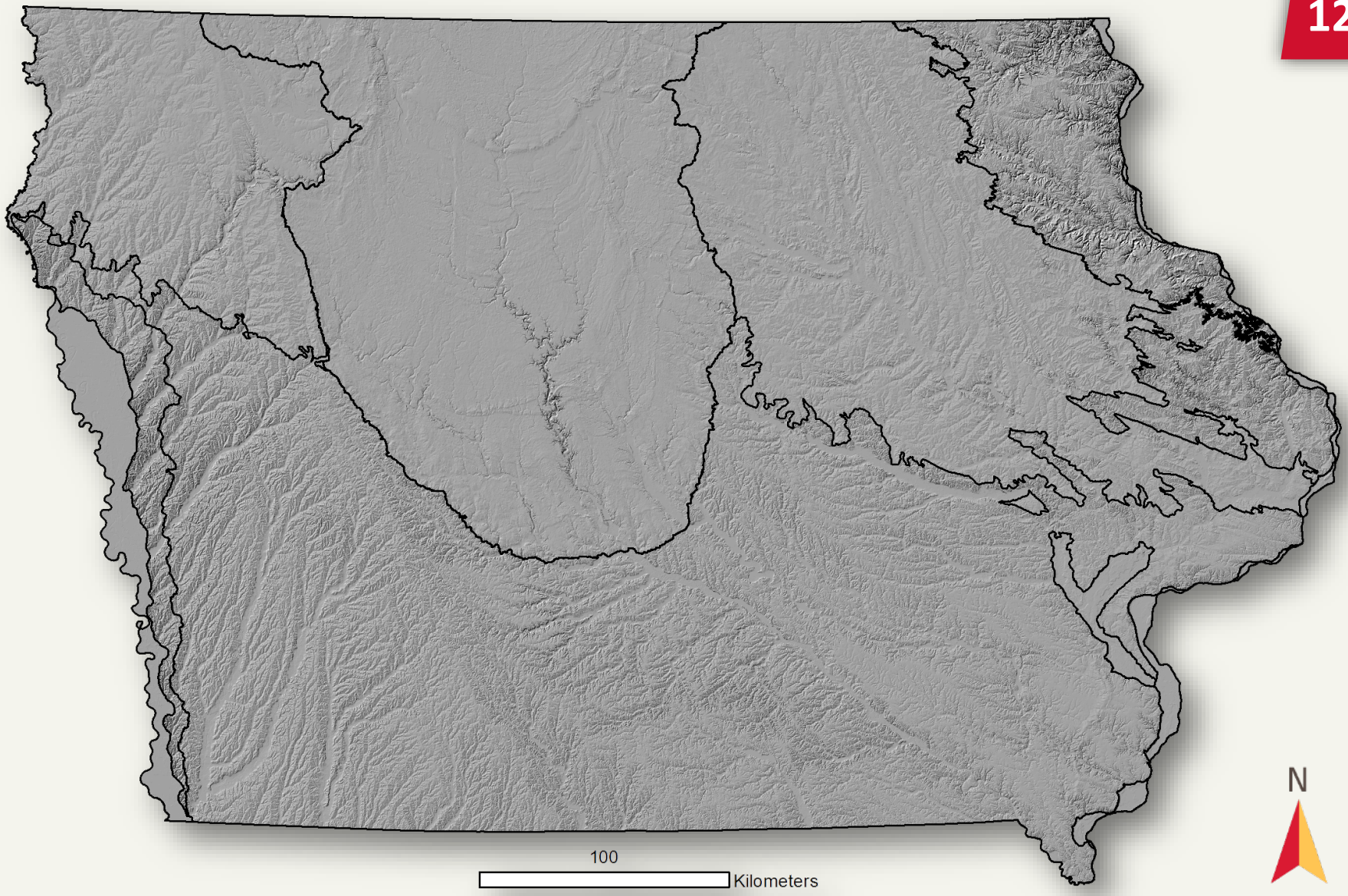


Illinois's Loess

