

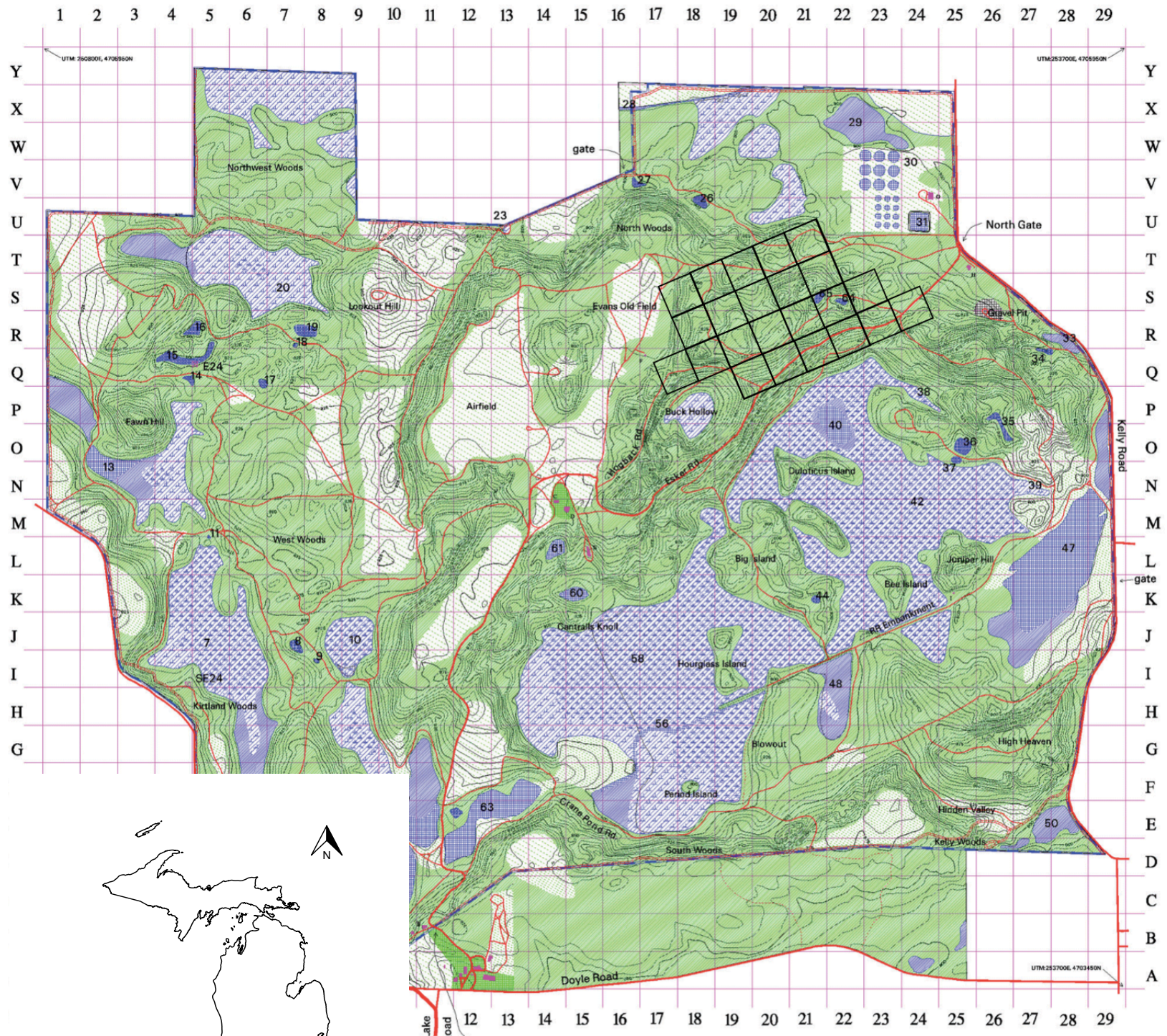
Michigan Big Woods

Dave Allen¹, Chris Dick², John Vandermeer², Ivette Perfecto²
1 Middlebury College
2 University of Michigan

