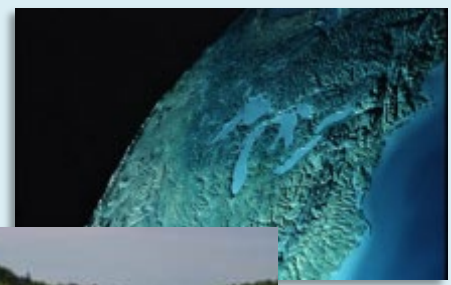


Protecting the Great Lakes from Invasive Bighead, Silver, and Black Carp



Brandon Road Interbasin Project Construction Begins!!!



**Tammy J Newcomb, Ph.D.
Special Advisor to the Director, Executive Division
Michigan Department of Natural Resources**

**Natural Resources Commission
July 07, 2024**



Project Partner Agreement Signed!

- Agreement with U.S. Army Corps of Engineers with Illinois and Michigan as co-nonfederal sponsors.
- This agreement unlocks:
 - \$245 million in federal in federal funding
 - MI \$64 million; IL \$50 million





Big News Basinwide

1. Gov. Pritzker signs federal and state agreement to protect Lake Michigan from invasive carp (*front page story for the Chicago Tribune*)
2. Great Lakes invasive carp barrier project reaches major milestone
3. State of Michigan inks agreement to protect Great Lakes from invasive species
4. Whitmer partners with Army Corps and Illinois to block invasive species from the Great Lakes
5. Illinois, Michigan partner with Army Corps to keep invasive carp out of Great Lakes
6. Michigan to sponsor \$1.15 billion project to protect the Great Lakes
7. Illinois and Michigan commit to \$1.15 billion Brandon Road project to protect Lake Michigan from invasive carp
8. Michigan enters agreement in project to keep invasive species out of Great Lakes
9. 'Big win': Construction can start on project to block invasive carp from Great Lakes



Slide courtesy USACE Rock Island District



Brandon Road Interbasin Project (BRIP)

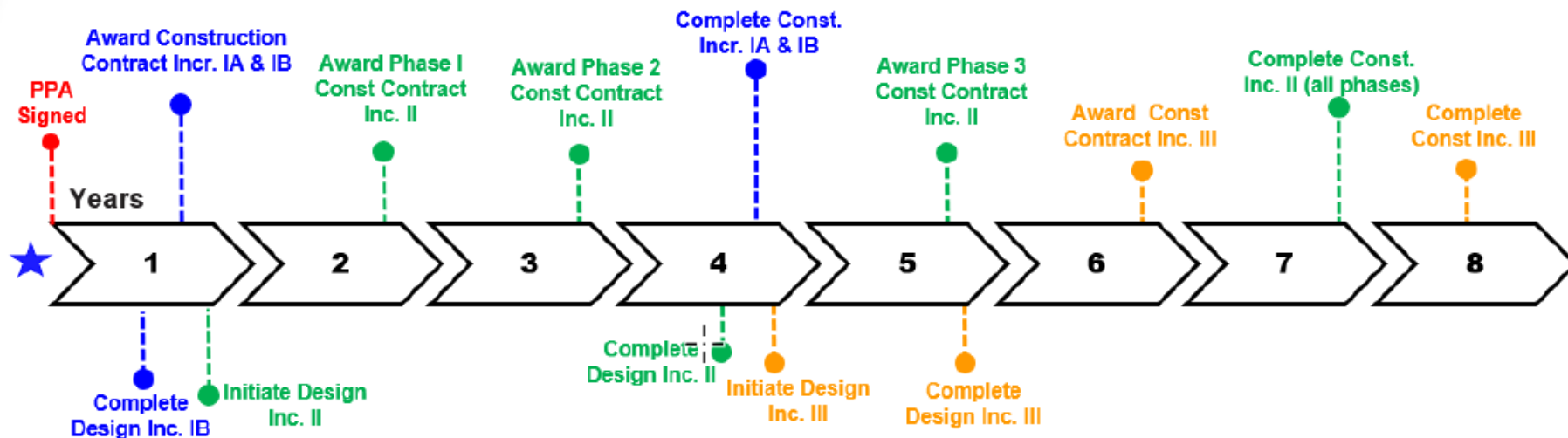


Slide courtesy USACE Rock Island District



BRANDON ROAD INTERBASIN PROJECT

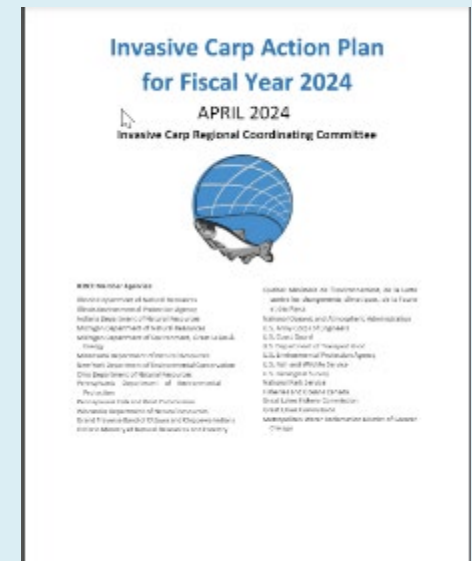
PROJECT TIMELINE – MOST EFFICIENT (8yrs-\$1.14B)





Current Preventative Actions for Keeping Bighead, Silver, and Black Carp out of the Great Lakes Basin

- Monitoring Great Lakes (USFWS and all survey and commercial gear)
- Monitoring CAWS (USFWS, USACE, ILDNR)
- Population control through netting/fishing efforts (ILDNR)
- Electric barrier system in Romeoville (USACE)





<https://www.mvr.usace.army.mil/Missions/Environmental-Stewardship/BR-Interbasin-Project/>

[About](#) [Business With Us](#) [Missions](#) [Locations](#) [Careers](#) [Media](#) [Library](#) [Contact](#)

US Army Corps of Engineers Rock Island District Website

BRANDON ROAD INTERBASIN PROJECT



PUBLIC OPEN HOUSE RECORDING NOW AVAILABLE

The U.S. Army Corps of Engineers, Rock Island District, in partnership with the Illinois Department of Natural Resources, hosted a public open house December 5 to review and discuss the detailed designs, construction strategies, and public water use considerations for the Brandon Road Interbasin Project in Joliet, Illinois. Click the link below to view the presentation from the open house event.

OPEN HOUSE PRESENTATION RECORDING

CLICK HERE TO SUBMIT COMMENTS

The Brandon Road Interbasin Project is a complex ecosystem protection effort designed to prevent upstream movement of invasive carp and other aquatic nuisance species into the Great Lakes from the Illinois Waterway. Brandon Road Lock and Dam near Joliet, Illinois, has been identified as the critical pinch point where layered technologies could be used to prevent movement of invasive carp populations into the Great Lakes.

Pre-construction engineering and design of the Brandon Road Interbasin Project was initiated Dec. 29, 2020, when the state of Illinois signed a design agreement with the U.S. Army Corps of Engineers, Rock Island District. This phase of the project, known as PED, is estimated to last three years, cost \$28.9 million, and be cost shared 65 percent federal, 35 percent non-federal. The state of Michigan contributed \$8 million to the state of Illinois to help with the \$10.1 million non-federal portion.

The recommended plan involves a layered system of structural and non-structural control measures. Structural measures include technologies such as a flushing lock, an engineered channel with electric barrier, underwater acoustic deterrent, air bubble curtain and an automated barge clearing deterrent. Non-structural measures, implemented in conjunction with other federal agencies, could include public education and outreach, monitoring, integrated pest management, pesticides, manual or mechanical removal, and research and development.

Quarterly Update Newsletter



Want to be informed when the next newsletter is released? [Click here to send us an email and be added to our mailing list.](#)

Newsletter Archive

- Quarterly Newsletter #1
- Quarterly Newsletter #2
- Quarterly Newsletter #3
- Quarterly Newsletter #4



Basinwide Messaging

- Bait retail/wholesale surveillance, awareness
- Clean Drain Dry - awareness - Online Reporting
- Support Brandon Road Interbasin Project
- Share information that work continues to protect the Great Lakes

Every day that these fish are NOT present in the Great Lakes contributes to more time for research and technology to provide meaningful detection, eradication, and control options.



Questions?



NOT NOW. NOT EVER.

newcombt@michigan.gov; (517)284-5832

www.michigan.gov/invasivespecies

Legend

- River
- Asian carp eggs detected
- Lock and Dam/Water Control Structure
- 2017: Single Silver Carp captured below TJ O'Brien Lock at RM 324.2
- 2015: 3 larval fish detections, none before or after 2015.
- 2010: Single Bighead Carp captured in Lake Calumet
- 2009: Single Bighead Carp captured during rotenone action

Distances from Lake Michigan

37 miles ★ Electric Barrier System

47 miles **Dresden Island Pool:** Adult Population Front; Three larval Silver Carp captured in July 2015