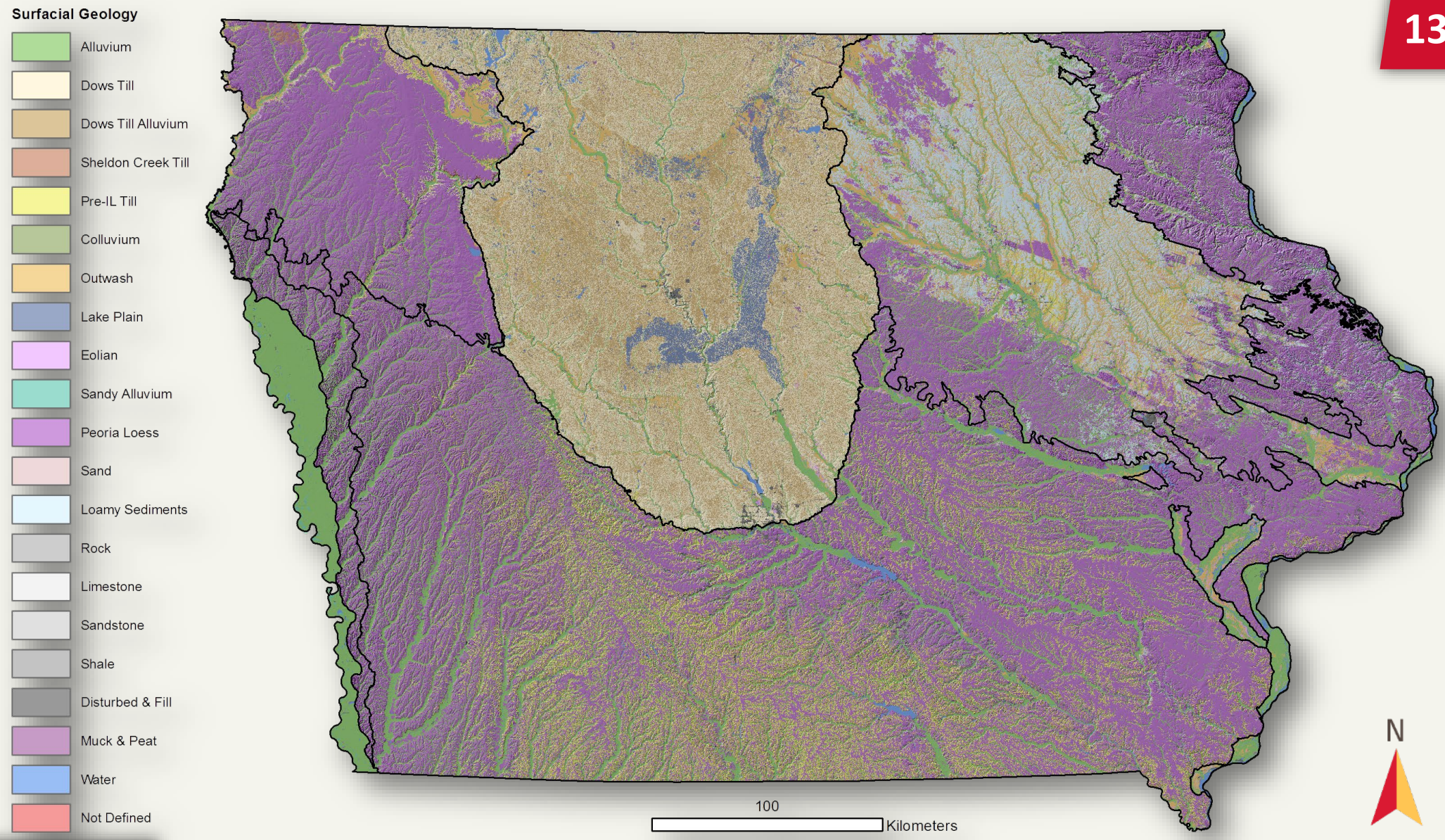
Muhs et al.
(2018)