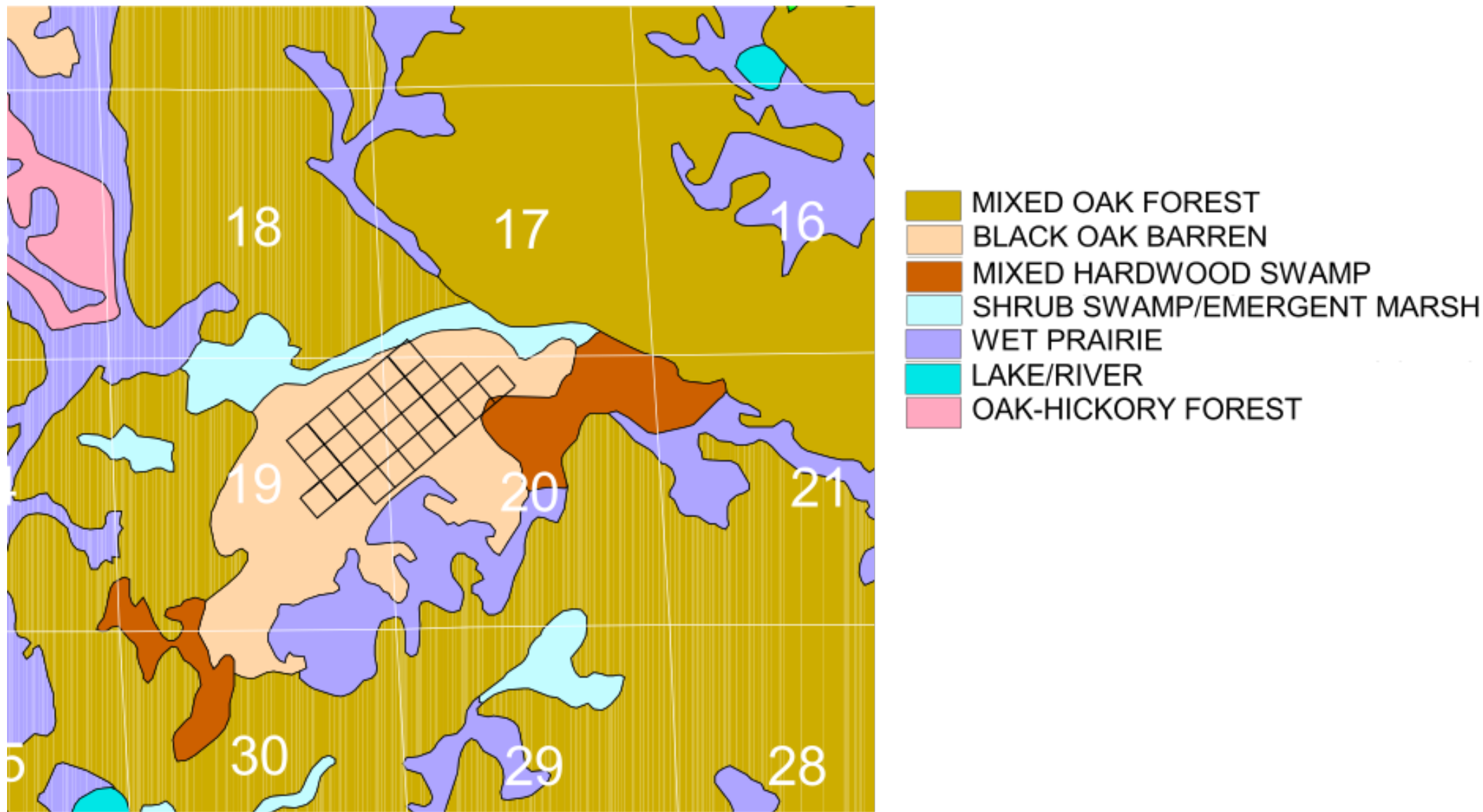
Edwin S George Reserve, Pinckney, MI, USA

- 2003: Initial plot layout, census
 - 12 ha
 - ≥ 3 cm DBH
- 2007-2010: Re-census, plot expansion
 - Full 23 ha
 - ≥ 3 cm DBH
- 2014: Re-census, add of smaller stems
 - Full 23 ha
 - ≥ 1 cm DBH
- 2021-2022: In process of re-censusing
 - 12 ha re-censused in 2021