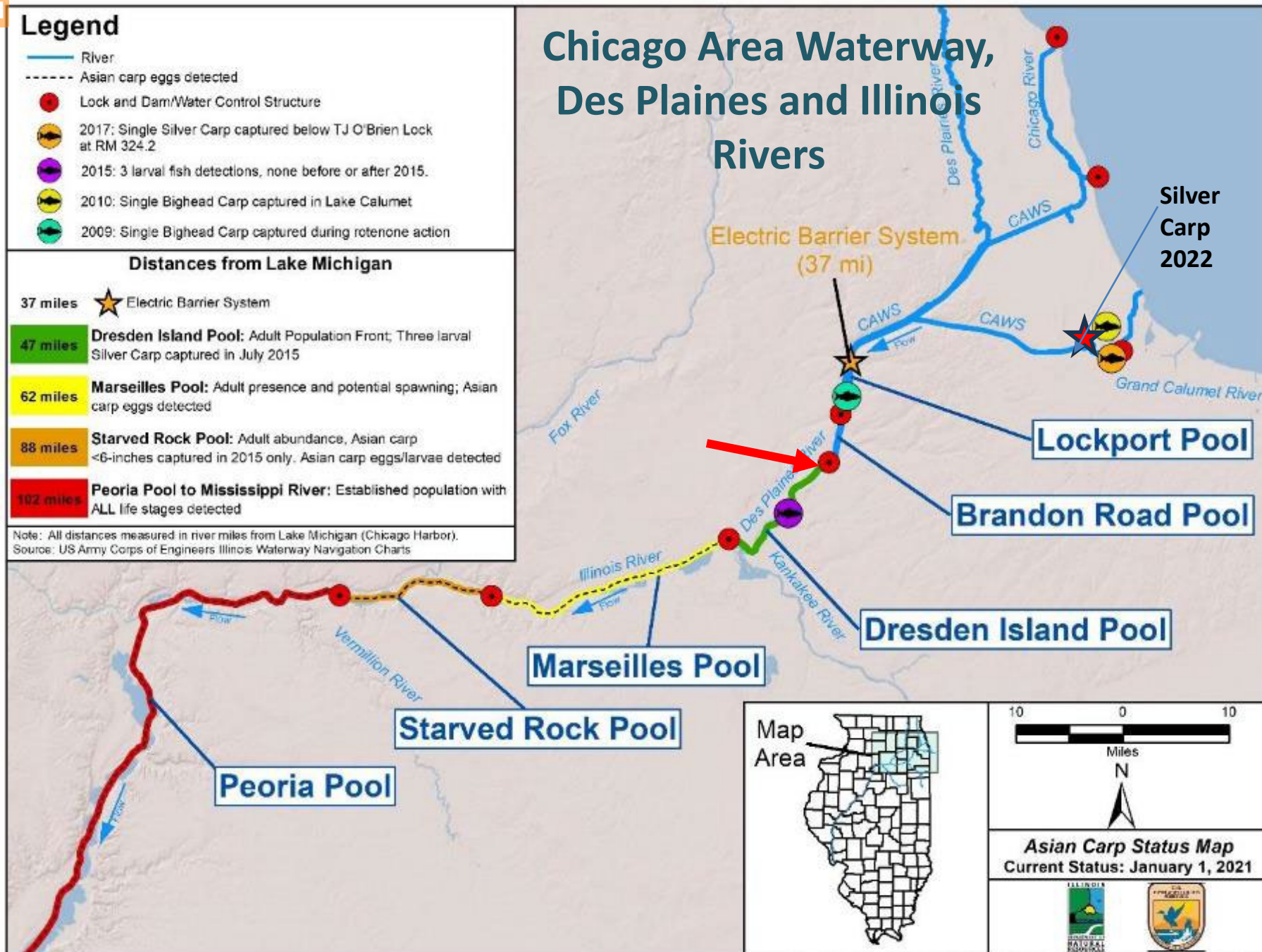
62 miles **Marseilles Pool:** Adult presence and potential spawning; Asian carp eggs detected

88 miles **Starved Rock Pool:** Adult abundance, Asian carp <6-inches captured in 2015 only. Asian carp eggs/larvae detected

102 miles **Peoria Pool to Mississippi River:** Established population with ALL life stages detected

Note: All distances measured in river miles from Lake Michigan (Chicago Harbor).
Source: US Army Corps of Engineers Illinois Waterway Navigation Charts

Chicago Area Waterway, Des Plaines and Illinois Rivers



Federal Duck Stamp Modernization Act of 2023



Barbara Avers, Waterfowl and Wetland Specialist



Federal Migratory Bird Hunting and Conservation Stamp

- Conservation revenue stamp
- 98% of sales goes directly into protecting wetland habitat in the NWR system
 - Since 1934, over \$1.1 billion raised and over 6 million acres conserved
- Art featured on stamp is chosen annually in an art contest
- Required to hunt waterfowl if 16 or older



Duck Stamp Modernization Act of 2023

- Provides:
 - Electronic Duck Stamp shall remain valid from the date of purchase through the following June 30th, instead of being valid for 45 days from the date of sale
 - Each individual who purchases an Electronic Duck Stamp will be issued a physical Duck Stamp after March 10
- USFWS implementing for 2024-25 migratory bird hunting seasons



WCO Changes

- Currently, hunters 16 and older required to carry a physical Duck Stamp while taking waterfowl, validated by the individual's signature written across the face thereof in ink
- Amend to allow an individual to carry either a valid Electronic Duck Stamp or a valid physical Duck Stamp.
- Recommended WCO language mirrors the language in the Federal Register, 16 U.S.C §718a.



Other Changes

- Update WCO language to reflect the correct name of the Duck Stamp:
 - Federal Migratory Bird Hunting and Conservation Stamp
- Add definition of a fixed shotgun shell for legal and clarity purposes: “a self-contained shotgun shell consisting of the case, primer, propellant charge, and projective or projectiles”.
 - Currently no legal definition of the term
 - Used definition from ATF regulations for “fixed ammunition”



Thank You



Michigan.gov/Waterfowl



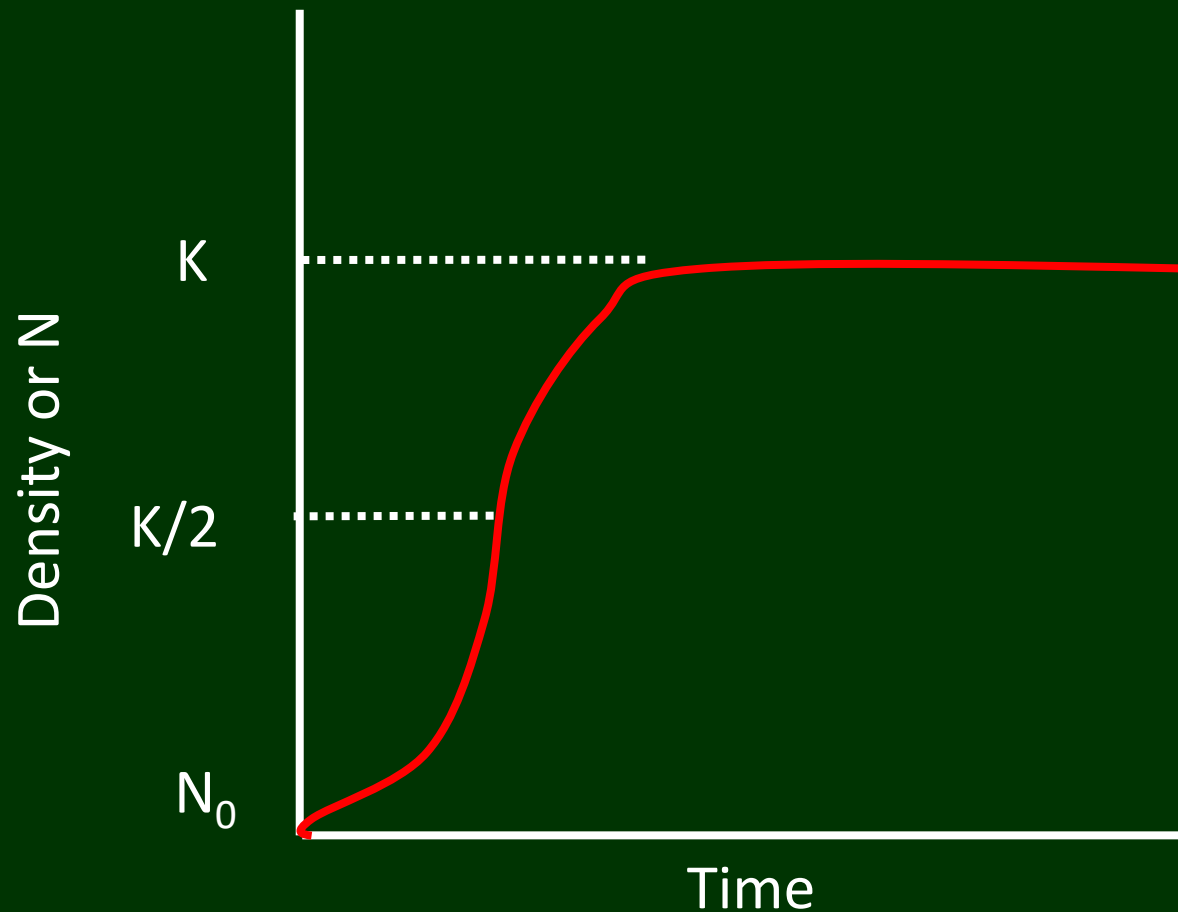
Departmental Amendment Analyses



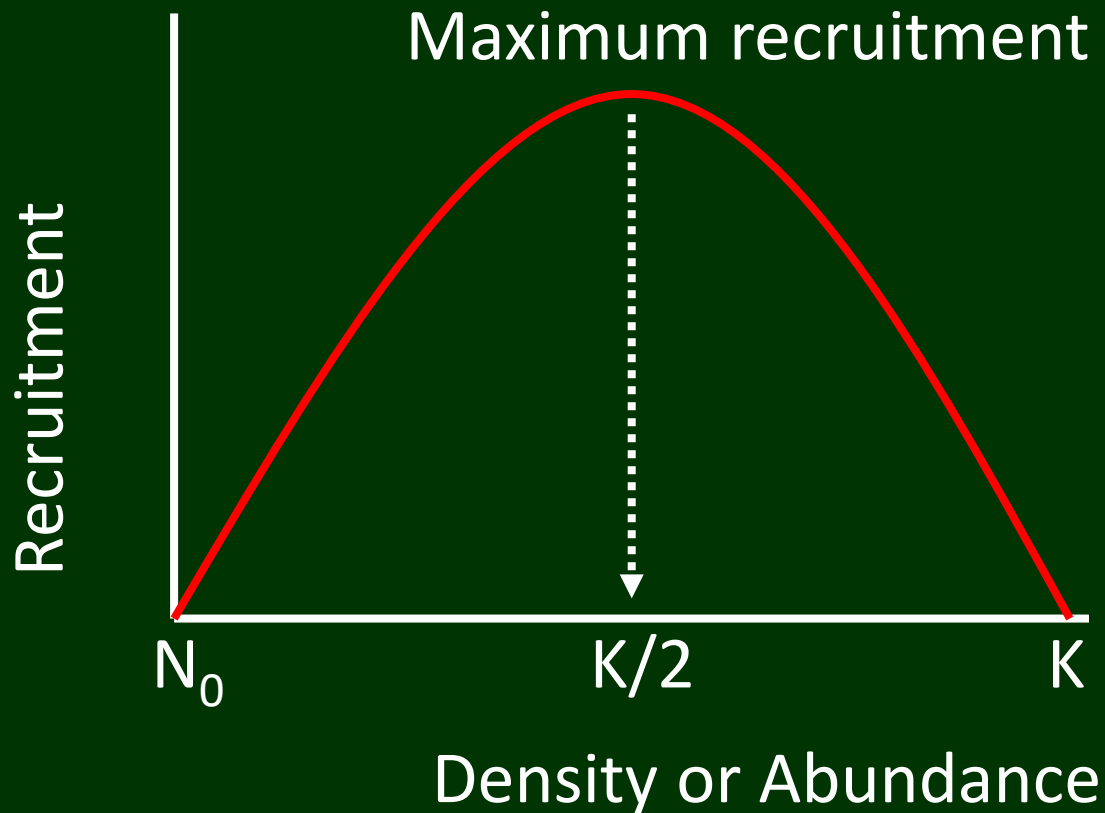
Chad Stewart, Deer and Elk Management Specialist
Wildlife Division
July 11, 2024



