

Table 1. Harvest and tonsil biopsy samples used to model the influence of urban and non-urban land use types on the prevalence of chronic wasting disease in adult mule deer.

Study Area	NUMBER OF SAMPLES			
	Urban		Non-Urban	
	Harvest and Other	Tonsil	Harvest and Other	Tonsil
Glacier View Meadows	120	42	177	0
Horsetooth	52	19	77	0
Estes Park	43	172	218	2
Total	215	233	472	2

Table 2. Land use study– prevalence rates by sex and land use type for adult mule deer.

sex – land use type	mean prevalence	Lower 95% C. I.	Upper 95% C. I.
both sexes – urban	0.098	0.072	0.130
both sexes – non-urban	0.082	0.059	0.111
male – both land uses	0.120	0.091	0.154
female – both land uses	0.064	0.044	0.089
male – urban	0.161	0.108	0.226
male – non-Urban	0.095	0.063	0.136
female – urban	0.063	0.038	0.098
female – non-urban	0.065	0.035	0.108

Table 3. Land use study– candidate models and selection statistics for all data.

Effects	K	Log-likelihood	AICc	Δ AICc	Model Likelihood	w_i	Model Fit p-value
sex use estes	4	-264.782	537.607	0.000	1.000	0.383	0.195
sex estes	3	-266.007	538.040	0.433	0.805	0.308	0.134
sex use estes gvm	5	-264.617	539.300	1.693	0.429	0.164	0.162
sex estes gvm	4	-265.818	539.680	2.073	0.355	0.136	0.115
estes	2	-271.775	547.562	9.955	0.007	0.003	0.007
estes gvm	3	-271.156	548.338	10.731	0.005	0.002	0.005
use estes	3	-271.360	548.746	11.139	0.004	0.001	0.007
sex use gvm	4	-270.687	549.418	11.810	0.003	0.001	0.001
use estes gvm	4	-270.742	549.528	11.921	0.003	0.001	0.005
sex gvm	3	-271.947	549.919	12.312	0.002	0.001	0.002
sex use	3	-273.426	552.879	15.272	0.000	0.000	0.002
sex	2	-274.588	553.189	15.581	0.000	0.000	0.003
gvm	2	-277.431	558.875	21.268	0.000	0.000	< 0.001
intercept	1	-278.986	559.977	22.369	0.000	0.000	< 0.001
use gvm	3	-277.054	560.134	22.527	0.000	0.000	< 0.001
use	2	-278.629	561.272	23.664	0.000	0.000	< 0.001

K = number of estimable parameters

Table 4. Land use study– candidate models and selection statistics for female mule deer.

Effects	K	Log-likelihood	AICc	Δ AICc	Model Likelihood	w_i	Model Fit p-value
estes gvm	3	-108.561	223.171	0.000	1.000	0.466	0.959
estes	2	-110.176	224.377	1.206	0.547	0.255	0.788
use estes gvm	4	-108.527	225.136	1.965	0.374	0.174	0.925
use estes	3	-110.128	226.305	3.133	0.209	0.097	0.720
Intercept only	1	-115.374	232.757	9.586	0.008	0.004	0.177
gvm	2	-115.003	234.031	10.860	0.004	0.002	0.087
use	2	-115.371	234.767	11.596	0.003	0.001	0.089
use gvm	3	-115.003	236.055	12.884	0.002	0.001	0.057

K = number of estimable parameters

Table 5. Land use study– candidate models and selection statistics for male mule deer.

Effects	K	Log-likelihood	AICc	Δ AICc	Model Likelihood	w_i	Model Fit p-value
use estes	3	-153.620	313.295	0.000	1.000	0.368	0.972
estes	2	-155.331	314.689	1.394	0.498	0.183	0.792
use estes gvm	4	-153.425	314.943	1.648	0.439	0.161	0.967
use gvm	3	-154.742	315.540	2.245	0.326	0.120	0.853
estes gvm	3	-155.156	316.367	3.072	0.215	0.079	0.738
gvm	2	-156.627	317.281	3.986	0.136	0.050	0.626
use	2	-157.215	318.459	5.163	0.076	0.028	0.494
Intercept	1	-159.213	320.436	7.141	0.028	0.010	0.414

K = number of estimable parameters

Table 6. Land use study– candidate models and selection statistics for urban land use.

Effects	K	Log-likelihood	AICc	Δ AICc	Model Likelihood	w_i	Model Fit p-value
sex estes	3	-137.121	280.297	0.000	1.000	0.389	0.892
sex	2	-138.562	281.150	0.853	0.653	0.254	0.657
sex estes gvm	4	-136.570	281.230	0.933	0.627	0.244	0.961
sex gvm	3	-138.501	283.057	2.760	0.252	0.098	0.539
estes gvm	3	-141.437	288.929	8.632	0.013	0.005	0.202
estes	2	-142.531	289.090	8.793	0.012	0.005	0.206
intercept	1	-143.871	289.752	9.455	0.009	0.003	0.165
gvm	2	-143.871	291.769	11.472	0.003	0.001	0.118

K = number of estimable parameters

Table 7. Land use study– candidate models and selection statistics for non-urban land use.

Effects	K	Log-likelihood	AICc	Δ AICc	Model Likelihood	w_i	Model Fit p-value
sex estes	3	-125.221	256.492	0.000	1.000	0.526	0.967
estes	2	-127.206	258.438	1.946	0.378	0.199	0.833
sex estes gvm	4	-125.198	258.480	1.988	0.370	0.195	0.935
estes gvm	3	-127.199	260.449	3.957	0.138	0.073	0.759
sex gvm	3	-129.806	265.662	9.170	0.010	0.005	0.112
gvm	2	-131.577	267.180	10.688	0.005	0.003	0.175
intercept	1	-134.758	271.524	15.032	0.001	0.000	0.086
sex	2	-134.025	272.076	15.584	0.000	0.000	0.080

K = number of estimable parameters