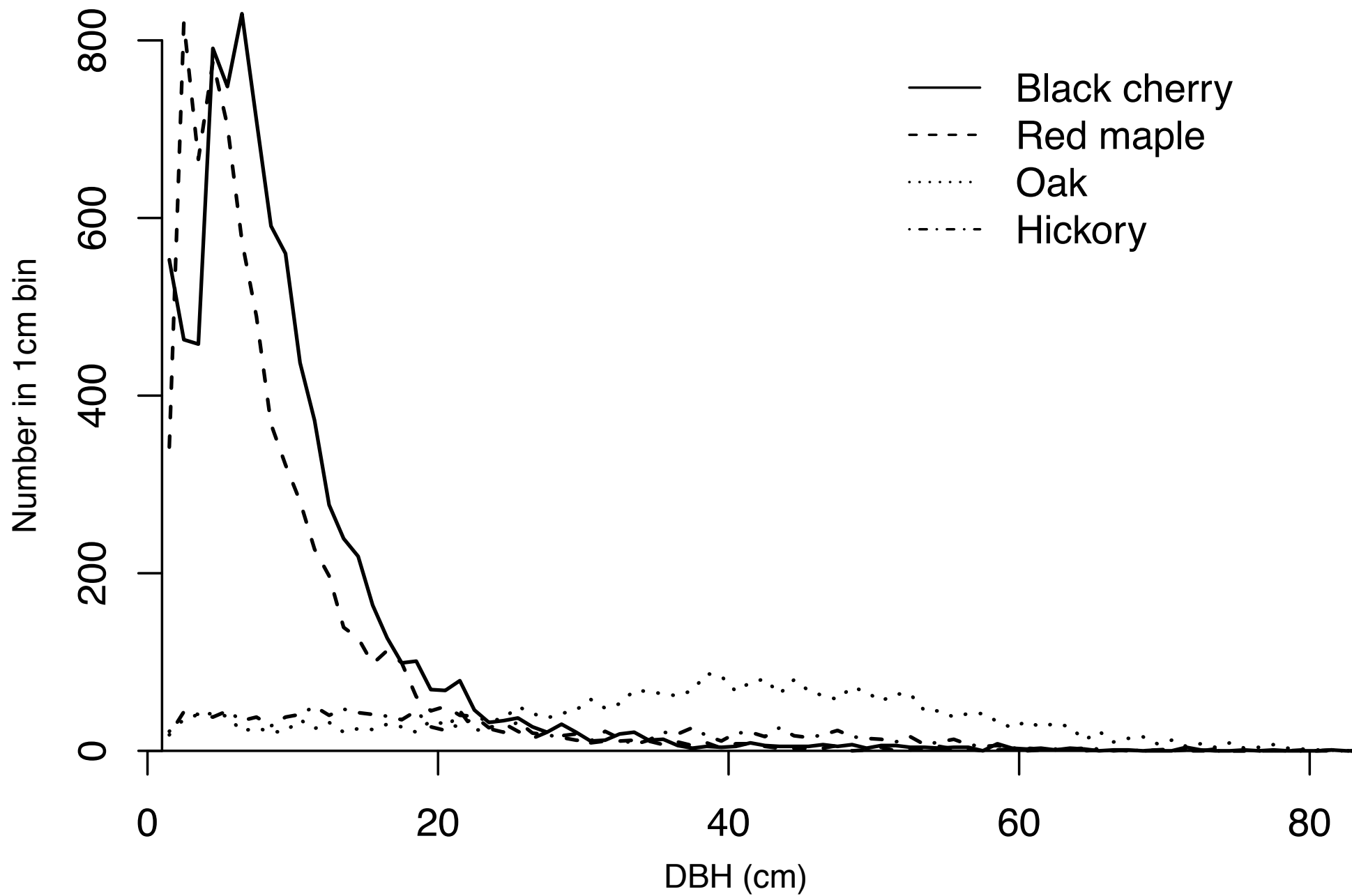
Reconstruction of pre-European colonization vegetation