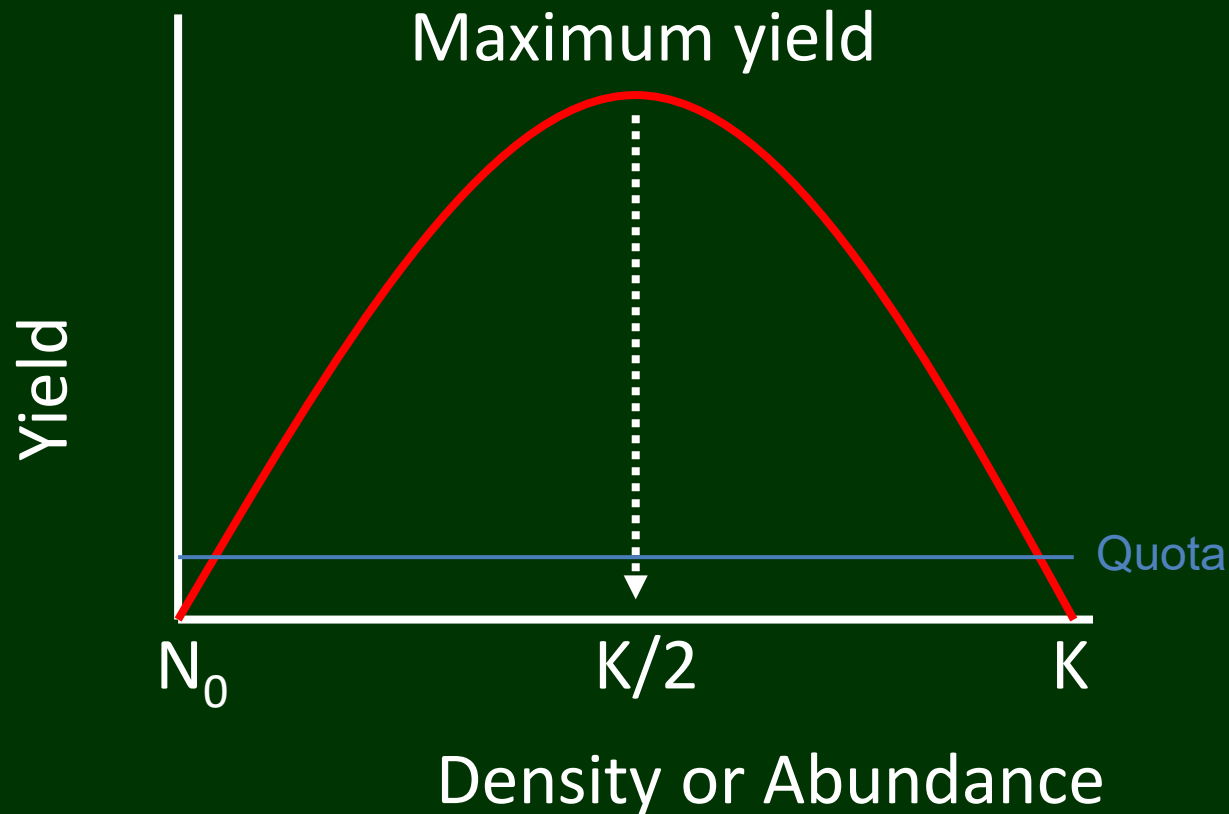
Deer Biology and Management



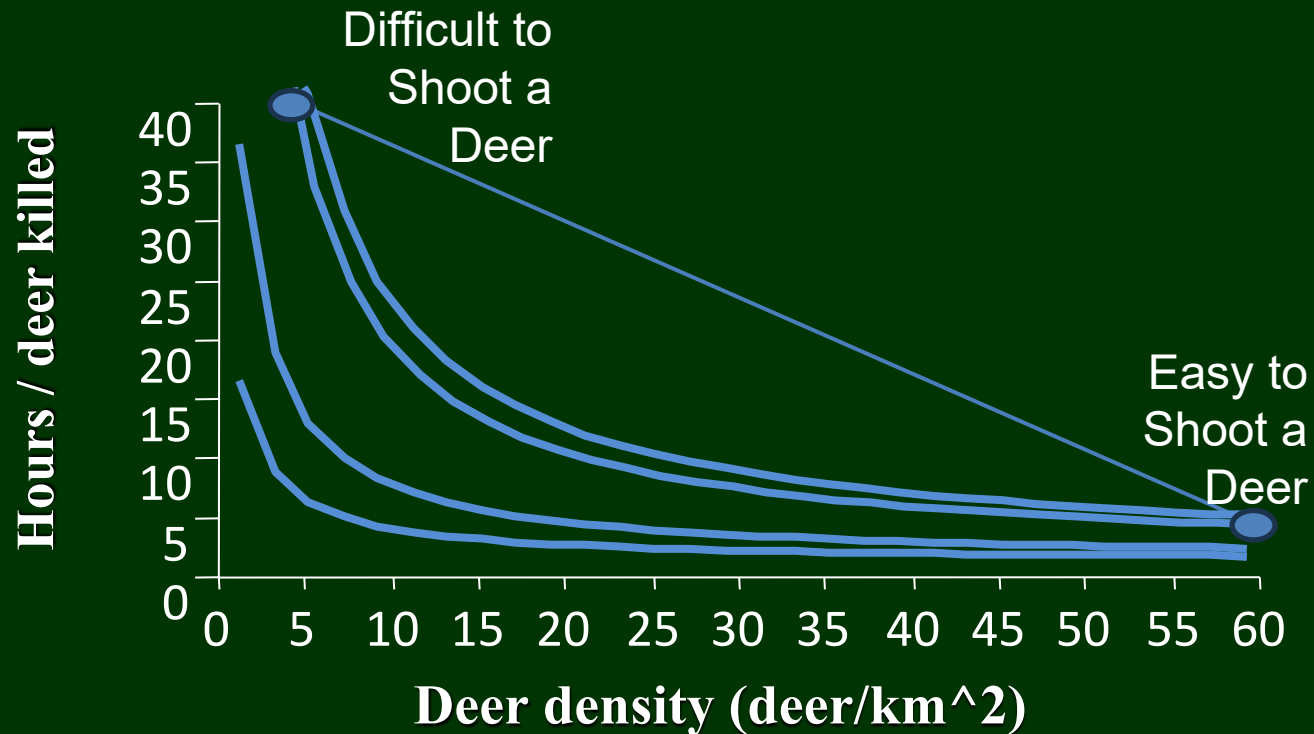
Deer Biology and Management



Deer Biology and Management

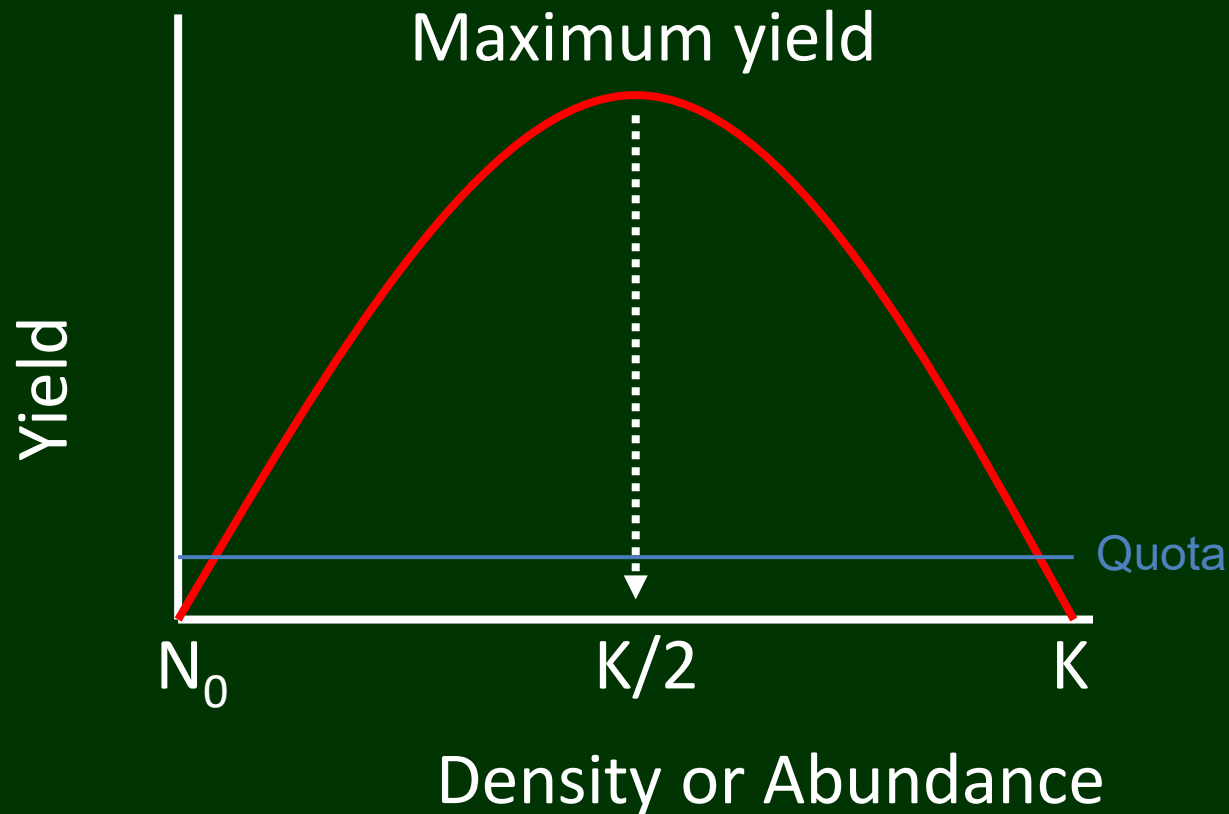


Hunter Behavior with Deer Density

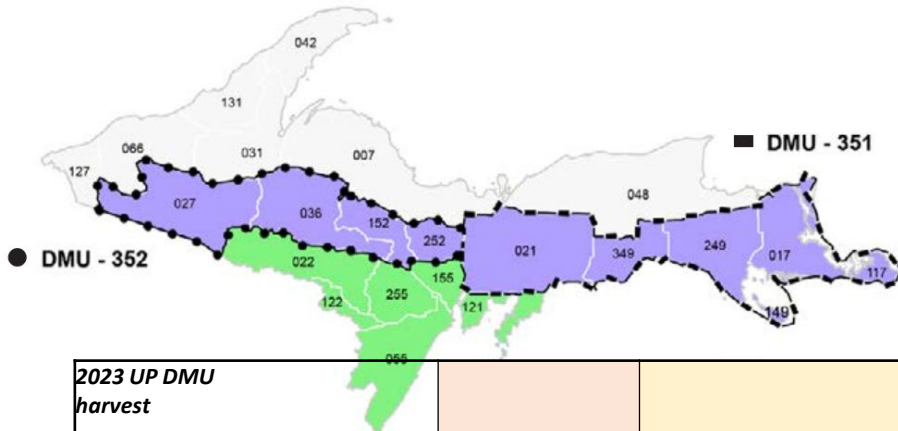


Van Deelen, T. R. and D. R. Etter, 2003 Effort and the functional response of deer hunters. *Human Dimensions of Wildlife*.