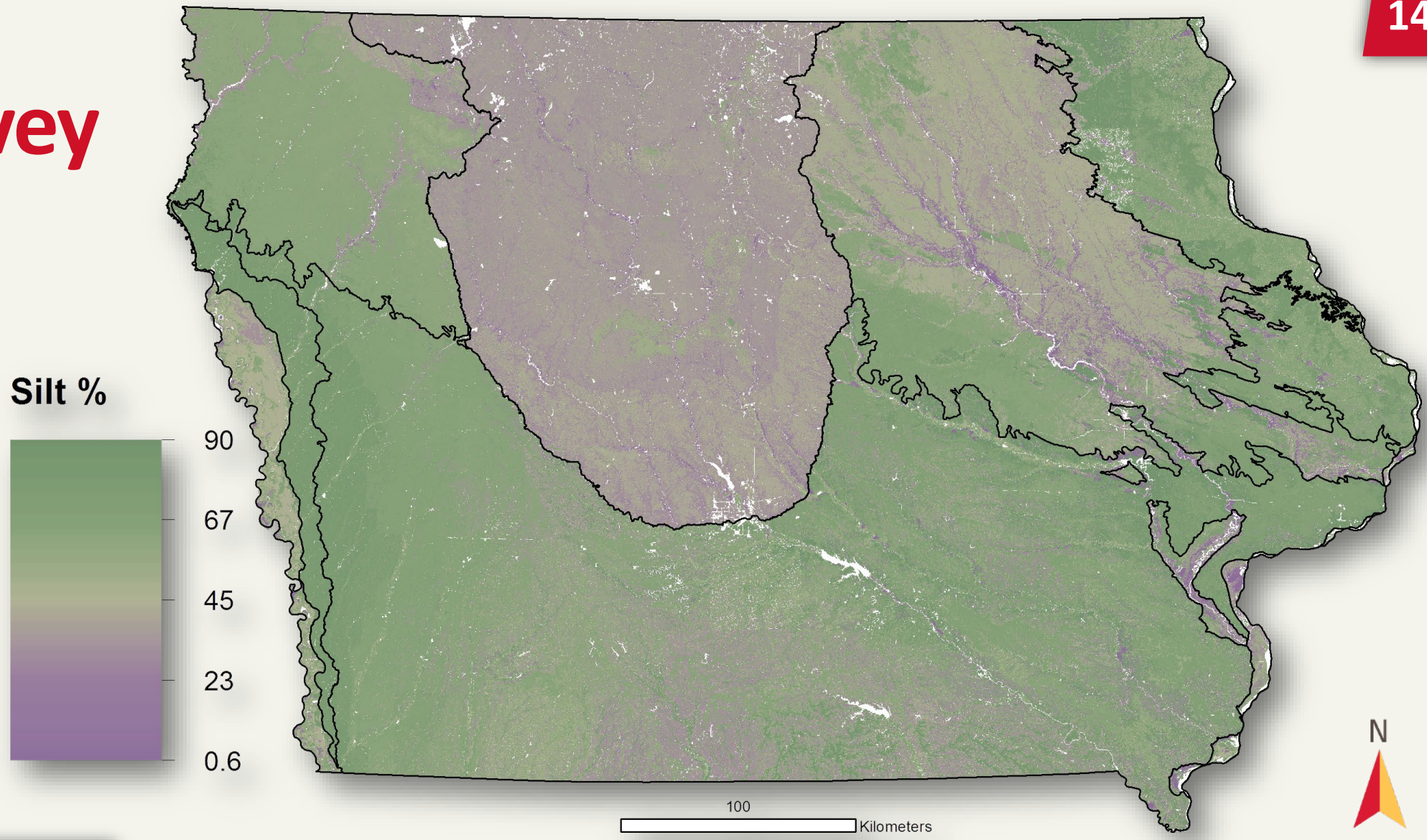
Iowa Regions



Parent Material

