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Project3

What your own-choice quantity was and how it fits into the simulation.

I add a function called hunter. In order to ensure sustainable development, hunters only kill a deer in the month when the number of deer is greater than or equal to 5.

1. A table showing values for temperature, precipitation, number of deer, height of the grain, and your own-choice

quantity as a function of month number.

month	year	temp	precip	height	deer	DeerGetHunt
1	2022	-0.73	24.77	3.78	1	0
2	2022	11.42	24.56	4.64	1	0
3	2022	15.61	33.87	3.78	2	0
4	2022	17.63	37.58	1.81	2	0
5	2022	25.32	26.87	0.00	2	0
6	2022	23.52	22.32	0.00	2	0
7	2022	23.44	12.16	0.00	2	0
8	2022	23.90	4.75	0.00	2	0
9	2022	21.60	1.53	0.00	1	0
10	2022	10.00	7.78	1.05	0	0
11	2022	11.69	3.46	1.83	0	0
12	2022	8.40	11.34	5.81	1	0
1	2023	9.96	26.28	8.16	1	0
2	2023	6.19	33.42	14.54	1	0
3	2023	17.45	36.16	13.58	1	0
4	2023	23.01	36.19	12.58	2	0
5	2023	23.92	33.36	10.58	3	0
6	2023	21.39	17.44	7.58	3	0
7	2023	30.66	13.93	4.58	3	0
8	2023	24.51	3.30	1.58	4	0
9	2023	22.91	3.76	0.00	4	0
10	2023	14.12	4.27	0.00	3	0
11	2023	9.14	11.91	0.32	2	0
12	2023	6.17	11.48	4.37	2	0
1	2024	7.58	24.24	8.90	3	0
2	2024	12.88	32.62	6.73	4	0
3	2024	15.61	33.12	2.87	5	0
4	2024	18.21	34.32	0.00	4	1
5	2024	22.81	33.10	0.00	3	0
6	2024	25.00	18.94	0.00	3	0

7	2024	31.61	13.64	0.00	3	0
8	2024	20.66	2.69	0.00	3	0
9	2024	16.54	4.03	0.00	2	0
10	2024	11.87	7.84	0.00	2	0
11	2024	5.86	7.01	2.99	1	0
12	2024	3.75	13.97	9.23	2	0
1	2025	-0.62	23.51	11.13	2	0
2	2025	9.76	29.98	12.62	2	0
3	2025	13.52	32.18	11.20	2	0
4	2025	19.58	32.10	9.20	2	0
5	2025	25.57	26.36	7.20	3	0
6	2025	27.49	26.09	4.20	3	0
7	2025	25.64	17.60	1.20	4	0
8	2025	23.76	10.68	0.00	4	0
9	2025	18.29	0.00	0.00	3	0
10	2025	10.58	6.05	0.00	3	0
11	2025	13.12	6.07	0.00	2	0
12	2025	6.97	10.74	3.24	2	0
1	2026	7.22	20.93	8.05	2	0
2	2026	6.53	28.63	13.74	2	0
3	2026	16.99	33.03	11.79	3	0
4	2026	15.52	32.92	8.94	4	0
5	2026	20.44	31.43	4.94	5	0
6	2026	29.11	23.95	0.00	4	1
7	2026	29.11	9.83	0.00	3	0
8	2026	26.29	8.46	0.00	3	0
9	2026	21.05	2.67	0.00	2	0
10	2026	11.47	3.34	0.00	1	0
11	2026	7.09	9.77	3.91	0	0
12	2026	0.60	18.55	9.09	0	0

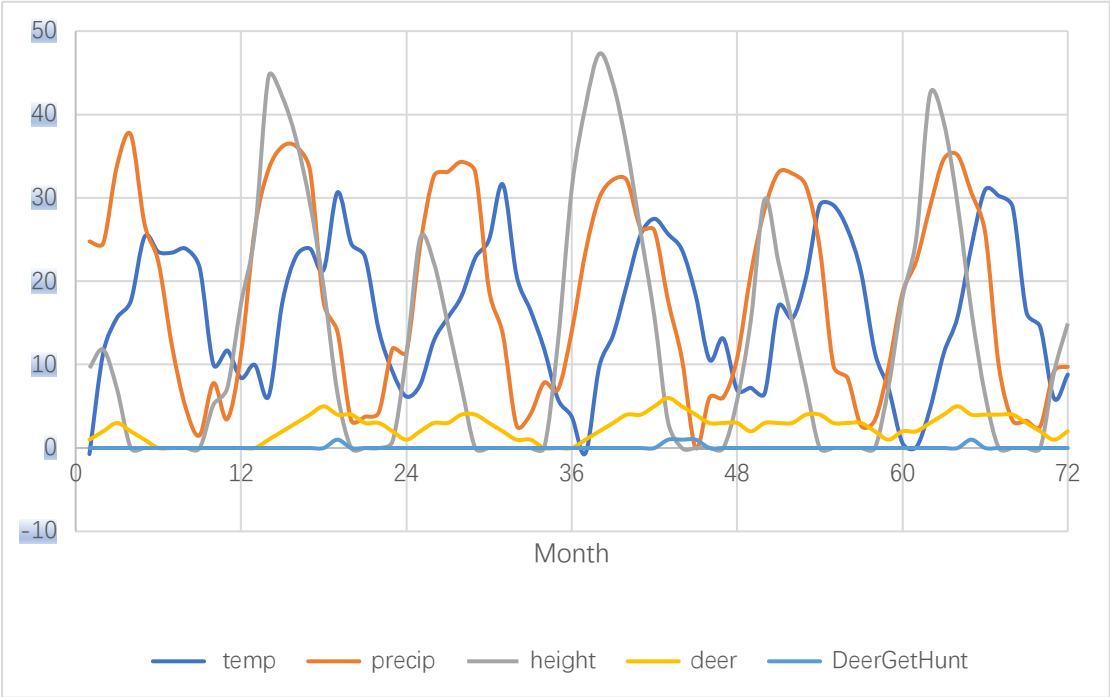
1	2027	0.09	22.42	13.89	0	0
2	2027	4.68	28.90	22.71	1	0
3	2027	11.36	34.64	23.38	2	0
4	2027	15.72	35.14	21.51	3	0
5	2027	24.14	30.62	18.51	3	0
6	2027	30.95	25.88	15.51	4	0
7	2027	30.23	9.80	11.51	5	0
8	2027	28.90	3.27	6.51	6	1
9	2027	16.29	3.26	0.56	6	1
10	2027	14.52	2.60	0.00	5	1
11	2027	5.96	9.18	0.56	4	1
12	2027	8.81	9.75	0.00	4	0

2. A graph showing temperature, precipitation, number of deer, height of the grain, and your own-choice quantity as a function of month number. Note: if you change the units to °C and centimeters, the quantities might fit better on the same set of axes.

   cm = inches * 2.54

   °C = (5./9.)*(°F-32)

This will make your heights have larger numbers and your temperatures have smaller numbers.



3. A commentary about the patterns in the graph and why they turned out that way. What evidence in the curves proves that your own quantity is actually affecting the simulation correctly?

   When the temperature is favorable for precipitation to reorganize, the grain grows, and the deer population grows as the grain grows. When the number of deer herds is greater than or equal to 5, the hunter will kill a deer. The peaks of each parameter are staggered correspondingly in each cycle, so the simulation is correct.