Deer Biology and Management



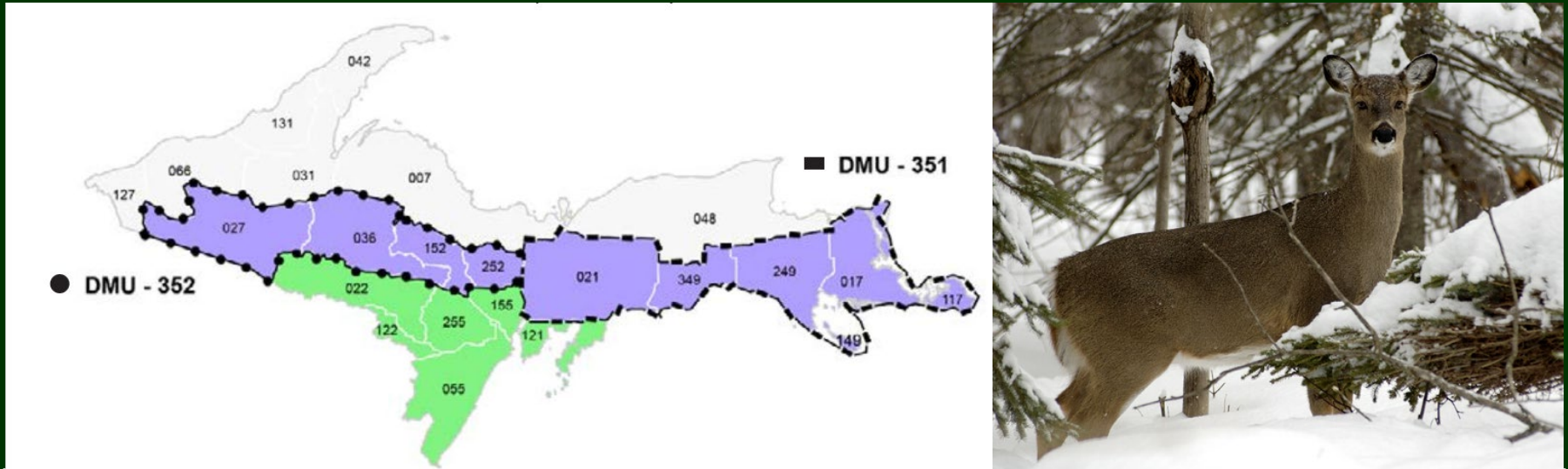
Changed/Reduced Quotas in DMU 351 and 352



2023 UP DMU harvest															
Total DMU Reported Harvest				Total Antlerless Harvest	Harvest with Antlerless License	per Sq. Mi.	Antlerless License in Firearms/ Muzzleloader	per Sq. Mi.	Harvest with DMAP	per Sq. Mi.	Access Permit Harvest in Archery Season	"Doe with bow" Harvest (antlerless harvest - antlerless license & DMAP harvest)	per Sq. Mi.	Sq. Mi.	
High Snowfall	42	239	20	0	0.00	0	0.00	9	0.01	0	11	0.01	798		
	131	223	22	0	0.00	0	0.00	11	0.02	0	11	0.02	538		
	66	261	20	1	0.00	1	0.00	8	0.01	0	11	0.01	863		
	127	103	5	0	0.00	0	0.00	4	0.01	0	1	0.00	328		
	31	651	129	5	0.01	3	0.00	113	0.14	2	11	0.01	818		
	7	975	22	6	0.00	5	0.00	2	0.00	1	14	0.01	1,778		
	48	421	10	2	0.00	1	0.00	0	0.00	1	8	0.00	2,024		
	North	2,873	228	14	0.00	10	0.00	147	0.02	4	67	0.01	7,147		
Mid Snowfall	27	485	110	68	0.05	47	0.04	9	0.01	21	33	0.03	1,237		
	36	415	82	63	0.06	46	0.05	0	0.00	17	19	0.02	987		
	152	327	39	25	0.06	18	0.05	0	0.00	7	14	0.04	386		
	252	262	44	24	0.08	19	0.06	2	0.01	5	18	0.06	297		
	352	1,489	275	180	0.06	130	0.04	11	0.00	50	84	0.03	2,907		
	21	1,049	204	103	0.07	75	0.05	33	0.02	28	68	0.05	1,464		
	349	336	93	58	0.12	49	0.10	12	0.03	9	23	0.05	468		
	249	359	62	28	0.03	23	0.03	2	0.00	5	32	0.04	859		
	17	732	118	57	0.07	47	0.06	4	0.01	10	57	0.07	792		
	117	237	63	28	0.21	17	0.13	0	0.00	11	35	0.26	135		
	351	2,713	540	274	0.07	211	0.06	51	0.01	63	215	0.06	3,718		
Low Snowfall	22	1,889	649	520	0.58	383	0.43	55	0.06	137	74	0.08	897		
	122	676	262	145	0.89	104	0.64	90	0.55	41	27	0.17	163		
	255	919	283	223	0.48	181	0.39	50	0.11	42	10	0.02	463		
	155	1,035	281	248	0.94	187	0.71	9	0.03	61	24	0.09	265		
	121	877	301	249	0.86	170	0.58	21	0.07	79	31	0.11	291		
	55	4,393	1,465	1,187	1.29	847	0.92	209	0.23	340	69	0.08	917		
	South	9,789	3,241	2,572	0.86	1,872	0.62	434	0.14	700	235	0.08	2,996		



Changed/Reduced Quotas in DMU 351 and 352



Year	Antlerless Licenses Available	Individuals purchasing an antlerless license	Antlerless deer reported harvested on a Universal Antlerless license	Antlerless deer taken per square mile (6,659 sq mi)
2022	2,000	1,180	360	0.05 deer/sq mi (~1 per 18.5 sq mi)
2023	2,000	1,197	454	0.06 deer/sq mi (~1 per 14.7 deer/sq mi)





Marketing/Law Enforcement Concerns with Hunter's Choice

- An estimated 435,000 individuals annually purchase a combination license
 - ~\$19.2 million in license sale revenue
 - 72% of all deer licenses sold
- Policy has been to offer refunds until season begins
 - 75,000 customers have purchased a combo license
 - To issue 10,000 refunds, it would require 8 staff members working full time between mid-July and mid-September



Expanded Season Impacts

- 2017 Disease Hunt instituted in Ionia, Montcalm, and Alpena Counties
 - Open for 8 days in January
 - 14 counties in SLP (~500 sq mi)
 - S of M-32 in Alpena Co (~350 sq mi)
 - Estimated Harvest of 401
 - 294 in the SLP, 107 in the NLP
 - 0.6 deer/sq mi SLP
 - 0.3 deer/sq mi NLP
- Extended seasons preclude the use of Damage Permits



Expanding the any legal firearms option during the MZ season to Zone 2



Michigan Muzzleloader Season	5 Year Average 2015-2019	2020-2022
Antlerless Harvest	10,498	10,586
Antlered Harvest	6,856	6,073



Expanding the any legal firearms option during the MZ season to Zone 2



Table 35. The proportion of deer hunters active in 2023 who supported or opposed allowing hunters in the southern Lower Peninsula to use any legal firearm, rather than only muzzleloaders, during the muzzleloader season.^a

Preferred hunt area	Support % ^b	Support 95% CL	Neither %	Neither 95% CL	Oppose % ^b	Oppose 95% CL	No answer %	No answer 95% CL
West UP	18	2	40	3	40	3	3	1
East UP	31	5	31	5	36	5	2	1
NE LP	39	2	26	2	35	2	1	<1
NW LP	42	2	25	2	32	2	1	<1
Sag. Bay	53	2	18	2	28	2	1	<1
SW LP	63	2	12	1	25	2	1	<1
SC LP	62	2	13	1	25	2	1	<1
SE LP	60	3	14	2	24	3	1	1
UP	21	2	38	2	39	2	2	1
NLP	40	1	25	1	34	1	1	<1
SLP	61	1	13	1	25	1	1	<1
Statewide	48	1	21	1	30	1	1	<1



Antlerless Harvest Only During Liberty and Independence Hunts

	2022	Total Harvest (% of Total Harvest)	2023	Total Harvest (% of Total Harvest)
Antlered Harvest	4,930	172,039 (2.9%)	4,856	155,652 (3.1%)
Antlerless Harvest	1,384	131,042 (1.1%)	1,310	118,642 (1.1%)



Antlerless Harvest Only During Liberty and Independence Hunts

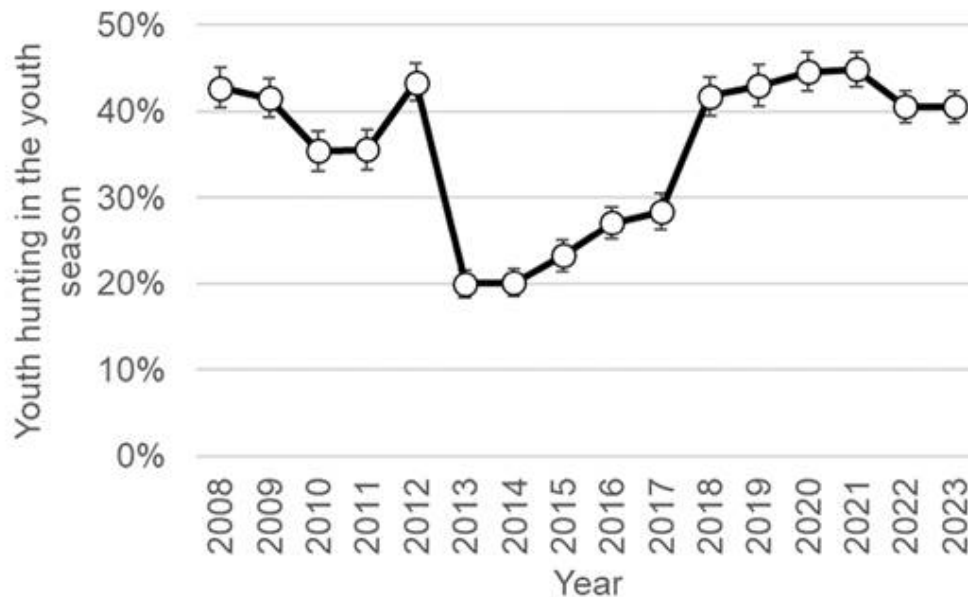


Figure 23. The proportion of young deer hunters who participated in the youth hunting season from 2008 to 2023. The youth eligible to participate in the youth season included those aged 10 to 16 from 2008 to 2011 and those aged 16 or younger from 2012 to 2023.