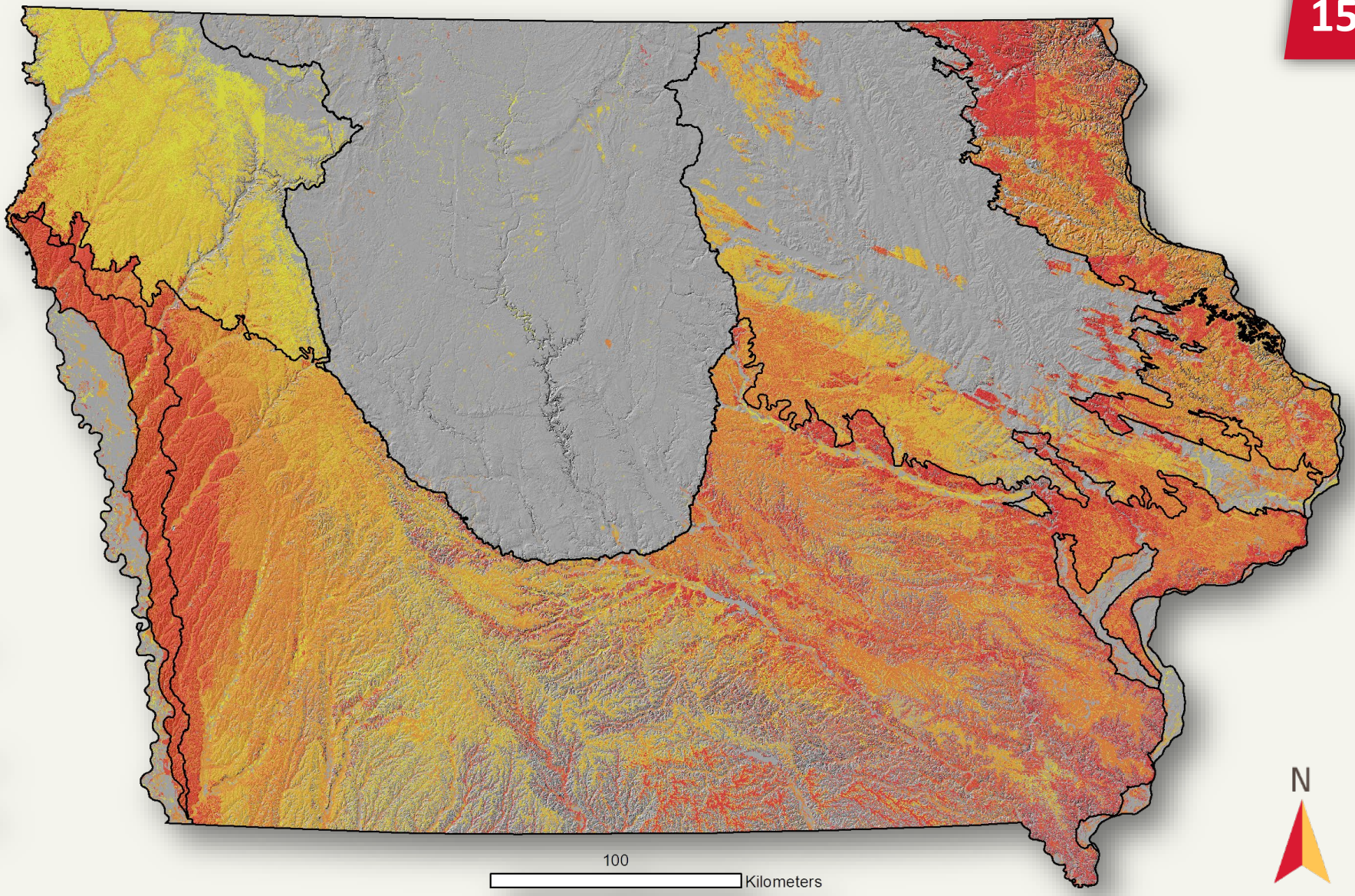


Iowa Soil Survey



Iowa Soil Survey

Only >60%