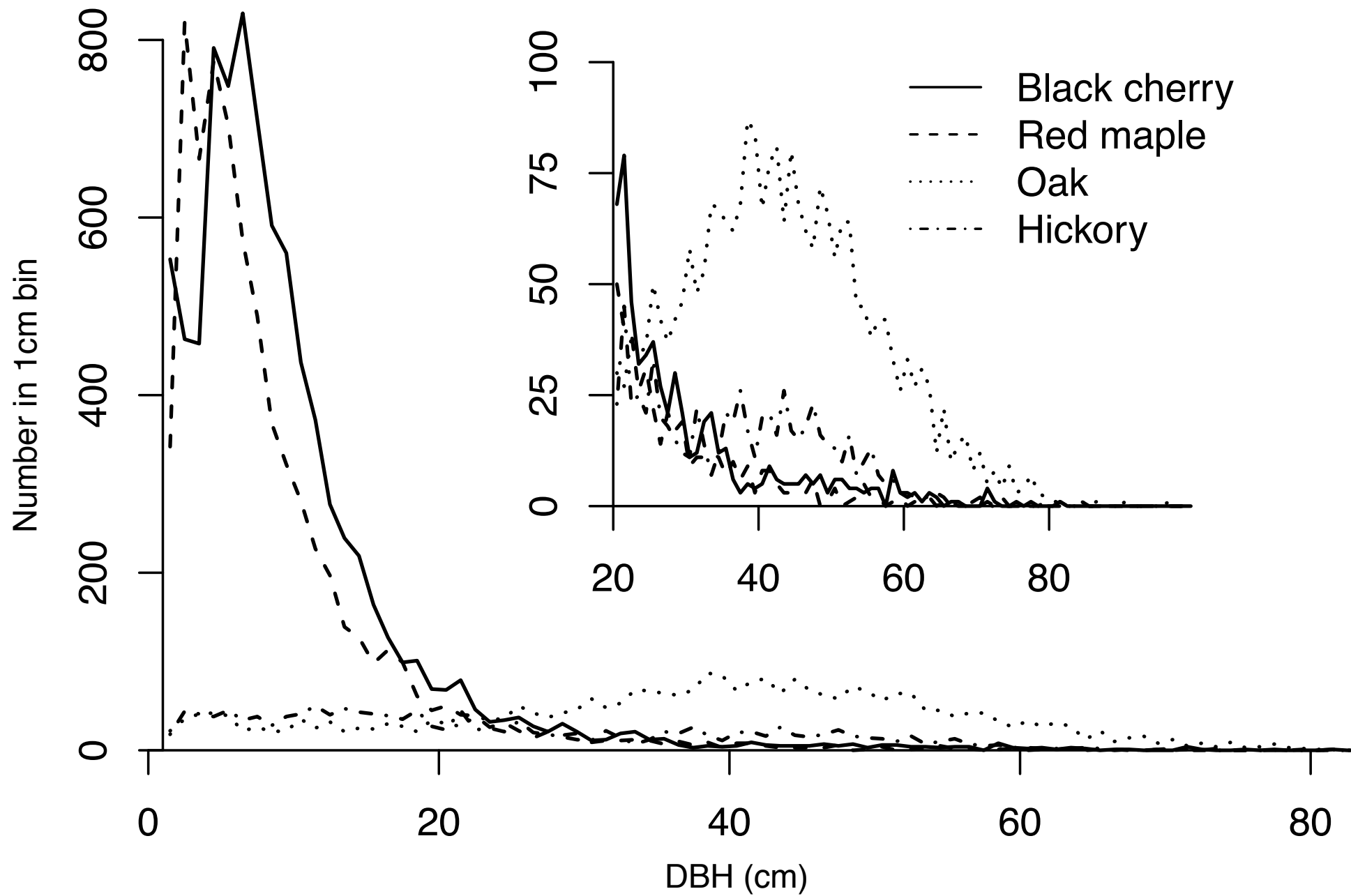


Modified from Comer et al. 1995. Michigan's presettlement vegetation, as interpreted from the General Land Office Surveys 1816-1856. Michigan Nature Features Inventory, Lansing, MI.



	Ind.	Stems	BA (m ² ha ⁻¹)
<i>Prunus serotina</i> Ehrh. Black cherry	8380	8548	4.43
<i>Acer rubrum</i> L. Red maple	6788	6904	3.04
<i>Hamamelis virginiana</i> L. Witch-hazel	5783	13904	0.41
<i>Elaeagnus umbellata</i> * Thunb. Autumn-olive	3176	5801	0.10
<i>Amelanchier arborea</i> (F. Michx) Fernald Serviceberry	2839	2839	0.22
<i>Quercus alba</i> L. White oak	1143	1167	5.96
<i>Carya glabra</i> (Mill.) Sweet Pignut hickory	1129	1176	3.53
<i>Quercus velutina</i> Lam. Black oak	954	962	6.58
<i>Ulmus americana</i> L. American elm	656	658	0.23





		2003	2007-2010	2014
Oak	<i>Quercus</i> spp.	1368 (0.635)	1307 (0.595)	1229 (0.538)
Black cherry	<i>Prunus serotina</i>	276 (0.128)	321 (0.146)	370 (0.162)
Red maple	<i>Acer rubrum</i>	215 (0.100)	251 (0.114)	330 (0.144)
Hickory	<i>Carya</i> spp.	209 (0.097)	223 (0.102)	243 (0.106)
Total		2155 (1.000)	2195 (1.000)	2285 (1.000)

Number and proportion of individuals > 20 cm DBH of four taxonomic groups. *Quercus* spp. includes *Q. alba*, *Q. rubra*, *Q. velutina*, and *Q. rubra x velutina*. *Carya* includes *C. cordiformis*, *C. glabra*, and *C. ovata*. No other species accounted for more than 3% of individuals over 20cm DBH in any of the three censuses.

Current projects

- Better understanding of lack of oak recruitment
- Neighborhood competition index models to understand species specific-competition interactions
- Genomics of oak “hybrids” to confirm our identifications and see any microhabitat associations

More info

- Data: <https://doi.org/10.7302/wx55-kt18>
- Plot description manuscript: <https://hdl.handle.net/2027.42/156251>
- Contact: dallen@middlebury.edu
- These slides: go.middlebury.edu/mbwslides

Thanks

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