Antlerless Harvest Only During Liberty and Independence Hunts

Table 39. The proportion of deer hunters active in 2023 who agreed or disagreed with the regulations for the youth hunting season ^a

Preferred hunt area	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
West UP	30	2	30	2	31	2	9	1
East UP	34	5	33	5	27	5	7	3
NE LP	32	2	30	2	29	2	9	1
NW LP	34	2	28	2	31	2	7	1
Sag. Bay	36	2	27	2	29	2	7	1
SW LP	42	2	31	2	18	2	8	1
SC LP	40	2	30	2	21	2	9	1
SE LP	37	3	31	3	24	3	8	2
UP	31	2	30	2	30	2	9	1
NLP	33	1	29	1	30	1	8	1
SLP	40	1	30	1	22	1	8	1
Statewide	36	1	29	1	26	1	8	<1

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.



Antlerless Harvest Only During Liberty and Independence Hunts

Table 40. The proportion of deer hunting license buyers active in 2023 who agreed or disagreed with the regulations for the youth hunting season^a

Group	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
All license buyers	37	1	29	1	26	1	9	0
Males buyers	36	1	29	1	26	1	9	0
Female buyers	44	2	27	2	22	2	7	1
Completely rural buyers	29	3	26	3	39	4	6	2
Mostly rural buyers	36	1	28	1	28	1	8	1
Mostly urban buyers	37	1	30	1	24	1	9	1
New buyers ^c	49	3	33	3	10	2	8	2
Repeat buyers	36	1	29	1	27	1	9	0
Ages 0-9	67	4	16	3	9	3	7	3
Ages 10-19	61	2	24	2	10	1	5	1
Ages 20-29	38	3	35	3	17	3	11	2
Ages 30-39	42	3	33	3	15	2	10	2
Ages 40-49	39	2	31	2	22	2	8	1
Ages 50-59	34	2	32	2	26	2	8	1
Ages 60-69	32	1	29	1	31	1	8	1
Ages 70-79	31	2	27	2	33	2	10	1
Ages 80+	28	3	24	3	34	4	14	3

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.

^cNew license buyers were defined as people that had not purchased a license during the previous 11 years (2012-2022).



Antlerless Harvest Only During Liberty and Independence Hunts

Table 43. The proportion of deer hunters active in 2023 who agreed or disagreed that youth should be restricted to taking only antlerless deer in the youth season.^a

Preferred hunt area	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
West UP	36	2	25	2	30	2	8	1
East UP	36	5	24	4	33	5	6	3
NE LP	42	2	22	2	28	2	8	1
NW LP	44	2	21	2	29	2	7	1
Sag. Bay	45	2	19	2	29	2	7	1
SW LP	32	2	23	2	36	2	9	1
SC LP	36	2	23	2	31	2	9	1
SE LP	40	3	22	3	30	3	8	2
UP	36	2	25	2	30	2	8	1
NLP	44	1	21	1	28	1	7	1
SLP	37	1	22	1	32	1	8	1
Statewide	40	1	22	1	30	1	8	<1

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.



Antlerless Harvest Only During Liberty and Independence Hunts

Table 44. The proportion of deer hunting license buyers in 2023 who agreed or disagreed that youth should be restricted to taking only antlerless deer in the youth season.^a

Group	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
All license buyers	39	1	22	1	31	1	8	0
Males buyers	40	1	22	1	30	1	8	0
Female buyers	32	2	21	2	40	2	7	1
Completely rural buyers	50	4	20	3	24	3	7	2
Mostly rural buyers	44	1	19	1	30	1	7	1
Mostly urban buyers	38	1	24	1	30	1	9	1
New buyers ^c	19	2	29	3	43	3	10	2
Repeat buyers	40	1	22	1	30	1	8	0
Ages 0-9	13	3	13	3	65	4	9	3
Ages 10-19	19	2	18	2	58	2	5	1
Ages 20-29	28	3	26	3	35	3	11	2
Ages 30-39	29	3	24	2	37	3	10	2
Ages 40-49	34	2	21	2	37	2	9	1
Ages 50-59	40	2	24	2	28	2	8	1
Ages 60-69	46	2	23	1	24	1	8	1
Ages 70-79	48	2	22	2	22	2	8	1
Ages 80+	48	4	18	3	22	3	12	3

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.

^cNew license buyers were defined as people that had not purchased a license during the previous 11 years (2012-2022).



Antlerless Harvest Only During Liberty and Independence Hunts

Table 7 (continued). The number of deer harvested in Michigan by hunting season, 2022-2023.^a

Season and Area	2022 Antler- less Harvest	2023 Antler- less Harvest	2023 95% CL ^b	Change from 2022 to 2023 (%)	2022 Antlered Buck Harvest	2023 Antlered Buck Harvest	2023 95% CL ^b	Change from 2022 to 2023	2022 Sexes Com- bined Harvest	2023 Sexes Com- bined Harvest	2023 95% CL ^b	Change from 2022 to 2023
Independence - WUP	21	3	5	-85.1	26	6	7	-75.5	47	9	9	-79.9*
Independence - EUP	3	6	7	145.4	3	9	9	267.3	5	16	12	206.3
Independence - NELP	31	22	14	-28.4	31	55	72	79.4	62	77	73	25.5
Independence - NWLP	51	16	12	-69.3*	55	91	36	66.8	106	107	38	0.8
Independence - Sag. Bay	18	50	36	178.8	54	82	35	51.3	72	131	51	83.2
Independence - SWLP	29	35	17	19.9	53	95	101	78.0	82	129	102	57.6
Independence - SCLP	18	16	12	-12.4	90	60	24	-33.5	108	75	27	-30.0
Independence - SELP	8	6	7	-18.2	21	13	10	-40.7	29	19	13	-34.7
Independence - UP	24	9	9	-60.2	28	16	12	-44.3	52	25	15	-51.6
Independence - NLP	92	69	32	-25.2	93	165	81	77.4	185	234	88	26.3
Independence - SLP	62	75	33	21.2	210	230	109	9.2	272	305	114	11.9
Independence - Statewide	178	154	47	-13.7	332	410	136	23.7	509	564	144	10.7



DMU 174 Exemption

- DMU 174 (St. Clair Flats Harsen's Island unit)
 - Additional discussions with staff have requested to exempt this area from the late season January expansion proposed in St. Clair County
 - Island units with low deer numbers
 - Adequately managed with existing hunting regulations
 - Concern with added pressure on refuge pushing deer to private land