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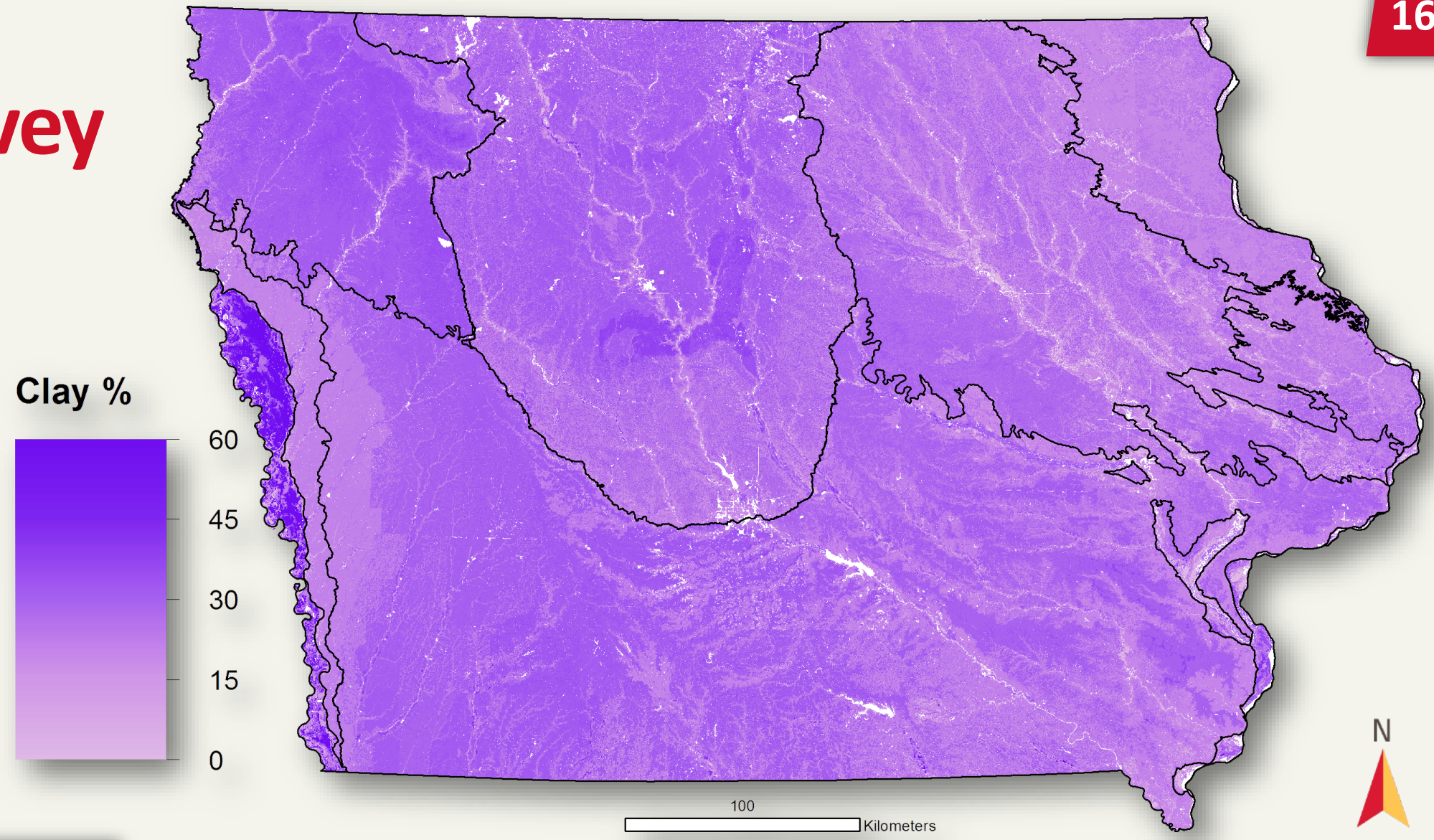