Thank You

www.michigan.gov/deer



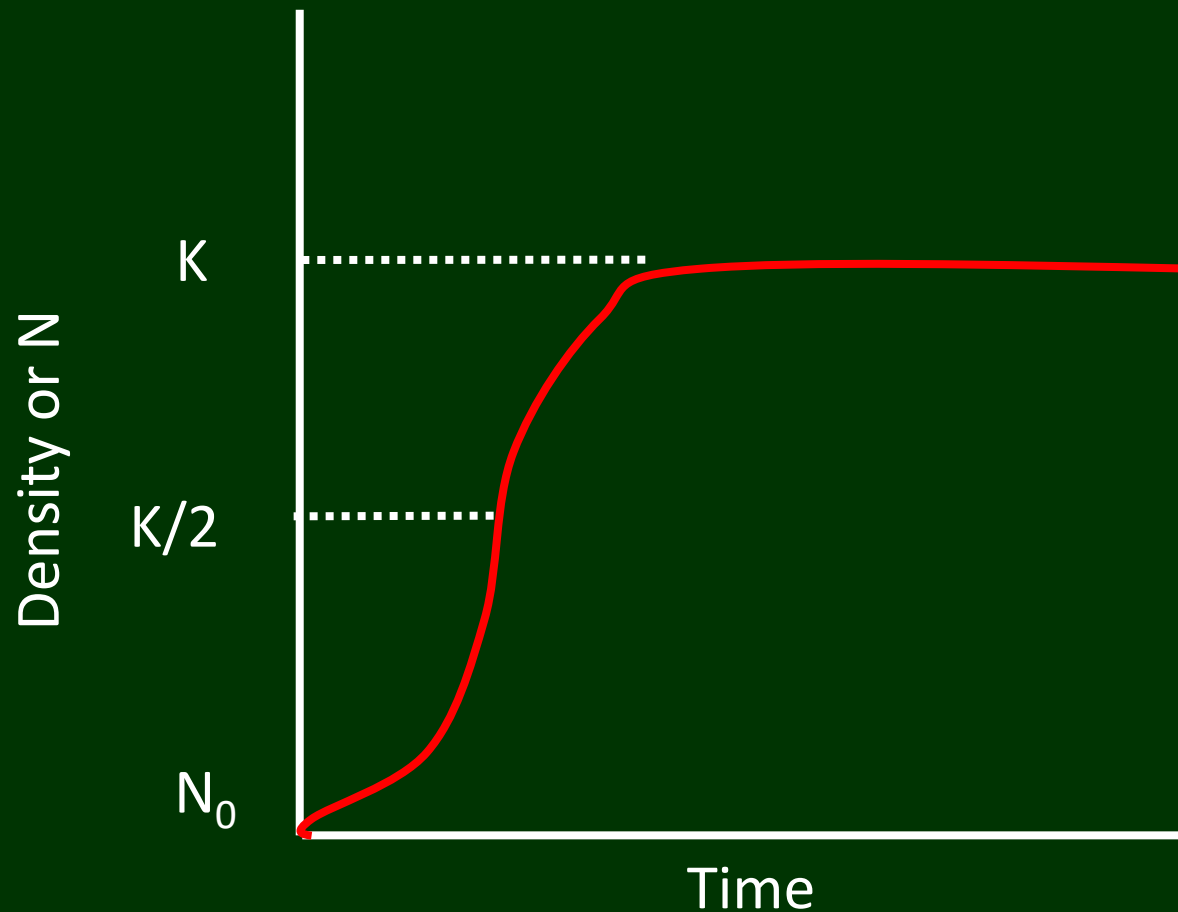
Departmental Amendment Analyses



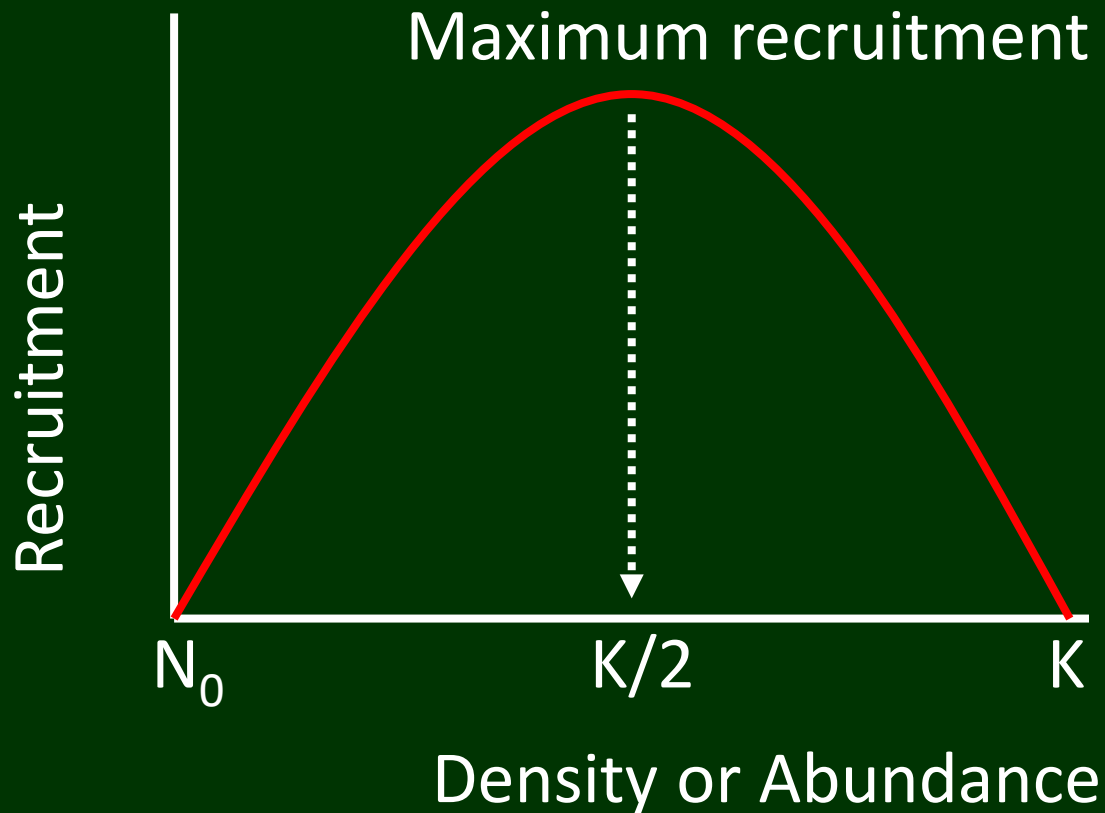
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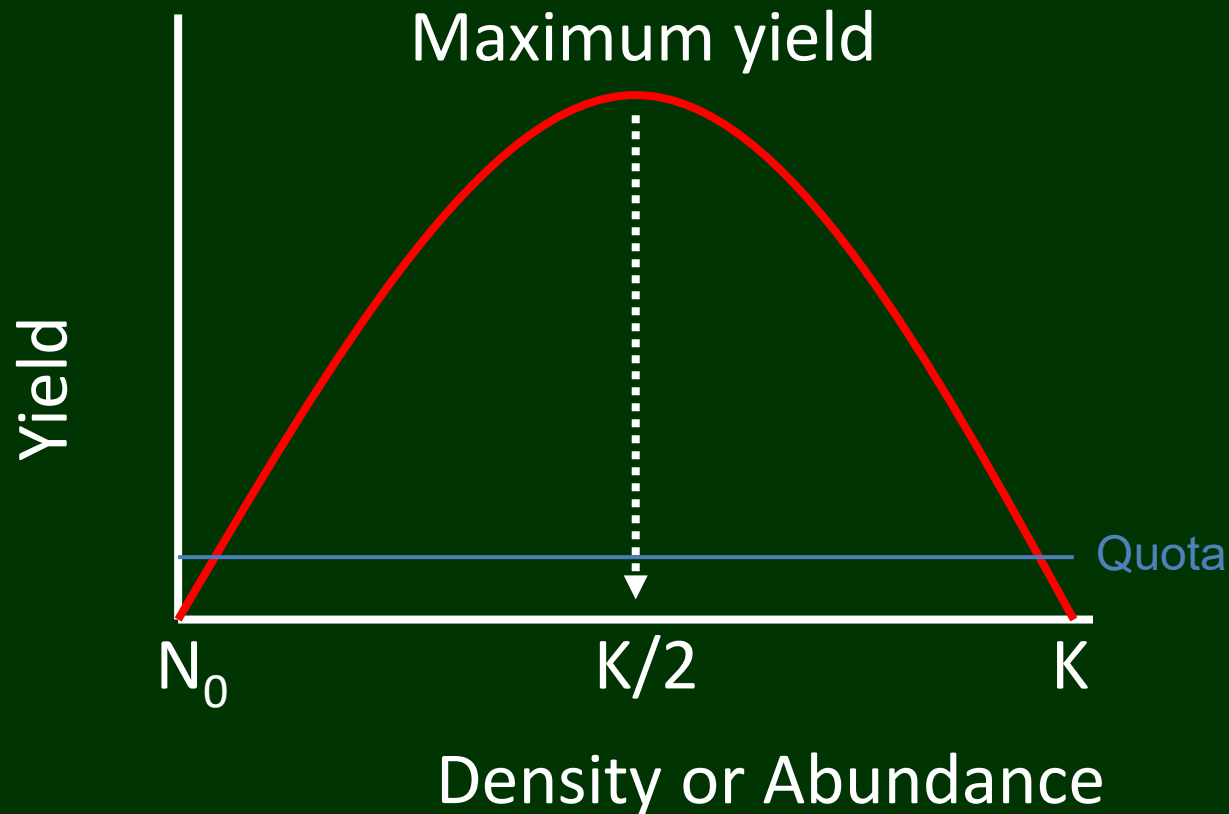
Deer Biology and Management



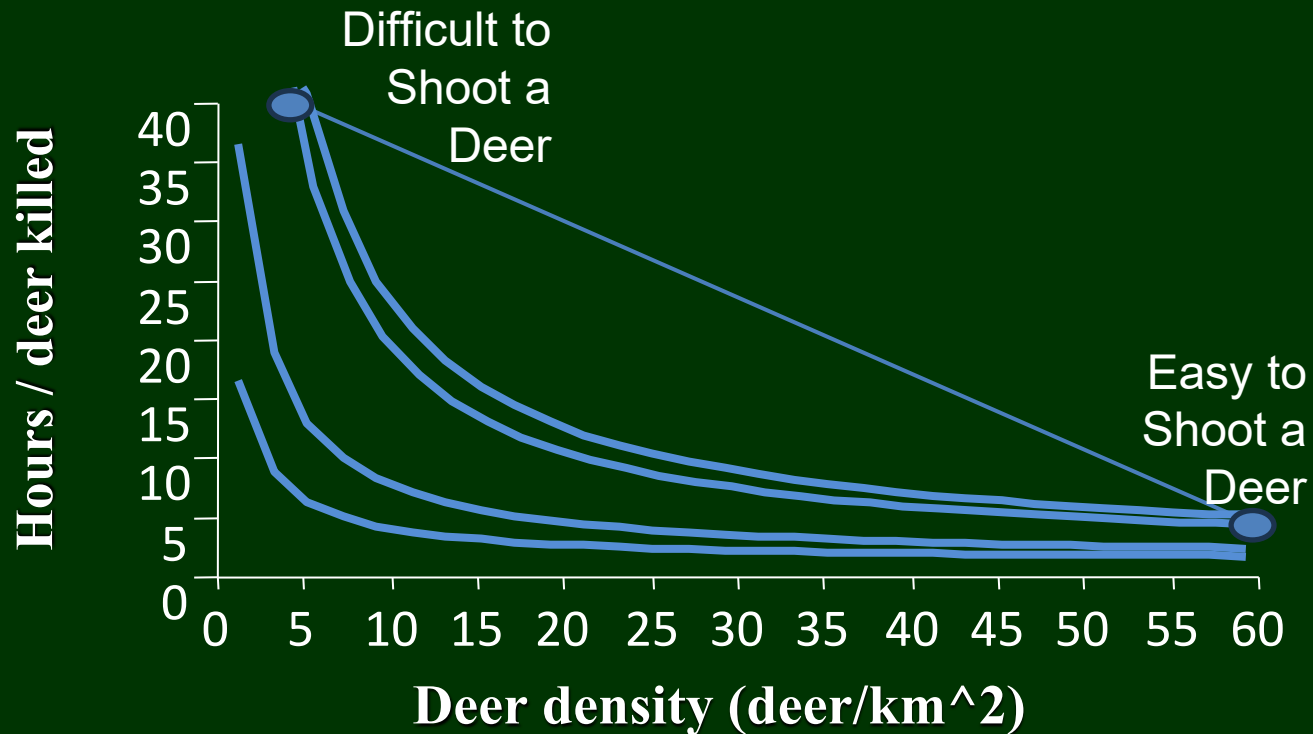
Deer Biology and Management



Deer Biology and Management

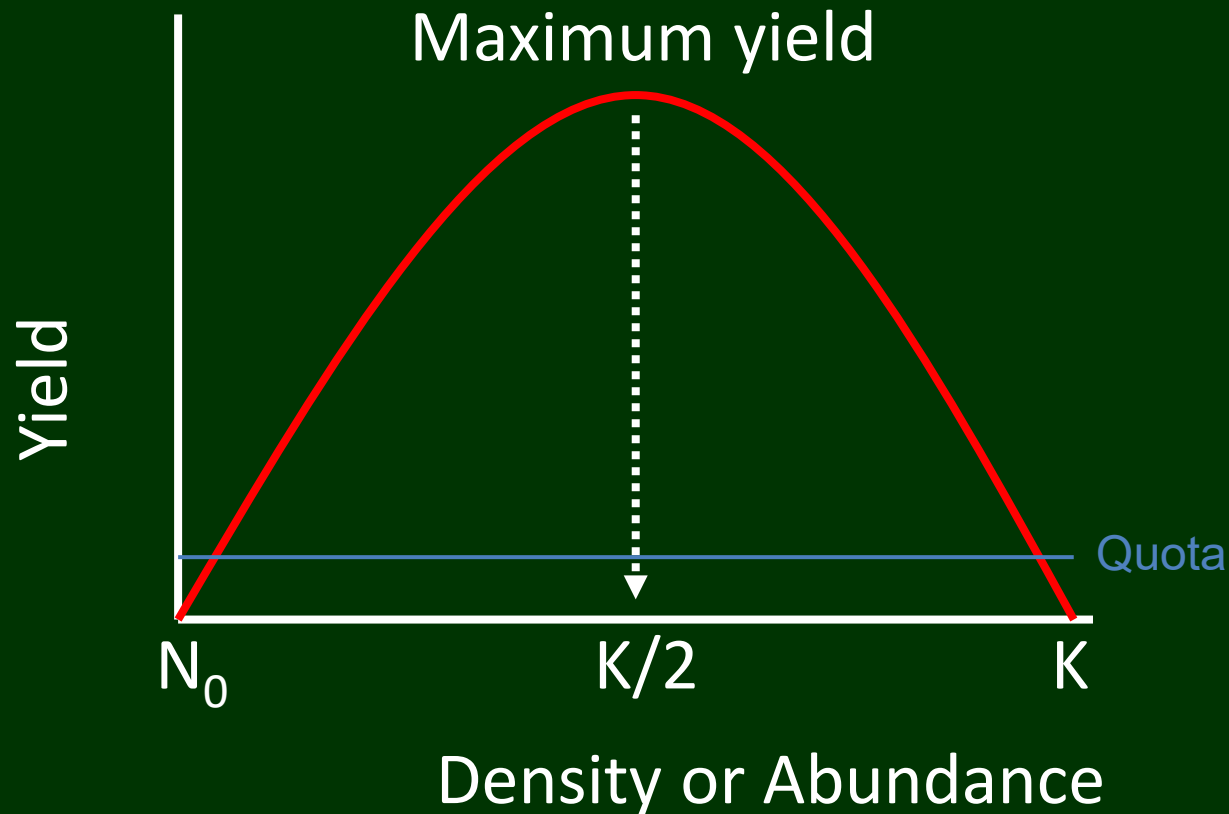


Hunter Behavior with Deer Density

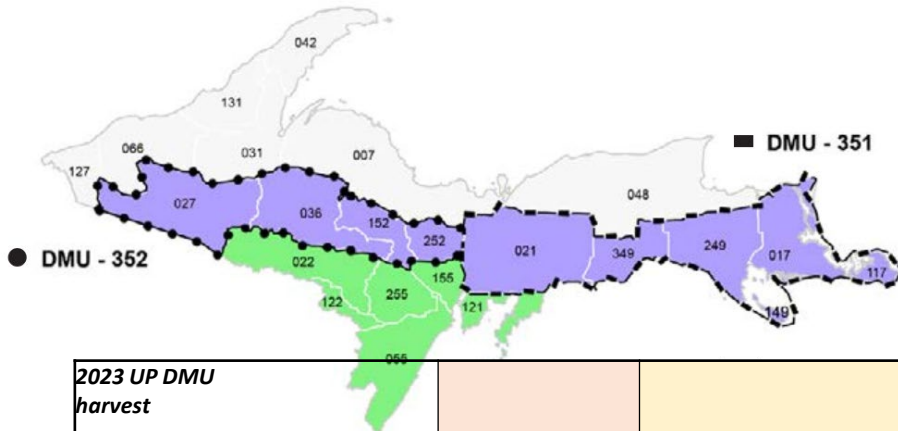


Van Deelen, T. R. and D. R. Etter, 2003 Effort and the functional response of deer hunters. *Human Dimensions of Wildlife*.

Deer Biology and Management



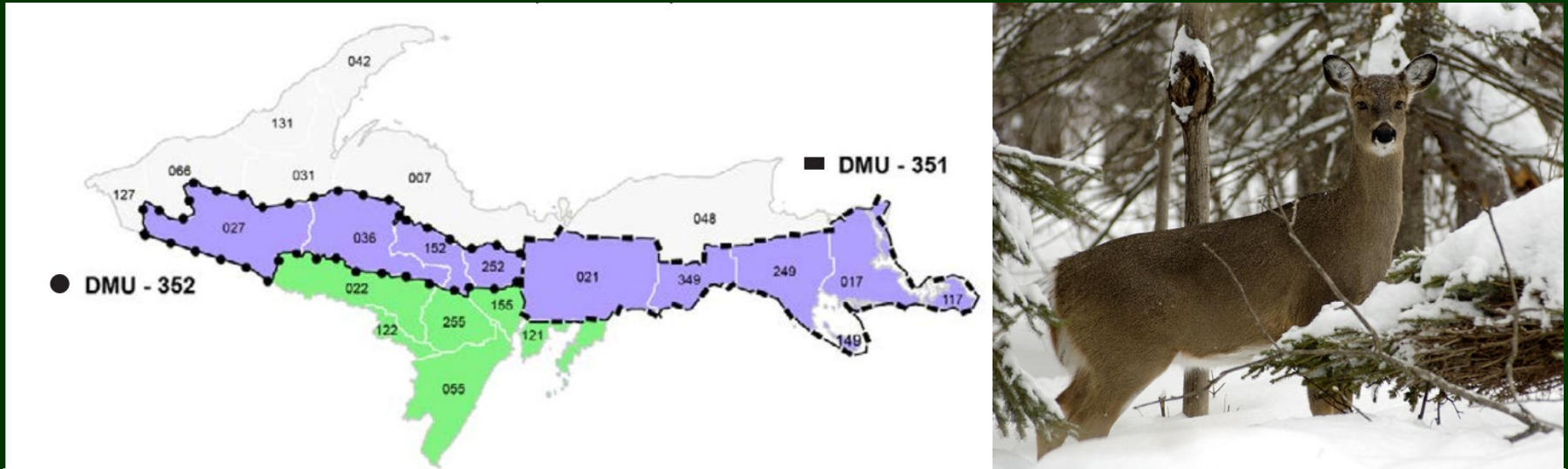
Changed/Reduced Quotas in DMU 351 and 352



2023 UP DMU harvest															
Total DMU Reported Harvest				Total Antlerless Harvest	Harvest with Antlerless License	per Sq. Mi.	Antlerless License in Firearms/ Muzzleloader	per Sq. Mi.	Harvest with DMAP	per Sq. Mi.	Access Permit Harvest in Archery Season	"Doe with bow" Harvest (antlerless harvest - antlerless license & DMAP harvest)		per Sq. Mi.	Sq. Mi.
High Snowfall	42	239	20	0	0.00	0	0.00	9	0.01	0	11	0.01	798		
	131	223	22	0	0.00	0	0.00	11	0.02	0	11	0.02	538		
	66	261	20	1	0.00	1	0.00	8	0.01	0	11	0.01	863		
	127	103	5	0	0.00	0	0.00	4	0.01	0	1	0.00	328		
	31	651	129	5	0.01	3	0.00	113	0.14	2	11	0.01	818		
	7	975	22	6	0.00	5	0.00	2	0.00	1	14	0.01	1,778		
	48	421	10	2	0.00	1	0.00	0	0.00	1	8	0.00	2,024		
	North	2,873	228	14	0.00	10	0.00	147	0.02	4	67	0.01	7,147		
Mid Snowfall	27	485	110	68	0.05	47	0.04	9	0.01	21	33	0.03	1,237		
	36	415	82	63	0.06	46	0.05	0	0.00	17	19	0.02	987		
	152	327	39	25	0.06	18	0.05	0	0.00	7	14	0.04	386		
	252	262	44	24	0.08	19	0.06	2	0.01	5	18	0.06	297		
	352	1,489	275	180	0.06	130	0.04	11	0.00	50	84	0.03	2,907		
	21	1,049	204	103	0.07	75	0.05	33	0.02	28	68	0.05	1,464		
	349	336	93	58	0.12	49	0.10	12	0.03	9	23	0.05	468		
	249	359	62	28	0.03	23	0.03	2	0.00	5	32	0.04	859		
	17	732	118	57	0.07	47	0.06	4	0.01	10	57	0.07	792		
	117	237	63	28	0.21	17	0.13	0	0.00	11	35	0.26	135		
	351	2,713	540	274	0.07	211	0.06	51	0.01	63	215	0.06	3,718		
Low Snowfall	22	1,889	649	520	0.58	383	0.43	55	0.06	137	74	0.08	897		
	122	676	262	145	0.89	104	0.64	90	0.55	41	27	0.17	163		
	255	919	283	223	0.48	181	0.39	50	0.11	42	10	0.02	463		
	155	1,035	281	248	0.94	187	0.71	9	0.03	61	24	0.09	265		
	121	877	301	249	0.86	170	0.58	21	0.07	79	31	0.11	291		
	55	4,393	1,465	1,187	1.29	847	0.92	209	0.23	340	69	0.08	917		
	South	9,789	3,241	2,572	0.86	1,872	0.62	434	0.14	700	235	0.08	2,996		



Changed/Reduced Quotas in DMU 351 and 352



Year	Antlerless Licenses Available	Individuals purchasing an antlerless license	Antlerless deer reported harvested on a Universal Antlerless license	Antlerless deer taken per square mile (6,659 sq mi)
2022	2,000	1,180	360	0.05 deer/sq mi (~1 per 18.5 sq mi)
2023	2,000	1,197	454	0.06 deer/sq mi (~1 per 14.7 deer/sq mi)





Marketing/Law Enforcement Concerns with Hunter's Choice

- An estimated 435,000 individuals annually purchase a combination license
 - ~\$19.2 million in license sale revenue
 - 72% of all deer licenses sold
- Policy has been to offer refunds until season begins
 - 75,000 customers have purchased a combo license
 - To issue 10,000 refunds, it would require 8 staff members working full time between mid-July and mid-September



Expanded Season Impacts

- 2017 Disease Hunt instituted in Ionia, Montcalm, and Alpena Counties
 - Open for 8 days in January
 - 14 counties in SLP (~500 sq mi)
 - S of M-32 in Alpena Co (~350 sq mi)
 - Estimated Harvest of 401
 - 294 in the SLP, 107 in the NLP
 - 0.6 deer/sq mi SLP
 - 0.3 deer/sq mi NLP
- Extended seasons preclude the use of Damage Permits



Expanding the any legal firearms option during the MZ season to Zone 2



Michigan Muzzleloader Season	5 Year Average 2015-2019	2020-2022
Antlerless Harvest	10,498	10,586
Antlered Harvest	6,856	6,073