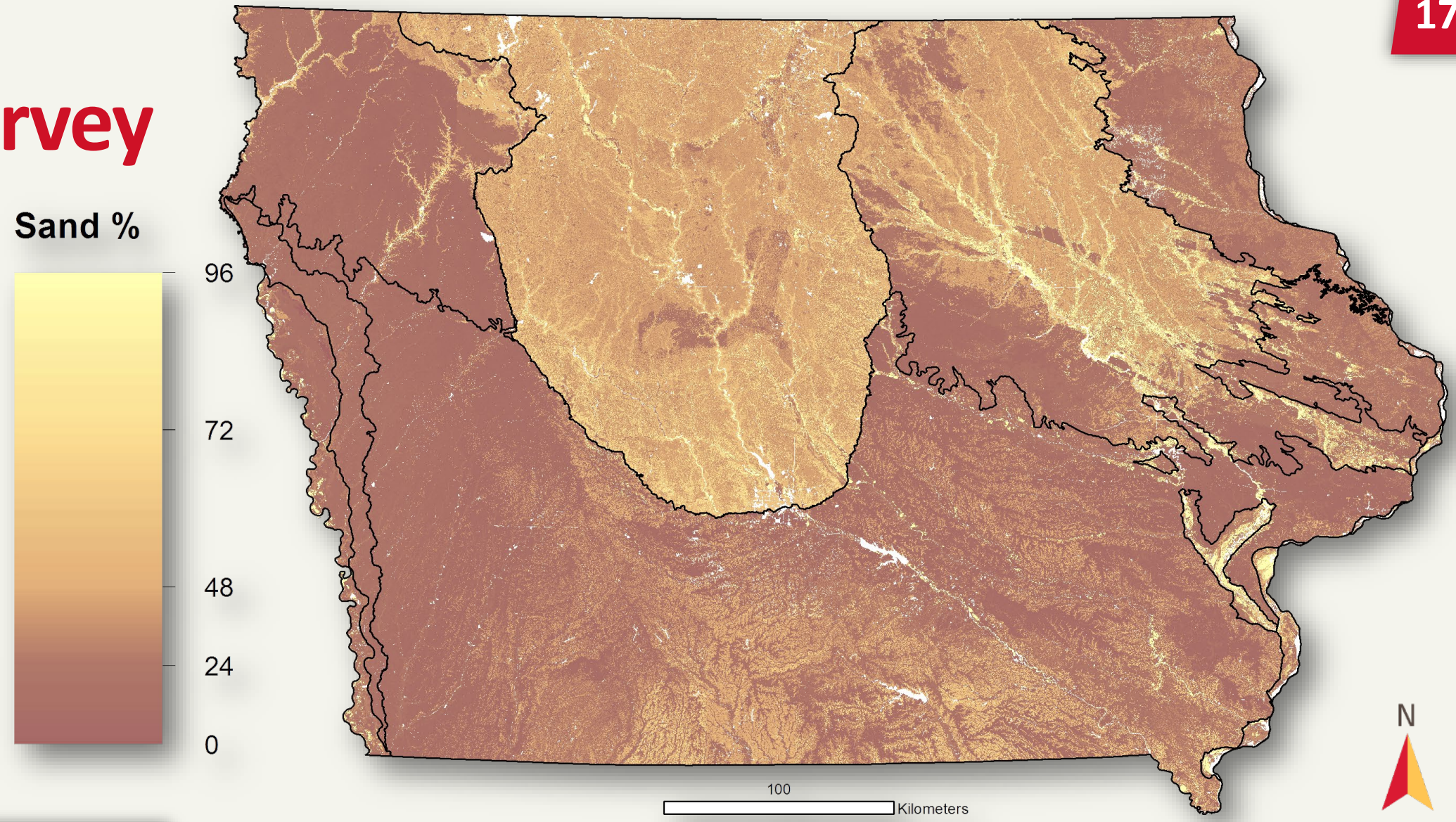
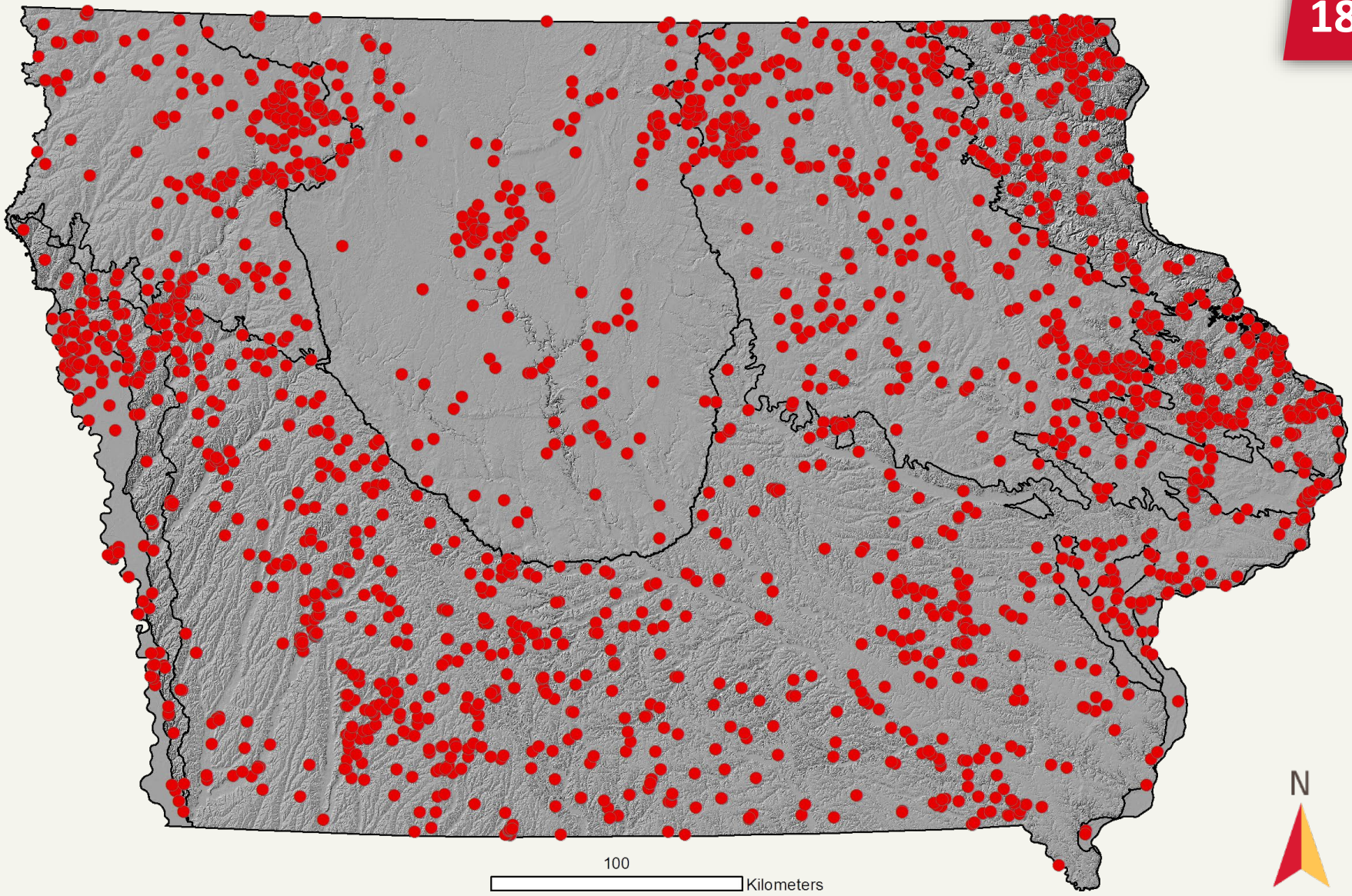


Iowa Soil Survey



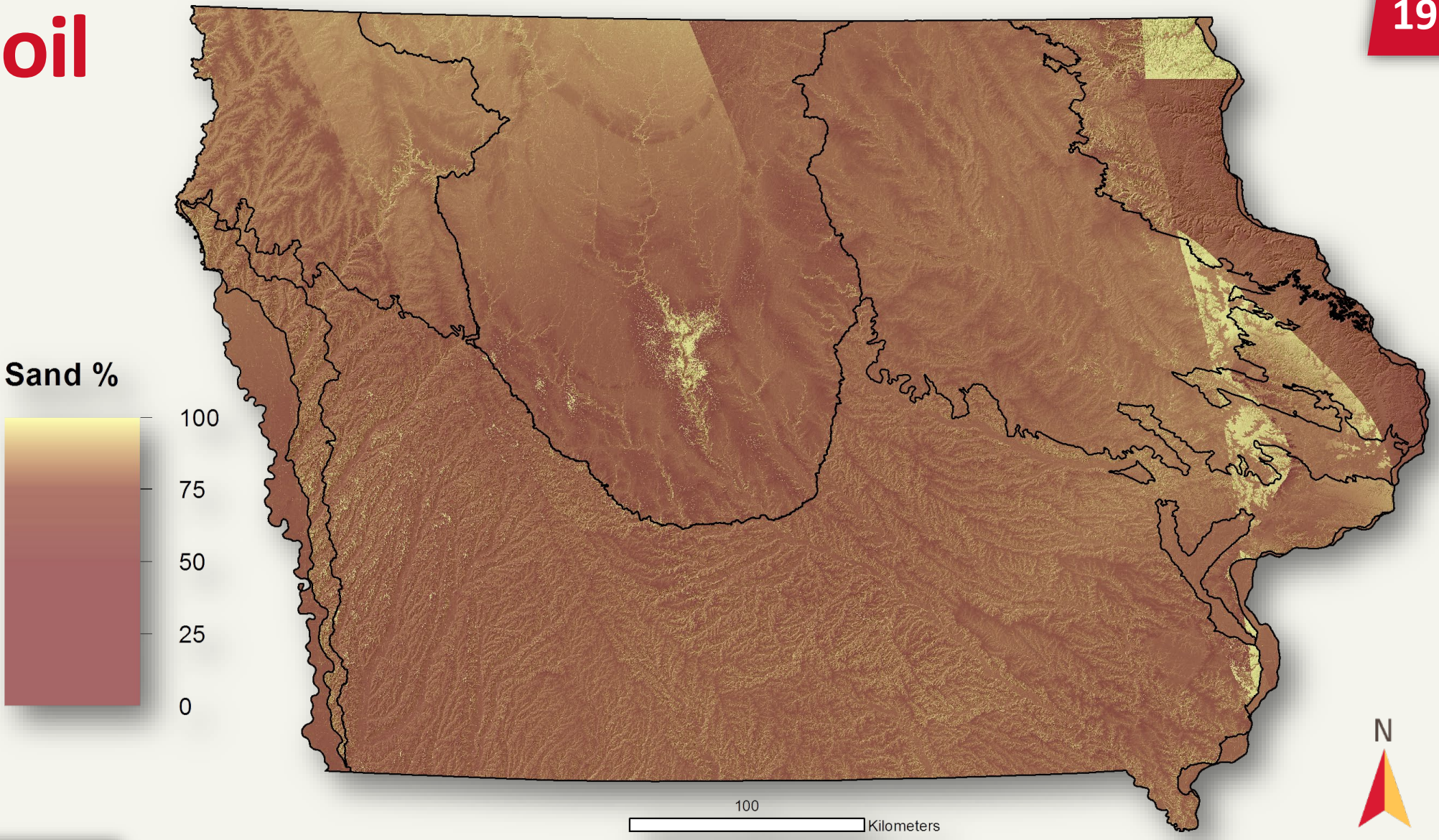
Digital Soil Map

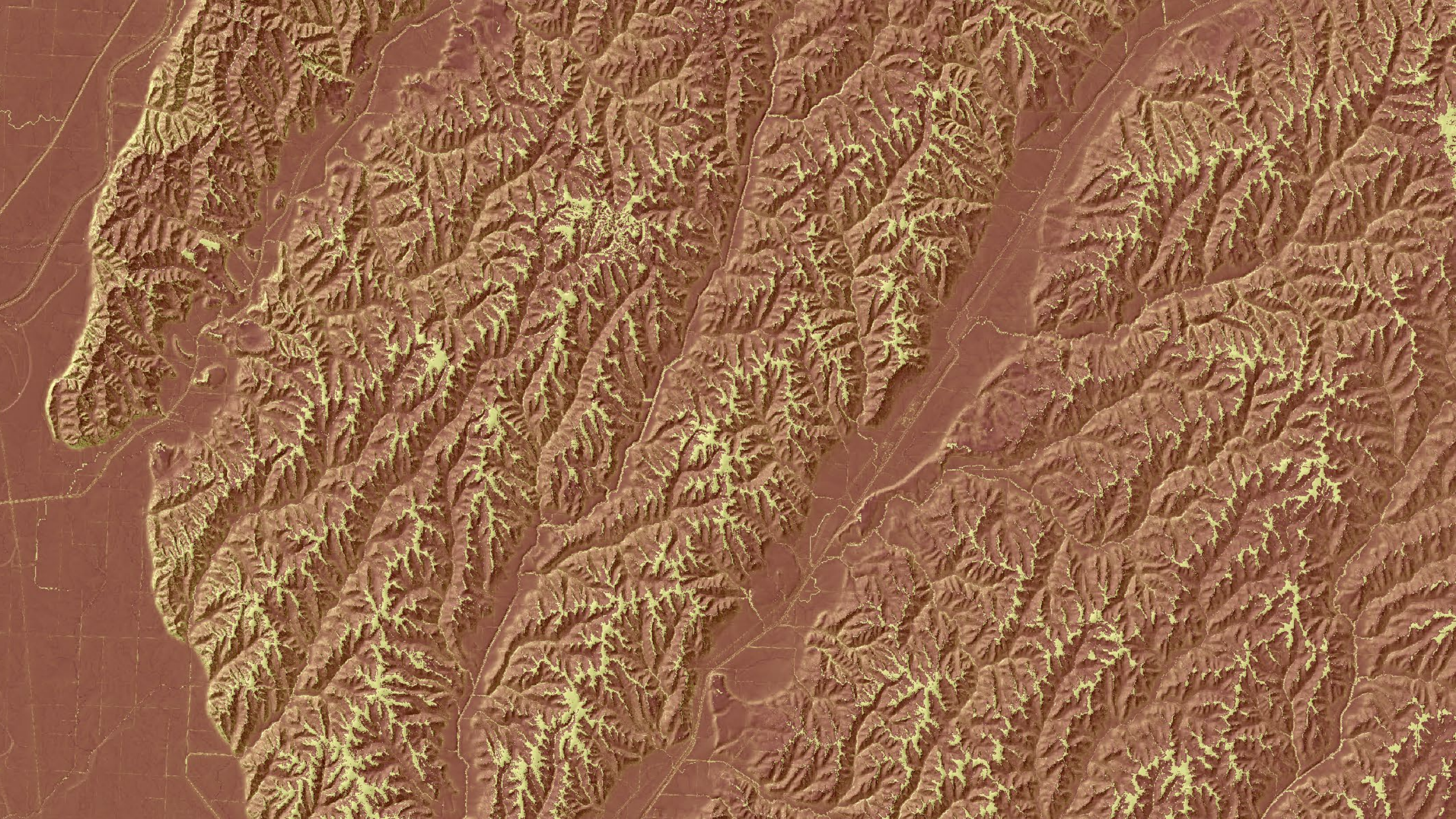
2,700 points



Digital Soil Map

First Draft





Questions?

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