Expanding the any legal firearms option during the MZ season to Zone 2



Table 35. The proportion of deer hunters active in 2023 who supported or opposed allowing hunters in the southern Lower Peninsula to use any legal firearm, rather than only muzzleloaders, during the muzzleloader season.^a

Preferred hunt area	Support % ^b	Support 95% CL	Neither %	Neither 95% CL	Oppose % ^b	Oppose 95% CL	No answer %	No answer 95% CL
West UP	18	2	40	3	40	3	3	1
East UP	31	5	31	5	36	5	2	1
NE LP	39	2	26	2	35	2	1	<1
NW LP	42	2	25	2	32	2	1	<1
Sag. Bay	53	2	18	2	28	2	1	<1
SW LP	63	2	12	1	25	2	1	<1
SC LP	62	2	13	1	25	2	1	<1
SE LP	60	3	14	2	24	3	1	1
UP	21	2	38	2	39	2	2	1
NLP	40	1	25	1	34	1	1	<1
SLP	61	1	13	1	25	1	1	<1
Statewide	48	1	21	1	30	1	1	<1



Antlerless Harvest Only During Liberty and Independence Hunts

	2022	Total Harvest (% of Total Harvest)	2023	Total Harvest (% of Total Harvest)
Antlered Harvest	4,930	172,039 (2.9%)	4,856	155,652 (3.1%)
Antlerless Harvest	1,384	131,042 (1.1%)	1,310	118,642 (1.1%)



Antlerless Harvest Only During Liberty and Independence Hunts

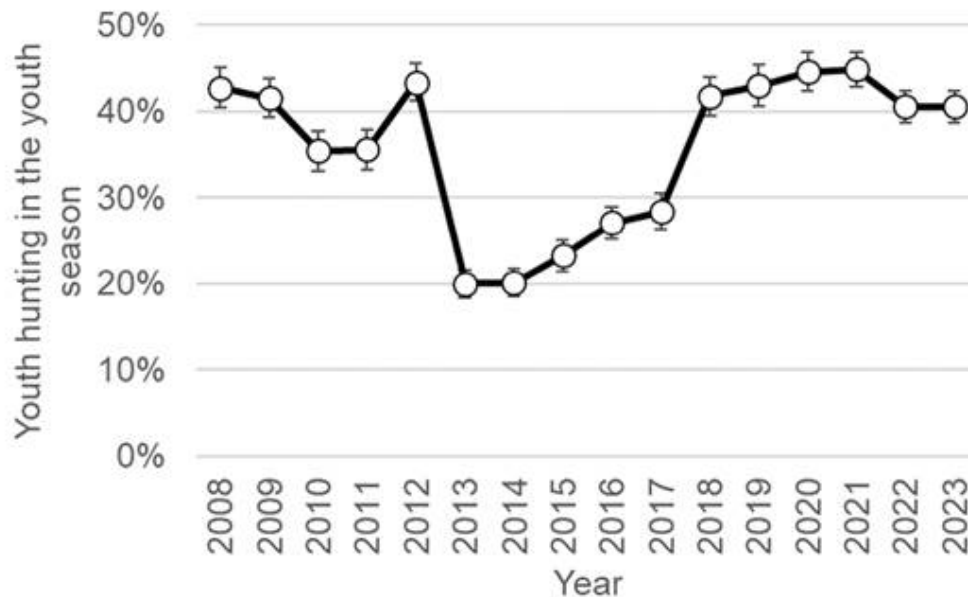


Figure 23. The proportion of young deer hunters who participated in the youth hunting season from 2008 to 2023. The youth eligible to participate in the youth season included those aged 10 to 16 from 2008 to 2011 and those aged 16 or younger from 2012 to 2023.



Antlerless Harvest Only During Liberty and Independence Hunts

Table 39. The proportion of deer hunters active in 2023 who agreed or disagreed with the regulations for the youth hunting season ^a

Preferred hunt area	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
West UP	30	2	30	2	31	2	9	1
East UP	34	5	33	5	27	5	7	3
NE LP	32	2	30	2	29	2	9	1
NW LP	34	2	28	2	31	2	7	1
Sag. Bay	36	2	27	2	29	2	7	1
SW LP	42	2	31	2	18	2	8	1
SC LP	40	2	30	2	21	2	9	1
SE LP	37	3	31	3	24	3	8	2
UP	31	2	30	2	30	2	9	1
NLP	33	1	29	1	30	1	8	1
SLP	40	1	30	1	22	1	8	1
Statewide	36	1	29	1	26	1	8	<1

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.



Antlerless Harvest Only During Liberty and Independence Hunts

Table 40. The proportion of deer hunting license buyers active in 2023 who agreed or disagreed with the regulations for the youth hunting season^a

Group	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
All license buyers	37	1	29	1	26	1	9	0
Males buyers	36	1	29	1	26	1	9	0
Female buyers	44	2	27	2	22	2	7	1
Completely rural buyers	29	3	26	3	39	4	6	2
Mostly rural buyers	36	1	28	1	28	1	8	1
Mostly urban buyers	37	1	30	1	24	1	9	1
New buyers ^c	49	3	33	3	10	2	8	2
Repeat buyers	36	1	29	1	27	1	9	0
Ages 0-9	67	4	16	3	9	3	7	3
Ages 10-19	61	2	24	2	10	1	5	1
Ages 20-29	38	3	35	3	17	3	11	2
Ages 30-39	42	3	33	3	15	2	10	2
Ages 40-49	39	2	31	2	22	2	8	1
Ages 50-59	34	2	32	2	26	2	8	1
Ages 60-69	32	1	29	1	31	1	8	1
Ages 70-79	31	2	27	2	33	2	10	1
Ages 80+	28	3	24	3	34	4	14	3

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.

^cNew license buyers were defined as people that had not purchased a license during the previous 11 years (2012-2022).



Antlerless Harvest Only During Liberty and Independence Hunts

Table 43. The proportion of deer hunters active in 2023 who agreed or disagreed that youth should be restricted to taking only antlerless deer in the youth season.^a

Preferred hunt area	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
West UP	36	2	25	2	30	2	8	1
East UP	36	5	24	4	33	5	6	3
NE LP	42	2	22	2	28	2	8	1
NW LP	44	2	21	2	29	2	7	1
Sag. Bay	45	2	19	2	29	2	7	1
SW LP	32	2	23	2	36	2	9	1
SC LP	36	2	23	2	31	2	9	1
SE LP	40	3	22	3	30	3	8	2
UP	36	2	25	2	30	2	8	1
NLP	44	1	21	1	28	1	7	1
SLP	37	1	22	1	32	1	8	1
Statewide	40	1	22	1	30	1	8	<1

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.



Antlerless Harvest Only During Liberty and Independence Hunts

Table 44. The proportion of deer hunting license buyers in 2023 who agreed or disagreed that youth should be restricted to taking only antlerless deer in the youth season.^a

Group	Agree % ^b	Agree 95% CL	Neither %	Neither 95% CL	Disagree % ^b	Disagree 95% CL	No answer %	No answer 95% CL
All license buyers	39	1	22	1	31	1	8	0
Males buyers	40	1	22	1	30	1	8	0
Female buyers	32	2	21	2	40	2	7	1
Completely rural buyers	50	4	20	3	24	3	7	2
Mostly rural buyers	44	1	19	1	30	1	7	1
Mostly urban buyers	38	1	24	1	30	1	9	1
New buyers ^c	19	2	29	3	43	3	10	2
Repeat buyers	40	1	22	1	30	1	8	0
Ages 0-9	13	3	13	3	65	4	9	3
Ages 10-19	19	2	18	2	58	2	5	1
Ages 20-29	28	3	26	3	35	3	11	2
Ages 30-39	29	3	24	2	37	3	10	2
Ages 40-49	34	2	21	2	37	2	9	1
Ages 50-59	40	2	24	2	28	2	8	1
Ages 60-69	46	2	23	1	24	1	8	1
Ages 70-79	48	2	22	2	22	2	8	1
Ages 80+	48	4	18	3	22	3	12	3

^aIn 2023, young hunters in the youth season (Sept 9-10) could harvest multiple antlerless deer (one per kill tag) and only one antlered deer.

^bThe agree category combined respondents who indicated that they strongly agreed or somewhat agreed with the regulation, while the disagree category included respondents who somewhat disagreed or strongly disagreed.

^cNew license buyers were defined as people that had not purchased a license during the previous 11 years (2012-2022).



Antlerless Harvest Only During Liberty and Independence Hunts

Table 7 (continued). The number of deer harvested in Michigan by hunting season, 2022-2023.^a

Season and Area	2022 Antler- less Harvest	2023 Antler- less Harvest	2023 95% CL ^b	Change from 2022 to 2023 (%)	2022 Antlered Buck Harvest	2023 Antlered Buck Harvest	2023 95% CL ^b	Change from 2022 to 2023	2022 Sexes Com- bined Harvest	2023 Sexes Com- bined Harvest	2023 95% CL ^b	Change from 2022 to 2023
Independence - WUP	21	3	5	-85.1	26	6	7	-75.5	47	9	9	-79.9*
Independence - EUP	3	6	7	145.4	3	9	9	267.3	5	16	12	206.3
Independence - NELP	31	22	14	-28.4	31	55	72	79.4	62	77	73	25.5
Independence - NWLP	51	16	12	-69.3*	55	91	36	66.8	106	107	38	0.8
Independence - Sag. Bay	18	50	36	178.8	54	82	35	51.3	72	131	51	83.2
Independence - SWLP	29	35	17	19.9	53	95	101	78.0	82	129	102	57.6
Independence - SCLP	18	16	12	-12.4	90	60	24	-33.5	108	75	27	-30.0
Independence - SELP	8	6	7	-18.2	21	13	10	-40.7	29	19	13	-34.7
Independence - UP	24	9	9	-60.2	28	16	12	-44.3	52	25	15	-51.6
Independence - NLP	92	69	32	-25.2	93	165	81	77.4	185	234	88	26.3
Independence - SLP	62	75	33	21.2	210	230	109	9.2	272	305	114	11.9
Independence - Statewide	178	154	47	-13.7	332	410	136	23.7	509	564	144	10.7



DMU 174 Exemption

- DMU 174 (St. Clair Flats Harsen's Island unit)
 - Additional discussions with staff have requested to exempt this area from the late season January expansion proposed in St. Clair County
 - Island units with low deer numbers
 - Adequately managed with existing hunting regulations
 - Concern with added pressure on refuge pushing deer to private land



Thank You

www.michigan.gov/deer

